APP

Association of Professional Piercers

Procedure Manual

2013 Edition

ALSO AVAILABLE: APP BROCHURES

PICKING YOUR PIERCER

WHAT IS THE APP?

BODY PIERCING TROUBLESHOOTING FOR YOU AND YOUR HEALTHCARE PROFESSIONAL

SUGGESTED AFTERCARE GUIDELINES FOR BODY PIERCINGS

SUGGESTED AFTERCARE GUIDELINES FOR ORAL PIERCINGS

TAKING CARE OF YOUR NEW PIERCING (AFTERCARE FOR MINORS)

TAKING CARE OF YOUR NEW ORAL PIERCING (ORAL AFTERCARE FOR MINORS)

ORAL PIERCING RISKS AND SAFETY MEASURES

JEWELRY FOR INITIAL PIERCINGS

JEWELRY FOR HEALED PIERCINGS

NEW! PREPARING FOR MEDICAL AND DENTAL PROCEDURES

U.S. EDITION CONTENTS

Terms appearing in ***bold italics*** are defined in the glossary.

This manual was first published in 1998 and was revised in 2002, 2005, and again in 2013.

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Original 1998 Edition: Gahdi Elias, Allen Falkner, Tracy Faraka, Kent Fazekas, Michaela Grey, Drew Lewis, Cheyenne Morrisson, David Vidra, and Dr. Jack Ward.

THE ASSOCIATION OF PROFESSIONAL PIERCERS

WHAT IS THE APP?

The Association of Professional *Piercers* (APP) is an international educational organization dedicated to the dissemination of vital health and safety information about ***body piercing***. We are a voluntary nonprofit alliance that has established environmental, procedural, and materials standards for the body piercing industry. Governed by an elected Board of Directors and appointed officers, the APP unites ***piercing*** professionals who freely share resources to help member and non-member ***piercers***, healthcare professionals, legislators, health inspectors, and the public access the most current and accurate industry-related information.

THE ORIGINS OF THE APP

In 1994, representatives from several piercing studios organized a political action group in response to legislation that was pending in California (Proposition AB101). The association quickly grew to accommodate members nationwide and around the world. Our initial open meeting took place in Las Vegas in 1996, followed by the world's first educational conference on piercing in Orlando, Florida in 1997.

We expanded our outreach and held the first international piercing conferences in the UK in 1997, Amsterdam in 2002, and Mexico in 2006. With our ongoing support, piercers in other nations have established their own non-profit organizations and now host their own conferences. Today, the APP remains the foremost trusted source for body piercing information and education.

WHAT IS THE PURPOSE OF THIS MANUAL?

This manual is intended as a reference and guidebook for people concerned with the practice and promotion of responsible body piercing—including piercers, health inspectors, legislators, medical professionals, insurance providers, and the general public. Those in countries other than the US are invited to use this manual as a guide, keeping in mind that regulations, available products, and industry standard techniques may vary by location. Please consult the APP website (safepiercing.org) for a listing of affiliated organizations (Associate Corporate Members).

WHAT ARE THE LIMITATIONS OF THIS MANUAL?

This manual is not a training course and it will not enable anyone to become a piercer without significant additional training. It is intended to provide a basic overview of the health and safety concerns faced by body piercers and to offer guidelines that minimize potential risks. This manual is not a substitute for formal training and education. Although the content is updated periodically, information in this edition may not be current or appropriate for your individual practice. It is imperative that each piercer seek out and evaluate the health and safety techniques and products that relate to his/her own practice and local circumstances. For recent updates to this information, please see our website.

While this manual and its information, suggestions, and guidelines are offered for use throughout the world, this version is specifically designated as the "USA Edition 2013." We recognize that laws vary and not all products, tools, and jewelry types are readily available everywhere. As a result, we offer this USA Edition as a general foundation and encourage international APP member and non-member piercers, legislators, and health inspectors in other locations to update, clarify, and edit this version (with permission) to be appropriate for their region.

THE APP:

- Provides a professional association for piercers to network and share information.
- Encourages piercers to meet or exceed the APP standards for hygiene, safety, and environmental criteria, and provides an avenue to show health inspectors and the public that these standards are being met.
- Provides piercers and legislators with support and assistance in drafting or updating appropriate legislation for the industry.
- Provides classes on piercing technique, business, health education, history, and numerous other topics at our annual Conference for piercers, health inspectors, and others involved in the industry.
- Provides educational and informational materials, including consumer-oriented brochures.
- Attends and is involved in public health and medical conferences.
- Engages in outreach to the public at body art conventions.
- Provides facts and professional opinions to the media when requested, and formally responds to erroneous information, articles, and negative press about body piercing.
- Presents lectures at schools, universities, hospitals, health departments, and other public and private facilities.
- Produces The Point, a digital publication dedicated to bringing piercing-related news and information to individuals in the industry and the populations that we serve.
- Staffs an email and phone response system.
- Maintains a comprehensive, frequently updated website with information for piercers, ***piercee***s, parents, educators, legislators, healthcare professionals, and anyone else with questions about body piercing.
- Does not police the piercing industry or piercers. The APP will respond to and resolve complaints against its members, and take action against those falsely claiming membership.
- Does not license or certify piercers. Members do receive a certificate of membership, which must be renewed every year. Individuals who take APP Conference classes receive certificates of attendance.
- Does not teach people how to pierce. The APP provides supplemental education and resources to piercers.
- Does not dictate the piercing techniques its members use, what aftercare they suggest, or which specific piercings or other body art practices they may choose to perform.
- Specifically addresses the practice of body piercing, which is defined as the act of perforating the tissue of the body and inserting an ornament into the opening. Refer to the glossary (page 42) for a complete definition.
- Supports the right for all adults to adorn or modify their bodies in a safe, informed, and consensual manner when performed by a qualified practitioner under appropriate asepsis. The APP does not directly regulate, perform outreach, or offer procedural guidelines on practices other than body piercing, but we support health and safety organizations that do. Our most fundamental principles as expressed in our environmental criteria and ethical standards extend to the greater body modification community and its practices.

MEMBERSHIP

The APP has six types of memberships:

- Professional Business Member
- Professional Business Member-at-Large
- Associate Member

- Associate Corporate Member
- Corporate Sponsor
- Patron Member

Professional Business Member (voting member)

Works full time as a piercer and has more than one year of professional experience. Must meet both personal and environmental criteria for membership.

Professional Business Member at Large (voting member)

An existing Professional Business Member who is piercing temporarily or periodically at one or more studios that meet environmental criteria, or a previous Professional Business Member who is still contributing to the piercing industry although they are no longer piercing. Because every situation is different, the specific requirements for this type of membership are at the discretion of the board.

Associate Member

Has less than one year of professional experience, or is a non-piercer working in a piercing establishment. If working as a piercer, personal and environmental criteria must be met. If working as a non-piercer, environmental criteria must be met. Associate membership will be valid only in a studio currently employing at least one Professional Business Member.

Associate Corporate Member

Associate Corporate membership is reserved for membership organizations that are educational non-profits or not-for-profits that seek to promote the name and mission of the APP, and whose educational outreach is in line with the APP mission.

Corporate Sponsor

Is an entity or individual working in a field involved with or providing support to the field of body piercing. Examples of Corporate Sponsors are jewelry manufacturers, medical suppliers, insurers, educators, etc. Applicants must fill out and submit all forms and documents to the central office for consideration.

Patron

Is someone not actively involved in the body piercing industry, but who supports the APP and its mission. This membership may not be used for the promotion of any form of piercing services, jewelry sales, or web services. Dues are the only requirement for this membership.

International

This is a subdivision of memberships for piercers or non-piercers working in the piercing industry outside of the United States. International personal criteria differ slightly from the US standard to accommodate for classes and training, among other regional differences. Request additional information via email at: international@safepiercing.org.

HOW DO I BECOME A MEMBER?

See www.safepiercing.org for a full list of membership requirements including personal and environmental criteria. This includes the application for APP Membership, Health and Safety Agreement, and questionnaire. For questions please contact us directly at info@safepiercing.org or call 888-888-1277. International callers can contact us by phone at: 785-841-6060.

APP PUBLICATIONS, PRODUCTS, AND EDUCATIONAL SERVICES:

BROCHURES

- Brochures are available on topics of interest to piercers, piercees, educators, health inspectors, legislators, medical and dental professionals, and the general public. Free downloads are available from the APP website and they are also available for purchase. Reduced costs may be available for institutions such as schools and hospitals.
- Many of these are available in Spanish (Latin American and Castilian), French, and Portuguese. There are ongoing projects to translate them to German, Italian, Japanese, and other languages. Free downloads are available from the APP website.

Currently available brochure titles include:

- *Picking Your Piercer*
- *What is the APP?*
- *Body Piercing Troubleshooting for You and Your Healthcare Professional*
- *Suggested Aftercare Guidelines for Body Piercings*
- *Suggested Aftercare Guidelines for Oral Piercings*
- *Taking Care of Your New Piercing (Aftercare for Minors)*
- *Taking Care of Your New Oral Piercing (Oral Aftercare for Minors)*
- *Oral Piercing Risks and Safety Measures*
- *Jewelry for Initial Piercings*
- *Jewelry for Healed Piercings*
- *Preparing for Medical Procedures*
- *Health Inspection* and other titles are in the works

The Point

- Originally a quarterly newsletter, then a full-fledged journal, and more recently a digital publication dedicated to bringing piercing-related news and information to individuals in the industry and the populations that we serve.
- Online social media links can be found on the website.

Point Podcasts

- "The Point Podcast" is a downloadable audio file for your computer or media player. Episodes are available quarterly with segments that feature piercing safety information for the public and professionals, and interviews with APP members and industry leaders. www.safepiercing.org/publications/podcast/

APP T-shirts

- New designs every year

APP Annual Conference and Exposition

- Industry-specific classes, workshops, and roundtable discussions are offered on piercing techniques, aftercare, legislation, studio setup, ***bloodborne pathogens***, first aid, CPR, anthropology, and many additional topics.
- A week-long conference with meetings, social events, and networking.
- The largest ***body jewelry*** and piercing-related product exposition (trade show) in the U.S.
- Packages or individual classes are available.
- Conference is open to all piercers; membership is not required.

Website

- www.safepiercing.org
- List of current members (view a complete member listing or search by zip code or city).
- Piercing information on a wide variety of topics.
- Frequently Asked Questions (FAQ): subjects include health considerations, piercing and minors, pregnancy, piercing guns, genital piercings, oral piercing risks, etc.
- Job Board: free listings of jobs available, and ads for those seeking employment.
- Publications: Brochures, Procedure Manual, and *The Point* (current and back issues).
- Outreach calendar.
- Legislative links by state.
- APP impostor listing and instructions on how to report someone falsely claiming membership.
- Explanations of membership types and applications for membership.
- Detailed Conference information including online registration.

AN INTRODUCTION TO MICROBIOLOGY FOR THE PROFESSIONAL PIERCER

Although body piercing has been historically perceived as a ritualistic endeavor, in modern times the methods cannot be separated from our knowledge of biological science. In order to be fully educated in the field, piercers should have a working knowledge of the science behind the practice. Scientific evidence provides the professional piercer with the knowledge necessary to carry out appropriate hygiene and safety procedures in the work environment and to make informed decisions under changing conditions.

DEFINITIONS

Bacteria are single-celled ***microorganisms*** so small that they cannot be seen without powerful magnification. There are different types of bacteria with two important classifications. They are either harmless, or they are ***pathogenic*** (harmful, with the ability to cause ***disease***). Harmless bacteria are the most plentiful. Some are beneficial and perform important functions in our bodies. Millions of microscopic organisms inhabit the spaces in which we live and work. Particles of organic matter including ***bacteria***, ***virus***es, fungi, and ***spores*** are present despite the most dedicated efforts to keep things clean.

If there is an opening into the body such as a piercing, some of these organisms can enter and cause disease, particularly when the body's own defenses are compromised through illness, inadequate nutrition, and other risk factors. While some organisms cause only temporary minor discomfort, others can result in serious or even fatal diseases. Since microorganisms are omnipresent it is important to understand how to prevent them from gaining access into the body through piercings, both during a procedure and afterward. It is also important to help clients understand how hygiene, nutrition, and lifestyle can facilitate or devastate their healing process.

Coccus **(Plural Cocci)** is one of the most commonly occurring forms of bacteria. Of concern to piercers is Staphylococcus, which is present in boils, abscesses, and most surface infections. It can enter the body during the piercing or any time during the healing stages while the piercing is an open wound. This risk makes client education and post-piercing care critical for prevention. Some Staph, including ***Methicillin Resistant Staphylococcus Aureus (MRSA)***, has become resistant to antibiotic treatment, making prevention even more essential to the health of our clients. Staphylococcal infections can take the form of cellulitis, impetigo, and pneumonia.

Cross-contamination is the act of spreading pathogenic (disease-causing) organisms from one item or surface to another. It is the responsibility of the professional piercer to operate at all times with a high regard for the health and safety of their customers, their co-workers, and themselves. Employing appropriate protocols and using ***Standard Precautions*** will minimize the risk of cross-contamination with harmful microorganisms such as bacteria and viruses.

Flora are the normal microorganisms including bacteria, ***protozoa***, and fungi that are found on or in specific areas of the body.[1]

Immunology is the study of the body's ability to resist infection.

Microbiology is the study of microscopic organisms. By having some understanding of how microorganisms live and reproduce, piercers will be able to minimize ***disease transmission*** risks.

Pathogenicity is the potential of an organism to cause disease.

Spirillum (plural Spirilla) is a ***genus*** of spiral-shaped microorganisms belonging to the family pseudomonadacea. Pathogenic organisms that cause diseases such as tetanus, tuberculosis, and syphilis are in this group. Anyone working closely with the general public should be aware of taking preventive measures against these contagious diseases.

Standard Precautions is a set of protocols and procedures designed to reduce the risk of transmission of microorganisms from potential sources of infection. Standard precautions is a crucial component of infection control for piercers. It applies to all blood, bodily fluids, secretions, and excretions, except sweat, regardless of whether or not they contain visible blood; and ***non-intact skin***, and ***mucous membranes***. Standard precautions include handwashing and the use of appropriate personal protective equipment (PPE) such as gloves, gowns, and/or masks, whenever there is potential for exposure to bodily fluids.

Virology is the study of viruses, which are submicroscopic organisms. Viruses differ from other microorganisms in that they depend on the cells they invade for growth and reproduction. Some viruses do not kill cells but cause illness, and then seem to disappear. They can remain latent and later cause another, sometimes much more severe form of disease. Viruses cause measles, ***hepatitis***, human papilloma virus (HPV), ***human immunodeficiency virus (HIV)***, herpes, influenza, and the common cold. Some viral infections can be treated with drugs, others cannot.

MICROORGANISMS OF THE SKIN

There are two types of skin microorganisms:

Resident: These are normal, sometimes beneficial, and are always found on the body. Some resident flora can be killed or removed by washing with soap and water using friction.

Transient: These are acquired through recent exposure and survive for a limited amount of time — generally less than 24 hours. Most often they are acquired from others who are infected, or from contaminated surfaces. Soap is effective for the removal of many transient microorganisms.

FACTORS THAT INFLUENCE THE TRANSMISSION OF PATHOGENIC MICROORGANISMS

There are three main considerations that determine whether or not a microorganism is a potential problem for you or your clients (mode of transmission):[2]

- Stability of an organism in its physical environment;
- Availability of the correct transmission medium needed by the organism to spread;
- Quantity of organisms expelled from the host into the transmission medium.

The factors that influence the pathogenicity of an organism are:

- Susceptibility of host;
- Strength and number of organisms;
- Portal of entry: the organism must have a way into the host.

Transmission: The method by which an infectious agent is passed. The transmission of an organism is dictated by the availability of an appropriate agent, host, and environment. Eliminating the route of transmission to the portal of entry (a fresh piercing) interrupts this process and is well within the piercer's control. Routes of transmission are:

Direct contact: Person-to-person spread; requires actual physical contact between the existing host and a new portal of entry (e.g. the piercer and a client). A needlestick is a direct contact route of transmission.

Indirect contact (generally referred to as cross-contamination): Exposure to microorganisms deposited first on an inanimate object (***fomite***) and then transferred to the client. Objects in the studio that are not adequately disinfected or sterilized between clients can result in indirect ***contact*** exposure. Using tools first at the counter and then for a piercing procedure without processing and sterilizing them would be an example. Touching non-sterile items with gloved hands during a procedure and then continuing to work on the client without changing gloves is another example of cross-contamination.

Airborne: Pathogenic organisms can also be acquired by inhaling droplets that become airborne when an infected person coughs or sneezes. Termed "droplet transmission," this can easily be minimized with simple precautions such as covering the mouth and nose with the elbow pit when coughing or sneezing.

Vector-borne: The transmission of organisms by an animal or insect bite, or through exposure to animal blood or other infectious bodily fluids.

Zoonosis: Zoonotic diseases are diseases of animals that may be transmitted to humans under natural conditions. Once infected, humans can transmit some of these diseases to one another. While no ethical piercer would work on animals, it is possible for such diseases to enter the piercing environment by allowing pets or other animals, their droppings, or accessories, into the piercing studio. Proper hygiene and many local regulations dictate that animals do not belong in the piercing studio or in any space contiguous with a piercing studio (e.g. an adjoining office). A clean and enclosed fish aquarium may be permissible, however dogs, cats, rodents, reptiles, and birds present a potential threat to client and staff safety and should never be admitted. A possible exception would be a service animal, as it is unlawful to decline entry to an individual accompanied by one. In this case precautions should be taken to avoid contamination of the piercing environment while accommodating the needs of the client.[3]

BREAKING THE CHAIN OF INFECTION

It is essential that professional piercers understand how infection occurs, and more importantly, how to prevent this from happening in the work environment.[4] The "Chain of Infection" requires that these elements be present:[5]

- An **Infectious Agent**, such as bacteria or virus
- A **Reservoir** (infected host)
- A **Portal of Exit** from the reservoir (the path out of the infected host)
- A **Vehicle of Transmission** for the agent (the path between hosts)
- A **Portal of Entry** (the path into a new host)
- A **New Host**

The single most important thing piercers can do to break this chain is **WASH THEIR HANDS**. This very simple and basic step has been proven to reduce or eliminate most pathogenic bacteria from the hands. This is the first line of defense in the prevention of disease transmission.

HANDWASHING

Frequent and thorough handwashing is one of the most important actions a piercer can take to reduce the presence and transmission of pathogenic microorganisms. Correct handwashing procedures are easy to follow and extremely effective when used throughout the day. A studio's handwashing sink should be used only for handwashing (never tool cleaning) and should have hands-free operation. Hands should not come into contact with faucets or handles. If the sink does not have a foot pedal or motion-sensor-operated system, an elbow or dry disposable paper towel can be used to operate the water flow. The use of quality liquid soap in a pump or automatic dispenser is strongly encouraged. "Do not add soap to a partially empty soap dispenser. This practice of 'topping off' dispensers can lead to bacterial contamination of soap."[6,7] (4E CDC). Bar soaps collect bacteria and other dangerous contaminants from handling. Liquid ***antimicrobial*** or ***antibacterial*** soap is preferred; it has been proven most effective in the inhibition of bacterial growth.

Choose a gentle, dye- and fragrance-free antimicrobial or antibacterial soap made for healthcare workers and others who wash frequently. Many soaps are not intended for those who wash their hands often, and they can leave skin chapped and irritated, and may kill beneficial resident flora. This may result in open skin, which can increase the potential risk of pathogen transmission to the piercer. Single-use paper towels should be dispensed from a stationary, fully covered paper towel dispenser that dispenses only one paper towel at a time. Paper towel rolls run the risk of contamination of the entire roll from handling. Air dryers cut down on paper waste but may blow pathogenic matter around the area. See Appendix D, page 57 for recommendations on hand hygiene.

HOW TO WASH HANDS PROPERLY:

1. Wet hands thoroughly with tepid water.

2. Apply the manufacturer's recommended amount of liquid soap into palm and lather.

3. Vigorously scrub all surfaces of both hands.

4. Pay special attention to nails, nail beds, between fingers, wrists, and forearms.

5. Continue for a minimum of fifteen seconds then rinse well.

6. Pat hands dry with a single-use paper towel.

The APP suggests piercers avoid wearing jewelry on the hands and wrists. If worn, the jewelry surface should be smooth to avoid compromising gloves or harboring bacteria. Also, make sure that your sleeves are rolled up and do not get them wet while washing.[8]

The CDC recommends that artificial fingernails are not worn and that natural nails tips should be "less than ¼-inch long." "Freshly applied nail polish on natural nails does not increase the microbial load from ***periungual*** [around the nails] skin if fingernails are short; however, chipped nail polish can harbor added bacteria."[9]

Many piercers use moisturizing lotion as an additional measure to minimize potential dangers from dry, cracked skin caused by frequent handwashing and chemical exposure. Maintaining the health of the hands, skin, nails, and nail beds is crucial in the first line of defense against transmission of disease. Anti-inflammatory, conditioning, and chemical barrier lotions intended to seal and protect skin ("invisible gloves") are available through healthcare product suppliers. If using ***latex*** gloves, be aware that petroleum or oil-based products must be avoided and water-based lotions should be chosen. Chemicals in petroleum products can penetrate the latex, compromising its barrier integrity. To maintain glove integrity and minimize exposure to glove chemicals, apply after glove use and handwashing (post-piercing), and allow to fully dry before donning new gloves. Contact manufacturers to ensure that there is no potential for chemical interactions between the various hand lotion products and glove materials.

HAND SANITIZERS (ALCOHOL-BASED HAND RUBS)

Waterless hand sanitizer gels have become staples in many piercing shops because they are easy to use and do not require a trip to the sink. Alcohol-based hand sanitizers work by denaturing proteins, which disrupts or kills microorganisms.[10] Some piercers use them between glove changes or keep them at the counter for clients' hands.

However, careful consideration should be given as to when their use is appropriate. The CDC still maintains that "washing hands with soap and water is the best way to reduce the number of ***germs*** on them."[11] However, when handwashing is either impractical or unavailable, the CDC advises a 60% to 95% alcohol-based hand sanitizer as an effective alternative. Follow the manufacturer's instructions for the amount of product to use. It should be enough to keep the hands wet with vigorous rubbing for more than 15 seconds. Hand sanitizers do not remove surface dirt or visible soil. If dirt, food, or any other substance is evident on your hands, they must be washed.

Generally, antimicrobial-impregnated hand wipes are not as effective as alcohol-based hand rub or washing with antimicrobial soap, therefore, in a professional setting they are not considered a substitute.[12]

In 2009, the World Health Organization (WHO) released guidelines[13] supporting the 2002 CDC studies, which state they are "recommending alcohol-based gel as a suitable alternative to handwashing for health-care personnel in health-care settings" when moving between patients.

The diagrams on the following pages are intended to demonstrate proper hand washing and sanitizing techniques. The APP suggests handwashing whenever possible and using hand sanitizers when washing is not feasible.

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds

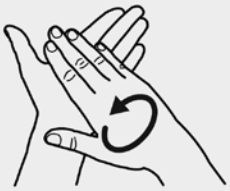
0

Wet hands with water;

1

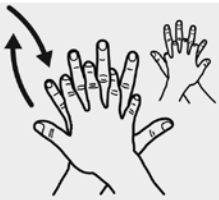
Apply enough soap to cover all hand surfaces;

2



Rub hands palm to palm;

3



Right palm over left dorsum with interlaced fingers and vice versa;

4

Palm to palm with fingers interlaced;

5

Backs of fingers to opposing palms with fingers interlocked;

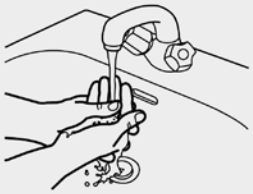
6

Rotational rubbing of left thumb clasped in right palm and vice versa;

7

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

8

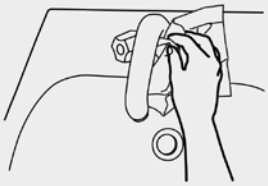


Rinse hands with water;

9

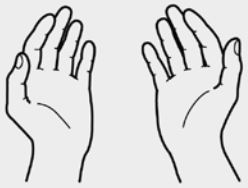
Dry hands thoroughly with a single use towel;

10



Use towel to turn off faucet;

11



Your hands are now safe.

World Health Organization

Patient Safety

A World Alliance for Safer Health Care

SAVE LIVES
Clean **Your** Hands

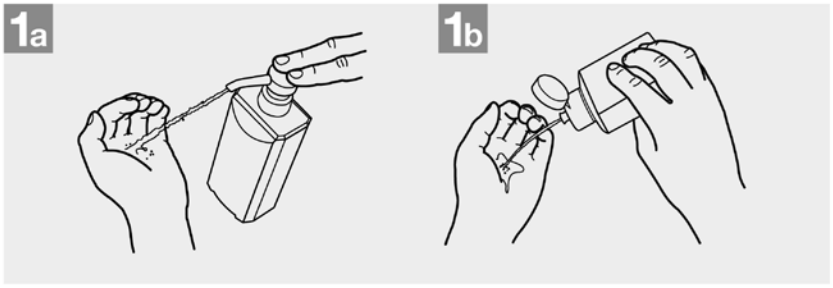
WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

May 2009

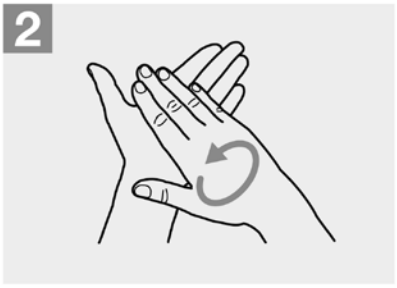
How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

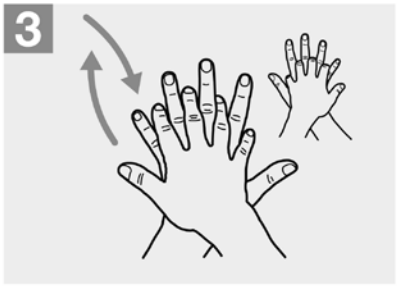
Duration of the entire procedure: 20-30 seconds



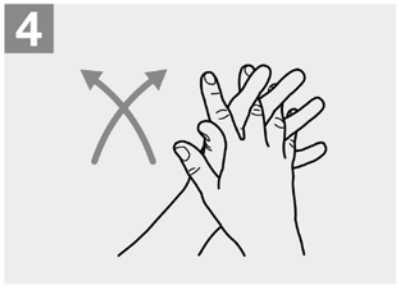
Apply a palmful of the product in a cupped hand, covering all surfaces;



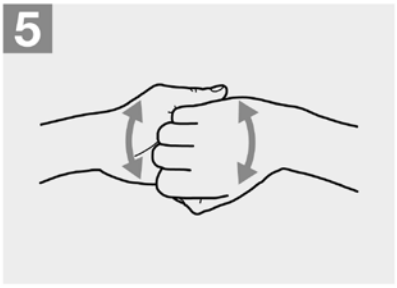
Rub hands palm to palm;



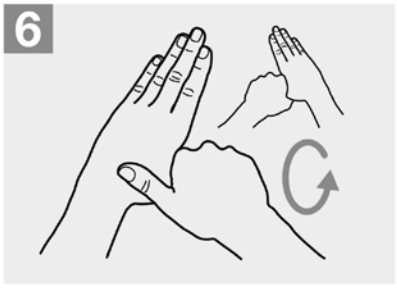
Right palm over left dorsum with interlaced fingers and vice versa;



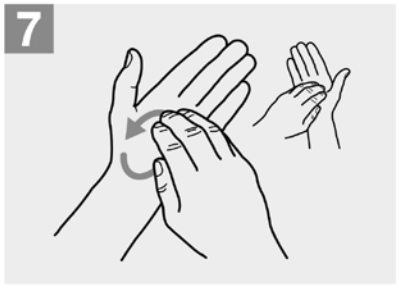
Palm to palm with fingers interlaced;



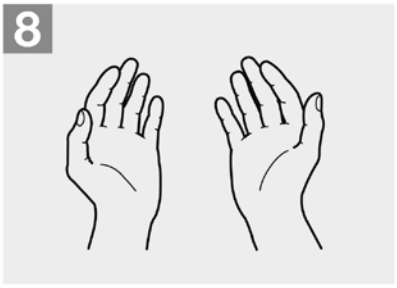
Backs of fingers to opposing palms with fingers interlocked;



Rotational rubbing of left thumb clasped in right palm and vice versa;



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



Once dry, your hands are safe.

World Health Organization

Patient Safety

A World Alliance for Safer Health Care

SAVE LIVES
Clean **Your** Hands

WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

May 2009

GLOVES

Gloves are practically, legally, and ethically imperative for professional piercers. Finding appropriate gloves and learning how to don them properly will protect the piercer from potential contaminants and reduce the risk of disease transmission between client, piercer, and co-workers. It is important to follow the basic rules of glove use:

- Wash hands prior to donning gloves and immediately after removing gloves.
- Keep fingernails short, trimmed, and smooth; and remove jewelry and watches to prevent accidental tears (per CDC guidelines).[14]
- Use only disposable gloves for client contact.
- Store gloves properly: away from light, heat, and moisture.

THE FDA DEFINES THE GLOVES WE USE FOR PROCEDURES IN TWO CATEGORIES:[15]

- "A patient examination glove is a disposable device intended for medical purposes that is worn on the examiner's hand or finger to prevent contamination between patient and examiner."
- "A surgeon's glove is a device made of natural or synthetic rubber intended to be worn by operating room personnel to protect a surgical wound from contamination. This excludes the lubricating or dusting powder used in the glove."

Other glove products such as food service and cleaning gloves should not be used for body piercing procedures.

WHEN SHOULD GLOVES BE WORN?

- Gloves should be worn for all setup and cleaning activities to prevent cross-contamination and protect hands from exposure to harsh chemical disinfectants.
- During sweeping, mopping, and trash removal. Any object on the piercing studio floor should be considered contaminated and touched only with gloved hands.
- During all disinfection or ***sterilization*** procedures.
- When working in sterilization/processing areas or dealing with contaminated tools or containers. Some piercers double glove when processing contaminated ***instruments***.
- When transporting sterilized implements from the ***autoclave*** to designated storage space. Clean gloves should be available in all areas where transport may be initiated.
- During client contact. A professional piercer should never touch the area of a client's piercing with ungloved hands. This protects against possible transmission of resident and transient flora. It also provides a level of professionalism and appropriate boundaries between the piercer and client.

WHEN SHOULD GLOVES BE CHANGED?

- Check with glove manufacturers for suggested wear times with gloves of all materials.
- If glove integrity is compromised (gloves become weakened or contaminated).
- If a visible weak spot, pinhole, or tear is detected or suspected.
- Changes in glove color can take place after prolonged wear; change latex gloves if they turn yellow or brown.
- To prevent cross-contamination, gloves should be changed when moving from a more contaminated area to less contaminated area (see Sterility Chart Systems on page 11).
- During a procedure. Many studios develop a written plan concerning glove changes during particular procedures. For example, a studio may require at least five pairs of gloves per piercing:
  - Initial setup of tray and instruments
  - Opening autoclave packages
  - Initial skin prep and marking
  - Piercing procedure
  - Post-procedure clean up

Although the number of gloves used in a procedure will vary, setting a *minimum* number of glove changes can help reduce the likelihood of cross-contamination. The important point is that every piercer thoroughly understand the concept of cross-contamination and change gloves as necessary to avoid compromising fields.

If a glove becomes brittle, too hard or too soft, or loses its elasticity, shape, or usual color, it may be degraded and should not be used. As requested by the FDA, glove manufacturers may print expiration dates on glove boxes, and the contents should not be used after this date. If the date is unknown, be sure to use glove shipments in the order they are received, and to store all gloves in clean, cool, dry and well-ventilated conditions in their original packaging. Gloves should never be washed, disinfected, or sterilized for reuse unless specifically recommended by the manufacturer. As explained by ***OSHA***, "Washing with disinfecting agents may cause deterioration of the glove material and may encourage "wicking" or enhanced penetration of liquids into the glove via undetected pores thereby transporting potentially infectious materials into contact with the hand." (OSHA instruction CPL 2-2.44C)

Whenever you have any doubt about the integrity of your gloves, remove them, wash and dry your hands, and don fresh gloves. Piercers should be aware that latex allergies are becoming increasingly common among piercers and the public. To protect the health of staff and clients, many studios are choosing alternative synthetic glove materials and eliminating latex from their practices.

STERILE GLOVES

Piercers may choose to use sterile gloves during piercing procedures; some are required to do so by state or local laws. Where the issue is not dictated by law, a piercer should make a research-based decision about the use of sterile gloves in their practice. Using sterile gloves is not a requirement for APP membership, though piercers can choose to go beyond the established minimum guidelines.

DONNING STERILE GLOVES

Piercers should use the "open donning" method. The (right-handed) technique is as follows:

1. Pick up the cuff of the right glove with your left hand. Slide the right hand into the glove until you have a snug fit over the thumb joint and knuckles. Your bare left hand should touch only the folded cuff, as the rest of the glove is sterile. DO NOT use your bare hand to adjust the fit.
2. Slide your right fingertips into the folded cuff of the left glove. Pull out the glove and fit your right hand into it.
3. Unfold the cuffs down over your wrists. Make sure your gloved fingertips do not touch your bare forearms or wrists.

DONNING NON-STERILE EXAM GLOVES

1. With freshly washed hands, remove one glove from the clean glove box by grasping it at the bottom edge. Reach into box as little as possible, and try not to touch the fingers of any glove with bare hands. (Discard individual gloves that accidentally contact hands, or that present "fingers first" and cannot be removed by the cuff.)
2. Grasp rolled cuff and slide your hand as far into the glove as possible. DO NOT use your bare hand to adjust fit from the outside.
3. With your now gloved hand, reach into the clean glove box and remove a second glove.
4. Without touching bare skin to the outside of either glove, slide your other hand into the second glove.
5. Now adjust both gloves for fit without touching bare skin to the outside of either glove.

CHOOSING THE RIGHT MEDICAL GLOVES

LATEX

Latex medical gloves are used by many piercers for everyday duties within the studio. Latex gloves vary in thickness and texture, durability, comfort, and tactile sensitivity. These gloves are sometimes powdered (usually with cornstarch-based powder) to ease donning, which can cause health problems. Consider using powder-free gloves for all procedures. Many manufacturers are now processing gloves with a polymer coating such as silicone for easy donning, instead of powder.

Latex gloves contain protein ***antigen***s and curing agents (such as accelerators and antioxidants) that may cause ***allergic contact dermatitis*** or systemic ***anaphylaxis*** (discussed further below). Even those gloves labeled "***hypoallergenic***" may not always prevent reactions in a highly sensitive person. Those with severe sensitivities may be unable to enter a studio that uses latex gloves due to airborne latex proteins or powders. Latex gloves should never be used on a client who informs you of an allergy to latex, and many shops have chosen to become latex-free for the safety of all clients and staff. If latex is the primary type of glove used in a studio, latex-free gloves must be stocked for clients with latex sensitivities and a comprehensive latex allergy procedure should be developed.

NON-LATEX (SYNTHETIC RUBBER)

Many piercers opt for latex-free synthetic alternatives such as nitrile. While all the options listed below are latex-free, not all synthetic materials are appropriate for all uses. Synthetics also vary widely in price. When bought in bulk from well-chosen manufacturers, some of the best synthetic glove products can be purchased at prices similar to latex.

Nitrile

Nitrile gloves are a high-performance, protein-free synthetic alternative made from nitrile polymer. They are available with textured fingertips for increased grip, and can be had in a range of colors. Nitrile gloves offer an excellent synthetic alternative for those desiring high quality protection and minimized risk of chemical or ***allergen***-exposure. Test several manufacturers' products to find an optimum glove for your individual needs. Individuals who are sensitive to dyes or chemicals used in the manufacturing of nitrile can develop contact dermatitis from this latex alternative.

Vinyl Medical Gloves

Non-elastic vinyl gloves that fit loosely could slip and expose the piercer's skin or interfere with procedures requiring dexterity. For these reasons, loose vinyl gloves are less than ideal for most procedural applications in the studio such as tool processing and piercing. They are a viable option for other uses in the studio like dusting, putting away jewelry, and wiping down display cases. Some companies manufacture high-quality, fitted vinyl medical gloves that are better suited for piercing procedures.

Polyurethane and Styrene Co-polymers

Other high quality synthetic alternatives are available, such as chloroprene. Some have very little allergy potential and provide a good barrier. Fit, feel, and cost vary by material, brand, and design. In general these gloves are more expensive than others, but may well be worth it depending upon a piercer's preferences and circumstances. Contact individual suppliers for samples.

Refer to the FDA Medical Glove Guidance Manual[16] for more detailed information.

GLOVE SENSITIVITIES

The FDA requires ***biocompatibility*** testing for all medical gloves to help identify chemical sensitivities.[17]

GLOVE POWDER

The CDC recommends using powder-free gloves: "Proteins responsible for latex allergies are attached to glove powder. When powdered gloves are worn, more latex protein reaches the skin. Also, when gloves are put on or removed, particles of latex protein powder become aerosolized and can be inhaled, contacting mucous membranes. As a result, allergic dental health care personnel and patients can experience symptoms related to cutaneous, respiratory, and conjunctival exposure. Dental health care personnel can become sensitized to latex proteins after repeated exposure. Work areas where only powder-free, low-allergen (i.e. reduced-protein) gloves are used show low or undetectable amounts of allergy-causing proteins."[18]

NATURAL RUBBER LATEX SENSITIVITIES

Since the implementation and recommendation of Universal Precautions by the Centers for Disease Control and Prevention (CDC) and Occupational Safety and Health Administration (OSHA), latex sensitivities have been on the rise. Studies show that roughly 6 percent of the general population and up to 15 percent of healthcare workers are allergic to latex.[19] Due to the extensive exposure many people in the healthcare, emergency service, body art, and other industries have to latex gloves and protective gear, allergic reactions among these groups are increasingly common. If unchecked, this problem can interfere with continued employment.

Reactions can range from a minor skin rash to life-threatening respiratory distress. Because latex allergies are actually sensitization reactions from overexposure to latex, and because latex is so pervasive in our home and work environments, prevention through limiting exposure is crucial. Those who come into frequent contact with latex through the skin or inhalation become sensitized, and may go on to develop full allergic reactions. These reactions often occur gradually, but can also come on quite suddenly. Those who use gloves at work or have multiple allergic sensitivities are especially at risk. In the piercing studio, many items besides gloves contain latex. Adhesive tape, elastic bands, some autoclave wrap, CPR masks, and even the handles of some tools and covering on ballpoint pens may contain traces of latex. All of these can trigger reactions. Piercers should understand the types of latex reactions and how to deal with latex-sensitive clients and coworkers. The three types of latex hypersensitivity reactions that occur are classified in order of severity as Irritant Contact Dermatitis, Type IV Reaction, and Type I Reaction.

Irritant Contact Dermatitis

This type of reaction is not an actual allergy, but rather a surface irritation caused by excessive handwashing, high water temperatures, harsh soaps, chemicals, hand sanitizers, and/or glove powder. It can appear as rash with redness, blisters, overly dry, cracked, sore, or flaky skin. To avoid or relieve contact dermatitis, switch to milder products and cooler water temperatures for handwashing, avoid powdered gloves, and use a soothing hand sealant lotion after washing. Minimize use of hand sanitizers or products that increase irritation and be aware that open skin is susceptible to latex, chemical, and pathogenic penetration. Although contact dermatitis is not serious in itself, it can lead to secondary problems if not addressed.

Type IV Reaction: Chemical Hypersensitivity

Type IV is a delayed reaction to an allergen that usually appears 48 to 96 hours after contact. Most people with Type IV hypersensitivity experience some form of dermatitis, such as rash, scales, inflammation, or eczema. Reactions may also include conjunctivitis, runny nose, or asthma-like symptoms from airborne detritus.

Type I Reaction: Latex Protein Sensitivity

This is an immediate and systemic response to latex proteins. People with this type of reaction may have intense burning and irritation at the contact site, hives within 5 to 60 minutes, itchy eyes, swelling of lips and tongue, abdominal pain, asthma, nausea, respiratory distress, ***cyanosis***, and in severe cases, death from anaphylactic shock (anaphylaxis).

What To Do

For their own health and that of their clients, it is imperative that professional piercers take these health concerns seriously. If you suspect you have a latex sensitivity, consult a doctor or allergist. Because severe reactions can develop suddenly and continued exposure increases this risk, cease all contact with latex products. This will often mean making the entire studio latex-free. The use of low-protein, low-endotoxin, accelerator-free, powder-free synthetic gloves (such as nitrile) is suggested in suspected cases of all three types of hypersensitivity. Question all clients regarding latex sensitivity prior to piercing and use only non-latex materials on clients with a history of sensitivity. Hand sealants, non-latex gloves, and avoidance of chemical triggers may ease dermatitis and Type IV Reactions. Medications and allergy therapies are available to minimize some symptoms of Type I Reactions, but there is currently no clinically recognized treatment or cure.

CHEMICAL SENSITIVITY TO SYNTHETIC GLOVE MATERIALS

Similar Type IV sensitivities to synthetic rubber glove materials exist as well.

For More Information

NIOSH has issued an alert, "Preventing Allergic Reactions to Natural Rubber Latex in the Workplace," (DHHS [NIOSH] Publication No. 97-135). Free copies are available from the NIOSH Publications Office: 1-800-35-NIOSH (1-800-356-4674) or online at http://www.cdc.gov/niosh/docs/97-135/.[20]

STERILITY CHART SYSTEMS

FROM STERILE TO CLEAN TO CONTAMINATED

Every piercer should thoroughly grasp how their environment and the tools they use pass through stages from sterile to clean to contaminated. The charts on the next page are intended to illustrate the concept.

For years the medical field has found it useful to create distinct categories to help workers visualize, assess, and appropriately perform in different environments and situations. In actuality, we work with a continuum of potential risks. The systems shown below are suggestions only; the colors, number of categories, and particular objects should be adapted for the different zones of each studio. To be useful, all individuals working within the premises must be thoroughly trained in the system.

In one system, for instance, you could visualize sterile as green, clean as yellow, and contaminated as red. Other naming systems include White, Pink, or Red; or White, Light Pink, Dark Pink, Red, etc.

Using our first example, all areas in a bathroom may be considered Red, whereas in a piercing room, the inside of an unopened autoclave package would be Green, the procedural field would be Yellow, and the used tool receptacle would be Red. A corresponding shop protocol for the bathroom might be to wash your hands before leaving the bathroom, after touching any surface, and again before performing any procedure.

Nothing yellow should ever come in contact with a piercing, directly or indirectly. In a piercing room, bare hands should avoid red items because they are contaminated and should never be touched without gloves.[21] If red items are touched, hands should be immediately washed. Always remember that when an object comes in contact with a source of contamination, it becomes contaminated, and can pass that contamination on until it is disinfected or sterilized.

SAMPLE CHART SYSTEMS:

TRAFFIC LIGHT

GREEN	YELLOW	RED
STERILE	NOT STERILE NOT CONTAMINATED	CONTAMINATED
Absence of all life. (Working definition: 99.9999% absence of life.) Any item that is to contact the client after prep must be sterilized before use and handled appropriately during use. Examples: • Jewelry • ***Sharps*** • Instruments • Gauze sponges • Swabs	Examples: • Counters • Work surfaces • Outside of autoclave • Outside of sterilized packages	Anything that has or potentially has come into contact with bodily fluids directly **or** indirectly, such as being touched with a contaminated glove or item. Examples: • Used sharps • Used instruments • Gloves after client contact • Previously worn jewelry • Ultrasonic • Sharps containers • "Dirty" side of tool processing room

SAMPLE CHART SYSTEMS (CONTINUED):

WHITE TO DARK RED

WHITE	PALEST PINK	PALE PINK	PINK	RED	DARK RED
Sterile. No living matter.	Very clean. Only very small quantities of airborne matter.	Clean. Only small quantities of airborne matter.	Not clean. Normal levels of airborne matter.	Dirty. High levels of airborne matter and possible presence of bloodborne matter.	Contaminated. High levels of airborne/bloodborne matter.
Sterilized implements, jewelry, needles, etc. in unopened sterile package, untouched.	Sterile implements just removed from their bags. Disinfected implements touched only with freshly gloved hands; trays or surfaces immediately after disinfection.	Work surface of setup field, only touched with freshly gloved hands. Needles, forceps, sterilized jewelry, etc. after several minutes in open air, unused. Surface of skin immediately after aseptic skin prep. Hands immediately after correct handwashing procedure.	Needles, forceps, cork or synthetic stoppers, elastic bands, etc., after extended exposure to open air or frequent handling. Clothing, surfaces, implements, neither contaminated with bloodborne organisms, nor recently disinfected. Unused jewelry prior to sterilization. Piercing room furniture.	Floors, countertops, sinks, doorknobs, light switches, and other areas that may have been exposed to bloodborne contaminants, either directly or indirectly. Unbroken, uncleaned skin. Frequently handled display jewelry. Phones Money	Bodily fluids, new or old. Piercings, new or healed. Broken skin of any kind. Used piercing implements including used needles. Previously worn jewelry.

CLEANING, DISINFECTION, & STERILIZATION

Cleaning, disinfection, and sterilization are all parts of the same process, but they differ significantly in the number and types of microorganisms killed. Understanding the differences enables the piercer to choose the correct way to make contaminated items safe to use. It also determines proper disposal methods for items that cannot be decontaminated and are unsafe for reuse in the studio.

These steps must be followed in order. You cannot proceed to the next step until the previous one is completed fully or the process will fail. Cleaning is first, disinfection is second, and sterilization is the final step.

CLEANING

Cleaning is the act of physically removing ***debris*** and reducing many of the microorganisms present on an object. It is important to clean items prior to disinfecting and/or sterilizing them.

Tools used in piercing procedures must be thoroughly cleaned before sterilization in order to remove ***gross debris*** such as bodily fluids and lubricants. The presence of these can keep steam from effectively reaching all surfaces during a sterilization cycle.

CLEANING EQUIPMENT

Ultrasonic cleaners and ***automated instrument washers*** are a quick and safe way to execute the critical step of removing matter from instruments and jewelry prior to sterilizing. These devices do NOT sterilize instruments.

Ultrasonics work by using ultrasound energy (wave motion above the level of audible sound). This energy is transmitted to the cleaning solution within the machine where it creates tiny bubbles of vaporized liquid that implode with high pressure. An extremely thorough cleaning of all surfaces, even the inside of tubes and hinges, occurs as shock waves dislodge debris from the contaminated articles placed in the bath.

Automated instrument washers use chemical detergent and highly pressurized water sprayers to mechanically wash, rinse, and dry instruments.[22] Dedicated washers are used to clean surgical instruments and/or ancillary devices, hospital carts, and laundry, and to clean equipment in clinical laboratories (e.g., labware and pipettes). Washers that mechanically remove contaminants by scrubbing, using water jets, or ultrasound energy (i.e., performing some kind of physical decontamination) are considered "washer/decontamination" units. These devices may also provide some degree of disinfection.

Cleaning equipment should be tested routinely to validate that it is functioning properly. A standardized ***test soil*** may be used to determine the cleaning efficiency of the equipment.[23]

Every cleaning cycle should be logged. An example of an ultrasonic log can be found on page 70.

For optimal results the technician must carefully follow the manufacturer's guidelines for use of solution, additives, temperature, baskets, lids, and timers. For example, even stainless steel forceps may become stained or corroded if the solution is not properly pH-balanced. With bench-top models, soils removed from components will be suspended in the solution. If all items are not rinsed immediately after the cycle, the soils in the solution will redeposit themselves on tools during drying. Forceps and hinged tools must be run with the jaws open to expose all contaminated surfaces.

There is a risk of releasing ***aerosolized*** contaminants during the running cycle of an ultrasonic.[24] To be safe, the APP requires a lid or cover, and encourages the use of a locking, sealing lid during running cycles. At a minimum, the ultrasonic unit should have a secondary barrier to minimize potential risks from airborne pathogens. A high efficiency particulate air (HEPA) filter in the cleaning room is an excellent additional precaution.

One of the crucial challenges to the cleaning process includes difficult-to-remove protein residues such as: ***prions***, which are proteinaceous particles that can survive common sterilization processes; ***endospores***, the most resistant form of microorganism; ***biofilm***, which can protect colonies of microorganisms; and also ***endotoxins*** and ***pyrogens***, residues of organisms that can cause reactions like fever and infection.

Instruments should not be allowed to dry after a procedure because the protein residues become more firmly attached to the surfaces as they dehydrate and denature. Certain alkaline and enzymatic detergent cleaners have shown promising results for protein removal when used in combination with an automated instrument washer followed, by ***steam sterilization***.

"Recommendations for disinfection and sterilization of prion-contaminated medical devices are as follows. Instruments should be kept wet (eg, immersed in water or a prionicidal detergent) or damp after use and until they are decontaminated, and they should be decontaminated (eg, in an automated washer-disinfector) as soon as possible after use."

"In humans, medical instruments contaminated with low-risk tissue would be unlikely to transmit infection after standard cleaning and sterilization, since the instruments would not be used in the central nervous system."[25]

DISINFECTION

Disinfection is the process that kills some (but not all) disease-causing microorganisms and slows regrowth.

Some microorganisms can remain on any item that has been disinfected. What kind and how many are killed depend on the level of disinfection used. ***Bacterial spores*** such as ***Mycobacterium Tuberculosis variant bovis*** (M. tuberculosis var. bovis) are difficult to kill, and laboratory test microorganisms used to classify the strength of a chemical disinfectant are as follows:

SPAULDING'S CLASSIFICATION SYSTEM:

"More than 30 years ago, Earle H. Spaulding [a microbiologist, emeritus professor, and former chairman of the microbiology department at Temple University School of Medicine] devised a rational approach to disinfection and sterilization of patient-care items and equipment."[26]

"How an object will be disinfected depends on the object's intended use.[27]

- **CRITICAL** - objects that enter normally sterile tissue or the vascular system or through which blood flows should be **sterile**.
- **SEMICRITICAL** - objects that touch mucous membranes or skin that is not intact require a disinfection process (**high-level disinfection [HLD]**) that kills all microorganisms but high numbers of bacterial spores.
- **NONCRITICAL** - objects that touch only intact skin require **low-level disinfection**."

THREE LEVELS OF DISINFECTION

- **Low-Level Disinfection** is the least effective process and is what most of us think of when we talk about "clean." It does not kill bacterial spores or M. tuberculosis var. bovis.
- **Intermediate-Level Disinfection** is a process that kills the tough tuberculosis microorganism. This is important because a process that kills M. tuberculosis var. bovis is also effective against a host of other organisms that are much easier to kill, such those that cause HIV.
- **High-Level Disinfection** is a process that destroys some, but not all bacterial spores, as well as bacteria, fungi, and viruses (like the one that causes hepatitis B), in addition to the microorganisms killed at the Intermediate Level. Although High-Level Disinfection kills the same types of organisms as sterilization, only full autoclave sterilization renders items that have been contaminated with bloodborne pathogens safe for reuse.

DISINFECTING SOLUTIONS

WHAT CAN I USE AS A DISINFECTING AGENT IN MY SHOP?

Disinfectants used in the studio will depend on the application and product availability. Appropriate products are marketed under many names and several categories and should be registered with the ***Environmental Protection Agency*** (EPA).[28] For safe and proper use, make sure to read labels and follow manufacturers' instructions.

Everything in the immediate piercing procedure environment should be decontaminated with no less than an Intermediate Level of disinfection. (See previous page.)

Note that disinfectants are used only on inanimate surfaces (objects), whereas ***antiseptic***s are used only on animate (living) surfaces.

Disinfecting solutions are grouped into families according to similar characteristics and properties. Choose products proven to be ***broad spectrum***, ***hospital grade disinfectants***, with a narrow efficacy time and a long, stable shelf life. Labelling should specifically state that the product is ***bactericidal***, ***virucidal***, ***fungicidal***, and ***tuberculocidal***. Some may also be described as ***germicidal*** or ***sporicidal*** as well. Tuberculocidal is considered the scientific standard for surface disinfectants because the Mycobacterium pathogen that causes tuberculosis is very resilient and hard to kill.

> *"High-level disinfection traditionally is defined as complete elimination of all micro-organisms in or on an instrument, except for small numbers of bacterial spores. The FDA definition of high-level disinfection is a sterilant used for a shorter contact time to achieve a 6-log10 kill of an appropriate Mycobacterium species. Cleaning followed by high-level disinfection should eliminate enough pathogens to prevent transmission of infection."*[29]

Disinfectant solutions are available in spray bottles, liquid pour bottles, foams, and impregnated towelettes. Spraying a contaminated surface is contraindicated to avoid aerosol inhalation hazards.

Glutaraldehyde - 2% Solutions

These are non-biodegradable biohazards and have been classified by the FDA as toxic. Most of these require special ventilation and vapor monitoring equipment and must be disposed of according to specific local and federal regulations. Therefore the APP does not suggest their use in the studio environment.[30]

Phenolics - 10% Solutions

Phenols are surface disinfectants and are not broad spectrum enough to make them useful for most surfaces in the piercing studio.

Iodophors

These are iodine-based disinfectants that can stain surfaces and discolor metals. This makes them a poor choice for use in the studio.[31]

Chlorine Compounds

Sodium hypochlorite, more commonly known as bleach, acts as a protein disintegrator. Most pathogens are protein-based, making this an effective surface disinfectant.

A solution of 10% bleach to 90% water will destroy most pathogens in less than 10 minutes. For bleach to be effective, the surface area must be aggressively scrubbed first, and the solution allowed to remain on the surface for a full 10 minutes. The diluted mixture has a shelf life of less than 48 hours so it should not be mixed and stored for later use.

Many people are highly sensitive to this chemical and some may experience severe allergic reactions to vapors in a recently cleaned room. Using other chemicals (particularly ammonia-based cleaners) in the same area may produce a toxic reaction and poisonous gas.

A bleach solution is incompatible with stainless steel tools or surfaces. Its use in ***ultrasonic cleaner***s or autoclaves will not only void warranties, but will destroy these costly pieces of equipment. Jewelry should never be soaked in even a weak bleach solution.[32]

Quaternary Ammonium Compounds

Known as "Super-Quats," these products are sometimes mixed with other chemicals such as alcohol. Although towelette wipes impregnated with Super-Quat solutions are excellent surface cleaners, not all disinfectants in this group are tuberculocidal. These products should also not be used for soaking jewelry.[33]

Synergistic Formulas

A synergistic action involves two or more agents cooperating with each other to result in an effect greater than that of each agent operating by itself. These solutions are non-toxic, biodegradable, broad-spectrum disinfectants that are also non-corrosive and non-staining. They are stable solutions and once opened they maintain full potency for 6 to 10 months. They do not require special disposal or handling.

They can be used as hard surface disinfectants and in some cases may be acceptable as a soak for jewelry disinfection. (**Note**: autoclave sterilization remains the only appropriate way to prepare jewelry for use in a fresh piercing.)

Isopropyl Alcohol

Alcohol can be used as a low-level disinfectant only. It is not recommended as a soak or for disinfecting contaminated environments because it is not a sufficiently effective cleaner.

> *"**Overview**. In the healthcare setting, "alcohol" refers to two water-soluble chemical compounds—ethyl alcohol and isopropyl alcohol—that have generally underrated germicidal characteristics. FDA has not cleared any liquid chemical sterilant or high-level disinfectant with alcohol as the main active ingredient. These alcohols are rapidly bactericidal rather than bacteriostatic against vegetative forms of bacteria; they also are tuberculocidal, fungicidal, and virucidal but do not destroy bacterial spores. Their cidal activity drops sharply when diluted below 50% concentration, and the optimum bactericidal concentration is 60%–90% solutions in water (volume/volume).*
>
> ***Uses.** Alcohols are not recommended for sterilizing medical and surgical materials principally because they lack sporicidal action and they cannot penetrate protein-rich materials. Fatal postoperative wound infections with Clostridium have occurred when alcohols were used to sterilize surgical instruments contaminated with bacterial spores."*[34]

Hydrogen Peroxide

"Published reports ascribe good germicidal activity to stabilized hydrogen peroxide and attest to its bactericidal, virucidal, sporicidal, fungicidal, and tuberculocidal properties. The FDA website lists cleared liquid chemical sterilants and high-level disinfectants containing hydrogen peroxide and their cleared contact conditions."[35]

STERILIZATION

Sterilization is the process that kills all microbial life.

In addition to all bacteria, viruses, and fungi, sterilization also kills bacterial spores, which are resilient and the most difficult microorganisms to kill. A process that eliminates bacterial spores will kill other types of microorganisms such as fungi and viruses. Sterilization eliminates the organisms that cause Tuberculosis, ***hepatitis B*** and C, and HIV, as well as all other infectious agents. When you have sterilized properly, there will be no microorganisms alive.

Any item or product in your shop that may have been exposed to bloodborne pathogen contamination must be sterilized prior to use or reuse. This includes reusable items such as forceps, other tools, and setup trays. If a contaminated reusable item cannot be sterilized appropriately, it must be discarded. Single-use, disposable items such as piercing needles must also be sterilized prior to their use. However, once used, disposables must never be sterilized and reused.

We can only know how jewelry is handled within our own studios, and must therefore ensure that no potential contaminants from manufacturing or shipping contact our clients. Regardless of the source of their jewelry, a responsible piercer should put in only high quality body jewelry that is sterilized on the premises prior to insertion. FDA-cleared items that are commercially sterilized according to accepted medical standards should be ready for use without additional processing.

It is not an industry standard practice for body jewelry manufacturers to supply sterile jewelry. Manufacturers should not misrepresent what is being supplied by falsely advertising or labeling jewelry as "sterile" or "ready for insertion," or making other misleading claims. Best practice for any studio is to minimize handling, disassemble and clean new jewelry, and then autoclave sterilize all pieces prior to use. Consult with your jewelry manufacturer for appropriate handling and cleaning advice based on their production procedures. If an ultrasonic cycle is employed, jewelry should be processed in an ultrasonic unit reserved for clean jewelry only, and care should be taken to prevent damage to the surface finish from vibration. A jewelry grade ultrasonic or steamer should be acceptable for this purpose.

STERILIZATION METHODS:

Benchtop Sterilization

- **Steam under pressure** (saturated steam/steam autoclave): 220-270 kpa pressure at 132° Centigrade (270° Fahrenheit) for 3-40 minutes depending on cycle.[36]
  - Steam autoclave process types
    - **Gravity displacement (type N):** "In the former, steam is admitted at the top or the sides of the sterilizing chamber and, because the steam is lighter than air, forces air out the bottom of the chamber through the drain vent. The gravity displacement autoclaves are primarily used to process laboratory media, water, pharmaceutical products, regulated medical waste, and nonporous articles whose surfaces have direct steam contact. For gravity displacement sterilizers the penetration time into porous items is prolonged because of incomplete air elimination."[37]
    - **Vacuum (type B):** Air removal prior to and after the cycle by a vacuum pump (negative pressure) "The high-speed prevacuum sterilizers are similar to the gravity displacement sterilizers except they are fitted with a vacuum pump (or ejector) to ensure air removal from the sterilizing chamber and load before the steam is admitted. The advantage of using a vacuum pump is that there is nearly instantaneous steam penetration even into porous loads. The Bowie-Dick test is used to detect air leaks and inadequate air removal."
    - **Steam flush-pressure pulse (type S):** "Another design in steam sterilization is a steam flush-pressure pulsing process, which removes air rapidly by repeatedly alternating a steam flush and a pressure pulse above atmospheric pressure. Air is rapidly removed from the load as with the prevacuum sterilizer, but air leaks do not affect this process because the steam in the sterilizing chamber is always above atmospheric pressure. Typical sterilization temperatures and times are 132°C to 135°C with 3 to 4 minutes exposure time for porous loads and instruments." The ***Statim*** is an example of a type S steam flush pressure pulse autoclave, which is acceptable for sterilization.
- **Dry-Heat (hot air):** Processing at 170° C (340° F) for 1 hour is the most common. This is appropriate only for items that cannot withstand steam exposure, and is not practical for piercers.
  - **Chemiclave (chemical vapor):** Requires specific site construction for venting of potentially toxic fumes such as formaldehyde, and is not practical for piercers.
  - **Plasma (hydrogen peroxide gas plasma microwave):** Hydrogen Peroxide gas is converted to plasma in a vacuum by microwave with no toxic byproducts.[42]
  - **Liquid Chemicals (cold sterilization):** FDA-cleared liquid chemical agents used per manufacturers' guidelines (exposure times vary). Maintaining the sterility of items once removed from the solution is difficult. Additionally, problems with disposal and exposure to toxic chemicals make this method impractical for piercers.

FDA-Cleared Commercial Sterilization

- **ETO "Gas" (Ethylene Oxide gas):** Used for commercial sterilization of surgical supplies with a lethal gas. Requires specific site construction for venting of potentially toxic fumes. ETO gas sterilizers are not practical for use in body art facilities, however commercially ETO sterilized items should be acceptable.[43]
  - **Ionizing radiation:** Used for commercial sterilization of surgical supplies with a Cobalt-60 gamma irradiation or electron accelerator source. There are no FDA-cleared ionizing radiation sterilization processes for use in body art facilities.[44]
  - **Other** commercial sterilization methods as approved by the FDA.

CHARACTERISTICS OF AN IDEAL STERILIZATION METHOD

- **High efficacy** -the agent should be virucidal, bactericidal, tuberculocidal, fungicidal, and sporicidal.
- **Rapid activity** -ability to achieve sterilization quickly.
- **Strong penetrability** -ability to penetrate common medical device packaging materials and penetrate into the interior of device lumens.
- **Material compatibility** -produce negligible changes in either the appearance or function of processed items and packaging materials, even after repeated cycling.
- **Nontoxic** -present no health risk to the operator [piercer] or to the patient [piercee] and pose no hazard to the environment.
- **Organic material resistance** -withstand reasonable organic material challenge without loss of efficacy.
- **Adaptability** -suitable for large or small (point of use) installations.
- **Monitoring capability** -monitored easily and accurately with physical, chemical, and biological process monitors.
- **Cost-effectiveness** -reasonable cost for installation and for routine operation.

Adapted from: Schneider, PM. Low-temperature sterilization in the 1990s. 1994. Tappi Journal 77: 115-121.[45]

STERILIZATION IN THE STUDIO

Pressurized steam is the most practical and cost-effective method of sterilization in the piercing studio. For our purposes, sterilization requires an **autoclave**, a piece of medical equipment that employs the steam-under-pressure method of sterilization. Autoclaves *must* meet all FDA standards for a medical sterilizer.[46] A drying cycle is required for membership, preferably with filtered air in a closed chamber. Top-loading autoclaves and pressure cookers are not acceptable.

Autoclave sterilizers can be obtained from a medical supplier and vary in size, type, and features. Items that have already been cleaned, rinsed, and dried are placed in specially designed, sealable autoclave bags that allow penetration by steam during the sterilization cycle. Until these packages are opened during a procedure, their contents remain sterile, unless bag integrity is compromised by damage such as puncture, moisture, or age.

In ***event-related sterilization*** protocol (ERS), items remain sterile indefinitely when stored properly after sterilization, unless the package is compromised or contaminated.[47] Some local regulations require set expiration dates on sterilized needles and tools, after which the items are no longer considered sterile. You should have a written policy regardless of which protocol is used.

Studios must develop and follow a written sterilization program that includes how and when chemical indicators, chemical integrators, and biological indicators (***spore tests***) will be run, recorded, and logged. Batch numbers can be included in the log so that a given set of tools can be quickly traced to a particular cycle and double-checked in case a concern regarding a particular piercing or client arises.

Some new autoclaves come conveniently equipped with a data logger, printer, or network connection that can provide documentation of the parameters of the mechanical indicators for time, temperature, and pressure during the sterilization of each load. This record does not take the place of an indicator, integrator, or spore test. Logs proving sterilizer use and integrity are essential to safe and appropriate studio operations, and will be invaluable should post documentation be required for regulatory or legal purposes.

Chemical Indicators

It is imperative that your sterilizer is kept in proper working order. Manufacturer guidelines for operation and maintenance must be stringently followed. Sterilization packaging materials such as pouches or tubing should have **(Class 1, 2, 3, or 4)** external or internal Chemical ***Indicators*** that change color when exposed to steam. This makes it easy to distinguish wrapped items that have been processed from those that have not. However, the color change of indicator strips on the autoclave packaging is not a reliable method of determining if an autoclave is working properly. These indicators test only exposure to steam, but not whether the heat, pressure, and duration of that exposure was sufficient to achieve sterilization.

Class 5 Integrating Indicators (*Integrators*) are an in-house method for checking sterilizer reliability. Integrators are devices such as strips that may be used inside pouches and/or autoclave chambers that prove the conditions for sterilization were met. They are similar to chemical indicators, except that they change color when they have been exposed to the ideal combination of steam, pressure, and heat for the minimum appropriate exposure time period. They should ideally be run in each sterilization cycle and logged daily (see sample autoclave log, page 71).

Class 6 Emulating Indicators (*Emulators*) are even more precise than Class 5 indicators, and are designed to respond to the parameters of a specific sterilization program.

Biological Indicators (Spore tests)

These living bacterial spore samples are the most thorough way of testing sterilizer function. They are periodically run through an autoclave cycle, and then sent to an external testing facility for analysis. The testing facility checks to see that there is no subsequent growth of bacterial spores on the medium. Since spores are extremely difficult to kill, the adequate destruction of spores on the test medium after sterilization indicates that more fragile organisms have also been destroyed and the autoclave is functioning properly.

Procedures for Failed Biological Indicator

Spore tests are absolutely necessary to ensure that items are indeed being sterilized. The more frequently an autoclave is used, the more often it should be tested. The CDC advises they should be run at a minimum weekly[48] or in compliance with your local regulations. Approximately 1 out of every 100 spore tests fails for steam sterilization autoclaves.[49] Failed tests require immediate action. Your studio should have a written policy outlining the procedures that must be followed immediately after notification of a failed spore test. The following are important considerations:

Before a test failure:

- Familiarize yourself with local regulations regarding a test failure event notification and backup plan.
- Backup plans will vary depending on the type of autoclave and test used.
- Have a plan prepared that includes access to an alternate autoclave. For this reason, some shops keep more than one autoclave on the premises. Some service technicians provide autoclaves for rent or loan while they do repairs.

After a test failure:

- Halt all piercing operations until tools and other items can be retrieved from the last known successful spore test.
- All retrieved tools in question should not be used until reliably reprocessed and resterilized.
- False failed spore tests do occur. Immediately run another spore test. If the testing facility is off-site, use express shipping services.
- If the second test fails, the autoclave must be serviced.

For further information refer to the CDC HICPAC Document on Sterilization Monitoring:
http://www.cdc.gov/hicpac/disinfection_sterilization/13_11sterilizingpractices.html#8
http://www.cdc.gov/oralhealth/infectioncontrol/faq/sterilization_monitoring.htm

EQUIPMENT

DISPOSABLE SUPPLIES

To minimize the risk of cross-contamination and to ensure that piercing room procedures are as clean as possible, many components of the tray setup must be disposable. Unless supplies are purchased presterilized* or will be sterilized in an autoclave immediately prior to the procedure, all disposables must be individually packaged in autoclave bags, sterilized, and remain intact in their pouches stored in enclosed, nonporous drawers or containers until use. Disposable materials that must be sterilized include: marking implements, piercing needles, corks or synthetic stoppers, elastic bands, swabs, and gauze.

* This includes *only* FDA-cleared items that are commercially sterilized according to accepted medical standards. The supplier must make documentation of appropriate sterilization available.

There are several methods of packaging disposables. Shops will often use a combination of packaging systems to meet varying needs. The interior of an opened sterilized pack can provide an aseptic field from which the piercer may work.

Individual packages: disposable items and reusable tools can all be packaged individually. Consider packaging piercing needles individually or make sure they are clearly visible to prevent sharps injuries.

Combination packages: disposable items and reusable tools can be packaged together. Some piercers will assemble everything they will need for a piercing procedure into one convenient package, being careful to allow for a large enough wrap so that items do not overlap and prevent proper sterilization. Other piercers will separate out items into a two-package system with one "**prep pack**" package containing gauze, marking implements, and swabs, and another "**piercing pack**" containing tools, cork or synthetic stopper, elastic band, and gauze.

"**Insertion packs**" can contain disposables used for cleaning such as swabs and gauze, and other items that may be needed for jewelry changes, ***insertions***, and stretches on existing piercings.

When setting up for a piercing or jewelry insertion, after washing hands and donning gloves, the piercer should first select and assemble all materials and tools that might be needed for that procedure. To avoid cross-contamination, it is unacceptable to reach into storage drawers or containers with gloves that have touched a client. Therefore, the piercer should anticipate possible needs and required items before the procedure begins. If additional supplies are required, the piercer must don fresh gloves before accessing any additional items in the drawers/containers, and must change gloves before touching the client or sterile tools. (See *When should gloves be changed?* page 8.)

USE OF VARIOUS STERILIZED DISPOSABLES

Sterile Elastic Bands:

Because the jaws of forceps should never be locked onto a client during piercing, these can be wrapped around forceps handles to achieve desired tension.

Sterile Gauze Sponges:

For cleaning and drying, and erasing stray marks. They are available woven and nonwoven in several different materials, sizes, and thicknesses.

Sterile Swabs:

Excellent for cleaning and drying in tight spots, and for erasing stray marks. They come in several different lengths and thicknesses.

Sterile Marking Implement:

Used for marking placement.

Sterile Connecting Wire (Snips):

Smooth ended segments of wire can be used to join internally threaded or threadless jewelry and piercing needles to maintain needle-jewelry connections for smooth jewelry transfers.

PIERCING NEEDLES

Acceptable piercing needles are hollow and have an extremely sharp cutting edge to minimize damage to the tissue. Piercing needles are available in a wide variety of lengths, thicknesses, and shapes. Piercers should inspect each needle immediately before use to be sure there are no burrs or irregularities. Should the piercer choose to modify a needle before use, great care should be taken to avoid creating such flaws. Needle quality will affect the procedure as well as client comfort and healing.

NEEDLE HANDLING, STORAGE, AND DISPOSAL

Piercing needles have an extremely sharp, precision ground blade, which makes them hazardous to ship and handle, and also easily damaged. Most piercing studios perform in-house sterilization of piercing needles to assure proper handling at every stage of the process. Unless needles are sterilized immediately prior to a piercing procedure in an autoclave, they should be individually packaged and labeled with ***gauge*** and date of sterilization. Sterile needles in autoclave packets must be kept in enclosed, nonporous drawers or containers until use.

After a single use, needles must be immediately disposed of in an approved sharps waste container.

SHARPS DISPOSAL

Untreated, used sharps waste disposal containers may not be included with ordinary trash. ***Sharps containers*** must be picked up by a ***regulated waste*** management company or disposed of in a manner that complies with local regulated waste laws. All containers in a studio bearing the biohazard label must have the contents disposed of according to regulated waste laws.

REUSABLE EQUIPMENT

A wide range of tools are available to professional piercers for facilitating procedures and maximizing the safety and comfort of piercees. Piercing tools come in many styles, qualities, and price levels. Piercers are cautioned that while inexpensive tools are abundant, their low quality is usually evident in poor performance and lack of durability. Tools that work well enhance your individual technique, rather than complicate it. High quality piercing tools are made and designed with piercing applications in mind and can last a long time. Much like surgical implements, initially they will be costly, but they are intended and engineered for repeated use over many years.

Following each use, a contaminated tool should be:

1. Wiped off to remove all gross debris. (Debris on instruments should not be allowed to dry before processing because blood and other proteins become much more difficult to remove as they dry.)
2. Soaked in an enzymatic cleaning solution following manufacturer's directions.
3. Rinsed.
4. Manually scrubbed to remove any and all resistant debris, repeating steps 2 & 3 if needed.
5. Cleaned in an ultrasonic or automated washer. (Follow manufacturer's instructions for optimal solution and cycle length.)
6. Rinsed.
7. Dried. (To prolong the life of instruments with movable parts, consider applying a corrosion-inhibiting surgical instrument lubricant and allow it to dry prior to packaging.)
8. Packaged and labeled with date, and also batch number and operator initials, if required.
9. Sterilized in an autoclave and allowed to fully dry before removing. (Alternately, instruments may be sterilized unwrapped in bulk before packaging. This can allow for safer handling, inspection, and packaging in a clean area, prior to terminal sterilization.)

Note: Steps 1-8 should be performed only in an area designated as contaminated, and by properly trained personnel wearing appropriate personal protective equipment. In order to do this thoroughly without the risks of manual scrubbing, studios should wipe off gross debris immediately.[50]

TYPES OF TOOLS

Professional body piercers have created new instruments and also sourced tools from other fields such as art, jewelery, science, and medicine. Some of the most commonly used are described next:

FORCEPS

Forceps come in a variety of shapes and sizes and are used to align and secure tissue, with the intent of increasing the accuracy and speed of the piercing. Forceps should only gently compress the piercing site while causing the piercee minimal discomfort and no additional tissue damage. When properly used they can enhance safety for the piercer by allowing the operator's fingers to stay well away from the sharp tip of the needle. Some forceps are designed specifically for body piercing, such as "septum forceps." Others are available modified to suit different piercers' preferences, for instance with a slotted, smooth, or serrated head.

HEMOSTATS ("MULTIPURPOSE TOOLS")

These can be useful for holding jewelry, beads, and needles during procedures. They are available with smooth or serrated jaws, customized with grooves for opening and closing rings, or designed to insert/remove ***surface anchor***s. Tools with smooth or brass-lined jaws are less likely to scratch the delicate finish on body jewelry. However, for optimum protection, either type of jaw may be wrapped in sterile protective padding such as a piece of cloth bandaid.

NEEDLE HOLDERS

Needle holders are used in the medical setting for suturing. Their strong jaws have a central groove making them useful to assist piercers with opening and closing rings that are small in gauge and diameter.

NEEDLE RECEIVING TUBES ("NRTs")

NRTs are used to support and protect the tissue during piercing procedures. They are often used for nostril, septum, Prince Albert, vertical clitoral hood, and some ear ***cartilage*** piercings. NRTs come in various lengths, sizes, and modifications. They are usually hollow stainless steel tubes with smooth openings, and may have a flared or angled end. Some piercers prefer to use shatter-resistant, autoclavable, clear Borosilicate glass NRTs, which allow for needle visibility during the procedure. Single-use disposable metal, glass, or hard plastic tubes are available.

Note: Glass and plastic tubes can become compromised; consider them a single-use option. Always dispose of glass in the sharps waste container.

PLIERS

Several kinds of pliers are used in piercing procedures, and are described below. Optimally, pliers should be made of stainless steel to withstand repeated sterilization. An exception is brass-jaw pliers, which have the advantage of being unlikely to scratch the surface of jewelry due to their softer brass-lined surfaces. Pliers may be nickel or chrome plated to resist rusting, but will eventually break down and become unusable. Corroding metal can damage the delicate components of an autoclave, so tools should be replaced at the first sign of rust.

Ring Opening (or Expanding) Pliers:

Used to remove and insert captive beads and also to widen the gap on captive rings for insertion and removal. They may also be used to spread the gap on circular barbells and septum retainers.

Ring Closing Pliers:

Used to narrow the gap on captive rings to set the proper tension for holding a bead.

Bending Pliers:

Used for bending nostril screws, fishtail labrets, and needles. These are usually jewelers' pliers, which are available with a number of different head shapes. A commonly used style is called a "double round" pliers.

CONNECTING SNIPS

Stylets or "snips" are smooth pieces of wire used to stabilize the jewelry transfer during an initial piercing when using internally threaded or threadless jewelry. Even experienced piercers find the wire connection between the jewelry and needle helpful in maintaining alignment. When nicely finished and made of titanium or niobium wire and anodized in contrasting colors, connecting snips are easily distinguished on the piercing tray. Also see "***Insertion Taper***s" below.

CALIPERS

These instruments are used for measuring jewelry gauge and diameter, or the distance between marks for piercing placement. They are available in metric (millimeters), and imperial (inch and gauge) systems, with decimal and fraction calibrations. Some offer both systems of measurement. Though calipers are made in plastic and metal, few styles can withstand sterilization. Generally the fancier and more accurate models cannot be sterilized, so great care should be taken not to contaminate them. For protection, worn jewelry can be placed inside of an impervious barrier like a glove or plastic bag. There are a few autoclavable styles made in stainless steel and brass. Though less accurate and somewhat harder to read, they have an obvious advantage in the piercing studio.

GAUGE WHEELS

The gauge wheel is a tool that can be used to measure the thickness of body jewelry. Most American body jewelry manufacturers use a standardized measurement for the thickness of their jewelry with the Brown and Sharpe/American Standard wire gauge system. In other industries, this system has been historically used for measuring non-ferrous metals. There are some variances between wholesale companies, so it is always wise to double-check jewelry thickness with the gauge wheel and to the needle before use. Outside the US, manufacturers use the metric system for measuring thickness in millimeters.

INSERTION TAPERS

These tapered tools come in a variety of materials and styles. They are used to facilitate the insertion of jewelry into new and existing piercings, and also to stretch a piercing to a larger size. Tapers with a "concave" back work well with both rings and barbells. "Pin" and "threaded" tapers are designed to connect with internally threaded or threadless jewelry for secure insertion. A taper with a more gradual slope is considered gentler for insertion. "Eyelet" tapers are also available for securing the connection of the taper and jewelry during the insertion of eyelets.

PIERCING TRAYS

Piercing trays are a common foundation upon which the piercing setup and aseptic field is laid. A sterilized tray setup or sterilized tray liner should be used as the base for all procedures, rather than a countertop or other surface. Trays should be made of autoclavable plastic or stainless steel, and covered with an FDA-cleared impenetrable tray liner. Optimally, piercing trays should fit into the autoclave and should be sterilized at least daily, or immediately if cross-contamination is suspected. Needles, jewelry, and tools should never be placed on a non-sterile tray or tray liner surface. "Clean" is not sufficient for a procedure surface: it must be sterile.

ASEPTIC FIELD

The actual procedure surface is referred to as an "aseptic field," and is a sterilized surface that becomes exposed to air contact only at the beginning of the piercing procedure. The aseptic field used by most piercers is the sterile inside surface of a freshly opened large autoclave or sterile glove package, Statim cassette, rigid sterilization container, or sterilized tray. Once the package is opened, sterile tools, needles, jewelry, and disposables can be dropped onto the inside surface for use. The exterior of sterilized packages such as those containing the jewelry should not touch the aseptic field; the contents should be carefully dispensed onto it.

SUNDRY JARS

These autoclavable plastic, tempered glass, and/or stainless steel jars are useful for storing individually packaged sterile items. Sundry jars should not be used to store bulk sterilized unpackaged items, because they are periodically open to air contact, and because bulk sterilized items are only sterile until removed from autoclave packaging. Sundry jars need to be disinfected daily and sterilized weekly, or immediately if cross-contamination is suspected.

THE PIERCING GUN

A mechanical ear piercing device or ***piercing gun*** is an instrument designed to perforate the skin for the purpose of inserting jewelry. While piercing guns may seem to be a quick, easy, and convenient way of creating holes, they can have major drawbacks in terms of tissue damage, inappropriate jewelry design, and sterility. These concerns, many of which have been documented in medical literature, are addressed below.

PIERCING GUNS CAN CAUSE SIGNIFICANT TISSUE DAMAGE

Piercing guns use pressure to force a pointed object (most often the jewelry itself) through the skin. These are very dull when compared to quality piercing needles and therefore can cause more tissue damage. The effects are similar to a blunt force trauma including significant pain, swelling, scarring, and an increased potential for complications.

There is a greater likelihood of more serious complications from stud gun piercing when they are used on structural tissue such as ear and nostril cartilage. The cartilage has less blood supply than earlobe tissue and a correspondingly longer healing time. Therefore infections in this area are more common and can be far more destructive.

Insufficient or inappropriate aftercare and the use of non-sterile piercing equipment have been associated with increased incidence of ***auricular*** chondritis, a severe infection in cartilage and surrounding tissue. This can result in deformity and collapse of structural ear tissue, and require ***antibiotic*** therapy and reconstructive surgery to correct.

THE LENGTH, DESIGN, MATERIAL, AND SURFACE FINISH OF EAR PIERCING STUDS CAN BE INAPPROPRIATE FOR INITIAL PIERCINGS

Many types of ear piercing studs are too short for some earlobes and most cartilage and other body parts. Once short jewelry is locked on by the gun's mechanism, constricted tissue frequently becomes irritated. Diminished air and blood circulation can lead to prolonged healing, scarring, swelling, and sometimes embedding. Piercers and medical personnel alike have seen stud gun jewelry embedded in earlobes and ear cartilage (as well as navels, nostrils, lips, and other body parts), sometimes requiring surgical removal. Jewelry that fits too closely also increases the risk of infection because it does not allow for thorough cleaning. Body fluids normally discharged during healing can become trapped around the hole by inappropriate jewelry. Unless this matter is frequently and thoroughly removed, it can attract bacteria and become an invitation to infection.

Medical literature recommends surgical implant materials such as steel (ASTM F138) and titanium (ASTM F138 or F67) for initial piercing jewelry composition. Ear piercing studs should not be used unless made of materials that are FDA-approved or certified by an ***ASTM*** or ***ISO*** standard as safe for long-term implantation in the human body. Even when coated in non-toxic gold plating, materials from underlying alloys can cause cytotoxicity and allergic reaction by leaching into human tissue through corrosion, scratches, and surface defects.[51]

MISUSE OF EAR PIERCING GUNS IS EXTREMELY COMMON

Even though many manufacturers' instructions and local regulations prohibit piercing anything other than the earlobe, many ***ear piercing gun operator***s will also use the device to pierce ear cartilage, nostrils, navels, eyebrows, tongues, and other body parts. This is inappropriate and dangerous.

Many regulations stipulate fewer requirements for businesses that operate ear piercing guns and/or exclude them from enforcement. As a result, the environments where such services are provided may be less safe than professional piercing studios, and the operators may not be subject to adequate training or meeting other requirements. Because of the ease of acquiring a gun piercing and a lack of awareness about the risks, many consumers fail to associate negative experiences with the gun operator or device itself. Therefore, many cases of infection, scarring, and minor complications may go unreported and untreated.

Due to their risks, piercing guns have been banned nationwide by legislation in Mexico. As professional piercers and public health advocates, we have an obligation to provide consumers and regulators with accurate and adequate information to understand the risks of gun piercing. You can find a list of US regulations and legislation by state here: http://www.safepiercing.org/legislation/legislation-links-by-state.

CROSS CONTAMINATION AND STERILITY

During a piercing, microspray of body fluids from one client can aerosolize and contaminate the surface of a gun. Therefore, reusable ear piercing guns can put clients in direct contact with the blood and body fluids of previous clients, which carries risk of disease transmission. Even if sterile jewelry cassettes are used, the next client's tissue and jewelry may contact contaminated surfaces, potentially transmitting bloodborne pathogens through the reusable piercing device. Although guns may be exposed to bloodborne pathogens many times a day, few, if any, gun piercing establishments possess the expensive equipment (an autoclave) necessary to sterilize them.

Considering the number of clients who may have direct contact with a single gun in one day, pathogens like hepatitis, pseudomonas, and staph constitute a serious public health threat if they are introduced into even one reusable piercing gun. Infants, young children, and those with compromised ***immune system***s may be at higher risk of disease transmission in such a situation.

Disposable ear piercing devices are a step in the right direction to reduce the risk for cross contamination. They still come up short for the variety of other reasons listed.

APP members make a commitment to use the best piercing techniques for hygiene, safety, healing, and client comfort. These require:

- Piercing instruments that are sterile and/or disposable;
- Jewelry that is sterile, anatomy-appropriate, and made of material that is certified to implant standards;
- Methods that minimize tissue trauma and scarring.

Although piercing gun companies continue to respond with innovation to address some of these risks, at the time of this printing, the use of an ear piercing device (gun) cannot be accepted in the practice of APP members.

COULD A MECHANICAL EAR PIERCING DEVICE EVER BE SAFE?

In theory, yes. The device would need to be sterile, either as a single-use item or a durable one that could withstand the stresses of reprocessing. The piercing surface would need to be extremely sharp but not present a safety hazard for the operator or cause danger or discomfort to the piercee. The automated process would need to be stable and accurate, and safely contain the pointed piercing surface. After breaking the skin, it is a contaminated sharp and must be handled and disposed of according to all applicable safety regulations including OSHA.

The jewelry would need to be made of a material, finish, and design that meets current APP standards for initial jewelry. The jewelry would also have to be offered in a variety of sizes to accommodate individual anatomical differences—one size does not fit all. (See current APP Jewelry Standards.)

The ear piercing gun operator would need to have sufficient knowledge and training in relevant anatomy, hygiene, basic first aid, bloodborne pathogens, appropriate jewelry selection, the piercing procedure, aftercare, and basic troubleshooting.

FURTHER REFERENCES ON EAR PIERCING GUNS

- Necrotizing *Pseudomonas* Chondritis After Piercing of the Upper Ear. CMAJ *April 19, 2011 vol. 183 no. 7* doi: 10.1503/cmaj.100018[52]
  Lee, T. C. & Gold, W. L.[52]
- Science News, Vol. 165, No. 12. 2004 Mar 20:190
  Ear Piercings Cause Illness, Disfigurement[53]
- Journal of the American Medical Association. 2004 February 25; 291(8): 981.
  Outbreak of Pseudomonas aeruginosa Infections Caused by Commercial Piercing of Upper Ear Cartilage[54]
  William E. Keene, PhD, MPH, Amy C. Markum, RN, BSN, Mansour Samadpour, PhD
- Pediatric Emergency Care. 1999 Jun 15 (3): 189-92.
  Ear-piercing techniques as a cause of auricular chondritis.[55]
  More D.R., Seidel J.S., Bryan P.A.
  Department of Emergency Medicine, Harbor-UCLA Medical Center, Los Angeles, California, USA.

- Journal of Laryngology and Otology. 2001 Jul; 115(7): 519-21.
  Ear deformity in children following high ear-piercing: current practice, consent issues and legislation.[56]
  Jervis P.N., Clifton NJ, Woolford T.J. Department of Otolaryngology, Royal Hallamshire Hospital, Sheffield, UK.
- International Journal of Pediatric Otorhinolaryngology. 1990 Mar; 19(1): 73-6.
  Embedded earrings: a complication of the ear-piercing gun.[57]
  Muntz H.R., Pa-C. D.J., Asher B.F. Department of Pediatric Otolaryngology, St. Louis Children's Hospital, Washington University Medical Center, MO 63110.
- Plastic and Reconstructive Surgery. 2003 Feb; 111(2): 891-7; discussion 898.
  Ear reconstruction after auricular chondritis secondary to ear piercing.[58]
  Margulis A., Bauer B.S., Alizadeh K.
  Northwestern University Medical School, The Children's Memorial Medical Center, Chicago, IL 60614, USA.
- Contact Dermatitis. 1984 Jan; 10(1): 39-41.
  Nickel release from ear piercing kits and earrings.[59]
  Fischer T., Fregert S., Gruvberger B., Rystedt I.
- British Journal of Plastic Surgery. 2002 April; 55(3): 194-7.
  Piercing the upper ear: a simple infection, a difficult reconstruction.[60]
  Cicchetti S., Skillman J., Gault D.T..
  Department of Plastic and Reconstructive Surgery, Mount Vernon Hospital, Northwood, UK.
- American Journal of Infection Control. 2001 Aug; 29(4): 271-4.
  Body piercing as a risk factor for viral hepatitis: an integrative research review.[61]
  Hayes MO, Harkness GA.
  University of New Hampshire, School of Health and Human Services, Durham, USA.
- Cutis. 1994 Feb; 53(2): 82.
  Embedded earrings.[62]
  Cohen HA, Nussinovitch M, Straussberg R.
  Pediatric Community Clinic, Petach Tikvah, Israel.
- Scandinavian Journal of Rheumatology. 2001; 30(5): 311.
  Does mechanical insult to cartilage trigger relapsing polychondritis?[63]
  Alissa H., Kadanoff R., Adams E.
- Toxicology In Vitro. 2000 Dec; 14(6): 497-504.
  Cytotoxicity due to corrosion of ear piercing studs.[64]
  Rogero S.O., Higa O.Z., Saiki M., Correa O.V., Costa I. Instituto de Pesquisas Energeticas e Nucleares, IPEN, PO Box 11049, CEP 05422-970, SP, Sao Paulo, Brazil.
- Journal of the American Medical Association. 1974 Mar 11; 227(10): 1165.
  Ear piercing and hepatitis: Nonsterile instruments for ear piercing and the subsequent onset of viral hepatitis.[65]
  Johnson C.J., Anderson H., Spearman J., Madson J.
- Journal of the American Medical Association. 1969 Mar 24; 207(12): 2285.
  Hepatitis from ear piercing.
  Van Sciver A.E.[66]
- The Lancet: Infectious Diseases. 2002 December 1; 2(12): 715.
  Piercing the cartilage and not the lobes leads to ear infections[67]
  Pam Das

RECEPTION AND SALES ROOM

COUNTER

The counter should have a nonporous surface such as glass or metal that can be easily disinfected as needed throughout the day. An FDA-approved hard surface disinfectant should be used according to the manufacturer's instructions for this purpose. Glass cleaner should be used to minimize streaking. Keep disposable cups, gloves, and sealable plastic baggies at the counter to reduce cross-contamination by customers. Have clients place previously worn jewelry into cups or baggies, never on the counter. Even "new" or "unworn" jewelry brought in by a client must be handled as if it is contaminated. It very well might have been tried on for just a second, which is reason enough to treat it as contaminated. Throw away contaminated disposable items once they have contained a client's own jewelry, whether they describe it as previously worn or not.

It is extremely common for customers to touch their jewelry and piercings when they are at the counter, even when they are asked to refrain from such activity. Keep a close watch and politely but firmly insist that patrons ***not*** handle their own jewelry and/or piercings while in the studio. Explain the potential for cross-contamination, and do not tolerate this risky behavior on the premises. If a client does touch his or her own jewelry or piercing (whether new or healed), immediately require them to wash their hands or provide hand sanitizer for their use to prevent cross-contamination of the studio. Be consistent with requiring hand sanitizing after each and every such contact.

A posted sign at the front counter can explain: "For your health and that of others, please do not remove, insert, or handle your jewelry in the studio. We will do it for you." With the possible exception of a welcoming handshake, touch pierced clients only with gloved hands. Wearing gloves for contact of even non-pierced areas can help to establish appropriate professional boundaries between piercer and client.

Dial calipers, gauge wheels, and other tools that are used at the counter should touch only new, unworn jewelry. Disinfect or sterilize the front counter tools as necessary. Items that cannot be sterilized must be disposed of if contamination should occur.

DISPLAY

Display jewelry should be protected from all potential contamination. Customers should not be allowed to touch display jewelry to any part of their skin, piercing, or own jewelry. When in doubt, handled items should be processed and sterilized before being returned to the display case. If jewelry from the display case is to be used for an initial piercing, the item must meet all criteria for initial piercing jewelry and must be sterilized before use. If display or stock jewelry cannot be sterilized, contact the manufacturer for proper handling, care, and maintenance. Whenever possible, handle display jewelry with gloved hands or clean tools. Sterile jewelry used for initial piercings should not be kept in the display case; it should be stored the same way as sterile tools—in a clean, enclosed container.

THE PIERCING ROOM

The piercing room must be a completely separate enclosed room with walls and door(s) made of nonporous materials. Options include vinyl, tile, and wood or brick with surfaces sealed by varnish, semi-gloss, or glossy paint, etc. Unsealed brick, cement, wood, and other uneven or porous wall surfaces can trap and harbor bacteria.

Flooring in the piercing room should be made of linoleum, laminate, tile (ceramic or vinyl), sealed wood, or other nonporous material, and should have approximately 4-6 inches of splash guard around the perimeter to protect the walls. Floors should be mopped daily with a disinfectant specific to the type of flooring.

Lighting in the piercing room must be bright. Depending on lighting needs, fixed lighting can be combined with adjustable lamps. Lamps that are touched or adjusted during procedures must be covered with an approved protective barrier[68] and must be disinfected immediately after use, daily, and throughout the day as needed when the potential for cross-contamination exists.

To prevent client contact with the biohazard and clean areas of the piercing room, a specific location should be provided and visibly marked for clients' belongings.

The sharps container and contaminated tools should not be located close to sterilized piercing implements and supplies, nor be positioned where a client could come into contact with it. After use, piercing implements should be placed in an enclosed, nonporous container marked "Biohazard." Many piercers place this contaminated tools receptacle on a biohazard-labeled shelf above their trash can. This establishes a single area in the room for contaminated items. The sharps container should be secured to avoid accidental spillage, and must be at a height easily accessible to the shortest worker in the studio, typically 52-56" off of the floor.[69]

Packaged equipment and other supplies used during procedures should be stored in a cabinet, drawer, or other enclosed, nonporous storage area. These supplies should be handled only with clean, freshly gloved hands, and only when necessary.

A ***High Efficiency Particulate Air (HEPA)*** filter or other air purification device should be located in each piercing room and throughout the studio in other locations where appropriate. Purifiers should be selected according to square footage specifications and must be maintained according to manufacturer's instructions. Replacing filters as recommended is essential to the proper functioning of these air cleaning devices.

FURNITURE

Storage units and cabinets should be of a nonporous, easily disinfected material, and have several drawers for storing air- and light- sensitive supplies. Furnishings should be disinfected no less than once daily and whenever contamination occurs. Mayo stands are portable tray-holding devices. These stainless steel rolling carts must be disinfected before and after each use. Any stand or surface used as a procedure surface must also be disinfected. Client seating is available in a wide variety of styles. The most commonly used types are dentist's chairs, massage tables, and medical exam tables. Choose your furniture for comfort, adjustability, and ease of disinfection. Seating covers should be of a nonporous material such as vinyl or sealed leather. Disposable table paper is a suggested additional covering, unless mandated by law. Client seating must be disinfected before and after each use, even if no contamination is apparent. Scabies, parasites, and other transmissible organisms may be transferred from the hair or clothing of a client to the table or chair. Air conditioners, fans, and heaters should be used with caution in the piercing room because they can blow contaminants into the designated clean areas of the room. If used, turn these devices toward the door and away from the piercing supply cabinet, trays, and seating. Airflow should always be "from clean to dirty."

WASTE RECEPTACLE

Trash cans must be clearly labeled, made of heavy-grade plastic or metal, lidded, and operated by foot-pedal or motion sensor. Cans should be fitted with plastic liners and placed where they will be accessible to piercers yet out of the reach of clients. Most piercing studios do not produce enough blood-soaked trash to necessitate regulated waste management.[70] However, trash bins should still be clearly labeled to warn customers not to touch them (ie., "Do NOT touch"). It is appropriate to voluntarily use a regulated waste service weekly or monthly.

If you choose to do so, or if you are required to treat your waste as biohazardous, then clearly mark the trash cans with "biohazard" warning labels and use red waste liners in these containers. Waste marked as "biohazard" must never be handled or disposed of as regular trash. Be certain to check your local regulations on classification and handling of regulated waste. Studios that use regulated waste handlers may have a second trash can and also a recycling container in the piercing room for items that are not regulated waste.

SINK

Reasonable access to an employee-only handwashing sink is mandatory, in-room sinks are ideal. The sink must have hot and cold running water and it should be used only for pre- and post-piercing handwashing. Optimally it should operate via a hands-free method (foot pedal, motion sensor, etc.).

STERILIZATION/TOOL PROCESSING ROOM(S)

TWO-ROOM SETUP

An ideal studio design includes two rooms for sterilization procedures: one contaminated, and one "clean." The first room would contain the "dirty" sink, presoak container, ultrasonic cleaning unit, and autoclave packaging materials. Here staff would decontaminate and package used forceps, tapers, pliers, and other tools. The second room, or "clean room," contains a handwashing sink, autoclave(s), and an additional (uncontaminated) ultrasonic unit or steamer for processing new jewelry.

While it is not common in the piercing industry, some studios eliminate the need for a processing area by using only disposable tools and equipment. This may not be a viable option for most studios due to the increased costs and/or local regulations.

ONE-ROOM SETUP

Many studios have limited space and must do sterilization and processing in one room. This can be done effectively provided the two areas are clearly marked and separated. The ultrasonic unit and "dirty" sink should be positioned as far away from the autoclave(s) and "clean" area as possible to reduce the risk of contaminating the outside of the autoclave and/or items being removed from the autoclave. (See Sterility Chart on page XX.) Nonporous barriers can be used to create boundaries between clean and dirty zones. When erecting this barrier, make sure to consider the chemicals that will be used in that area and the effects they will have on the barrier material. All contaminated surfaces and objects must be clearly labeled.

GENERAL GUIDELINES[71]

The sterilization/processing room(s) should be as far from client traffic as possible and should be labeled to keep clients from entering the room: "Warning: Employees Only." Once an item is placed in the dirty area, it cannot be used for any other purpose or in any other room unless it can be fully processed and sterilized. This includes glove boxes, paper towel rolls, pencils, tape, etc. Ultrasonic cleaners used for contaminated processing require a solid, tight-fitting lid to reduce the quantity of airborne contaminants. Everything in the proximity of the ultrasonic unit is considered contaminated and should be handled only with gloves. The autoclave area has tremendous potential for cross-contamination. Operating procedures must be carefully outlined and consistently followed.

- Gloves should be changed when moving from the contaminated area to the clean area and any other time when moving to a surface cleaner than what was just touched. Always move from clean to dirty, never from dirty to clean.
- ***Never*** touch the exterior of an autoclave with contaminated gloves!
  - Either, don clean gloves to open the autoclave before loading tools into it. Place contaminated items into the open autoclave without touching any clean surfaces with dirty gloves.
  - Alternatively, some studios use a "no glove" procedure for the exterior of the autoclave. In this case the door would be opened with bare hands and then gloves would be donned to load tools into it.
- Dispose of gloves and wash hands before returning to the autoclave. If gloved hands are required before touching the autoclave, a new set of gloves should be donned before shutting the autoclave door and starting the cycle.
- Extra care must be taken to avoid contaminating the sterile packages as they are removed from the autoclave. Once an autoclave cycle is complete and the contents are fully *dry*, promptly remove sterile items from the autoclave and place them in proper storage using gloves that touch *only* the sterilized contents (and not the door).

OSHA guidelines, printed sterilization procedures, and any other signage required in the area should be framed or laminated to allow for proper cleaning.

THE RESTROOM

Restroom sinks must have hot and cold water, a stocked paper towel dispenser, and liquid soap in a pump dispenser. A trash can with a liner must also be provided. The toilet, sink, doorknobs, light switches, and other frequently handled surfaces must be thoroughly cleaned daily and throughout the day as needed. It is also appropriate to include signage such as: "For your own health and that of others, please do not remove, insert, or handle your jewelry in our bathroom. We will do it for you."

SKIN PREPARATION

THE PURPOSE OF SKIN PREPARATION

The purpose of skin preparation before a piercing is to render the surface of the area to be pierced as free as possible from oil, perspiration, dirt, and transient and resident flora.

ANTISEPTIC SOLUTIONS

Chemical agents selected for skin prep should have the following properties:

- A broad-spectrum antimicrobial action
- Rapid activation and prolonged effectiveness
- Minimal irritation/sensitization potential
- Quick and convenient application

The "health care facility [body piercing studio] should use FDA-approved agents that have immediate, cumulative, and persistent antimicrobial action."

"In the US, antiseptic agents are regulated by the FDA's Division of ***Over-the-Counter*** *Drug Products."*[73]

ANTISEPTIC CLEANING FOR SKIN SURFACES

Effective skin ***asepsis*** is achieved through both mechanical and chemical means. Using a suitable skin prep product, begin at the center of the site to be pierced. While applying enough pressure to create friction, scrub in a circular motion, widening gradually outward. If necessary, sterile gauze can be used to dry the area, again using a circular motion, moving from the center outward. This minimizes the chance of pulling contaminants from unclean skin back onto the area already cleaned.

Note: Follow the manufacturer's instructions for use, which may require repetition of the process, or a specified drying time.

PREPARATION PROCEDURE FOR ORAL PIERCING

There is a lack of conclusive evidence to define the optimal procedure to prepare the interior of the mouth for an oral or oro-facial piercing. Several options are outlined below. When selecting your method(s) be sure to do the research to find the style and products that are best for your practice.

One technique is the use of a mouth rinse. Possible liquids include commercial mouthwash (antimicrobial or not), a dilute solution of hydrogen peroxide,[74] or saline solution.[75]

The client should be given a small amount of the rinse in a disposable cup. He/she should swish thoroughly with the liquid for 30-60 seconds (or according to manufacturer's instructions). The piercee should be advised not to touch the lips or mouth surfaces thereafter.

Another approach is the use of friction. With this method the area to be pierced is scrubbed using a piece or two of sterile gauze; or, in the case of a tongue, a single-use scraper. Further, the mouth rinse product may be used on the gauze. The area being cleaned will be scrubbed in a manner similar to that used for ordinary skin prep.

Note: For oro-facial piercings, such as the lip, the inside must be prepped as an oral piercing, and the outside skin must be prepped as you would for a body piercing.

MARKING THE SKIN

Marking may be done after antiseptic skin cleaning or oral prep. All products and implements coming in contact with the client should be single use and sterile, including the marking implement.

- If the mark is placed ***after*** cleaning and ***before*** the final antiseptic prep, then a drop of nonsterile gentian violet liquid (available at most pharmacies) dispensed onto a sterilized surface then applied to the skin with a sterilized single-use toothpick should meet these requirements.
- If the mark is made ***after*** the final antiseptic prep, the marking implement ***and*** the liquid must be sterilized and single use. The single-use sterile marking pens available for piercers are a good option.

CLIENT COOPERATION

Once the skin is prepped, the client must be directed to keep hands away from the area. If the client touches on or near the prepped skin with unwashed, ungloved hands, the procedure for cleaning must be repeated.

ANESTHETICS

A competent piercer should work quickly and gently so that anesthesia is unnecessary. Whatever sensations a piercee feels should be momentary and are a normal part of the piercing experience. The worst part of a piercing for many piercees is the mental aspect of worrying, imagining, and fearing the unknown. The physical reality of the procedure should be easy by comparison. Anesthetics effective for prevention of all sensation during a piercing would require a prescription and/or need to be administered by a licensed medical professional. Most piercers are not licensed medical practitioners and therefore cannot legally provide any medications. Medical professionals who are also trained piercers generally do not perform piercings within the scope of their medical practice. They should advise against anesthetics for the reasons explained below.

INJECTABLE ANESTHETICS

These are illegal unless administered by a licensed medical practitioner. Using an injectable substance such as lidocaine is ill-advised and inappropriate. The injection could be more uncomfortable and take longer to administer than the piercing itself. Fluid injected into tissue also distorts the area and can cause additional trauma. This may hamper accurate piercing placement and is likely to result in additional discomfort as the anesthesia dissipates. Serious complications such as an allergic reaction may also be caused by an anesthetic. All else aside, there is little sense to sticking a client with a needle to diminish the sensation of being stuck with a needle.

TOPICAL ANESTHETICS

The use of over-the-counter topical anesthetic creams or gels is not necessary for body piercings. As with injectable agents, there is potential for allergic reactions. A prescription-strength topical anesthetic is illegal unless prescribed by a licensed medical professional.

These may induce localized tissue ***edema*** (swelling), alter skin texture, and affect accurate piercing placement. These effects make the piercing procedure more challenging for the piercer to perform. It is difficult to be sure of the ultimate appearance of a piercing when region is adulterated or distorted. The tissue will resume its normal shape and texture gradually as the effects of the product are diminished.

Ethyl Chloride is a prescription-only freezing spray and its use can result in frostbite damage, which can complicate and delay healing. It is quite painful to have applied, and takes much longer to administer than a simple piercing. Ice is another method of superficial freezing. It may result in tissue damage, like ethyl chloride. All of the complications related to ethyl chloride also apply to ice. Additionally, ice is not sterile. The only appropriate use of ice during a piercing would be for the client to hold an ice cube in his/her hand. This technique can be helpful by distracting highly anxious piercees.[76]

Every effort should be made to discourage clients who have access to anesthetics from using them prior to piercing. While the client may have legal access to these medications and take full responsibility for their own actions, you are responsible for the quality and safety of the work you perform. Some piercers refuse to pierce clients who have used anesthetics until after the chemicals have dissipated from the site.

DRUGS AND ALCOHOL

Purposely self-medicating with prescription or recreational drugs or alcohol prior to a piercing is unwise and an inappropriate behavior. An ethical piercer who becomes aware that a client is in an altered state will refuse to perform the piercing. In addition to the obvious ethical breach, such a situation involves dangers for both parties. Only individuals in full possession of their faculties should be pierced.

AFTERCARE

Client education and continued care are essential services every piercer should provide. Clients need to understand the importance of maintaining a clean environment, and be given full written instructions for appropriate piercing care during healing. A well-placed piercing fitted with high quality jewelry performed under hygienic conditions can still go awry if proper aftercare procedures are not observed.

Many misconceptions still exist about what products and methods are most effective, and the APP has established an industry standard of suggestions for piercing care. While we recognize the fact that each human body is unique, we have found that the following guidelines are optimal for uneventful, timely healing for the vast majority of piercees. Even clients with prior experience healing piercings should receive complete instructions every time, as is now required by numerous local laws. The suggestions have changed over time, and it is important to impart the most recent care guidelines available. The following care instructions should be provided to each piercee both verbally and in a written format to take home with them. They should include the name of the piercer, a contact number, the date, and anticipated healing time range of the piercing. Preprinted and downloadable pamphlets containing the written care guidelines shown below are available from the APP. See the inside cover of this manual or website for more details.

SUGGESTED AFTERCARE GUIDELINES FOR BODY PIERCINGS

CLEANING SOLUTIONS

Use one or both of the following solutions for healing piercings:

- Packaged sterile saline solution with no additives (read the label), or a sea salt mixture: Dissolve 1/8 to 1/4 teaspoon of non-iodized (iodine free), fine-grain sea salt into one cup (8 oz.) of warm distilled or bottled water. A mixture of 1/2-1 teaspoon of salt to a quart (32 oz.) of water can be made and stored in the refrigerator, then a small amount can be dispensed and warmed for use each time. A stronger mixture is not better; saline solution that is too strong can irritate the piercing.
- A mild, fragrance-free liquid soap.

CLEANING INSTRUCTIONS FOR BODY PIERCINGS

- **WASH** your hands thoroughly prior to cleaning or touching your piercing for any reason.
- **SALINE** soak for five to ten minutes once or more per day. Invert a cup of warm saline solution over the area to form a vacuum. For certain piercings it may be easier to apply using clean gauze or paper towels saturated with saline solution. A brief rinse afterward will remove any residue.
- **SOAP** once a day. While showering, lather up a pearl size drop of the soap to clean the jewelry and the piercing. Leave the cleanser on the piercing for thirty seconds, or follow the manufacturer's instructions for use.
- **RINSE** thoroughly to remove all traces of the soap from the piercing. It is not necessary to rotate the jewelry through the piercing.
- **DRY** by gently patting with clean, disposable paper products. Cloth towels can harbor bacteria and snag on jewelry causing injury.

WHAT IS NORMAL?

- Initially: some bleeding, localized swelling, tenderness, and/or bruising.
- During healing: some discoloration, itching, secretion of a whitish-yellow fluid (not pus) that will form some crust on the jewelry. The tissue may tighten around the jewelry as it heals.
- Once healed: the jewelry may not move freely in the piercing; do not force it. If you fail to include cleaning your piercing as part of your daily hygiene routine, normal but smelly bodily secretions may accumulate.
- A piercing might seem healed before the healing process is complete. This is because tissue heals from the outside in, and although it feels fine, the interior remains fragile. Be patient, and keep cleaning throughout the entire healing period.
- Even healed piercings that you have had for years can shrink or close in minutes! This varies from person to person; if you like your piercing, keep jewelry in—do not leave the hole empty.

WHAT TO DO

- Wash your hands prior to touching the piercing; leave it alone except when cleaning. During healing it is not necessary to rotate your jewelry.
- Exercise during healing is fine; listen to your body.
- Make sure your bedding is washed and changed regularly. Wear clean, comfortable, breathable clothing that protects your piercing while you are sleeping.
- Showers tend to be safer than taking baths, as bathtubs can harbor bacteria. If you bathe in a tub, clean it well before each use and rinse off your piercing when you get out.

TO STAY HEALTHY

- The healthier your lifestyle, the easier it will be for your piercing to heal.
- Get enough sleep.
- To help healing and bolster your ability to fight infection eat a nutritious diet.[78] If you don't, consider taking nutritional supplements daily.
- Avoid emotional stress, which can increase healing times by up to 40%.[79]

WHAT TO AVOID

- Avoid cleaning with alcohol, hydrogen peroxide, Dial® or other soaps containing triclosan,[77] iodine, or any harsh products, as these can damage cells. Also avoid ointments as they prevent necessary air circulation.
- Avoid Bactine®, pierced ear care solutions, and other products containing Benzalkonium Chloride (BZK). These can be irritating and are not intended for long term wound care.
- Avoid over-cleaning. This can delay your healing and irritate your piercing.
- Avoid undue trauma such as friction from clothing, excessive motion of the area, playing with the jewelry, and vigorous cleaning. These activities can cause the formation of unsightly and uncomfortable scar tissue, migration, prolonged healing, and other complications.
- Avoid all oral contact, rough play, and contact with others' bodily fluids on or near your piercing during healing.
- Avoid stress and recreational drug use, including excessive caffeine, nicotine, and alcohol.
- Avoid submerging the piercing in unhygienic bodies of water such as lakes, pools, hot tubs, etc. Or, protect your piercing using a waterproof wound-sealant bandage (such as 3M™ Nexcare™ Clean Seals, or Tegaderm). These are available at most drugstores.
- Avoid all beauty and personal care products on or around the piercing including cosmetics, lotions, and sprays, etc.
- Don't hang charms or any object from your jewelry until the piercing is fully healed.

HINTS AND TIPS

JEWELRY:

- Unless there is a problem with the size, style, or material of the initial jewelry, leave it in place for the entire healing period. See a qualified piercer to perform any jewelry change that becomes necessary during healing. See the APP website to locate an APP member, or to request a copy of our *Picking Your Piercer* brochure.)
- Contact your piercer for a non-metallic jewelry alternative if your metal jewelry must be temporarily removed (such as for a medical procedure).
- Leave jewelry in at all times. Even healed piercings that you have had for years can shrink or close in minutes! If removed, reinsertion can be difficult or impossible.
- With clean hands or paper product, be sure to regularly check threaded ends on your jewelry for tightness ("righty-tighty, lefty-loosey").
- Carry a clean spare ball in case of loss or breakage.
- Should you decide you no longer want the piercing, simply remove the jewelry (or have a professional piercer remove it) and continue cleaning the piercing until the hole closes. In most cases only a small mark should remain.
- In the event an infection is suspected, quality jewelry or an ***inert*** alternative should be left in place to allow for drainage of the infection. If the jewelry is removed, the surface cells can close up, which can seal the infection inside the piercing channel and result in an abscess. Do not remove jewelry unless instructed by a medical professional.

FOR PARTICULAR AREAS

NAVEL:

- A hard, vented eye patch (sold at pharmacies) can be applied under tight clothing (such as nylon stockings) or secured using a length of elastic bandage around the body (to avoid irritation from adhesive). This can protect the area from restrictive clothing, excess irritation, and impact during physical activities such as contact sports.

EAR/EAR CARTILAGE AND FACIAL:

- Use the t-shirt trick: Dress your pillow in a large, clean t-shirt and turn it nightly; one clean t-shirt provides four clean surfaces for sleeping.
- Maintain cleanliness of phones, headphones, eyeglasses, helmets, hats, and anything that contacts the pierced area.
- Use caution when styling your hair and advise your stylist of a new or healing piercing.

NIPPLES:

- The support of a tight cotton shirt or sports bra may provide protection and feel comfortable, especially for sleeping.

GENITAL:

- Genital Piercings—especially Triangles, Prince Alberts, Ampallangs, and Apadravyas—can bleed freely for the first few days. Be prepared.
- Urinate after using soap to clean any piercing that is near the urethra.
- Wash your hands before touching on (or near) a healing piercing.
- In most cases you can engage in sexual activity as soon as you feel ready, but maintaining hygiene and avoiding trauma are vital; all sexual activities should be gentle during the healing period.
- Use barriers such as condoms, dental dams, and waterproof bandages, etc. to avoid contact with your partners' body fluids, even in long-term monogamous relationships.
- Use clean, disposable barriers on sex toys.
- Use a new container of water-based lubricant; do not use saliva.
- After sex, an additional saline soak or clean water rinse is suggested.

SURFACE ANCHORS:

- These piercings require maintenance during their entire lifetime because matter can build up underneath the threaded top causing the piercing to become irritated.
- Saline soaks are suggested at least weekly, even after the piercing is fully healed.
- Avoid putting makeup on these piercings even after healing.
- Even with proper care, surface anchors may be less permanent than other body piercings.

SUGGESTED AFTERCARE FOR ORAL PIERCINGS

CLEANING SOLUTIONS

Use one or more of the following solutions for inside the mouth:

- Antimicrobial or antibacterial alcohol-free mouth rinse.
- Plain clean water.
- Packaged sterile saline solution with no additives (read the label), or non-iodized sea salt mixture: Dissolve 1/8 to 1/4 teaspoon of non-iodized (iodine free), fine-grain sea salt into one cup (8 oz.) of warm distilled or bottled water. A mixture of 1/2-1 teaspoon of salt to a quart (32 oz.) of water can be made and stored in the refrigerator, then a small amount can be dispensed and warmed for use each time. A stronger mixture is not better; saline solution that is too strong can irritate the piercing.

(**Note:** If you have high blood pressure or a heart condition, please check with your doctor before using a saline product as your primary cleaning solution.)

CLEANING INSTRUCTIONS FOR INSIDE THE MOUTH

Rinse mouth with your chosen solution for 30-60 seconds after meals and at bedtime (4-5 times daily) during the entire healing period. Cleaning too often or with too strong a rinse can cause discoloration and irritation of your mouth and piercing.

CLEANING INSTRUCTIONS FOR THE EXTERIOR OF LABRET (CHEEK AND LIP) PIERCINGS

Soak in saline solution and/or wash in mild, fragrance-free liquid soap.

- **WASH** your hands thoroughly prior to cleaning or touching your piercing for any reason.
- **SALINE** soak for five to ten minutes once or more per day.
- Simply soak directly in a cup of warm saline solution for five to ten minutes. For certain placements it may be easier to apply using clean gauze saturated with saline solution. A brief rinse afterward will remove any residue.
- **SOAP** once a day while showering. Lather up a pearl size drop of the soap to clean the jewelry and the piercing. Leave the cleanser on the piercing for thirty seconds, or follow the manufacturer's instructions for use.
- **RINSE** thoroughly to remove all traces of the soap from the piercing. It is not necessary to rotate the jewelry through the piercing.
- **DRY** by gently patting with clean, disposable paper products. Cloth towels can harbor bacteria and snag on jewelry, causing injury.

WHAT IS NORMAL?

- For the first three to five days or so: significant swelling, light bleeding, bruising, and/or tenderness.
- After that: some swelling, light secretion of a whitish-yellow fluid (not pus).
- A piercing might seem healed before the healing process is complete. This is because they heal from the outside in, and although it feels fine, the tissue remains fragile on the inside. **Be patient**, and keep cleaning throughout the entire healing period.
- Even healed piercings that you have had for years can shrink or close in minutes! This varies from person to person; if you like your piercing, keep jewelry in, do not leave the hole empty.

WHAT TO DO

TO HELP REDUCE SWELLING:

- Allow small pieces of ice to dissolve in the mouth.

- Take an over the counter, non-steroidal anti-inflammatory such as ibuprofen or naproxen sodium according to package instructions.
- Don't speak or move your jewelry more than necessary.
- Sleep with your head elevated above your heart during the first few nights.

TO MAINTAIN GOOD ORAL HYGIENE:

- Use a new soft-bristled toothbrush and store it in a clean area away from other toothbrushes.
- Brush your teeth and use your chosen rinse (saline, water, or mouthwash) after every meal.
- During healing floss daily, and **gently** brush your teeth, tongue, and jewelry. Once healed, brush the jewelry more thoroughly to avoid plaque build up.

TO STAY HEALTHY:

- The healthier your lifestyle, the easier it will be for your piercing to heal.
- Get enough sleep.
- To help healing and bolster your ability to fight infection eat a nutritious diet.[80] If you don't, consider taking nutritional supplements daily.
- Avoid emotional stress, which can increase healing times by up to 40%.[81]

ORAL PIERCING HINTS AND TIPS

JEWELRY:

- Once the swelling has subsided, it is **vital** to replace the original, longer jewelry with a shorter post to avoid ***intra-oral*** damage. Consult your piercer for their downsize policy.
- Because this necessary jewelry change often occurs during healing, it should be done by a qualified piercer.
- With clean hands or paper product, be sure to regularly check threaded ends on your jewelry for tightness ("righty-tighty, lefty-loosey").
- Carry a clean spare ball in case of loss or breakage.
- Contact your piercer for a non-metallic jewelry alternative if your metal jewelry must be temporarily removed (such as for a medical procedure).
- Should you decide you no longer want the piercing, simply remove the jewelry (or have a professional piercer remove it) and continue cleaning the piercing until the hole closes. In most cases only a small mark will remain.
- In the event an infection is suspected, quality jewelry or an inert alternative should be left in place to allow for drainage. Should the jewelry be removed, the surface cells can close up sealing the infection inside the piercing channel, resulting in an abscess. Until an infection is cleared up, leave in quality jewelry or an appropriate substitute.

EATING:

- Slowly eat small bites of food placed directly onto your molars.
- Avoid eating spicy, salty, acidic, or hot temperature foods or beverages for a few days.
- Cold foods and beverages can be soothing and help reduce swelling.
- Foods like mashed potatoes and oatmeal are hard to eat because they stick to your mouth and jewelry.
- For tongue piercing, try to keep your tongue level in your mouth as you eat because the jewelry can get between your teeth when your tongue turns.
- For labret (cheek and lip) piercings: be cautious about opening your mouth too wide as this can result in the jewelry catching on your teeth.

WHAT TO AVOID

- **Do not play with your jewelry.** Long term effects include permanent damage to teeth, gums, and other oral structures. See the APP's Brochure: *Oral Piercing Risks and Safety Measures* for more information.
- Avoid undue trauma; excessive talking or playing with the jewelry during healing can cause the formation of unsightly and uncomfortable scar tissue, migration, and other complications.
- Avoid using mouthwash containing alcohol. It can irritate the piercing and delay healing.
- Avoid oral sexual contact including French (wet) kissing or oral sex during healing (even with a long-term monogamous partner).
- Avoid chewing on tobacco, gum, fingernails, pencils, sunglasses, and other foreign objects that could harbor bacteria.
- Avoid sharing plates, cups, and eating utensils.
- Avoid smoking! It increases risks and lengthens healing time.
- Avoid recreational drug use.
- Avoid aspirin, alcohol, and large amounts of caffeine as long as you are experiencing bleeding or swelling.
- Avoid submerging healing piercings in bodies of water such as lakes, pools, etc.
- Each body is unique and healing times vary considerably. If you have any questions, please contact your piercer.

*DISCLAIMER

These guidelines are based on a combination of vast professional experience, common sense, research, and extensive clinical practice. This is not to be considered a substitute for medical advice from a doctor. If you suspect an infection, seek medical attention. Be aware that many doctors have not received specific training regarding piercing. Your local piercer may be able to refer you to a piercing-friendly medical professional. For more information, see the APP brochure *Troubleshooting For You and Your Healthcare Professional.*

PIERCING HEALING TIMES

Below is a list of average healing times for various piercings. Clients can be surprised by how long healing may take. Therefore, details of the approximate healing times and the suggested aftercare should be provided before their consent to be pierced is given. Piercees should be informed that human bodies differ, so healing times will vary and can never be "guaranteed." When in doubt, piercees should continue aftercare for at least the minimum time listed below.

Ampallang	6-9 Months or longer
Apadravya	6-9 Months or longer
Bridge	3-4 Months or longer
Cheek	6-9 Months or longer
Clitoral Hood	6-8 Weeks or longer
Clitoris	6-8 Weeks or longer
Conch	6-9 Months or longer
Daith	6-9 Months or longer
Dydoe	3-4 Months or longer
Ear Cartilage (all variations)	6-9 Months or longer
Earlobe	6-8 Weeks or longer
Foreskin	2-3 Months or longer
Fourchette	6-8 Weeks or longer
Frenum	3-4 Months or longer
Guiche	3-4 Months or longer
Labia (inner)	6-8 Weeks or longer
Labia (outer)	3-4 Months or longer
Lip (all variations)	2-3 Months or longer
Lorum	3-4 Months or longer
Navel	6-9 Months or longer
Nipple (female)	6-9 Months or longer
Nipple (male)	3-4 Months or longer
Nostril	3-4 Months or longer
Prince Albert	6-8 Weeks or longer
Pubic	3-4 Months or longer
Rook	6-9 Months or longer
Scrotum	3-4 Months or longer
Septum	6-8 Weeks or longer
Surface Anchor	3-4 Months or longer
Surface	6-9 Months or longer
Tongue	6-8 Weeks or longer
Tragus	6-9 Months or longer
Triangle	3-4 Months or longer

JEWELRY MATERIALS STANDARDS AND CERTIFICATIONS

Very few metals and alloys have been proven safe and effective for initial wear in piercings. For acceptable body jewelry materials, our industry utilizes the materials guidelines established for medical implants as defined by the **ISO** and **ASTM**, along with materials that have a history of documented compatibility with the human body such as gold, platinum, and niobium.

ISO[82]

The International Organization for Standardization (ISO) was founded in 1947 and is the world's largest developer of voluntary international standards. Their mission is to promote the development and distribution of international standardization for scientific and technological practices; including medical, metal, and chemical activity. ISO has published over 19,000 standards to date. There are currently members in 164 countries.

ASTM INTERNATIONAL[83]

ASTM International, formerly the American Society for Testing and Materials (ASTM), is a not-for-profit organization that provides a global forum for the development and distribution of consensus standards for materials and testing. There are more than 150 nations and over 30,000 technical experts and business professionals working together in a transparent and open process to create internationally accepted standards that are used in scientific and medical fields.

Use of ISO and ASTM International standards are voluntary. They only become legally binding when a contract or a governmental body cites them. Manufacturers in a variety of industries may state a product has been tested according to ASTM or ISO standard by citing the applicable code number on the product label or packaging. With metals, both pure elements and alloys, this will appear on the mill sheet.

CERTIFICATE OF TESTS

Often referred to as a "***mill certificate***," "mill sheet," or "material certificate," this is a document provided by a metal foundry. It guarantees the specifications of the metal and is proof of content. On request, any company producing jewelry must provide a copy of the certificate(s) obtained from the foundry where their raw material was purchased. If a jewelry manufacturer is unwilling or unable to produce this certification, their jewelry cannot be considered to meet ASTM or ISO specifications.

Information that should be on any material certificate includes the contact information for the supplier, tester, and buyer; the ASTM or ISO standard that relates to human implant, and the size (gauge), quantity, and composition of the material. Unless a jewelry manufacturer machines all of their jewelry out of solid stock, they must have mill certificates that correspond to each thickness of material purchased for jewelry that is sold for use in initial piercings. Some regulations now require that studios provide certification proving ASTM/ISO compliance (and therefore the biocompatibility) of their jewelry.

In addition to ISO 10993 evaluation, other informational certificates are available for glass including Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH),[84] and Restriction of Hazardous Substances (RoHS).[85] These show the levels of any hazardous materials such as lead, cadmium, and/or arsenic potentially released by the material.

CURRENT APP STANDARDS FOR INITIAL PIERCING JEWELRY

The following is the list of approved certified materials for use in a new piercing. Check the APP website for any updates or revisions to this list:

- Steel that is ASTM F138[86] compliant or ISO 5832-1[87] compliant
- Steel that is ISO 10993-6,[88] 10993-10,[89] and/or 10993-11[90] compliant [**Note:** The EEC Nickel Directive [91] is a regulation that requires a low rate of nickel release for all materials used for costume or fine jewelry, belt buckles, watches, or other metallic accessories with direct skin contact. It does not specify nor prove that a material is safe to wear in the body; therefore, compliance with this directive alone is not sufficient for meeting the APP initial jewelry standards.]
- Titanium (Ti6Al4V ELI) that is ASTM F136[92] compliant or ISO 5832-3[93] compliant
- Titanium that is ASTM F67[94] compliant
- Solid 14 karat or higher nickel-free white or yellow gold
- Solid nickel-free platinum alloy
- Niobium (Nb)
- Fused quartz glass, lead-free borosilicate, or lead-free soda-lime glass
- Polymers (plastics) as follows:
  - Medical Tubing
  - Polytetrafluoroethylene (PTFE) that is ASTM F754-00[95] compliant
  - Any plastic material that is ISO 10993-6,[96] 10993-10,[97] and/or 10993-11[98] compliant and/or meets the United States Pharmacopeia (USP) Class VI[99] material classification
- All threaded or press-fit jewelry must have internal tapping (no threads on posts)

STAINLESS STEEL

Low carbon stainless steels such as 316L and 316LVM are used in the body jewelry industry because of their proven biocompatibility. For many years 316LVM was the preferred steel standard for a fresh piercing. Not all 316L(VM) stainless steel will meet ASTM or ISO certification, and as a result they may vary in biocompatibility. Studios must have mill certificates from jewelry manufacturers showing that the steel being used is either ASTM F138 or ISO 5832-1, 10993-6, 10993-10, and/or 10993-11 compliant. Stainless steel contains nickel, which is a well-documented irritant.[100] One significant benefit of using implant-certified materials is a passive layer of chromium oxide that allows virtually no nickel to contact the wearer.

TITANIUM

Titanium (Ti) is an extremely inert and lightweight element. It can be anodized to create jewelry of different colors. These colors are created by producing an oxide layer. The thickness of the layer will reflect light differently, thus giving various colors. This does not affect the biocompatibility of the metal. Colors may fade with time and certain types of chemical exposure, but this does not affect the safety of the jewelry.[101] Commercial Ti alloys such as Grade 5 or Grade 23 on their own are not biocompatible enough to meet the jewelry standards. The materials must comply with surgical implant specifications such as ISO 5832-3, ASTM F67, or ASTM F136 to be considered safe for initial body jewelry.

GOLD

Gold has been used successfully as piercing jewelry for thousands of years. It is considered by both our industry and the medical field to be biocompatible for most people when pure enough.[102] Gold jewelry usually contains a mixture of gold and other metals creating an alloy. Jewelry manufacturers use different alloy mixtures and often guard the recipes as trade secrets. Since the specific percentage of each metal used varies, it has shown to be impractical to set specific requirements for gold.

The purest form of gold, 24k, contains no other materials, but is too soft for use in most body jewelry. Soft jewelry may get scratched, nicked, or burred easily, and can be difficult to thread without stripping. Jewelry under 14k should not be used as it contains less than 57% gold and can include amounts of other metals that may cause adverse reactions. Only solid white or yellow gold in 14k to 18k is suitable for insertion into the body in a fresh piercing, when alloyed with other inert elements. Colored versions such as rose or green gold are alloyed with copper, silver, and/or other metals. These alloys are more likely to cause adverse reactions in the body. In the making of white gold alloys, metals such as platinum or palladium are used to make the gold white in appearance. APP standards require that white gold be nickel free.

PLATINUM

This is a very heavy and expensive precious metal. It is extremely inert and therefore an excellent choice for body jewelry. It is brilliant white in color and harder to work than other precious metals. Availability of platinum body jewelry may be limited as a result of its greater cost and difficulty in manufacturing due to its high melting point.

NIOBIUM

Niobium is very similar to titanium, but denser. It is used extensively in the medical industry for implant components and has been the subject of thorough biocompatibility testing. Like titanium, niobium can be anodized to produce different colors. Unlike titanium, it can also be turned black using a heat treatment. Matte black niobium has a rough finish and is not suitable for fresh piercings. After being turned black, niobium can be polished to give a smooth and glossy finish, which is acceptable for use in initial piercings.

GLASS

Glass made of fused quartz, lead-free soda lime, and lead-free borosilicate are acceptable for initial piercings. These materials are autoclavable and very biocompatible. In smaller sizes they can be fragile and susceptible to breakage.

Fused quartz glass is made by melting high purity, naturally occurring quartz crystals together. **Soda-lime** glass is the most common form of glass produced. Such glasses are made from three main materials—sand (silica-silicon dioxide), lime (calcium oxide), and soda (sodium oxide). The soda serves to lower the temperature at which the silica melts, and the lime acts as a stabilizer for the silica. Soda-lime glass is relatively inexpensive, chemically stable, reasonably hard, and extremely workable.[103] **Borosilicate** is a type of glass that includes at least five percent boron (boric oxide), which makes it resistant to extreme temperatures, and also improves its resistance to chemical corrosion.[104]

Regardless of other components, glass must be free of lead and other harmful substances to be used in piercings.

POLYMERS (PLASTICS):

Medical Tubing

Since tubing has a hollow center, male balls can be threaded into it, creating barbell style jewelry that can be cut to custom lengths. Threadless (press fit) balls can also be used with this jewelry type.

PTFE

Polytetrafluoroethylene (PTFE) that is ASTM F754 compliant may be used for fresh piercings. This inert plastic comes in solid rod, sheet, and tube form. PTFE is quite useful in situations where metal jewelry cannot or should not be worn. It is ***hydrophobic*** and has a low coefficient of friction. An interesting fact about this material is that this is the only known substance to which a gecko cannot stick.[105]

Other Polymers

Any polymer (plastic) material that is ISO 10993-6, 10993-10 and/or 10993-11 compliant and/or meets the United States Pharmacopeia (USP) Class VI material classification should be acceptable to use as initial piercing jewelry. Do your research to ensure that the materials you use meet these specifications.

JEWELRY MATERIALS FOR HEALED PIERCINGS

When used and cared for properly, the following materials are generally considered appropriate for healed piercings. Because all bodies are different, some individuals may experience sensitivity or reactions to one or more of these.

High-Density, Low-Porosity Non-Toxic Hardwoods

Hardwood plugs are a popular and comfortable choice for many piercees. Not all woods are acceptable as some are naturally toxic and others are treated with various chemicals that can be harmful. Wood cannot be sterilized in a steam autoclave or by other high temperature methods, and it can absorb toxic chemicals from some disinfectants. Therefore, each piece should be worn by only one piercee. Suggested cleaning for wood jewelry generally involves washing it with soap and water then immediately drying it. Regular conditioning of wood pieces with certain oils can improve durability, appearance, and long-term comfort. Accepting returns or exchanges of wood pieces is appropriate only in the case of a studio error. In those situations, the jewelry has to be disposed of; it must never be restocked.

Other Natural Materials

A number of natural materials are acceptable for use in healed piercings, but like all body jewelry, they vary in quality and wearability. These are formed into jewelry with minimal alteration of the natural material itself. They are very fragile when compared to metal, and jewelry with pointy or narrow areas or in thin gauges can easily be broken. Often referred to as *organics*, these materials include stone, horn, bone, amber, bamboo, and others. These materials are commonly used in enlarged earlobe piercings. Care should be taken in choosing, maintaining, and conditioning organic jewelry. Handle such body jewelry only with washed or gloved hands, and clean and oil it periodically.

High-Density, Low-Porosity Nontoxic Polymers

Jewelry made from an FDA-approved synthetic is an acceptable choice in a healed piercing for some piercees. Some of them are autoclavable, whereas others or not. Check with the manufacturer for cleaning and sterilization recommendations. Due to their chemical components, some grades are more likely to cause reactions than others. Petroleum-based lubricants can cause plastics to break down, potentially releasing chemical irritants into the skin.

Acute sensitivities to acrylic can develop suddenly, even in those who have worn it successfully in the past. Care should be taken when choosing to use acrylic jewelry. Since it cannot be autoclaved, it should be worn by one person only. Acrylic may crack, shatter, or cloud upon contact with alcohol or alcohol-based disinfectants, hair products, and mouthwashes.

JEWELRY TO AVOID

Conventional Jewelry

Jewelry designed specifically for earlobe piercings is rarely appropriate for use in body piercings. The materials are seldom implant quality and the styles may involve sharp edges or areas that can trap excreted body fluids and bacteria, such as the butterfly closures commonly found on ear studs.

Gold-filled, Rolled, or Plated Jewelry

This type of jewelry is never acceptable for body piercings. These products are made by placing a very thin layer of gold over either inferior metal (e.g. nickel or aluminum), or over a steel piece first covered by an underplating of nickel or copper to help the gold adhere. The thin gold outer layer can wear off, leaving sharp edges and exposing the poor quality metals underneath.

Silver

Silver is an unstable metal that oxidizes (tarnishes) easily and is not biocompatible. Many piercees find that even if they can wear silver comfortably in ear piercings, other areas of the body are more sensitive and are quickly irritated by it. Even sterling silver is not appropriate for use in body piercings. Many piercees will have reactions to silver beads or charms that contact sensitive skin near piercings or rest against piercing holes (especially on navels).

Other Specifications of Stainless Steel

High carbon steel and steel of the 302, 306, and 400 series are inappropriate for piercing jewelry. Many of these specifications of steel will break down or corrode when in continuous contact with body fluids. Always request mill certificates directly from the manufacturers. They are required by law to provide these documents detailing the composition of the metal.

Aluminum

Aluminum resembles niobium in appearance and it is similar to titanium in weight. However, it is never appropriate for body jewelry. Long-term aluminum exposure has been connected to neurological damage, Alzheimer's Disease, and metal sensitivities.

THINGS TO LOOK FOR IN BODY JEWELRY

Jewelry Quality

Because the body jewelry industry is overly saturated with substandard products, it is common for piercers and clients alike to forget that quality, not cost, should be the deciding factor in the selection. Keep in mind that this jewelry will be worn inside the

body in continuous contact with internal tissue. It should be of the best material, design, and workmanship available. Furthermore, individual anatomy and piercing placement are factors that should be considered in determining the optimal jewelry in each case.

Surface Finish

High quality piercing jewelry must be polished to a mirror finish. Jewelry that is not highly polished will be more porous, potentially causing discomfort and delayed healing. Poorly polished jewelry may also have compromised biocompatibility. Piercing jewelry must be free of all polishing compounds. These may appear as deposits near a fixed bead or in the threading. All jewelry must also be free of nicks, scratches, and burrs.

Passivation

This is a process that is used for treating the surface of metal to protect the composition of the material from adulteration.[106] Anodizing titanium is a way to clean and render the surface of that material passive. The chromium oxide layer that naturally forms on stainless steel through contact with oxygen performs a similar function, but it can also be chemically treated to render the surface cleaner and less reactive.[107]

Annealing

Annealing is a heat treatment that tempers metal, making it more pliable and easier to bend. Annealed rings do not need to be opened forcefully with pliers, which reduces the risk that they will be scratched during a procedure. Hand opening and closing of rings also eliminates the risk of accidentally pinching a client with pliers.

Jewelry that is well annealed should be soft enough to be opened with your fingers in sizes such as 14 gauge 1/2" diameter and 12 gauge 5/8" diameter. There will still be plenty of tensile strength to hold in a captive bead. Jewelry like captive rings and fixed bead rings are made from wire that is wrapped in the manufacturing process. This action can adulterate the molecular structure of the metal; it should be annealed, which will restore it to its original temper qualities.

Threading

The United States APP membership elected to require internally threaded or threadless jewelry for initial piercings. If external threads are passed directly through the channel to insert or remove jewelry, they can damage the tissue on new and healed piercings. Ends for threaded or snap-together jewelry should be countersunk so that when assembled the pieces fit together tightly, minimizing accumulation of excreted matter.

Snap-Together (Threadless) Jewelry

Barbells and other designs that have a snap-together closure without screw threads are an acceptable alternative to threaded jewelry. They come in styles similar to traditional threaded jewelry, except the pieces are held together by friction and spring tension instead of screw threads.

Machining

Ends and posts should be drilled to match and not be off-center. Threaded ends must screw all the way down with no gaps or exposed threads at the connections that could retain bacteria or damage the tissue. All closures must be secure. Jewelry ends that are shaped to facilitate smooth transfers and insertions are optimal.

Jewelry Size, Gauge, Diameter

Each piece of jewelry is measured using two proportions: *gauge* and *diameter*. Gauge refers to the thickness of the wire. Most American piercers use the Brown and Sharpe/American wire gauge system. Most other countries measure jewelry gauge (thickness) in metric millimeters. (See Gauge Conversion Chart on page 63.) The diameter of a ring is its width measured across the inside of the ring. The diameter or length of a barbell is the length of the shaft measured between the balls.

Initial jewelry should be chosen for its suitability during healing. A variety of problems are likely if inappropriately sized jewelry (whether too large or too small) is inserted into a new piercing, be it through a piercer's inexperience or lack of care. A skilled piercer knows that each body is unique and will individually select jewelry of an appropriate gauge, size, and style for each piercing. Remember that the piercing is permanent but the jewelry can always be changed after healing.

JEWELRY STYLES

Captive Bead Ring

A captive bead ring consists of wire bent into a round or other form (such as teardrop, D-shape, etc.) with a gap that holds a bead or other object using pressure.

Fixed Bead Ring

The fixed bead ring (or simply "bead ring") and the captive ring are similar in appearance, but the bead is permanently attached to one end. The jewelry twists open and closed for insertion and removal. On a quality piece, the bead is dimpled so that the open end of the ring fits into it securely. When both ring and bead are the same material, you may not be able to tell the two styles apart without attempting to spin the bead. If it moves, it is a captive bead ring.

Segment Ring

This type of ring is a variation of the captive bead ring where the removable portion is the same gauge and shape of the wire it's held in. When the segment is in place it gives the appearance of an unbroken circle.

Continuous or Seam(less) Rings

This type of ring has no removable portion. A small seam in the ring allows the ring to be bent open and closed for insertion and removal.

Barbell

The basic barbell is a post with a pair of balls. One or both of them can be removed and interchanged with a variety of different ends such as flat discs, spikes, shapes like flowers or other designs, etc. and may have gems. A barbell shaft may be straight, curved, circular, or another shape.

Curved Bar(bell)

Curved barbells are composed of a shaft shaped with a uniform arc and two ends. They are commonly used where the two opposing pierced surfaces aren't parallel, such as navel and rook piercings.

J-Bar or J-Curve

The J-bar is a barbell whose shaft is shaped like the letter "J." These are generally used in vertical piercings where the shape suits the client's anatomy, especially for deep navels.

Circular Barbell

This style functions the same way as a barbell—one or both ends screw off and on, but it is in the shape of a ring.

Surface Anchor

A surface anchor is a specialized jewelry design for piercings that have a single entry and exit. Surface anchors have a small threaded post with an ornamental end like a gem or disc, and a base that sits under the skin.

Surface Bar(bell)

A surface bar is a straight shaft with one or both of it's ends angled (generally at 90 degrees), similar to that of an open staple. They are available with either flat or round shafts. This style is intended for piercings that have two points on the same surface of the body like the nape of the neck or chest.

Spiral Barbell

This is similar to a circular barbell, but the shaft is formed into a coil shape.

Nostril Screw

This is a wire with a post portion that passes through the tissue, and an end (like a gem, ball, or other shape) on the exterior. The bent contour on the interior allows the jewelry to stay in securely without a backing. The shape and dimensions of individual anatomy must be taken into account when fitting the nostril screw for each client.

Nose Bone

A nose bone is a short straight post with a gem or other ornament on one side and a small ball on the opposite end that serves as a backing. They should be reserved for healed piercings.

Nostril Nail

A nostril nail is similar to a nostril screw that has been bent into a circle. This style of jewelry in a nostril gives the appearance of a ring. Because it lacks a secure closure, it may be better for wear in healed piercings.

Labret Stud (Flat- or Disc-back Barbell)

This is a straight barbell with a flat disc on one or both ends. This style is commonly used for lip, nostril, tragus, and helix piercings.

Fishtail Labret

This is an alternative to the labret stud for lip piercings. Like a nostril screw, it has a straight post that passes through the piercing, and a gem or other ornament on the exterior. The post has a 90 degree bend to a create a wearing surface that fits in the piercing and the wire on the interior is shaped to fit the contour between the lip and gums. It must be sized to suit the anatomy of the individual lip.

Retainer

A retainer is any item placed into a piercing for the purpose of concealing the piercing or keeping it open when the usual jewelry has been removed. Retainers are commonly made from titanium anodized to resemble skin tone, glass, or polymers.

Septum Retainer

This specialized U-shaped retainer is worn through the septum and can be flipped up inside the nose to conceal the piercing.

Plugs, Eyelets, and Tunnels

These jewelry styles are now being referred to by some as "gauges." They come in a wide range of sizes, designs, and materials such as steel, titanium, gold, glass, wood, bone, horn, and silicone. Plugs are solid jewelry pieces, often for earlobes or other stretched piercings, with a wearing surface just long enough to fit the piercing. Eyelets and tunnels are similar to plugs but have a hollow center. Plugs, eyelets, and tunnels may have larger flares on one or both sides, or o-rings on one or both sides to secure the jewelry in place.

ETHICS AND LEGALITIES

BOUNDARIES

The piercer may wish to consider not only his/her own personal boundaries, but also their obligation to ensure a studio atmosphere that is respectful of all clients and staff. Many businesses refuse to serve clients who repeatedly make racist, sexual, homophobic, or other offensive comments, or who behave rudely towards other clients or shop personnel. Posting a statement to this effect may help minimize your liability for discrimination, as well as advertise your intentions to those waiting. (For example: "We reserve the right to refuse service to anyone who is drunk, disorderly, or disrespectful." or "We reserve the right to refuse service to anyone at any time.") Clients who are aggressive or unruly in the waiting room often get worse as they become more nervous, and may need to return at a later date when they are better able to control themselves.

It is also important to remember that the shop staff sets and maintains the behavior standards for the studio. The content and style of staff interaction, apparel, and personal habits, studio design, decoration, website, music, and shop policies all reflect your level of professionalism. Clients use this information to judge both what to expect from you and what you expect of them. In localities where shop personnel are extremely visible or well-known, these expectations may extend during off-work hours outside the studio. You may want to consider how you want to be perceived by clients who meet or observe you when you are not at work.

The piercing room must remain under your control at all times. You are responsible for the health and safety of everyone in the studio and must set personal and business policy accordingly. While it may be helpful for a client to have a friend in the piercing room for moral support, many piercers limit the number of observers to one or two, and dictate where they should stand or sit, and how they should behave. Many piercers do not allow small children or others who either cannot or will not behave appropriately in the piercing room. In forming your policy, keep in mind that piercing is a technical and hygienic procedure, and can also be a personally meaningful experience. Try to find a way that respects both the integrity of your technique and the needs of your client. If you do allow guests in the piercing room, be aware that they could become light-headed during the piercing. A well placed chair can keep them out of your setup area and minimize fainting mishaps.

INTERNET AND SOCIAL MEDIA

The web has changed the way that people interact and it has made many aspects of our private lives more public. Therefore, boundaries are needed in this arena as well. Below are some general guidelines for body artists to consider when posting content online, whether using a business or personal profile:

- Always assume, no matter how carefully you choose your "friends," that anything you post about a business or individual will be relayed back to them.
- Understand that nothing you post—even if you delete it!—ever truly goes away.
- If you have a problem with your studio, keep it in your studio. If you need to seek advice or vent about a situation, do it privately, preferably in person, with a handful of colleagues that you trust. Never post complaints about studio policy, co-workers, bosses, or clients on the web.
- As a point of studio policy, it's important for workers to know what kinds of posts are likely to get them into trouble. If you post your place of employment—or if any of the people in your network even know where you work—you are a representative of that business. Posting negative remarks about competing studios or practitioners will put your entire business at odds with that establishment, even if what you say is true.
- Avoid posting videos of experimental piercing placements, procedures, or anything sensational.
- Clients often want to preserve the memory of their piercing experience with photos and videos. You have the right to decide if you will allow this in your piercing room. If you permit video recording, it is important to realize you will have no realistic control over if, where, or how the content turns up publicly. Some studios and piercers welcome the free publicity, while others may chose to deny recordings for fear of a mishap going viral on the Internet. Safety must be the first concern: don't allow camera positioning that will result in a flash going off in your eyes, or activities or conversations that may distract you or your piercee.

DETERMINING APPROPRIATENESS OF A PIERCING

APP literature outlines a client's rights with regard to piercing services, but the piercer also has the right to expect appropriate behavior from his/her clients. Sometimes it is inappropriate to perform even the most standard piercing. A piercer should politely refuse to perform any piercing that could be dangerous, ill suited, unsuccessful, or for which they are not trained. It is helpful to have an educated, piercing-friendly physician to contact when clients do not have a doctor they are comfortable consulting. The following examples are reasons a piercer may decline to perform a particular piercing, reschedule, abort a piercing procedure, or dismiss a client from the studio permanently:

- The client appears intoxicated, behaves erratically, or is not in full possession of his or her mental or physical faculties. In cases attributable to psychiatric conditions, the piercer may tactfully request a conversation with the client's doctor, psychiatrist, or other caregiver.
- The client maintains poor personal hygiene that could compromise the well-being of the piercing and/or that affects the ability of the piercer to perform the procedure.
- The client makes comments or gestures of a sexual or otherwise inappropriate/offensive nature.
- There is an obvious skin or tissue abnormality that may include rashes, lumps, bumps, scars, lesions, swellings, fluid, tenderness, moles, freckles, abrasions, or other anomalies.
- The client wants to pierce irregular or surgically-altered anatomy, or is unsuited due to occupational, recreational, or environmental factors.
- The client is or has impending plans to become pregnant. It is advisable to refrain from piercing during pregnancy to allow the body to focus on the important, complex, and demanding task that it is handling already.
- The client requests a piercing that is frequently unsuccessful (commonly rejected by the body), particularly when the individual is uneducated about or unwilling to accept responsibility for the risks involved.
- The client has a heart murmur, diabetes, hemophilia, autoimmune disorder, or other medical condition(s) that may negatively influence the piercing procedure or healing process; or, they require medication before dental or other procedures. In these cases the client must consult a physician prior to any piercing and bring in a signed Physician's Acknowledgement Form (see example, page 64).

PIERCING PLACEMENT

For thousands of years, indigenous and tribal peoples around the world have made similar choices in piercing placements. This is not because of a lack of creativity, but because of long-term experience with the superior suitability of certain areas of the body. As piercing has resurfaced in the global community, new information on anatomy, jewelry, and asepsis have made possible some piercing placements that were not previously considered options.

TECHNIQUES

Techniques vary widely from piercer to piercer. Some utilize tools such as forceps and needle receiving tubes, others use special hand positioning that allows for ***freehand piercing***. Most combine their knowledge of various techniques with the use of tools and hand placements in the way that works best for them in each individual piercing situation. The most fundamental aspects for the evolution of a piercer's personal style are proper training, continued education, and an ongoing search for knowledge and information.

While it is important to observe other piercers and learn throughout your career, new procedures and techniques should not be undertaken merely for the sake of innovation or emulation. To ensure client and piercer safety, piercers should be thoroughly trained and well skilled in the basic procedures before attempting more difficult methods.

When trying new techniques or experimenting with new styles, it is essential to research all aspects of the procedures. Elicit multiple opinions about differences in piercee comfort, sterility, efficiency, ease of healing, jewelry type, placement, risks, and benefits, etc. Talk to piercers who use alternate techniques as well as those who choose not to, and find out why. Also ask clients what they prefer and why, and take their responses seriously. After obtaining as much information as possible, you can make informed decisions. You may also find you change back after time, or that you begin to alternate between techniques depending on individual circumstances.

All piercing placements, old or new, should be decided by anatomical suitability and overall safety. Piercing placements that are "new" should not be invented for the sake of personal aggrandizement or novelty. Of course, no field progresses without cautious experimentation. Any trials should be a matter of personal consideration and not involve the general public. It is neither safe nor professional to use paying customers to test techniques or placement theories. Experimental piercings should not be introduced to the paying public, social media, or the press until they have proven to be successful and safe for a sufficient percentage of individuals over a reasonable period of time. Piercing liability insurance providers may refuse to cover experimental piercing placements and local regulations may prohibit certain variations. For more information, contact your insurance provider and/or health department.

PIERCERS ARE NOT PERFECT

No piercer, however experienced or skilled, is perfect. Unfortunately, in every career some piercings will end up poorly placed, jewelry transfers will be missed, and items will be dropped. Piercers should always handle these situations with professionalism, honesty, and tact. Blaming the client ("It's your fault—you moved!") is never appropriate and contributes to a sense of panic and regret in the room.

Piercing is a service industry. As a professional piercer, it is part of your job description to expect and allow for client reactions. A piercer should take responsibility for an error and correct it to suit the client's needs and preferences. If the client is displeased with the results or you determine the piercing may not heal successfully due to an inaccuracy in placement, it should be removed and re-pierced, either immediately or at a later date. If you have made a mistake, it is appropriate to offer additional services free of charge. If the client has experienced undue discomfort it may be reasonable to offer an additional discount, free piercing, or jewelry.

OFF-SITE PIERCING

Piercing at music festivals, night clubs, conventions, and street fairs may seem like a good way to build clientele. However, these situations can create pitfalls for a piercer seeking to maintain appropriate hygiene standards, ethics, and reputation. When piercing in a public space, club, or festival, the most obvious concern is control of the environment. How will you maintain sanitary conditions in a crowded, smoky club filled with people drinking alcohol? It can be difficult to distinguish between inebriated and sober clientele, and minors with false IDs are common.

These settings are seldom conducive to hygienic piercing practices or the safety and cleanliness of a fresh piercing. How will you keep new piercees from imbibing afterwards and heading to the packed dance floor? Can they avoid smoking and drinking after a tongue piercing? In such places, piercing can take on a freak-show element that is distasteful to most professional piercers. Additionally, peer pressure, lack of private consultation, and the thrill of the show may push some individuals into decisions they would not otherwise make and may later regret.

Many piercers avoid public piercing, and this is a valid option. Wherever you decide to work, the setup needs to be no less hygienic than your usual business environment. This means nonporous flooring, a fully enclosed piercing room, stainless steel trays, an autoclave, sharps containers, and observance of all hygienic practices required in a studio. If you are unable or unwilling to make the investments of time, money, and research to assemble and move a full piercing studio, it is inappropriate for you to be piercing off-site. Additionally, many cities now have regulations limiting or prohibiting mobile piercing, or they require temporary licenses and inspections. Check with the local health department before you set up shop.

COMPETITIVENESS

The popularity of piercing has led to a great deal of competitiveness in the industry. In some cities, two or more piercing businesses operate on the same block. Different studios often have varying levels of health and safety awareness and may be inclined to share these details with clientele. It is easy to become frustrated and engage in negative interactions with or about competitors, especially if you feel that you are the more informed, conscientious piercer, or when they are bad-mouthing you.

Good piercers should strive to maintain a genuinely professional demeanor with all other practitioners, including competitors. This can facilitate the exchange of information, enhance progress for all parties involved, and improve the industry overall. Although it may take some careful wording, try to find ways to educate patrons and the public about health concerns without making accusations against others. Even when another piercer insists on behaving badly, maintaining a professional public attitude speaks well of your experience and confidence, which will earn your clients' respect.

It is also important to remember that anything you say about a competitor can be held against you in the event of a libel or slander lawsuit—even if it is true. You could instead show concern for your clients' health and safety by giving out a checklist of things to look for at any piercing studio, including your own. A brochure entitled "Picking Your Piercer" contains such a checklist and it is available from the APP. You can download and print your own or order directly from the APP website at: www.safepiercing.org. Consider posting the Piercee's Bill of Rights (page XX), which further advises clients on how to choose and interact with a piercer.

PAPERWORK & BUSINESS DOCUMENTATION

RELEASE FORMS (CONSENT FORMS)

Professional piercers should obtain and keep on file a signed release for every service performed within the studio including piercing, stretching, and jewelry insertion. This should be done regardless of whether or not it is required by law or an insurance provider. The consent form should state that the client requested the piercing (indicating you did not pierce him/her without consent), and you informed the client about how to properly care for the piercing. While such forms do not prevent legal action, they do provide evidence that you have made an effort to educate your client and to operate your business legitimately.

The release form should also contain the following information:

- Record ID type and number with date of birth from valid photo identification (state issued driver's license or ID card, passport, military ID, or other government issued identification). Policy in many studios is to photocopy the identification on the release form.[106]
- Acknowledgement that the client has not consumed alcoholic beverages or other intoxicants within the last 24 hours.
- Information on recent intake of any medications such as blood thinners, aspirin, ibuprofen, or other ***NSAIDs***.
- Disclosure of whether the client is under the care of a physician for any condition that might affect the procedure or healing process.
- Diabetes, hemophilia, or other medical condition(s) that may affect the piercing procedure or healing (if this inquiry is allowed by law).
- Acknowledgment of having eaten within the last 4 hours. Note: some studios have a shorter time requirement. Clients should eat a healthy meal before being pierced to minimize likelihood of dizziness, nausea, and/or fainting. Refined sugar such as soda or sweets can increase the risk of low blood sugar/***vasovagal*** reactions.
- Any other information that is required by your state and local authorities or insurance provider.
- The signature of the client must be at the end of the form.

The wording in the sample form (page 35) contains only generally applicable suggestions. Legally suitable language varies by state and even by county, so it is highly advisable to consult an attorney when drafting release forms. In certain states it is not legal to ask about some aspects of a client's medical history on a release form (e.g. hepatitis, STDs, or HIV status); in other states it is a requirement. Piercing-specific liability insurance

providers may require you to use one of their release forms. The APP finds it prudent to store all client paperwork indefinitely, and many area regulations have specific minimum time frames for retaining release forms. Check your local regulations for specific requirements in your region.

Additional details should be added to release forms for the following circumstances:

- Piercings of minors
- Piercings done off-site (at clinics, conventions, etc.)
- Insertion of a client's own jewelry. (Note: some local laws prohibit the insertion of used and/or non-sterile jewelry. Please see sections on Sterilization, Disinfection, and Appropriate Jewelry for more information.)

MINORS

Laws regarding the piercing of minors vary by location. In the United States, the legal age of consent or legal responsibility is usually 18 years of age. Until then a minor's body is the legal responsibility of his or her parent(s) or legal guardian(s). Additionally, any contract (such as a release form) signed by a minor is not legally binding unless it is also signed by the person legally responsible for her/him. (See sample release form for minors, page 62.)

For these reasons, significant caution is required when piercing minors, even on the earlobes. A valid option is to refuse to pierce any child who is too young to consent or comprehend the procedure and its consequences. A baby is unable to follow verbal or written instructions to care for a piercing. Particularly with infants and toddlers, the body (including the earlobes) and immune system are still developing.

Some piercers agree to pierce babies or children to prevent them from getting pierced with a gun. It is important to remember that as professionals we are responsible for our own actions, and not how people choose to treat or raise their children or how other piercers work. The best course of action is to provide parents with all pertinent information so they are able to make educated decisions. They should be informed about health risks and precautions, appropriate aftercare, and quality jewelry, as well as what to look for in a piercer.

With a signed release from a parent or verified legal guardian, minors may be eligible for certain piercings depending on circumstances, studio policy, and local laws. The APP suggests that only the following piercings be considered for minors:

- Earlobe or Ear Cartilage
- Navel
- Oral/Facial
- Nostril
- Eyebrow

Other piercings are potentially dangerous, unethical to perform, or problematic to heal on minors whose bodies are still growing and changing. Under no circumstances is it acceptable for a piercer to perform a piercing on the nipples or genitals of an individual under 18 years of age. This is ethically unconscionable and may even be deemed a felony sexual offense in a court of law. Parents or legal guardians who consent to this type of piercing for a minor in their care could also be charged with sexual misconduct by the authorities.

For any piercing of a minor, a parent or legal guardian **must** be present to sign a consent form. State-issued photo identification is required from the legal guardian, and a bona fide form of identification from the minor (driver's license or state-issued photo ID; birth certificate plus school yearbook). In the event the parent has a different last name and/or address from the child, documentation is needed to prove the relationship (for example: divorce or marriage certificate; custodial or adoption papers; birth certificate). A unique single exception would be an emancipated and/or married minor who presents positive proof of their legal emancipation and/or marriage. In certain states such minors are considered adults for legal and practical purposes. Check local legislation regarding emancipated/married minors.

A valid business practice that many studios follow is to simply refuse to pierce anyone under the age of 18. Check with an attorney in your state to clarify the letter of the law when deciding your studio policy on this matter. Once you have developed a policy that is suitable and works well, be consistent with it. Make it available to potential clients on the studio's website and in print.

Photos displaying genital piercings may be considered pornographic in the hands of a minor. If minors are allowed in the studio, it is advisable to have two separate, well-labeled portfolios. You may also need to avoid posting any explicit pictures on the walls. Having conversations with minors about genital piercings (verbally or online) is also inadvisable. Be aware that photos and information posted on the Internet may be viewed by minors or by individuals in areas where adult material is illegal. Posting a warning and self-selecting statement of age may minimize your liability; for example: "By clicking here I verify that I am over 18 and take full responsibility for viewing this site and its contents." Again, check with your lawyer for appropriate wording and laws.

DRUGS AND ALCOHOL

Being under the influence of drugs and/or alcohol is never appropriate for either party involved in a piercing procedure. A piercer must be focused, in control, and readily able to deal with unforeseen situations. Furthermore, the piercer is responsible for the health and safety of everyone in the piercing studio. Any piercer who feels it is acceptable to work under the influence of drugs or alcohol is reprehensible, unprofessional, and a menace to clients and him/herself. Even without appearing inebriated at work, a piercer who is addicted to alcohol or drugs is a serious potential hazard.

A counterperson who is under the influence represents both a liability and an extremely poor consumer relations statement. Piercers should agree to work only on sober, consenting individuals who appear to be in full possession of their mental and physical faculties. Piercing someone who is not in a sober and sane condition raises serious ethical questions. First, an inebriated or medicated person is not legally able to give informed consent. Any release form obtained under such conditions is not a binding contract and could put the entire business at risk. Further, once sober, the client may regret a decision made under altered consciousness. Even for a skilled and focused piercer, it is dangerous to work on anyone who is under the influence of drugs or alcohol because the piercee:

- May bleed more heavily, faint, and/or vomit.
- May not be able to communicate vital information or follow important instructions from the piercer.
- May move suddenly, endangering the piercer and her/himself.
- May become physically or verbally belligerent, emotional, or unmanageable.
- May later have inaccurate recollections of the piercing encounter, thus putting the piercer's reputation and legal integrity at risk.

While it may be tempting to take money from those who have had a drink to work up their courage, it is ultimately a bad decision. Furthermore, accepting clientele who are under the influence contributes to public perception of the piercing industry as immoral, unsafe, and irresponsible. Few passersby will believe your studio maintains high standards if they see drunk or disorderly people in or around the premises.

Allowing clients to get pierced after drinking or taking drugs also validates the idea that pain from the procedure is beyond acceptable tolerance. It also denies clients the opportunity to fully engage in their piercing experience. Getting and healing a piercing requires being aware of and responsible for one's body. Therefore, a piercee who is not ready to get a piercing done while sober is simply not ready.

SAMPLE RELEASE FORM:

"To induce _(company or piercer's name)
to (pierce/stretch/insert) my _(name of piercing/
anatomical region of the body) and in consideration of doing so, I hereby release
_(company or piercer's name) from all manner of liabilities, claims, actions, and demands, in law or in equity, which I or my heirs might have now or hereafter by reason of complying with my request to be pierced. I have provided accurate information on any medical conditions I may have that could affect the outcome of this procedure. These include, but are not limited to: allergies (to iodine, latex, or metals, etc.), diabetes, anemia, hemophilia, high/low blood pressure, heart disease, swelling, rash, lumps, or discoloration of the area to be pierced, an immunosuppressive disorder, or any condition that requires the use of antibiotics before a medical procedure.

I have provided information on any medications I am currently taking, and on any piercings, tattoos, surgeries, or serious illnesses or injuries I have experienced in the past 90 days.

I certify that I am not pregnant or nursing.

To ensure proper healing of my piercing, I agree to follow the written aftercare guidelines until healing is complete.

I understand that this type of piercing usually takes _(healing time) or longer to heal.

I recognize that the suggestions and aftercare given to me by _(studio name) employees or agents are based upon their experience in this field and current industry standards. Employees of _(studio name) are not doctors, and their suggestions, whether written or verbal, stated or implied, are not meant to be taken as medical advice. In the event of a serious medical concern I should see my physician.

I have signed this release on _(date).

I declare under penalty of perjury that the above is correct.

_(Signature of Client)

The signature of the client must be at the *end* of the form.

COMPLIANCE AND TRAINING

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) COMPLIANCE

OSHA is a federal agency that monitors and regulates all aspects of worker safety for every business with one or more worker(s) in any industry. Even if there are no state or local body art regulations in your area, OSHA has explicit requirements that directly relate to the body piercing industry. They apply even if you have only one employee (worker, contractor, ***apprentice***, etc.). One of the requirements is that any employee who has the potential for occupational exposure to blood or other potentially infectious materials (OPIM) receives training at the time of initial assignment (hire, new position, new duties, etc.), and at least annually thereafter. Approved training has the following requirements:

- An accessible copy of the regulatory text (see Appendix B, page 46) and an explanation of its contents.
- A general explanation of the epidemiology and symptoms of bloodborne disease.
- The modes of transmission of bloodborne diseases.
- An explanation of the employer's ***Exposure Control Plan*** and the means by which the employee can obtain a copy of the written plan.
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- An explanation of appropriate engineering controls, work practices, and personal protective equipment.
- Information on the hepatitis B vaccine, including facts on its efficacy, safety, method of administration, and the benefits of being vaccinated, and that vaccination is offered free of charge to employees covered by the Bloodborne Standard.
- An explanation of the procedure to follow and actions to take if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
- Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident.
- An explanation of the signs, labels, and/or color coding required under the Hazard Communications Act.
- An opportunity for interactive questions and answers with the person conducting the training session during and after training.

To comply with the OSHA Bloodborne Pathogens (BBP) Standard requirements, piercing studios with one or more workers must have a detailed written listing of operating procedures that at a minimum contains:

- Exposure Control Plan
- Exposure determination
- Methods of compliance
- Standard Precautions for Bloodborne Pathogens
- Engineering and Work Practice Controls
- Personal Protective Equipment (PPE) - what, when, and where
- Housekeeping schedule and procedures
- Regulated Waste disposal
- Record keeping/documentation
- Accurate reporting of all exposure incidents
- Appropriate information and training
- Hazard Communication Plan
- Employer-provided hepatitis B vaccine, or a signed Declination Form on file. (See Appendix C, page 56)
- Training record

PIERCER TRAINING

The APP does not have official requirements regarding piercer training. There are many different ways to develop proficiency in this field. Some piercers learn to pierce by trial and error, by observation of videos, studying printed materials, and/or attending seminars or training classes. However, these approaches alone are limited in that each method provides incomplete or inadequate training. It is widely agreed that an apprenticeship under a qualified professional piercer is the best way to learn the art of piercing. Even the most reputable training seminars that include lectures on anatomy, safety, hygiene, technique, and hands-on piercing experience will not fully train you to be a piercer. A seminar that lasts only a few days or even several weeks cannot possibly provide enough piercing practice or exposure to the variety of anatomy and situations for you to be a qualified piercer without additional training. Regardless of any certificates they may provide, you will not be a skilled piercer ready to work independently from a seminar alone. However, seminars can be a wonderful foundation or addition to a formal apprenticeship.

WHAT IS AN APPRENTICESHIP?

An apprenticeship is defined as a specific period of guided progress through the basic, intermediate, and advanced levels of piercer training. Before undertaking an apprenticeship, you should consider the following: What is your motivation for wanting to become a piercer? If you are hoping for quick money, a hip or easy job, or stable, lifelong employment, think again. From reading this manual it should be obvious that pursuing a professional piercing career is a costly, labor-intensive, long-term endeavor. Even if you get a high quality apprenticeship, there is no guarantee of future or continuous employment.

The novice piercer should do the following:

- Undergo an apprenticeship with a qualified, skilled, and experienced mentor within a studio environment. A full, defined curriculum will typically take a year or longer to complete.
- Attend an industry-specific bloodborne pathogens training class, such as that given by APP.
- Attend a First Aid/CPR class. Learn customer service, appropriate jewelry quality and selection, bedside manner, aftercare procedures, and troubleshooting.
- Learn sterilization, disinfection, cross-contamination avoidance, and other health and safety issues before piercing.
- Perform insertions and stretches on existing piercings before beginning to pierce. This is a valuable opportunity to practice aseptic technique, skin prep, tool and jewelry handling, and bedside manner with minimal risk.
- The client volume, standards of the studio, instructional abilities of the mentor, and aptitude of the student will help to determine the necessary duration of an apprenticeship.
- Observe all procedures before doing them and attempt new procedures only under close supervision by a Senior/Training Piercer.
- Acquire an understanding of human anatomy as it relates to performing piercings. This is crucial. Formal classroom training in anatomy is extremely helpful for comprehending the internal structures. Variations in external anatomy can be learned only through time and experience with hundreds of clients. Some states have legislation that requires piercers to take courses in anatomy and/or physiology to be eligible for a license.

TAKING AN APPRENTICE

Before taking an apprentice, consider the following:

- Do you possess the necessary qualifications: experience, patience, ethics, communication skills, organization, commitment, time, and teaching ability?
- What is your motivation for taking an apprentice? Is it for profit? To train your own staff for long-term employment? Ego? If you need to fill a vacant position, job boards and the APP conference are faster, less expensive means of locating qualified piercers who are already trained.
- What will happen to the apprentice after training? Will he/she be hired on in your studio? Will he/she open a studio down the block from you or work for your competitors? Will he/she be able to find employment in the piercing field at all?

If you plan to train an apprentice, note that your student will likely interpret your methodology and techniques as the "right" way to pierce. If you are producing the next generation of professionals, be sure to pass on current and correct information. Choose your apprentices carefully because your reputation will continue to be affected by their actions as they practice piercing for years to come.

Be honest with the apprentice about your own training and skill, and fully and clearly disclose the details of the apprenticeship. Instruct competently on all aspects of body piercing for a sufficient length of time and supervise all piercings until the apprentice is well qualified to perform solo.

You should also be truthful with your patrons. It is appropriate to ask clients if they wish to participate in the training process. No member of the paying public should ever be obligated to have a piercing done by an apprentice, nor be tricked into it. Since novices do not offer the same level of service as experienced piercers, a supervised procedure should not cost the full amount. A materials fee or a half-price charge is reasonable.

The APP does not specifically monitor the way piercers train their apprentices. However, the following criteria are suggested for piercers offering apprenticeships:

- Compliance with all state and local regulations, including business and any piercing-specific licensing
- A Senior or Training Piercer should have at least four years of full-time piercing experience
- Liability insurance coverage for the studio, and for the Senior/Training Piercer and/or Apprentice
- If an apprentice is an employee, he or she should receive wages in accordance with federal and state requirements
- A full curriculum outlining the entire training program should be developed before taking an apprentice.

TITLES

APPRENTICE

For the first year of training, all individuals are considered to be Apprentices. During this time, the student is learning basic concepts and skills that set a firm foundation for the future.

PIERCER

A Piercer is an individual who has pierced full time for a minimum of one year and can confidently and accurately perform most common piercings and over time, more advanced ones. During all phases of professional development is appropriate to have immediate access to a mentor and/or network of experienced piercers who can answer questions and offer assistance as need arises. A Piercer may still have a mentor or peer observe and assess his/her piercings from time to time.

OTHER TITLES

Many studios choose to assign titles such as "Senior" or "Training" Piercer. These practitioners should have four or more years of full-time piercing experience and behave in a manner befitting a role model at all times. A Senior or Trainer Piercer is an educator who willingly shares knowledge by networking, writing, or training. S/he is modest but in possession of a vast body of experience and information, and continues to actively seek out new information, constructive criticism, and ideas from others.

The title of "Master Piercer" was originally bestowed on select Gauntlet employees by Jim Ward to signify a high level of excellence, dedication, and service to the piercing community. It is generally considered a misuse of the term when assumed by any individuals outside of this context.

CONTINUING EDUCATION

Every piercer should have certification in First Aid, CPR, and Bloodborne Pathogens training. This is a requirement for APP membership. The certifications, and any advanced emergency training, must be kept current.

Piercing is not a static skill. To maintain and further your abilities it is crucial to acquire continuing education throughout your career. Piercing seminars and conferences aren't just for novices. A true professional will seek out training, not only for new information, but also for the much-needed review of old facts, principles, and practices. Advanced piercing seminars may offer intensive hands-on, supervised training on the most current information and techniques. Established national and international conferences present classes on the latest techniques, aftercare, jewelry materials, and other technical and theoretical details of piercing. These are unparalleled events for skills training, networking, job opportunities, and sharing of knowledge between piercers, educators, and legislators.

OSHA requires that employees with an occupational risk of exposure to bloodborne pathogens receive annual training on risk management. Choose a class providing information such as prevention of disease transmission, infection control, and sterilization training that is industry specific.

Massage schools offer coursework where piercers can learn about grounding, touch, and bedside manner. A community college is a good place to find inexpensive college-level anatomy and physiology courses. There are many fine anatomy texts and videos on the subject of the human body, particularly in medical and university bookstores. Numerous websites also contain relevant information and resources.

Community colleges are also great places to take business management courses. Even if a piercer is not a studio owner/manager, business classes can be a great addition to their knowledge base. Another good resource can be the local small business development center.

EMERGENCIES

BEING PREPARED IN THE STUDIO

All piercing premises should have at least one first aid kit that is well stocked, familiar, and available to all staff. It should be used for emergencies only. At a minimum, the kit should contain:

- Gloves
- Antiseptic ointment
- Plastic bags
- Triangular bandage
- Blanket (emergency type)
- Candy, glucose tablets
- Scissors and tweezers
- Hand cleaner
- Small flashlight with extra batteries
- Adhesive bandages (assorted sizes)
- CPR mask
- Cold packs
- Adhesive tape
- Gauze pads (2" x 2" and 4" x 4")
- Rolled elastic bandage
- Rolled gauze (1 and 2 are good sizes)

Each piercing room should also be equipped for emergencies. These kits should contain at least the following:

- Small flashlight with extra batteries
- Adhesive bandages
- CPR mask
- Cold pack
- Hard sugar candy, orange juice, and/or glucose tablets

Some emergencies in the piercing studio can be avoided by being prepared. The piercing release form provides relevant information about the health of the customer that can alert the piercer to potential problems. Responding quickly and appropriately is important when a customer faints or a diabetic suffers an insulin reaction (see Special Circumstances section, page 40). Knowing beforehand a particular client is prone to such occurrences will help you to plan ahead.

The release form cannot be used to gather information about the health status of a customer if the question is a violation of the person's right to privacy. However, questions such as, "Are you prone to fainting?" or, "Are you diabetic?" can provide information that is important to know. However, asking a person, "Are you HIV positive?" or "Do you have hepatitis?" is a violation of the right to privacy and in most states, prohibited by law. In a professionally run studio, OSHA safety standards will be observed and Standard Precautions employed. Therefore, disclosure of a positive HIV or hepatitis status would have no bearing on the procedures used with a client.

NEEDLESTICK (SHARPS) ACCIDENTS

One of the risks faced by professional piercers is the possibility of an accidental exposure to blood or other potentially infectious materials. This could happen by a needlestick with a ***contaminated sharps*** (piercing needle) or exposure through splashing, spraying, or other contact with contaminated materials, objects, or surfaces. If your skin is broken by other contaminated items such as a used insertion taper, toothpick, or wire connecting snip, this is also a sharps accident. However, a puncture sustained from an *unused*, sterile needle does not require the following of the needlestick protocols that are outlined below.

Every action in a piercing procedure should be deliberate and done with the intention of minimizing the risk of a sharps accident. Professional piercers should be focused, alert, and in control of the environment to help avoid the possibility of such an event.

To reduce the likelihood of a needlestick incident:

- Know the location of needles and other sharp objects at all times. Once used, never set down or lose sight of the needle, especially the tip.
- Dispose of used needles in an approved sharps container immediately after the procedure, or as soon as possible.
- Don't clutter your tray. Dispose of any used gauze, paper products, and packaging before piercing and as soon as possible during the procedure.
- Don't rush when using, handling, or disposing of needles. Focus on your actions.
- Be consistent with your tray set up. If you are using needles and insertion tapers in the same procedure, keep them separate and know where each tool is located at all times.
- Remain in control and do not pierce clients who are overly nervous or unprepared for the procedure.
- Do not pierce if you are ill, tired, or if you have not eaten for a prolonged period of time. Be at your best, awake, and aware; your clients deserve nothing less. Your own health is potentially at stake.
- Examine all equipment such as tools, gloves, corks or synthetic stoppers, and rubber bands. Flaws and failure of these to perform as intended can lead to needlesticks.
- If there is any possibility that an unused needle has become contaminated, it must be immediately disposed of in the sharps container.
- If the used needle is corked, do not remove the cork before disposal unless it is unavoidable. If corking after use is necessary, federal regulations require this be done one handed (holding the needle—not the cork), or by using mechanical implements such as hemostats or forceps.[110]
- Always replace sharps containers as soon as the contents reach the "full line."
- Never remove anything from a sharps container.[111]

To reduce the likelihood of other exposure incidents:

- Use caution if you must reach into contaminated instrument trays. Items should be removed mechanically or by the procedure outlined in your studio's exposure control plan.
- Use caution when handling contaminated sharps such as scissors or insertion tapers.
- When scrubbing tools manually, they should be completely submerged under water to minimize splashing and spraying.
- If contaminated tools are soaked in a disinfecting solution, this must be done in the biohazard/sterilization room (as opposed to the piercing room). This will prevent spills and splashes that could occur when transporting the soaking container from one room to another—unless a tray with a sealable lid is used.
- The ultrasonic unit must have a built-in drainage system. Using one without a drain is dangerous and not appropriate for processing contaminated items in a body piercing studio.

By observing the precautions listed above and having a clearly written Exposure Control Plan that is specific to your studio and followed by all workers, much can be done to minimize the risk of an exposure incident. If, despite all precautions, a sharps injury occurs:[112]

- Secure the needle to prevent additional sticks. If necessary, call a co-worker to finish the procedure.
- Wash the area for several minutes with antimicrobial liquid soap.
- Rinse and bandage the wound.
- Remain calm. Take some time to calm down before returning to the procedure room if you have a coworker standing in for you.

- You may or may not feel that it is appropriate to ask about a client's health status, particularly regarding hepatitis and HIV. In some states, it is illegal to inquire, so you may be treading on dangerous legal ground by asking someone to disclose their status regarding HIV and other communicable diseases. You may ask a client to be tested, but they do have the right to refuse.
- Immediately follow your studio's Exposure Control Plan. These are established with your health and safety in mind. You should seek immediate medical attention, especially if your client has disclosed that they are HIV positive or if you have good reason to suspect that they may be. It is important to know that there is an HIV prophylaxis available that could prevent HIV infection, but this must be done within the first 24-48 hours. While this treatment can have severe side effects, it is an important option for those who have been exposed to HIV or the blood of somebody who is at high risk for HIV infection.
- If you have not already been vaccinated for hepatitis B, you may want to consult a medical professional to determine if a series of post-exposure injections is appropriate.
- Blood testing done shortly after a needlestick injury is suggested. Although immediate testing will not indicate if disease was transmitted through the needlestick injury, it will provide a baseline to compare with future testing.
- If you are unsure whether you want to have your blood immediately tested, it is important to know that your blood can be drawn and saved for later testing.
- Mentally review the incident. Think about the events leading up to the exposure and what could be done differently in the future. Learn from your mistake and take additional precautions when in a similar situation in the future. A policy and procedure change may be needed.
- File your OSHA Occupational Post-Exposure report.

BLEEDING

Most piercings do not bleed much, if at all, but the possibility always exists. It is good practice to remind clients that any break in the skin can bleed, bruise, and/or swell, and that piercings are no exception. If the client is made aware in advance that these possibilities exist, they are much less likely to be concerned or anxious if it should happen.

A client who has recently ingested alcohol, aspirin, caffeine, or certain herbs, supplements, or prescription drugs is more likely to bleed, sometimes profusely. Inform clients to avoid blood-thinning agents if at all possible. Piercers should prepare themselves and their client for the possibility of additional bleeding when a piercee has these agents in his/her system.

Some piercings (such as Prince Alberts and eyebrows) are located in more vascular areas so they are more apt to bleed. Using a needle of a larger gauge than the jewelry may result in excess bleeding. To minimize bleeding and client discomfort, use a larger needle only when necessary.

Removing jewelry from a fresh piercing may produce copious bleeding. In an emergency, it may be best **not** to remove the jewelry and let medical personnel handle the situation. Have sterile gauze pads and/or swabs ready any time bleeding may occur. To stop bleeding, apply firm continuous pressure for up to 15 minutes. Dispose of all used gauze pads containing blood in biohazard waste.

A small disposable cold pack can be applied to help minimize swelling and bleeding from facial or body piercings. For a tongue or orofacial piercing, have the client gently suck on small cubes, chipped ice, or shaved ice. The amount of blood may seem greater when mixed with saliva. Cautery, styptic pencils, and similar products are not appropriate for use on puncture wounds such as piercings. It is unprofessional to release a client with an actively bleeding piercing. Be sure that bleeding has essentially ceased and that the area is reasonably clean before the client leaves. It is illegal for a piercer to stitch or attach tissue.

If a client is bleeding profusely, particularly from oral, surface to surface, or genital piercings, (excluding the normal bleeding of a Prince Albert, apadravya, or triangle piercing) and you cannot stop it with 15 minutes of continuous firm pressure, you have an emergency bleeding situation. Piercers are not to treat emergency bleeding. The client should be brought to the emergency room or an ambulance called immediately.

Another example of emergency bleeding is significant bleeding that persists several days after the piercing, excluding the normal bleeding of the aforementioned genital piercings.

FAINTING

It can happen on occasion that a customer passes out or faints before, during, or after a piercing. If a client notes a history of fainting on the release form, this can be very helpful to the piercer to be prepared for that possibility.

A common misconception is that low blood-sugar levels are the only cause of people losing consciousness (passing out). However, fainting is frequently caused by a loss of blood flow to the brain. Most often this is a response caused by a drop in blood pressure and heart rate called a *vasovagal attack* or *vasovagal syncopy*.[113] The occurrence of fainting is more likely if the client has consumed excessive caffeine or certain prescription drugs, has not slept well, has a high anxiety level, or has not eaten a meal within four hours and the stomach is empty. Problems are also more likely if the weather is very hot and/or humid, or the individual stands up too soon after being pierced. Any combination of the above factors can increase the incidence of problems.

A client may become light headed or faint at any time. It could happen while browsing at the jewelry counter, filling out paperwork, being marked for the placement, during the actual piercing, or several minutes after it is done. Be aware that a piercee's companion may also faint! Keep watch on all people who come into your business and maintain control of the environment so that a fainting person will not surprise you. Observant employees and piercers can often spot a person who is having trouble. Frequently seen symptoms include:

- Complaints of headache or blurred vision
- Complexion turns pale or waxy
- White or blue lips
- Crying
- Nausea
- Trembling
- Inability to concentrate, irritability, or confusion
- Excessive perspiration
- Drowsiness, dizziness, or lack of coordination

Whether it is the client or an onlooker who experiences the difficulty, the course of action should be the same. If the person is not in a *supine* position with their feet elevated above the heart, place them in such a posture. Or, if they are seated, bend them forward, so the head is between the knees.

Continue to talk to them, reassure them, and offer cool water to drink. Candy, juice, and/or glucose tablets may be helpful for some clients. Turn off or dim bright lights in the room. A cold compress on the forehead, wrists, and/or back of the neck may help. A loss of consciousness can sometimes be prevented with these measures.

If the client does pass out, do not give them any sort of inhalants such as ammonia. These are considered a last resort; they are to be used only if the person remains unconscious for more than two minutes, which is rare.

When someone has fainted, call emergency services immediately if the person:

- Is not breathing
- Fails to regain consciousness after two minutes
- Fell from a height or is injured and bleeding
- Is known to have diabetes
- Is pregnant or is over 50 years old
- Feels chest pain, pressure, or discomfort, or has a pounding or irregular heartbeat
- Can't speak or has difficulty speaking, can't move or "feel" a limb, has numbness and tingling, blurred vision, or feels confused for an extended period of time (these are symptoms of a possible stroke)
- Has convulsions, tongue trauma, or loss of bowel control[114]

DO NOT attempt to put anything in their mouth. Move away any object that could cause injury to the person. If vomiting occurs, turn the individual's head to the side to avoid choking. Some shaking or twitching is not unusual with fainting. Most often the person will come to within a few seconds. However, even a couple of seconds can seem extraordinarily long in these circumstances, so it is important that you remain calm and aware. It is possible that they can still hear you, although they may be unable to respond. Attempt to achieve communication by saying their name calmly, and not too loudly.

People often experience confusion when regaining consciousness and may not know where they are, who you are, or what has taken place—so explain what has happened. Do not let them jump up quickly and leave the building. People are sometimes embarrassed that they have fainted and therefore want to leave immediately. Although this is a very common reaction, it is ill advised. Have the person rest quietly for a few minutes. As they begin to feel better, first have them sit up for several minutes. A short while later you may allow them to stand up. If at any point they begin to feel unstable or unwell, have them lie down again. Stay with the person as long as necessary, and call for assistance from a co-worker if needed.

If this should happen during a piercing, first secure the needle. It may be acceptable to attend to the piercee and finish the jewelry insertion later. If the presence of the needle may endanger you or the client, as with a tongue or lip piercing, immediately remove the needle and deal with the situation at hand. It may not be wise to proceed with the piercing, even when the customer feels fully recovered. Discuss these concerns with the customer and if necessary, suggest they make an appointment to return another day.

Emotional disturbances or panic attacks can often take on the appearance of a serious physical condition. It is important in these instances not to draw undue attention to the situation. Such episodes are often humiliating for the client. A quiet place to sit, a drink of cool water, and a self-administered dose of any medication that has been prescribed for the condition (if applicable) are generally all that is necessary to resolve the situation.

SPECIAL CIRCUMSTANCES

The types of client reactions that occur most often in a piercing studio are in no way life-threatening. There are, however, certain circumstances in which the symptoms discussed above (including a loss of consciousness) may be the result of a more serious physical condition. The knowledge gained through the required First Aid and CPR courses will increase piercers' awareness of appropriate steps to take in an emergency, and thereby increase the confidence level should an emergency occur. The following are a few potentially more serious conditions about which all piercers should be aware:

Diabetes is not an infectious disease; it is a condition that has to do with the body's inability to effectively produce insulin in response to blood sugar. Some diabetics control their condition through diet, but others require medication. Insulin reactions occur when there is an imbalance in the blood sugar level. This could be caused by nervous or emotional tension, strenuous exercise, a delayed meal, or too little, too much, or the wrong kind of food. Consumption of food will raise blood sugar levels.

Customers should be asked to record on the release form whether they have eaten a meal within the previous four hours. Should the symptoms listed under the Fainting section above appear, it is critical that the diabetic receive immediate assistance. If no treatment is given, this can become a life-threatening event. Most diabetics are aware of their blood sugar levels and will ask for help when needed. Provide the customer with some form of sugar: fruit juice, several pieces of candy, glucose tablets, sugar, or soda (not diet). Improvement should be seen within about ten minutes. If the condition does not improve, call Emergency Medical Services (EMS).

Cardiovascular Disease afflicts an estimated 80 million (nearly 1 in 3) Americans.[115] It is the leading cause of death in the United States. A person is just as likely to suffer a heart attack in your studio as anywhere else. CPR training courses outline the proper procedures for a person suspected of suffering from a heart attack.

Seizures involve convulsions and intense shaking of the body with aggressive, jerky outward movements. This is much more serious than simply passing out and you should call 911 immediately. The affected party may also urinate, defecate, or vomit. This is uncommon, but natural. If vomiting occurs, turn the individual's head to the side to avoid choking.

Maintain professionalism and try not to make the client feel embarrassed or bad about such an occurrence. Seizures may be caused by an acute or ***chronic*** condition. One chronic condition is epilepsy, a neurological disorder that is usually controlled with medication. Some people with epilepsy may still have seizures from time to time. Just as with someone who has merely fainted, make the area safe for the client by removing any nearby objects that may cause injury. Place a thin protective cushion or article of clothing under the head and try to turn them onto their side. DO NOT attempt to hold or restrain the person or place anything in his/her mouth. Again, CPR and First Aid courses will outline in detail the proper steps to take if this occurs.

AFTERWORD

Merely reading this manual has not in any way endowed you or anyone else with the ability to pierce or provided all the knowledge required to do so safely. If you plan to offer piercing services, it is your professional and ethical responsibility to seek out a highly skilled, experienced professional piercer and undertake an apprenticeship. Only after extensive hands-on training and expert supervision will you be able to provide high quality professional services.

This manual has attempted to provide details of acceptable safety and hygiene standards, and appropriate piercing practices. Ethical piercers will work diligently to meet all relevant documented procedures and to uphold the standards described within this manual. There are equivalent methods, products, and equipment that may be acceptable, if they meet the criteria of minimal customer discomfort, maximum safety, and zero risk of cross-contamination.

Meeting all of these standards is not quick and easy; it takes a great deal of time, effort, and money to create a safe working environment with all of the required equipment and supplies, training and preparation. A piercer who upholds all of the standards described herein should feel very proud to be a safe and responsible piercer. If you can honestly say you do everything appropriately as described in this manual, you should pat yourself on the back and congratulate yourself!

Keep up the good work, and also keep up with new information as it becomes available. There is always more to learn, and the industry is continuing to develop and mature. It is likely that no matter how often this manual is updated, some of the information contained within has already become obsolete. Whether you are a professional piercer, a serious piercing enthusiast, a piercing-friendly medical professional, a public health official, or a concerned legislator, it is your responsibility to keep up with the latest techniques, products, and other piercing information. Readers are encouraged to visit our website at *www.safepiercing.org* and contact the APP by email at *info@safepiercing.org* with any suggestions, comments, criticism, or contributions.

GLOSSARY

Acute: Adj. Short term or temporary; often severe, but quickly resolved. As opposed to ***chronic***.

Aerosolized: Adj. Airborne in the form of ultramicroscopic solid or liquid particles dispersed or suspended in air or gas.

AIDS: N. Acquired Immunodeficiency Syndrome, a disease that may result from HIV infection causing breakdown of the immune system.

Airborne: Adj. Capable of being transmitted by air particles.

Allergen: N. A substance that causes an allergic reaction.

Allergic Contact Dermatitis: N. An immune response that affects the skin where an allergen has made physical contact with it.

Anaphylaxis: N. A rapidly progressing, life-threatening allergic reaction in which the immune system responds to otherwise harmless substances from the environment. Latex, iodine, and other chemicals commonly found in the piercing studio can cause this type of reaction.

Anesthetic: N. A drug or other agent used to produce insensibility to pain or touch.

Anesthetic, Injectable: N. A drug or other agent used to produce insensibility to pain or touch applied subdermally by use of a syringe or other injection device.

Anesthetic, Topical: N. A drug or other agent used to produce insensibility to pain or touch, applied to the surface of the skin. Topical anesthetics include ice, ethyl chloride, EMLA, and the xylocaine family of topical creams and ointments.

Anneal: 1. V. To heat and then cool (as steel or glass) usually for softening and making less brittle; also: to cool slowly, usually in a furnace. 2. V. strengthen, toughen.

Antibacterial: 1. N. An agent that is capable of destroying and/or suppressing the growth or reproduction of bacteria. 2. Adj. Destroying or inhibiting the growth of bacteria.

Antibiotic: 1. N. A chemical substance that has the capacity to destroy and/or suppress the growth of other microorganisms in a living organism. 2. Adj. Of or relating to antibiotics.

Antibodies: N. Infection-fighting proteins produced by the body in response to an *antigen*.

Antigen: N. A foreign substance such as a bacterium or toxin that causes antibody formation.

Antimicrobial: 1. N. Capable of killing or suppressing the growth of microorganisms such as bacteria, fungi, and viruses. 2. Adj. An agent with such effects.

Antiseptic: 1. N. A substance capable of inhibiting the proliferation of infectious microorganisms in or on the body. 2. Adj. Capable of preventing infection by inhibiting the growth of infectious agents.

Apprentice: 1. N. An individual undergoing an extended period of piercer training (typically a year or longer) under the direction of a qualified, skilled, and experienced mentor, within a studio environment. 2. V. To serve as an apprentice.

Asepsis: N. A condition free from germs.

ASTM: N. American Society for Testing and Materials (now International).

Autoclave: 1. N. A medical device that uses high temperatures and steam under pressure for sterilization. 2. V(tr). To put in or subject to the action of an autoclave.

Automated Instrument Washer: N. Equipment designed for the automatic or semiautomatic removal of debris and/or stains (i.e., washing) from instruments, utensils, and/or other objects using physical and/or chemical procedures. Washers typically perform a cycle of operations that may include pre-wash, enzyme treatment, detergent washing, and rinse.

Bacillus: (Plural: Bacilli); N. A genus of rod-shaped *bacteria* including the organisms that cause dysentery, anthrax, and conjunctivitis.

Bacteria: N. Minute unicellular microorganisms with both plant and animal characteristics. Also known as germs or microbes. The primary types are cocci, spirilla, and bacilli. Bacterial diseases include pneumonia, staph infections, tetanus, tuberculosis, syphilis, and diphtheria.

Bacterial Spore: N. A bacteria that, because of its thick outer wall, is easily able to survive in hostile environments otherwise not conducive to bacterial growth and reproduction. See also ***Spore***.

Bacteriocidal/Bactericidal: Adj. Capable of destroying bacteria.

Biocompatibility: Adj. The ability to coexist with living organisms without harming them. Compatible with living cells, tissues, organs, or systems, and posing no risk of injury, toxicity, or rejection by the immune system.

Biofilm: N. A very thin layer of microscopic organisms that covers the surface of an object.

Bloodborne Pathogen: N. A microorganism that is present in human blood and can cause disease in humans.

Body Jewelry: N. Jewelry designed and manufactured specifically for use in piercings.

Body Piercer: N. A professional with more than one year of work experience in an appropriate facility who performs the act of body piercing using approved techniques and materials. See also *Ear Piercing Gun Operator*. See the section on *Environment* page 21-22 for appropriate facility information.

Body Piercing: 1. V. The act of perforating the tissue of the body, including the ear, and inserting an ornament into the opening. 2. N. A perforation in the tissue of the body and the wearing of an ornament in the opening. 3. N. Common usage: The perforation itself. Ex. "I changed the jewelry in my piercing." 4. N. Common usage: The ornament that is worn in a perforation of the tissue. More accurately described as piercing jewelry, body piercing jewelry, or *body jewelry*. Ex. "My piercing fell out."

Body Substance Isolation: N. An infection-control strategy that considers all body substances as potentially infectious.

Broad Spectrum: Adj. A substance that is used for its intended function against a wide variety of microorganisms.

Cartilage: N. A type of tough, fibrous, elastic connective tissue with no nerve or blood supply of its own. There are two types of cartilage piercers routinely deal with:

- ***Auricular:*** Cartilage of the *pinna* (external ear).
- ***Alar:*** Cartilage of the tip and sides of the nose (nostrils).

Certificate of Tests: N. A document provided by a metal foundry that guarantees the specifications of the metal and provides proof of content. Also called *mill certificate* or *material certificate*.

Chemical Sterilization: See ***Sterilization, Chemical***.

Chronic: Adj. Long-term, recurring, or incurable medical condition or illness, as opposed to ***acute***.

Coccus: (Plural: Cocci); N. A type of ***bacteria*** that is spherical or ovoid in form. Many are pathogenic and cause diseases including scarlet fever, pneumonia, and meningitis.

Contamination: 1. N. The presence or the reasonably anticipated presence of blood or ***other potentially infectious materials (OPIM)*** on an item or surface.

Contaminated Sharps: N. Any object that can penetrate the skin, including but not limited to needles, insertion tapers, snip wires, and broken glass, that has been exposed to blood or *OPIM*.

Cross-Contamination: V. The act of spreading pathogenic organisms from one item or surface to another.

Cyanosis: N. A bluish color to the skin and mucous membranes resulting from inadequate oxygen in the blood.

Debris: N. Foreign material or particles loosely attached to a surface.

Disease Transmission: V. The passage of a disease from one person or host to another.

Disinfect: V. To free from pathogenic organisms, or to prevent pathogens from reproducing.

Decontamination: V. The use of physical or chemical means to remove, inactivate, or destroy pathogens on a surface or item to the extent that they are no longer capable of transmission. The item is thus rendered safe for sterilization, handling, or use.

Direct-Contact Transmission: V. The transference of a pathogen by touching an infected person's body fluids.

Disease: N. Condition of a living animal or of one of its parts that impairs normal functioning and is typically manifested by distinguishing signs and symptoms. Literally, the lack of ease.

Ear Piercing: See ***Body Piercing***.

Ear Piercing Gun: N. A mechanical device, instrument, or system designed for piercing the earlobe.

Ear Piercing Gun Operator: N. A person who pierces with an ear piercing gun. Sometimes referred to as a technician by the device manufacturers.

Edema: N. Swelling caused by excess fluid in the circulatory system or the tissues between the body's cells. Edema can be from a chemical reaction, an infection, trauma to the area, or other causes.

Emulator: N. A cycle-specific chemical indicator used to test an autoclave; Class 6 Indicator.

Endospore: N. An inactive form that certain bacteria assume under conditions of extreme temperature, dryness, or lack of food. The bacterium develops a waterproof cell wall that protects it from being dried out or damaged. Bacteria have been known to remain dormant but alive in the form of endospores for long periods of time, even thousands of years. Also endosporium. See ***Spore***.

Endotoxin: N. A toxin contained within the cell walls of some microorganisms that is released only when the microorganisms are broken down or die.

Engineering Controls: N. Physical items, such as sharps disposal containers, that isolate or remove the bloodborne pathogens from the workplace.

Environmental Protection Agency (EPA): N. An agency of the United States government that coordinates programs aimed at reducing pollution and protecting the environment.

Epithelial Tissue: N. 1. A tissue consisting of one or more layers of compactly joined cells of various types and sizes that cover a surface or line a cavity. 2. Pertaining to or involving the outer layer of the skin. Also called *epithelium.*

Epithelium: See ***Epithelial Tissue***.

Event-Related Sterility: N. A model in which items are considered sterile when handled and stored properly after sterilization, unless the package is compromised or contaminated.

Exposure Control Plan (ECP): N. A systematic protocol created by an employer to protect employees from the risks of blood and other potentially infectious materials in the workplace.

Exposure Determination: V. The identification and documentation of job classifications in which occupational exposure to blood can occur.

Exposure Incident: N. Contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Fascia: N. A fibrous membrane covering, supporting, and separating muscles. Fascia also unites the skin with underlying tissue.

Fistula: N. The tunnel of ***epithelial tissue*** that surrounds a healed piercing channel.

Flora: N. Microorganisms including ***bacteria***, ***protozoa***, and ***fungi*** that are found on or in specific areas of the body.

Fomite: N. An inanimate object or substance that is capable of transmitting infectious organisms from one individual to another.

Freehand Piercing: V. The act of piercing without the use of forceps.

Fungus: (Plural ***Fungi***); N. A single- or multi-celled organism without chlorophyll that reproduces by ***spores*** and lives by absorbing nutrients from organic matter.

Fungal: Adj. Of, relating to, or caused by a ***fungus***.

Fungicidal: N. That which is capable of destroying or inhibiting the growth of ***fungi***.

Gauge: N. 1. A standard of dimensions or measurement—in ***body jewelry***, the thickness. 2. V. Slang for the act of stretching a piercing.

Gauges: N. Slang term for ***body jewelry***, especially plugs or tunnels worn in stretched ear piercings.

Gauging: V. A slang term for stretching a piercing. See ***Stretching***.

Genus: N. A grouping of organisms having common characteristics.

Germ: N. A *microorganism*, especially one that causes disease.

Germicidal: N. That which is capable of killing germs.

Gross Debris: N. A medical term used for obvious foreign material or particles on a surface, visible soil, or contaminants.

Handwashing Facility: N. An area dedicated to handwashing that provides an adequate supply of running potable water, soap, and single-use towels.

Hepatitis A Virus (HAV): N. One strain of the hepatitis virus, formerly referred to as "infectious hepatitis." HAV is an ***acute*** form of the disease that is transmitted through close contact with an infected individual, infected feces, or contaminated food or water.

Hepatitis B Virus (HBV): N. A bloodborne strain of the hepatitis virus that can become ***chronic***. An effective vaccine is available to prevent transmission.

Hepatitis C Virus (HCV): N. A bloodborne strain of the hepatitis virus, formerly referred to as "non-A, non-B hepatitis." Chronic infection is common and frequently leads to chronic liver disease. There is no vaccine to protect against HCV.

High Efficiency Particulate Air (HEPA): N. A filter used to improve air quality and reduce the quantity of airborne contaminants.

Hepatitis: N. Inflammation of the liver caused by infectious or toxic agents; characterized by ***jaundice***, fever, liver enlargement, and abdominal pain. There are several different types that can cause similar symptoms, but they have different modes of transmission and can affect the liver differently. See ***Hepatitis A***, ***Hepatitis B***, and ***Hepatitis C***.

Human Immunodeficiency Virus (HIV): N. A virus that attacks the immune system in humans and renders it less effective in preventing disease.

Hospital Grade Disinfectant: N. A disinfectant that is suitable for general purpose disinfection of studio surfaces, but not instruments or surfaces likely to come into contact with broken skin.

Hydrophobic: Adj. Repelling, tending not to combine or mix with, or incapable of dissolving in water.

Hypoallergenic: Adj. Having a decreased tendency to provoke an allergic reaction.

Immune: Adj. Resistant to infectious disease.

Immune System: N. The body's group of natural responses for fighting disease.

Immunization: N. A procedure by which resistance to infection is produced in people through vaccination (or process of gaining immunity through exposure to a disease).

Indirect-Contact Transmission: V. The transmission of a disease from one host to another through a contaminated object.

Inert: Adj. Devoid of active properties.

Indicator: N. Paper or tape strips impregnated with a chemical that changes color when exposed to heat and steam in an autoclave. Often found on autoclave tape, pouches, and strips.

Insertion: V. In piercing, the act of putting jewelry into an existing pierced channel, often with the aid of an *insertion taper*.

Insertion Taper: N. A tapered tool that is designed to facilitate the process of inserting jewelry into a piercing.

Instruments: N. Tools used by a body piercer.

Integrator: N. Strips or devices used in pouches and/or autoclave chambers that prove the conditions for sterilization were met. They are similar to indicators, except that they change color when they have been exposed to a combination of steam, pressure, heat, and time.

Intra-oral: N. Situated within the mouth.

ISO: N. International Organization for Standardization.

Jaundice: Adj. A yellow discoloration of the skin, mucous membranes, and/or whites of the eyes that is characteristic of the later stages of hepatitis or other liver disease.

Latex: N. A polymeric membrane of natural rubber derived from the sap of the rubber tree (Hevea Brasiliensis).

Material Certificate: See ***Certificate of Tests***.

Material Safety Data Sheet (MSDS): See ***SDS***.

Methicillin Resistant Staphylococcus Aureus (MRSA): N. A bacterial infection caused by a strain of Staph that has become resistant to antibiotic treatment.

Microbe: See ***Microorganism***.

Microorganism: N. A ***bacteria***, ***fungi***, or other microscopic organism too small to be seen with the naked eye. Some are ***pathogenic***.

Mill Certificate: See ***Certificate of Tests***.

MRSA: See ***Methicillin Resistant Staphylococcus Aureus (MRSA).***

Mucous Membrane: N. A membrane lining the body passages that communicate with the air, such as the respiratory, alimentary, and reproductive tracts. They have cells and associated glands that secrete ***mucus*** including the lining of the mouth and nose.

Mucus: N. The clear secretion of the ***mucous membrane***s.

Mycobacterium Tuberculosis Variant Bovis (M. tuberculosis var. bovis): N. The hardy bovine variety of the tubercle bacillus, a bacterial species that is the primary cause of tuberculosis in cattle. Used as a laboratory test organism used to classify the strength of disinfectants.

Non-Intact Skin: N. Any skin that has a break in the surface, including but not limited to abrasions, healing tattoos and piercings, cuts, hangnails, paper cuts, and burns.

NSAID: N. Classification of Non-Steroidal Anti-Inflammatory medication such as ibuprofen.

Occupational Exposure: V. Reasonably anticipated exposure to potentially infectious material that may result from the performance of an employee's duties.

Occupational Safety & Health Administration (OSHA): N. The federal agency responsible for the development, administration, and enforcement of employment-related health and safety regulations.

Opportunistic Infection: An infection that strikes a person with a weakened immune system.

Over The Counter (OTC): N. A drug or device that can be sold without a prescription.

Other Potentially Infectious Materials (OPIM): N. All body fluids, secretions, excretions except sweat, and non-intact tissue, regardless of whether or not they contain blood.

Parenteral: Adj. Pertaining to the administration of substances into the body by means other than the digestive tract, such as intravenous or intramuscular injection.

Passivation: N. 1. To make inactive or less reactive. 2. To protect against contamination by coating or surface treatment.

Pathogenic: Adj. Capable of causing disease.

Periungual: Adj. Pertaining to the area around the fingernails or the toenails.

Piercee: N. A person who has piercings.

Piercer: N. See ***Body Piercer***.

Piercing: N. and V. See ***Body Piercing***.

Pinna: N. The projecting outer portion of the external ear.

Pre-Cleaning: V. The act of soaking or otherwise decontaminating a tool prior to disinfection.

Prion: N. Proteinaceous infectious particle. This misfolded form of protein is believed to be the causative agent of Creutzfeldt-Jakob in humans and Bovine spongiform encephalopathy ("Mad Cow" disease), and Scrapie in goats and sheep.

Protozoa: N. Group of extremely small single-celled organisms including amoeba. They tend to be found in moist soil or water, and frequently exist as parasites living off other life forms.

Regulated Waste: Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials when handled; contaminated sharps, and waste containing blood or other potentially infectious materials.

Safety Data Sheet (SDS): N. A document containing information and instructions on hazardous materials present in the workplace. Details the risks relevant to a substance, requirements for its safe handling, and actions to be taken in the event of fire, spill, or overexposure. Formerly Materials Safety Data Sheet (MSDS).

Sharps: N. Needles, scalpels, or other articles that could cause wounds or punctures to personnel handling them.

Sharps Container: N. A container that is specifically made for the disposal of sharps; required and regulated by the Occupational Safety and Health Administration (OSHA).

Single-point Piercing: See ***Surface Anchor***.

Spore: N. A dormant, non-reproductive body able to survive adverse environmental conditions including high temperatures, dryness, and lack of nourishment for long periods of time. Under proper conditions, the spore may revert to an actively multiplying form of the ***bacteria***, ***fungi***, or ***protozoa***. Also ***Endospore***.

Spore Test (Biological Indicator): 1. N. A biological monitoring process in which resistant ***spore*** growth on test media is processed in a studio's autoclave to verify that it is functioning properly. Generally a third party laboratory culturing service is engaged for this process. They provide documentation that serves as a tangible record and legal document verifying an autoclave's ability to achieve proper sterilization. 2. V. The act of using such a biological indicator to test an autoclave.

Sporicidal: Kills mold and other spores. Spores, especially TB, are generally very hard to kill, so sporicidal agents are powerful enough to kill a broad range of organisms.

Standard Precautions: N. A system designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection. Combines the major features of Universal Precautions (protocols designed to reduce the risk of transmission of bloodborne pathogens) and *body substance isolation* then applies them to all clients, regardless of their known or presumed infection status. Standard Precautions applies to (1) blood; (2) all body fluids, secretions, and excretions except sweat, regardless of whether or not they contain blood; (3) nonintact skin; and (4) mucous membranes.

Statim: N. A type of steam sterilizer manufactured by SciCan. See ***autoclave***.

Steam Sterilization: See ***Sterilization***, ***Steam***.

Sterilization: V. A technique for destroying microbial life using heat, water, chemicals, or gases.

Sterilization, Chemical: V. Sterilization by exposure to chemicals such as peracetic acid or ethylene oxide (EO) gas.

Sterilization, Steam: V. Sterilization by means of exposure to high pressure, superheated steam. The most common and efficient sterilization method for piercers. Also known as "hospital" or "autoclave sterilization."

Stretching: V. The act of enlarging a piercing.

Supine: Adj. Lying on the back; positioned with the face upward.

Surface Anchor: N. 1. A type of body piercing in which a tiny ornament is inserted into a single opening that is formed in the tissue. This opening is the entrance as well as the exit. 2. The jewelry used in such a piercing.

Syncope: N. Loss of consciousness. See ***Vasovagal Attack***.

Test Soil: N. A biological or artificial product on a tag of scratched stainless steel, or a liquid that is painted onto instruments. After it has dried, the tools are processed and then inspected to verify test soil removal.

Thermal Death Time: N. The number of minutes required to kill a given organism at a certain temperature. Generally, the higher the temperature, the faster the thermal death time.

Tuberculocidal: Adj. Capable of killing ***Mycobacterium tuberculosis*** spores. This is commonly considered the scientific standard for disinfecting agents.

Ultrasonic Cleaner: N. An electronic generator used to remove particulate matter from instruments by transmitting high-energy and high-frequency vibrations into a fluid-filled container.

Vasovagal Attack or Vasovagal Syncopy: N. Fainting (loss of consciousness) caused by a sudden drop in heart rate and blood pressure, which reduces blood flow to the brain. Occurs when the body overreacts to triggers such as pain, the sight of blood, or in cases of extreme emotional distress.

Virucidal: 1. Adj. Capable of killing viruses. 2. N. Product used to kill viruses.

Virus: N. An ultra-microscopic microorganism that is parasitic within living cells of another organism. Many viruses can cause disease in humans. They invade living cells and use their chemical machinery to keep themselves alive and to replicate. They may reproduce with fidelity or with errors (mutations). This ability to mutate is responsible for the capacity of some viruses to change slightly in each infected person, which makes treatment more difficult.

APPENDIX A: UNDERSTANDING SDS

UNDERSTANDING SAFETY DATA SHEETS (SDS)

According to OSHA standards, SDS (formerly known as Material Safety Data Sheets or MSDS) must be kept on file for all chemicals used within the studio. This includes everything from glass cleaner and hard surface disinfectants to skin prep products and soaps used for handwashing and more. Copies of SDS for all chemicals to which employees may be exposed must be readily available to all workers during each work shift. Beginning June 1, 2015, SDS will be in a uniform format, and include the section numbers and associated information under the headings as shown below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information

Section 13, Disposal considerations

Section 14, Transport information

Section 15, Regulatory information

Section 16, Other information, includes the date of preparation or last revision.

For more information: www.osha.gov

APPENDIX B: FULL TEXT OF OSHA BLOODBORNE PATHOGENS STANDARD 1910.1030

1910.1030(a)

Scope and Application. This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section.

1910.1030(b)

Definitions. For purposes of this section, the following shall apply:

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Blood means human blood, human blood components, and products made from human blood.

Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Clinical Laboratory means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Director means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Engineering Controls means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Handwashing Facilities means a facility providing an adequate supply of running potable water, soap, and single-use towels or air-drying machines.

Licensed Healthcare Professional is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

HBV means hepatitis B virus.

HIV means human immunodeficiency virus.

Needleless systems means a device that does not use needles for:

(1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) The administration of medication or fluids; or (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Production Facility means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

Regulated Waste means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Research Laboratory means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps with engineered sharps injury protections means a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

1910.1030(c)

Exposure Control —

1910.1030(c)(1)

Exposure Control Plan.

1910.1030(c)(1)(i)

Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

1910.1030(c)(1)(ii)

The Exposure Control Plan shall contain at least the following elements:

1910.1030(c)(1)(ii)(A)

The exposure determination required by paragraph (c)(2),

1910.1030(c)(1)(ii)(B)

The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

1910.1030(c)(1)(ii)(C)

The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

1910.1030(c)(1)(iii)

Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.1020(e).

1910.1030(c)(1)(iv)

The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:

1910.1030(c)(1)(iv)(A)

Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and

1910.1030(c)(1)(iv)(B)

Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

1910.1030(c)(1)(v)

An employer, who is required to establish an Exposure Control Plan shall solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.

1910.1030(c)(1)(vi)

The Exposure Control Plan shall be made available to the Assistant Secretary and the Director upon request for examination and copying.

1910.1030(c)(2)

Exposure Determination.

1910.1030(c)(2)(i)

Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

1910.1030(c)(2)(i)(A)

A list of all job classifications in which all employees in those job classifications have occupational exposure;

1910.1030(c)(2)(i)(B)

A list of job classifications in which some employees have occupational exposure, and

1910.1030(c)(2)(i)(C)

A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of paragraph (c)(2)(i)(B) of this standard.

1910.1030(c)(2)(ii)

This exposure determination shall be made without regard to the use of personal protective equipment.

1910.1030(d)

Methods of Compliance —

1910.1030(d)(1)

General. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

1910.1030(d)(2)

Engineering and Work Practice Controls.

1910.1030(d)(2)(i)

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

1910.1030(d)(2)(ii)

Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

1910.1030(d)(2)(iii)

Employers shall provide handwashing facilities which are readily accessible to employees.

1910.1030(d)(2)(iv)

When provision of handwashing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

1910.1030(d)(2)(v)

Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

1910.1030(d)(2)(vi)

Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

1910.1030(d)(2)(vii)

Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.

1910.1030(d)(2)(vii)(A)

Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.

1910.1030(d)(2)(vii)(B)

Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

1910.1030(d)(2)(viii)

Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

1910.1030(d)(2)(viii)(A)

Puncture resistant;

1910.1030(d)(2)(viii)(B)

Labeled or color-coded in accordance with this standard;

1910.1030(d)(2)(viii)(C)

Leakproof on the sides and bottom; and

1910.1030(d)(2)(viii)(D)

In accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

1910.1030(d)(2)(ix)

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

1910.1030(d)(2)(x)

Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

1910.1030(d)(2)(xi)

All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

1910.1030(d)(2)(xii)

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

1910.1030(d)(2)(xiii)

Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.

1910.1030(d)(2)(xiii)(A)

The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(1)(i) and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with paragraph (g)(1)(i) is required when such specimens/containers leave the facility.

1910.1030(d)(2)(xiii)(B)

If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.

1910.1030(d)(2)(xiii)(C)

If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

1910.1030(d)(2)(xiv)

Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

1910.1030(d)(2)(xiv)(A)

A readily observable label in accordance with paragraph (g)(1)(i)(H) shall be attached to the equipment stating which portions remain contaminated.

1910.1030(d)(2)(xiv)(B)

The employer shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

1910.1030(d)(3)

Personal Protective Equipment —

1910.1030(d)(3)(i)

Provision. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

1910.1030(d)(3)(ii)

Use. The employer shall ensure that the employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgement, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

1910.1030(d)(3)(iii)

Accessibility. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

1910.1030(d)(3)(iv)

Cleaning, Laundering, and Disposal. The employer shall clean, launder, and dispose of personal protective equipment required by paragraphs (d) and (e) of this standard, at no cost to the employee.

1910.1030(d)(3)(v)

Repair and Replacement. The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

1910.1030(d)(3)(vi)

If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible.

1910.1030(d)(3)(vii)

All personal protective equipment shall be removed prior to leaving the work area.

1910.1030(d)(3)(viii)

When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

1910.1030(d)(3)(ix)

Gloves. Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures except as specified in paragraph (d)(3)(ix)(D); and when handling or touching contaminated items or surfaces.

1910.1030(d)(3)(ix)(A)

Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

1910.1030(d)(3)(ix)(B)

Disposable (single use) gloves shall not be washed or decontaminated for re-use.

1910.1030(d)(3)(ix)(C)

Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

1910.1030(d)(3)(ix)(D)

If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary then the employer shall:

1910.1030(d)(3)(ix)(D)(1)

Periodically reevaluate this policy;

1910.1030(d)(3)(ix)(D)(2)

Make gloves available to all employees who wish to use them for phlebotomy;

1910.1030(d)(3)(ix)(D)(3)

Not discourage the use of gloves for phlebotomy; and

1910.1030(d)(3)(ix)(D)(4)

Require that gloves be used for phlebotomy in the following circumstances:

1910.1030(d)(3)(ix)(D)(4)(i)

When the employee has cuts, scratches, or other breaks in his or her skin;

1910.1030(d)(3)(ix)(D)(4)(ii)

When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative source individual; and

1910.1030(d)(3)(ix)(D)(4)(iii)

When the employee is receiving training in phlebotomy.

1910.1030(d)(3)(x)

Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

1910.1030(d)(3)(xi)

Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

1910.1030(d)(3)(xii)

Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopaedic surgery).

1910.1030(d)(4)

Housekeeping —

1910.1030(d)(4)(i)

General. Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

1910.1030(d)(4)(ii)

All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

1910.1030(d)(4)(ii)(A)

Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

1910.1030(d)(4)(ii)(B)

Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

1910.1030(d)(4)(ii)(C)

All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

1910.1030(d)(4)(ii)(D)

Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

1910.1030(d)(4)(ii)(E)

Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

1910.1030(d)(4)(iii)

Regulated Waste —

1910.1030(d)(4)(iii)(A)

Contaminated Sharps Discarding and Containment.

1910.1030(d)(4)(iii)(A)(1)

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

1910.1030(d)(4)(iii)(A)(1)(i)

Closable;

1910.1030(d)(4)(iii)(A)(1)(ii)

Puncture resistant;

1910.1030(d)(4)(iii)(A)(1)(iii)

Leakproof on sides and bottom; and

1910.1030(d)(4)(iii)(A)(1)(iv)

Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.

1910.1030(d)(4)(iii)(A)(2)

During use, containers for contaminated sharps shall be:

1910.1030(d)(4)(iii)(A)(2)(i)

Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);

1910.1030(d)(4)(iii)(A)(2)(ii)

Maintained upright throughout use; and

1910.1030(d)(4)(iii)(A)(2)(iii)

Replaced routinely and not be allowed to overfill.

1910.1030(d)(4)(iii)(A)(3)

When moving containers of contaminated sharps from the area of use, the containers shall be:

1910.1030(d)(4)(iii)(A)(3)(i)

Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

1910.1030(d)(4)(iii)(A)(3)(ii)

Placed in a secondary container if leakage is possible. The second container shall be:

1910.1030(d)(4)(iii)(A)(3)(ii)(A)

Closable;

1910.1030(d)(4)(iii)(A)(3)(ii)(B)

Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and

1910.1030(d)(4)(iii)(A)(3)(ii)(C)

Labeled or color-coded according to paragraph (g)(1)(i) of this standard.

1910.1030(d)(4)(iii)(A)(4)

Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

1910.1030(d)(4)(iii)(B)

Other Regulated Waste Containment —

1910.1030(d)(4)(iii)(B)(1)

Regulated waste shall be placed in containers which are:

1910.1030(d)(4)(iii)(B)(1)(i)

Closable;

1910.1030(d)(4)(iii)(B)(1)(ii)

Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

1910.1030(d)(4)(iii)(B)(1)(iii)

Labeled or color-coded in accordance with paragraph (g)(1)(i) this standard; and

1910.1030(d)(4)(iii)(B)(1)(iv)

Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

1910.1030(d)(4)(iii)(B)(2)

If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:

1910.1030(d)(4)(iii)(B)(2)(i)

Closable;

1910.1030(d)(4)(iii)(B)(2)(ii)

Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

1910.1030(d)(4)(iii)(B)(2)(iii)

Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

1910.1030(d)(4)(iii)(B)(2)(iv)

Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

1910.1030(d)(4)(iii)(C)

Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.

1910.1030(d)(4)(iv)

Laundry.

1910.1030(d)(4)(iv)(A)

Contaminated laundry shall be handled as little as possible with a minimum of agitation.

1910.1030(d)(4)(iv)(A)(1)

Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

1910.1030(d)(4)(iv)(A)(2)

Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

1910.1030(d)(4)(iv)(A)(3)

Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

1910.1030(d)(4)(iv)(B)

The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.

1910.1030(d)(4)(iv)(C)

When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(1)(i).

1910.1030(e)

HIV and HBV Research Laboratories and Production Facilities.

1910.1030(e)(1)

This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.

1910.1030(e)(2)

Research laboratories and production facilities shall meet the following criteria:

1910.1030(e)(2)(i)

Standard Microbiological Practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

1910.1030(e)(2)(ii)

Special Practices.

1910.1030(e)(2)(ii)(A)

Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.

1910.1030(e)(2)(ii)(B)

Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work area.

1910.1030(e)(2)(ii)(C)

Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

1910.1030(e)(2)(ii)(D)

When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(ii) of this standard.

1910.1030(e)(2)(ii)(E)

All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical-containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.

1910.1030(e)(2)(ii)(F)

Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

1910.1030(e)(2)(ii)(G)

Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

1910.1030(e)(2)(ii)(H)

Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

1910.1030(e)(2)(ii)(I)

Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

1910.1030(e)(2)(ii)(J)

Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

1910.1030(e)(2)(ii)(K)

All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

1910.1030(e)(2)(ii)(L)

A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

1910.1030(e)(2)(ii)(M)

A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

1910.1030(e)(2)(iii)

Containment Equipment.

1910.1030(e)(2)(iii)(A)

Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.

1910.1030(e)(2)(iii)(B)

Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.

1910.1030(e)(3)

HIV and HBV research laboratories shall meet the following criteria:

1910.1030(e)(3)(i)

Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.

1910.1030(e)(3)(ii)

An autoclave for decontamination of regulated waste shall be available.

1910.1030(e)(4)

HIV and HBV production facilities shall meet the following criteria:

1910.1030(e)(4)(i)

The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

1910.1030(e)(4)(ii)

The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

1910.1030(e)(4)(iii)

Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.

1910.1030(e)(4)(iv)

Access doors to the work area or containment module shall be self-closing.

1910.1030(e)(4)(v)

An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.

1910.1030(e)(4)(vi)

A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

1910.1030(e)(5)

Training Requirements. Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in paragraph (g)(2)(ix).

1910.1030(f)

Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up —

1910.1030(f)(1)

General.

1910.1030(f)(1)(i)

The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.

1910.1030(f)(1)(ii)

The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:

1910.1030(f)(1)(ii)(A)

Made available at no cost to the employee;

1910.1030(f)(1)(ii)(B)

Made available to the employee at a reasonable time and place;

1910.1030(f)(1)(ii)(C)

Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and

1910.1030(f)(1)(ii)(D)

Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).

1910.1030(f)(1)(iii)

The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

1910.1030(f)(2)

Hepatitis B Vaccination.

1910.1030(f)(2)(i)

Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, ***antibody*** testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

1910.1030(f)(2)(ii)

The employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.

1910.1030(f)(2)(iii)

If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

1910.1030(f)(2)(iv)

The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement in Appendix A.

1910.1030(f)(2)(v)

If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available in accordance with section (f)(1)(ii).

1910.1030(f)(3)

Post-exposure Evaluation and Follow-up. Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

1910.1030(f)(3)(i)

Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;

1910.1030(f)(3)(ii)

Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

1910.1030(f)(3)(ii)(A)

The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

1910.1030(f)(3)(ii)(B)

When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

1910.1030(f)(3)(ii)(C)

Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

1910.1030(f)(3)(iii)

Collection and testing of blood for HBV and HIV serological status;

1910.1030(f)(3)(iii)(A)

The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

1910.1030(f)(3)(iii)(B)

If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

1910.1030(f)(3)(iv)

Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;

1910.1030(f)(3)(v)

Counseling; and

1910.1030(f)(3)(vi)

Evaluation of reported illnesses.

1910.1030(f)(4)

Information Provided to the Healthcare Professional.

1910.1030(f)(4)(i)

The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

1910.1030(f)(4)(ii)

The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

1910.1030(f)(4)(ii)(A)

A copy of this regulation;

1910.1030(f)(4)(ii)(B)

A description of the exposed employee's duties as they relate to the exposure incident;

1910.1030(f)(4)(ii)(C)

Documentation of the route(s) of exposure and circumstances under which exposure occurred;

1910.1030(f)(4)(ii)(D)

Results of the source individual's blood testing, if available; and

1910.1030(f)(4)(ii)(E)

All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

1910.1030(f)(5)

Healthcare Professional's Written Opinion. The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

1910.1030(f)(5)(i)

The healthcare professional's written opinion for hepatitis B vaccination shall be limited to whether hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

1910.1030(f)(5)(ii)

The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

1910.1030(f)(5)(ii)(A)

That the employee has been informed of the results of the evaluation; and

1910.1030(f)(5)(ii)(B)

That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

1910.1030(f)(5)(iii)

All other findings or diagnoses shall remain confidential and shall not be included in the written report.

1910.1030(f)(6)

Medical Recordkeeping. Medical records required by this standard shall be maintained in accordance with paragraph (h)(1) of this section.

1910.1030(g)

Communication of Hazards to Employees —

1910.1030(g)(1)

Labels and Signs —

1910.1030(g)(1)(i)

Labels.

1910.1030(g)(1)(i)(A)

Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials, except as provided in paragraph (g)(1)(i)(E), (F) and (G).

1910.1030(g)(1)(i)(B)

Labels required by this section shall include the following legend:

1910.1030(g)(1)(i)(C)

These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

1910.1030(g)(1)(i)(D)

Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

1910.1030(g)(1)(i)(E)

Red bags or red containers may be substituted for labels.

1910.1030(g)(1)(i)(F)

Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).

1910.1030(g)(1)(i)(G)

Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

1910.1030(g)(1)(i)(H)

Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated.

1910.1030(g)(1)(i)(I)

Regulated waste that has been decontaminated need not be labeled or color-coded.

1910.1030(g)(1)(ii)

Signs.

1910.1030(g)(1)(ii)(A)

The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:

(Name of the Infectious Agent)

(Special requirements for entering the area)

(Name, telephone number of the laboratory director or other responsible person.)

1910.1030(g)(1)(ii)(B)

These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.

1910.1030(g)(2)

Information and Training.

1910.1030(g)(2)(i)

The employer shall train each employee with occupational exposure in accordance with the requirements of this section. Such training must be provided at no cost to the employee and during working hours. The employer shall institute a training program and ensure employee participation in the program.

1910.1030(g)(2)(ii)

Training shall be provided as follows:

1910.1030(g)(2)(ii)(A)

At the time of initial assignment to tasks where occupational exposure may take place;

1910.1030(g)(2)(ii)(B)

At least annually thereafter.

1910.1030(g)(2)(iii)

[Reserved]

1910.1030(g)(2)(iv)

Annual training for all employees shall be provided within one year of their previous training.

1910.1030(g)(2)(v)

Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

1910.1030(g)(2)(vi)

Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

1910.1030(g)(2)(vii)

The training program shall contain at a minimum the following elements:

1910.1030(g)(2)(vii)(A)

An accessible copy of the regulatory text of this standard and an explanation of its contents;

1910.1030(g)(2)(vii)(B)

A general explanation of the epidemiology and symptoms of bloodborne diseases;

1910.1030(g)(2)(vii)(C)

An explanation of the modes of transmission of bloodborne pathogens;

1910.1030(g)(2)(vii)(D)

An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

1910.1030(g)(2)(vii)(E)

An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

1910.1030(g)(2)(vii)(F)

An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

1910.1030(g)(2)(vii)(G)

Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;

1910.1030(g)(2)(vii)(H)

An explanation of the basis for selection of personal protective equipment;

1910.1030(g)(2)(vii)(I)

Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;

1910.1030(g)(2)(vii)(J)

Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

1910.1030(g)(2)(vii)(K)

An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;

1910.1030(g)(2)(vii)(L)

Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;

1910.1030(g)(2)(vii)(M)

An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

1910.1030(g)(2)(vii)(N)

An opportunity for interactive questions and answers with the person conducting the training session.

1910.1030(g)(2)(viii)

The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

1910.1030(g)(2)(ix)

Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities. Employees in HIV or HBV research laboratories and HIV or HBV production facilities shall receive the following initial training in addition to the above training requirements.

1910.1030(g)(2)(ix)(A)

The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

1910.1030(g)(2)(ix)(B)

The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

1910.1030(g)(2)(ix)(C)

The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

1910.1030(h)

Recordkeeping —

1910.1030(h)(1)

Medical Records.

1910.1030(h)(1)(i)

The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020.

1910.1030(h)(1)(ii)

This record shall include:

1910.1030(h)(1)(ii)(A)

The name and social security number of the employee;

1910.1030(h)(1)(ii)(B)

A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by paragraph (f)(2);

1910.1030(h)(1)(ii)(C)

A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);

1910.1030(h)(1)(ii)(D)

The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

1910.1030(h)(1)(ii)(E)

A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B)(C) and (D).

1910.1030(h)(1)(iii)

Confidentiality. The employer shall ensure that employee medical records required by paragraph (h)(1) are:

1910.1030(h)(1)(iii)(A)

Kept confidential; and

1910.1030(h)(1)(iii)(B)

Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

1910.1030(h)(1)(iv)

The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

1910.1030(h)(2)

Training Records.

1910.1030(h)(2)(i)

Training records shall include the following information:

1910.1030(h)(2)(i)(A)

The dates of the training sessions;

1910.1030(h)(2)(i)(B)

The contents or a summary of the training sessions;

1910.1030(h)(2)(i)(C)

The names and qualifications of persons conducting the training; and

1910.1030(h)(2)(i)(D)

The names and job titles of all persons attending the training sessions.

1910.1030(h)(2)(ii)

Training records shall be maintained for 3 years from the date on which the training occurred.

1910.1030(h)(3)

Availability.

1910.1030(h)(3)(i)

The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

1910.1030(h)(3)(ii)

Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the Assistant Secretary.

1910.1030(h)(3)(iii)

Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR 1910.1020.

1910.1030(h)(4)

Transfer of Records. The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h).

OSHA recently discovered mistakes made by the Federal Register editors of the CFR in implementing the 2001 OSHA final rule for Bloodborne Pathogens; these mistakes affected 29 CFR 1910.1030(h) and (i). OSHA is in the process of correcting these mistakes in the CFR. In the meantime, OSHA is revising this website to reflect the correct regulations as they will soon appear in eCFR and in the July 1, 2012, edition of the hard copy CFR. We will remove this notice from this website when the Federal Register editors make the necessary corrections in the eCFR.

1910.1030(h)(5)

Sharps injury log.

1910.1030(h)(5)(i)

The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

1910.1030(h)(5)(i)(A)

The type and brand of device involved in the incident,

1910.1030(h)(5)(i)(B)

The department or work area where the exposure incident occurred, and

1910.1030(h)(5)(i)(C)

An explanation of how the incident occurred.

1910.1030(h)(5)(ii)

The requirement to establish and maintain a sharps injury log shall apply to any employer who is required to maintain a log of occupational injuries and illnesses under 29 CFR part 1904.

1910.1030(h)(5)(iii)

The sharps injury log shall be maintained for the period required by 29 CFR 1904.33.

1910.1030(i)

Dates —

1910.1030(i)(1)

Effective Date. The standard shall become effective on March 6, 1992.

1910.1030(i)(2)

The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.

1910.1030(i)(3)

Paragraphs (g)(2) Information and Training and (h) Recordkeeping of this section shall take effect on or before June 4, 1992.

1910.1030(i)(4)

Paragraphs (d)(2) Engineering and Work Practice Controls, (d)(3) Personal Protective Equipment, (d)(4) Housekeeping, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, and (g)(1) Labels and Signs of this section, shall take effect July 6, 1992.

APPENDIX C:
HEPATITIS B VACCINE DECLINATION (MANDATORY)

(This is mandatory if the employer-provided hepatitis B vaccine is declined.)

HEPATITIS B VACCINE DECLINATION FORM

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B Virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline the hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Signature _____

Date _____

Employer Signature _____

Date _____

APPENDIX D: GUIDELINE FOR HAND HYGIENE IN HEALTH-CARE SETTINGS

There have been no scientific research studies to develop best practices for hand hygiene specifically for body piercers. However, the APP recognizes that the hand hygiene concerns of health-care professionals frequently correlate with that of our industry. Further, regulating authorities have referred to this guideline when creating codes for our field. With these considerations, we've included the following guideline for reference.

GUIDELINE FOR HAND HYGIENE IN HEALTH-CARE SETTINGS

Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force

PART II. RECOMMENDATIONS

Categories

These recommendations are designed to improve hand hygiene practices of [HealthCare Workers] HCWs2 and to reduce transmission of pathogenic microorganisms to patients and personnel in healthcare settings. This guideline and its recommendations are not intended for use in food processing or food-service establishments, and are not meant to replace guidance provided by FDA's Model Food Code.

As in previous CDC/HICPAC guidelines, each recommendation is categorized on the basis of existing scientific data, theoretical rationale, applicability, and economic impact. The CDC/HICPAC system for categorizing recommendations is as follows:

- Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.
- Category IB. Strongly recommended for implementation and supported by certain experimental, clinical, or epidemiologic studies and a strong theoretical rationale.
- Category IC. Required for implementation, as mandated by federal or state regulation or standard.
- Category II. Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.
- No recommendation. Unresolved issue. Practices for which insufficient evidence or no consensus regarding efficacy exist

Recommendations

1. Indications for handwashing and hand antisepsis

   A. When hands are visibly dirty or contaminated with proteinaceous material or are visibly soiled with blood or other body fluids, wash hands with either a non-antimicrobial soap and water or an antimicrobial soap and water (IA) (66).

   B. If hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands in all other clinical situations described in items 1C–J (IA) (74,9 3,166,169,283,294,312,398). Alternatively, wash hands with an antimicrobial soap and water in all clinical situations described in items 1C–J (IB) (69-71,74).

   C. Decontaminate hands before having direct contact with patients (IB) (68,400).

   D. Decontaminate hands before donning sterile gloves when inserting a central intravascular catheter (IB) (401,402).

   E. Decontaminate hands before inserting indwelling urinary catheters, peripheral vascular catheters, or other invasive devices that do not require a surgical procedure (IB) (25,403).

   F. Decontaminate hands after contact with a patient's intact skin (e.g., when taking a pulse or blood pressure, and lifting a patient) (IB) (25,45,48,68).

   G. Decontaminate hands after contact with body fluids or excretions, mucous membranes, nonintact skin, and wound dressings if hands are not visibly soiled (IA) (400).

   H. Decontaminate hands if moving from a contaminated-body site to a clean-body site during patient care (II) (25,53).

   I. Decontaminate hands after contact with inanimate objects (including medical equipment) in the immediate vicinity of the patient (II) (46,53,54).

   J. Decontaminate hands after removing gloves (IB) (50,58,321).

   K. Before eating and after using a restroom, wash hands with a non-antimicrobial soap and water or with an antimicrobial soap and water (IB) (404-409).

   L. Antimicrobial-impregnated wipes (i.e., towelettes) may be considered as an alternative to washing hands with non-antimicrobial soap and water. Because they are not as effective as alcohol-based hand rubs or washing hands with an antimicrobial soap and water for reducing bacterial counts on the hands of HCWs, they are not a substitute for using an alcohol-based hand rub or antimicrobial soap (IB) (160,161).

   M. Wash hands with non-antimicrobial soap and water or with antimicrobial soap and water if exposure to Bacillus anthracis is suspected or proven. The physical action of washing and rinsing hands under such circumstances is recommended because alcohols, chlorhexidine, iodophors, and other antiseptic agents have poor activity against spores (II) (120,172, 224,225).

   N. No recommendation can be made regarding the routine use of nonalcohol-based hand rubs for hand hygiene in health-care settings. Unresolved issue.

2. Hand-hygiene technique

   A. When decontaminating hands with an alcohol-based hand rub, apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry (IB) (288,410).

   Follow the manufacturer's recommendations regarding the volume of product to use.

   B. When washing hands with soap and water, wet hands first with water, apply an amount of product recommended by the manufacturer to hands, and rub hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers. Rinse hands with water and dry thoroughly with a disposable towel. Use towel to turn off the faucet (IB) (90-92,94,411). Avoid using hot water, because repeated exposure to hot water may increase the risk of dermatitis (IB) (254,255).

   C. Liquid, bar, leaflet or powdered forms of plain soap are acceptable when washing hands with a nonantimicrobial soap and water. When bar soap is used, soap racks that facilitate drainage and small bars of soap should be used (II) (412-415).

   D. Multiple-use cloth towels of the hanging or roll type are not recommended for use in health-care settings (II) (137,300).

3. Surgical hand antisepsis

   A. Remove rings, watches, and bracelets before beginning the surgical hand scrub (II) (375,378,416).

   B. Remove debris from underneath fingernails using nail cleaner under running water (II) (14,417).

   C. Surgical hand antisepsis using either an antimicrobial soap or an alcohol-based hand rub with persistent activity is recommended before donning sterile gloves when performing surgical procedures (IB) (115,159,232,234,237,418).

   D. When performing surgical hand antisepsis using an antimicrobial soap, scrub hands and forearms for the length of time recommended by the manufacturer, usually 2–6 minutes. Long scrub times (e.g., 10 minutes) are not necessary (IB) (117,156,205, 207,238-241).

   E. When using an alcohol-based surgical hand-scrub product with persistent activity, follow the manufacturer's instructions. Before applying the alcohol solution, prewash hands and forearms with a non-antimicrobial soap and dry hands and forearms completely. After application of the alcohol-based product as recommended, allow hands and forearms to dry thoroughly before donning sterile gloves (IB) (159,237).

4. Selection of hand-hygiene agents

A. Provide personnel with efficacious hand-hygiene products that have low irritancy potential, particularly when these products are used multiple times per shift (IB) (90,92,98,166,249). This recommendation applies to products used for hand antisepsis before and after patient care in clinical areas and to products used for surgical hand antisepsis by surgical personnel.

B. To maximize acceptance of hand-hygiene products by HCWs, solicit input from these employees regarding the feel, fragrance, and skin tolerance of any products under consideration. The cost of hand hygiene products should not be the primary factor influencing product selection (IB) (92,93,166, 274,276-278).

C. When selecting non-antimicrobial soaps, antimicrobial soaps, or alcohol-based hand rubs, solicit information from manufacturers regarding any known interactions between products used to clean hands, skin care products, and the types of gloves used in the institution (II) (174,372).

D. Before making purchasing decisions, evaluate the dispenser systems of various product manufacturers or distributors to ensure that dispensers function adequately and deliver an appropriate volume of product (II) (286).

E. Do not add soap to a partially empty soap dispenser. This practice of "topping off" dispensers can lead to bacterial contamination of soap (IA) (187,419).

5. Skin care

A. Provide HCWs with hand lotions or creams to minimize the occurrence of irritant contact dermatitis associated with hand antisepsis or handwashing (IA) (272,273).

B. Solicit information from manufacturers regarding any effects that hand lotions, creams, or alcohol based hand antiseptics may have on the persistent effects of antimicrobial soaps being used in the institution (IB) (174,420,421).

6. Other Aspects of Hand Hygiene

A. Do not wear artificial fingernails or extenders when having direct contact with patients at high risk (e.g., those in intensive-care units or operating rooms) (IA) (350–353).

B. Keep natural nails tips less than 1/4-inch long (II) (350).

C. Wear gloves when contact with blood or other potentially infectious materials, mucous membranes, and nonintact skin could occur (IC) (356).

D. Remove gloves after caring for a patient. Do not wear the same pair of gloves for the care of more than one patient, and do not wash gloves between uses with different patients (IB) (50,58,321,373).

E. Change gloves during patient care if moving from a contaminated body site to a clean body site (II) (50,51,58).

F. No recommendation can be made regarding wearing rings in health-care settings. Unresolved issue.

7. Health-care worker educational and motivational programs

A. As part of an overall program to improve hand hygiene practices of HCWs, educate personnel regarding the types of patient-care activities that can result in hand contamination and the advantages and disadvantages of various methods used to clean their hands (II) (74,292,295,299).

B. Monitor HCWs' adherence with recommended hand-hygiene practices and provide personnel with information regarding their performance (IA) (74,276,292,295,299,306,310).

C. Encourage patients and their families to remind HCWs to decontaminate their hands (II) (394,422).

8. Administrative measures

A. Make improved hand-hygiene adherence a institutional priority and provide appropriate administrative support and financial resources (IB) (74,75).

B. Implement a multidisciplinary program designed to improve adherence of health personnel to recommended hand-hygiene practices (IB) (74,75).

C. As part of a multidisciplinary program to improve hand-hygiene adherence, provide HCWs with a readily accessible alcohol-based hand-rub product (IA) (74,166,283,294,312).

D. To improve hand-hygiene adherence among personnel who work in areas in which high workloads and high intensity of patient care are anticipated, make an alcohol-based hand rub available at the entrance to the patient's room or at the bedside, in other convenient locations, and in individual pocket-sized containers to be carried by HCWs (IA) (11,74,166,283,284,312,318,423).

E. Store supplies of alcohol-based hand rubs in cabinets or areas approved for flammable materials (IC).

REFERENCES

1. "Taber's Medical Dictionary:normal flora." 2009. 28 Dec. 2012 <http://www.tabers.com/tabersonline/ub/view/Tabers/143371/20/normal_flora>
2. "Section 10 - Centers for Disease Control and Prevention." 2012. 2 Jan. 2013 <http://www.cdc.gov/osels/scientific_edu/ss1978/lesson1/Section10.html>
3. DiSalvo, H. "Who let the dogs out? Infection control did: utility of dogs in health ..." 2006. <http://www.ncbi.nlm.nih.gov/pubmed/16765210>
4. "Guidelines for Environmental Infection Control in Health-Care ..." 2012. 2 Jan. 2013 <http://www.cdc.gov/hicpac/pdf/guidelines/eic_in_hcf_03.pdf>
5. "CDC - Self-Study Course SS1978." 2012. 2 Jan. 2013 <http://www.cdc.gov/osels/scientific_edu/SS1978/>
6. Boyce, John M, and Didier Pittet. "Guideline for hand hygiene in health-care settings: Recommendations of the healthcare infection control practices advisory committee and the hicpac/shea/apic/idsa hand hygiene task force." *Infection control and hospital epidemiology* 23.S12 (2002): 3-40.
7. Force, HHT. "RR5116-Front Cover.p65 - Centers for Disease Control and ..." 2004. <http://www.cdc.gov/mmwr/PDF/RR/RR5116.pdf>
8. "Proper Hand Washing." 2009. 2 Jan. 2013 <http://www.trentu.ca/healthandsafety/documents/handwash.pdf>
9. Force, HHT. "RR5116-Front Cover.p65 - Centers for Disease Control and ..." 2008. <http://www.cdc.gov/mmwr/pdf/rr/rr5116.pdf>
10. "Disclaimer - Centers for Disease Control and Prevention." 2003. 2 Jan. 2013 <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm>
11. "CDC - Handwashing: Clean Hands Save Lives." 2010. 2 Jan. 2013 <http://www.cdc.gov/handwashing/>
12. "CDC Guidelines: Hand Hygiene - American Dental Association." 2010. 2 Jan. 2013 <http://www.ada.org/sections/professionalResources/pdfs/cdc_handhygiene.pdf>
13. "WHO Guidelines on Hand Hygiene in Health Care - libdoc.who.int ..." 2009. <http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf>
14. Force, HHT. "Guideline for Hand Hygiene in Health-Care Settings - Centers for ..." 2004. <http://www.cdc.gov/mmwr/PDF/RR/RR5116.pdf>
15. "Guidance for Industry and FDA Staff - Medical Glove Guidance Manual." 2009. 28 Dec. 2012 <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm073111.htm>
16. "Medical Glove Guidance Manual - Food and Drug Administration." 2009. 28 Dec. 2012 <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm150053.htm>
17. "Guidance for Industry and FDA Staff - Medical Glove Guidance Manual." 2009. 17 Dec. 2012 <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm073111.htm>
18. "Contact Dermatitis & Latex Allergy - FAQs - Infection Control in ..." 2004. 28 Dec. 2012 <http://www.cdc.gov/oralhealth/infectioncontrol/faq/latex.htm>
19. "Rubber Gloves: "Born" - and Now Banished - At Johns Hopkins - 01 ..." 2010. 28 Dec. 2012 <http://www.hopkinsmedicine.org/news/media/releases/rubber_gloves_born___and_now_banished___at_johns_hopkins>
20. "CDC - NIOSH Publications and Products - Preventing Allergic ..." 2010. 17 Dec. 2012 <http://www.cdc.gov/niosh/docs/97-135/>
21. "Tips for PPE Usage, Compliance - Infection Control Today." 2012. 17 Dec. 2012 <http://www.infectioncontroltoday.com/articles/2012/09/tips-for-ppe-usage-compliance.aspx>
22. "High Impingement Washing: A Vital Part of the Instrument ..." 2010. 17 Dec. 2012 <http://www.infectioncontroltoday.com/articles/2009/04/high-impingement-washing-a-vital-part-of-the-inst.aspx>
23. "CDC - Disinfection & Sterilization Guideline:Cleaning - HICPAC." 2009. 28 Dec. 2012 <http://www.cdc.gov/hicpac/Disinfection_Sterilization/5_0cleaning.html>
24. "POSITION STATEMENT Surgical Smoke and Bio-Aerosols - AORN." 2011. 17 Dec. 2012 <http://www.aorn.org/WorkArea/DownloadAsset.aspx?id=21932>
25. Rutala, William A, and David J Weber. "Guideline for disinfection and sterilization of prion contaminated medical instruments." infection control and hospital epidemiology 31.2 (2010): 107-117.
26. "CDC - Disinfection & Sterilization Guideline:Approach - HICPAC." 2009. 29 Dec. 2012 <http://www.cdc.gov/hicpac/Disinfection_Sterilization/2_approach.html>
27. "Disinfection and Sterilization in Healthcare: An Overview." 2006. 17 Dec. 2012 <http://www.unc.edu/depts/spice/dis/Overview.pdf>
28. "Selected EPA-registered Disinfectants | Pesticides | US EPA." 29 Jan. 2013 <http://www.epa.gov/oppad001/chemregindex.htm>
29. "CDC - Disinfection & Sterilization Guideline:Approach - HICPAC." 2009. 29 Dec. 2012 <http://www.cdc.gov/hicpac/Disinfection_Sterilization/2_approach.html>
30. "CDC - Disinfection & Sterilization Guideline:Formaldehyde - HICPAC." 2012. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/7_0formaldehyde.html>
31. "CDC - Disinfection & Sterilization Guideline:Iodophors - HICPAC." 2009. 17 Dec. 2012 <http://www.cdc.gov/hicpac/Disinfection_Sterilization/8_0Iodophors.html>
32. "CDC - Disinfection & Sterilization Guideline:Disinfection - HICPAC." 2011. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/6_0disinfection.html>
33. "CDC - Disinfection & Sterilization Guideline:PA&HP - HICPAC." 2012. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/9_0pceticacidhydropoxide.html>
34. "CDC - Disinfection & Sterilization Guideline: Disinfection - HICPAC." 2011. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/6_0disinfection.html>
35. Rutala, William A., David J. Weber, and Health Infection Control Practices Advisory Committee. "Draft guideline for disinfection and sterilization in healthcare facilities." Centers for Disease Control and Prevention, Atlanta, GA (2002).
36. "CDC - Disinfection & Sterilization Guideline: Sterilization - HICPAC." 2012. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/13_0sterilization.html>
37. "CDC - Disinfection & Sterilization Guideline: Sterilization - HICPAC." 2012. 29 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/13_0sterilization.html>
38. "CDC - Disinfection & Sterilization Guideline: Sterilization - HICPAC." 2012. 29 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/13_0sterilization.html>
39. "CDC - Disinfection & Sterilization Guideline: Sterilization - HICPAC." 2012. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/13_0sterilization.html#a1>
40. Rutala, WA, and DJ Weber. "Infection control: the role of disinfection and sterilization." *Journal of Hospital Infection* 43 (1999): S43-S55.
41. McKeen, Laurence W. *The Effect of Sterilization on Plastics and Elastomers*. William Andrew, 2012.
42. Ibid.
43. "CDC - Disinfection & Sterilization Guideline: Authors - HICPAC." 2009. 17 Dec. 2012 <http://www.cdc.gov/hicpac/Disinfection_Sterilization/acknowledg.html>
44. "CDC - Disinfection & Sterilization Guideline: Sterile Methods - HICPAC." 2012. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/13_10othersteriliz ationmethods.html>
45. Rutala, William A., and David J. Weber. "Low-temperature sterilization technologies: do we need to redefine "sterilization?" *Infection control and hospital epidemiology* 17.2 (1996): 87-91.
46. "Steam sterilizer - Product Classification." 2008. 2 Jan. 2013 <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpcd/classification.cfm?ID=2290>
47. "Time versus Event: Preserving Sterile Package Integrity." 2010. 29 Dec. 2012 <http://www.infectioncontroltoday.com/articles/2002/04/time-versus-event-preserving-sterile-package-inte.aspx>

48. "Sterilizing Practices - Centers for Disease Control and Prevention." 2011. 29 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/13_11sterilizingpractices.html>

49. "CDC - Disinfection & Sterilization Guideline: Sterilization Practices ..." 2011. 17 Dec. 2012 <http://www.cdc.gov/hicpac/disinfection_sterilization/13_11sterilizingpractices.html>

50. Rutala, William A., David J. Weber, and Health Infection Control Practices Advisory Committee. "Draft guideline for disinfection and sterilization in healthcare facilities." *Centers for Disease Control and Prevention, Atlanta, GA* (2002).

51. Kapferer, Ines, Ulrike S. Beier, and Rutger G. Persson. "Tongue piercing: the effect of material on microbiological findings." *Journal of Adolescent Health* 49.1 (2011): 76-83.

52. Lee, Todd C., and Wayne L. Gold. "Necrotizing Pseudomonas chondritis after piercing of the upper ear." *Canadian Medical Association Journal* 183.7 (2011): 819-821.

53. "Ear piercings cause illness, disfigurement | Biomedicine | Science ..." 2008. 17 Dec. 2012 <http://www.sciencenews.org/view/generic/id/4844/title/Ear_piercings_cause_illness,_disfigurement>

54. Mokdad, Ali H. et al. "Actual causes of death in the United States, 2000." *JAMA: the journal of the American Medical Association* 291.10 (2004): 1238-1245.

55. Brown, R., and J. Warwick. "Blue calls—time for a change?." *Emergency Medicine Journal* 18.4 (2001): 289-292.

56. "Unbound MEDLINE : Ear deformity in children following high ear ..." 2012. 17 Dec. 2012 <http://www.unboundmedicine.com/medline/citation/11485579/Ear_deformity_in_children_following_high_ear_piercing:_current_practice_consent_issues_and_legislation_>

57. "Unbound MEDLINE | Embedded earrings: a complication of the ear ..." 2008. 17 Dec. 2012 <http://www.unboundmedicine.com/medline/ebm/record/2341236/full_citation/Embedded_earrings:_a_complication_of_the_ear_piercing_gun_>

58. Campiglio, G. "Ear reconstruction after auricular chondritis secondary to ear piercing." 2004. <http://www.ncbi.nlm.nih.gov/pubmed/14758264>

59. Fischer, Torkel, et al. "Nickel release from ear piercing kits and earrings." *Contact dermatitis* 10.1 (1984): 39-41.

60. Cicchetti, S. "Piercing the upper ear: a simple infection, a difficult reconstruction." 2002. <http://www.ncbi.nlm.nih.gov/pubmed/12041970>

61. Hayes, Margaret Oot, and Gail A. Harkness. "Body piercing as a risk factor for viral hepatitis: an integrative research review." *American journal of infection control* 29.4 (2001): 271-274.

62. Cohen, HA. "Embedded earrings." 1994. <http://www.ncbi.nlm.nih.gov/pubmed/7851126>

63. Cañas, C.A. "Local Cartilage Trauma as a Pathogenic Factor in Autoimmunity ..." 2011. <http://www.hindawi.com/journals/ad/2012/453698/>

64. Rogero, S.O. et al. "Cytotoxicity due to corrosion of ear piercing studs." *Toxicology in vitro* 14.6 (2000): 497-504.

65. "JAMA Network | JAMA: The Journal of the American Medical ..." 2012. 17 Dec. 2012 <http://jama.jamanetwork.com/issue.aspx?journalid=67&issueid=8626>

66. Van Sciver, A.E. "Hepatitis From Ear Piercing." 1969. <http://jama.jamanetwork.com/article.aspx?articleid=344639>

67. Das, P. "Piercing the cartilage and not the lobes leads to ear infections : The ..." 2002. <http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(02)00475-9>

68. Guidelines for Infection Control in Dental Health-Care Settings -2003 <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm>

69. "Selecting, Evaluating, and Using Sharps Disposal Containers." 2 Jan. 2013 <http://www.cdc.gov/niosh/pdfs/97-111.pdf>

70. "Bloodborne pathogens. - 1910.1030 - OSHA." 2005. 2 Jan. 2013 <http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10051>

71. "Comprehensive Guide to Steam Sterilization and Sterility Assurance in Health Care Facilities" Association for the Advancement of Medical Instrumentation -2011 <http://marketplace.aami.org/eseries/PDFDocs/ST79a1109.pdf>

72. Kohn, W.G. "Guidelines for Infection Control in Dental Health-Care Settings --- 2003." 2004. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm>

73. "Recommended Standards of Practice for Skin Prep of the Surgical ..." 2008. 29 Dec. 2012 <http://www.ast.org/pdf/Standards_of_Practice/RSOP_Skin_Prep.pdf>

74. "Recommended Standards of Practice for Skin Prep of the Surgical ..." 2008. 29 Dec. 2012 <http://www.ast.org/pdf/Standards_of_Practice/RSOP_Skin_Prep.pdf>

75. So can hydrogen peroxide be used as mouthwash safely? <http://www.intelligentdental.com/2010/07/09/so-can-hydrogen-peroxide-be-used-as-mouthwash-safely/>

76. How effective is saline solution as mouthwash? <http://www.wisegeek.com/how-effective-is-salt-water-as-a-mouthwash.htm>

77. "Distraction Plan - MDJunction." 2011. 4 Jan. 2013 <http://www.mdjunction.com/forums/bipolar-dealing-with-ptsd-discussions/general-support/2668975-distraction-plan>

78. Glaser, Aviva. "The ubiquitous triclosan." Pesticides and You 24.3 (2004): 12-17.

79. "Nutrition Guidelines to Improve Wound Healing - Cleveland Clinic." 2008. 4 Jan. 2013 <http://my.clevelandclinic.org/healthy_living/nutrition/hic_nutrition_guidelines_to_improve_wound_healing.aspx>

80. Gouin, J.P. "The Impact of Psychological Stress on Wound Healing: Methods and Mechanisms" 2011. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3052954/>

81. "ISO - International Organization for Standardization." 10 Jan. 2013 <http://www.iso.org/>

82. "ASTM International - Standards Worldwide." 10 Jan. 2013 <http://www.astm.org/>

83. "REACH - Environment - European Commission." 2006. 25 Jan. 2013 <http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm>

84. "DIRECTIVE 2002/95/EC OF THE EUROPEAN ... - EUR-Lex." 2008. 25 Jan. 2013 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:037:0019:0023:en:PDF>

85. "F138 - ASTM International." 2008. 10 Jan. 2013 <http://www.astm.org/Standards/F138.htm>

86. "ISO 5832-1:2007 - Implants for surgery -- Metallic materials -- Part 1 ..." 2009. 10 Jan. 2013 <http://www.iso.org/iso/catalogue_detail.htm?csnumber=39023>

87. "ISO 10993-6:2007 - Biological evaluation of medical devices -- Part ..." 2009. 10 Jan. 2013 <http://www.iso.org/iso/catalogue_detail.htm?csnumber=44789>

88. "ISO 10993-10:2010 - Biological evaluation of medical devices -- Part ..." 2010. 10 Jan. 2013 <http://www.iso.org/iso/catalogue_detail?csnumber=40884>

89. "ISO 10993-11:2006 - Biological evaluation of medical devices -- Part ..." 2009. 10 Jan. 2013 <http://www.iso.org/iso/catalogue_detail.htm?csnumber=35977>

90. "COMMISSION DIRECTIVE 2004/96/EC of 27 September ... - EUR-Lex." 2006. 11 Jan. 2013 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:301:0051:0052:EN:PDF>

91. "F136 - ASTM International." 2008. 11 Jan. 2013 <http://www.astm.org/Standards/F136.htm>

92. "ISO 5832-3:1996 - Implants for surgery -- Metallic materials -- Part 3 ..." 2009. 11 Jan. 2013 <http://www.iso.org/iso/catalogue_detail.htm?csnumber=23049>

93. "F67 - ASTM International." 2008. 11 Jan. 2013 <http://www.astm.org/Standards/F67.htm>

94. "ASTM F754 - 08 - ASTM International." 2008. 11 Jan. 2013 <http://www.astm.org/Standards/F754.htm>

95. "ISO 10993-6:2007 - Biological evaluation of medical devices -- Part ..." 2009. 11 Jan. 2013 <http://www.iso.org/iso/catalogue_detail.htm?csnumber=44789>

96. "ISO 10993-10:2010 - Biological evaluation of medical devices -- Part ..." 2010. 11 Jan. 2013 <http://www.iso.org/iso/catalogue_detail?csnumber=40884>

97. "ISO 10993-11:2006 - Biological evaluation of medical devices -- Part ..." 2009. 11 Jan. 2013 <http://www.iso.org/iso/catalogue_detail.htm?csnumber=35977>

98. "About USP | U.S. Pharmacopeial Convention." 2012. 25 Jan. 2013 <http://www.usp.org/about-usp>

99. "Nickel allergy - Mayo Clinic." 2006. 11 Jan. 2013 <http://www.mayoclinic.com/health/nickel-allergy/DS00826>

100. Puippe, J.C. "surface treatments of titanium implants - European Cells and ..." 2003. <http://www.ecmjournal.org/journal/supplements/vol005supp01/pdf/vol005supp01a18.pdf>

101. Demann, ET. "Gold as an implant in medicine and dentistry." 2005. <http://www.ncbi.nlm.nih.gov/pubmed/16393135>

102. Encyclopedia Brittanica Soda-Lime Glass <http://www.britannica.com/EBchecked/topic/551995/soda-lime-glass>

103. What is Borosilicate Glass? <http://www.wisegeek.org/what-is-borosilicate-glass.htm>

104. Autumn, K. "Mechanisms of Adhesion in Geckos." 2002. <http://intl-icb.oxfordjournals.org/content/42/6/1081.full>

105. "ASTM F86 - 12a Standard Practice for Surface Preparation and ..." 2008. 25 Jan. 2013 <http://www.astm.org/Standards/F86.htm>

106. "ASTM A967 - 05e2 Standard Specification for Chemical Passivation ..." 2008. 25 Jan. 2013 <http://www.astm.org/Standards/A967.htm>

107. "Chapter 33 - Emblems, Insignia, and Names - U.S. Code." 2004. 4 Jan. 2013 <http://uscode.house.gov/download/pls/18C33.txt>

108. "RUNNING THE GAUNTLET - By Jim Ward - Page 108." 2011. 15 Jan. 2013 <http://www.runningthegauntlet-book.com/>

109. <http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/Sharps/ucm263259.htm>

110. DOs and DON'Ts of Proper Sharps Disposal <http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/Sharps/ucm263274.htm>

111. "CDC - Bloodborne Infectious Diseases - Emergency Needlestick ..." 2004. 21 Jan. 2013 <http://www.cdc.gov/niosh/topics/bbp/emergnedl.html>

112. "Vasovagal syncope - MayoClinic.com." 2006. 21 Jan. 2013 <http://www.mayoclinic.com/health/vasovagal-syncope/DS00806>

113. Health Day Health Library; Fainting and Loss of Consciousness <http://consumer.healthday.com/encyclopedia/article.asp?AID=644511>

114. "Underutilization of Exercise-Based Cardiac Rehabilitation-American Heart Association." Updated 18 Feb. 2013 <http://my.americanheart.org/professional/General/Underutilization-of-Exercise-Based-Cardiac-Rehabilitation_UCM_434567_Article.jsp>

SAMPLE MINOR RELEASE FORM

Name of minor: _____ Birth date: _____

Name of parent or legal guardian: _____ Birth date: _____

Address: _____

_____City, State, Zip Code _____

Phone number _____

To induce _____ (company or piercer's name) to (pierce/stretch/insert) a _____ (name of piercing/anatomical region of the body) on my minor child _____ (insert name of minor child here) and in consideration of doing so, I hereby release _____ (company or piercer's name) from all manner of liabilities, claims, actions, and demands, in law or in equity, which I, my minor child, or our heirs might have now or hereafter by reason of complying with my request to pierce my minor child. I have provided accurate information on any medical conditions my minor child may have that could affect the outcome of this procedure. These include, but are not limited to: allergies (to iodine, latex, or metals, etc.), diabetes, anemia, hemophilia, high/low blood pressure, heart disease, swelling, rash, lumps, or discoloration of the area to be pierced, an immunosuppressive disorder, or any condition that requires the use of antibiotics before a medical procedure.

I have provided information on any medications my minor child is currently taking, and on any piercings, tattoos, surgeries, or serious illnesses or injuries they have experienced in the past 90 days.

I certify that my minor child is not pregnant or nursing.

To ensure proper healing of my piercing, my minor child and I agree to follow the written aftercare guidelines until healing is complete.

My minor child and I understand that this type of piercing usually takes _____ (healing time) or longer to heal.

My minor child and I recognize that the suggestions and aftercare given to us by _____(studio name) employees or agents are based upon their experience in this field and current industry standards. Employees of _____(studio name) are not doctors, and their suggestions, whether written or verbal, stated or implied, are not meant to be taken as medical advice. In the event of a serious medical concern I will take my minor child to see a physician.

I have read and understand this release form and I hereby swear and affirm under penalty of perjury by my signature below, that I am the parent or legal guardian of the above named minor and that all information provided by me is true and correct.

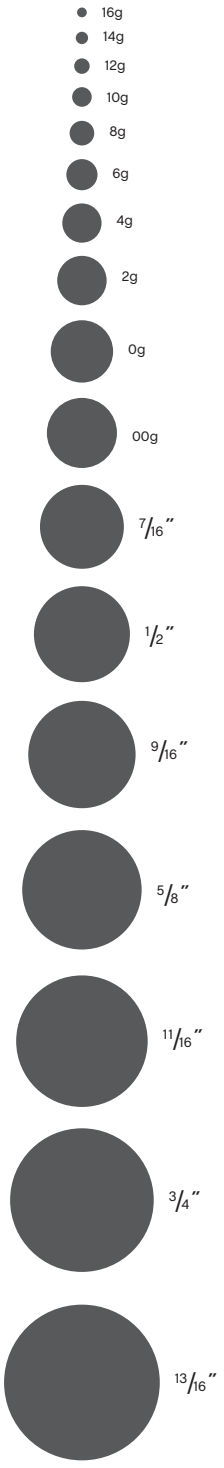
My minor child and I have signed this release on _____ (date)

_____ (Signature of minor)

_____ (Signature of parent or legal guardian)

APP NOTE: *The signature of the parent or legal guardian must be at the end of the form.*

GAUGE CONVERSION CHART



Brown & Sharpe Gauge	Inches	Decimal Inches	Millimeters (Rounded)	Millimeters
20	1/32	.032	.8	.81
18	5/127	.040	1.0	1.02
16	3/64	.051	1.2	1.29
14	1/16	.064	1.6	1.63
12	5/64	.081	2	2.05
10	3/32	.102	2.5	2.59
8	1/8	.128	3.2	3.26
6	5/52	.162	4	4.12
—	3/16	.178	—	4.76
4	13/64	.204	5	5.19
2	1/4	.258	6	6.54
0	5/16	.325	8	8.25
00	—	.365	9	9.27
—	3/8	.375	10	9.50
000	—	.410	—	10.41
—	7/16	.438	11	11.11
0000	1/2	.460	12	11.86
—	9/16	.563	14	14.29
—	5/8	.625	16	15.90
—	11/16	.688	18	17.46
—	3/4	.750	19	19.00
—	13/16	.813	20	20.64
—	7/8	.875	22	22.20
—	15/16	.938	24	23.81
—	1	1.000	25	25.40

PHYSICIAN ACKNOWLEDGEMENT FORM

TO BE FILLED OUT BY CLIENT

Client's Name: _____

Street Address _____

City _State _____ Zip Code _____

Client's Telephone Number: _____ Client's Date of Birth _____

Piercing To Be Performed _____

Condition That May Affect Healing of Piercing _____

I have read all aftercare instructions associated with this piercing and have had the opportunity to ask all questions associated with this procedure. I understand that infection is always a risk associated with piercing and the above listed health condition may further increase my chance of infection or complications during the healing process. Should any complications arise, I agree to seek medical attention.

Client's Signature _____ Date_

TO BE FILLED OUT BY PHYSICIAN

Physician's Name _____

Street Address _____

City _State _____ Zip Code _____

Physician's Telephone Number _____

I, the physician of the above patient, understand that the patient intends to have a body piercing performed at _____. As the patient's physician I am aware of the above listed health condition and am willing to treat the patient should any complications arise from the aforementioned condition.

My willingness to treat the patient should a problem arise, is in no way an endorsement of the practice of body piercing.

Physician's Signature _____ Date_

A PIERCEE'S BILL OF RIGHTS

EVERY PERSON BEING PIERCED HAS THE RIGHT:

1. To be pierced in a hygienic environment by a clean, conscientious, sober piercer wearing a fresh pair of disposable medical examination gloves.

2. To be pierced with a brand new, completely sterilized single-use needle that is immediately disposed of in a medical Sharps container after use on one piercing.

3. To be touched only with freshly sterilized and appropriate implements, properly used and disposed of or re-sterilized (where appropriate) in an autoclave prior to use on anyone else.

4. To know that piercing guns are NEVER appropriate, and are often dangerous when used on anything — including earlobes.

5. To the peace of mind that comes from knowing that their piercer knows and practices the very highest standards of sterilization and hygiene.

6. To a have a knowledgeable piercer evaluate and discuss appropriate piercings and jewelry for her/his individual anatomy and lifestyle.

7. To be fully informed of all risks and possible complications involved in his/her piercing choice before making any decisions.

8. To seek and receive a second opinion either from another piercer within the studio or from another studio.

9. To have initial piercings fitted with jewelry of appropriate size, material, design, and construction to best promote healing. Gold-plated, gold-filled or sterling silver jewelry is never appropriate for any new or unhealed piercing.

10. To see pictures, be given a tour of the piercing studio, and to have all questions fully and politely answered before making or following through on any decision.

11. To be fully informed about proper aftercare, both verbally and in writing, and to have continuing access to the piercer for assistance throughout the healing process.

12. To be treated with respect, sensitivity and knowledge regardless of gender, sexual orientation, race, religion, ethnicity, ability, health status or piercing choice.

13. To change her/his mind, halt the procedure and leave at any point if the situation seems uncomfortable or improper.

Warning: Employees Only

Emergency Needlestick Information

Workers Please Note

If you experienced a needlestick or sharps injury or were exposed to the blood or other body fluid of a client during the course of your work, immediately follow these steps:

1. Wash needlesticks and cuts with soap and water
2. Flush splashes to the nose, mouth, or skin with water
3. Irrigate eyes with clean water, saline, or sterile irrigants
4. Report the incident to your supervisor
5. Immediately seek medical treatment

If you have questions about appropriate medical treatment for occupational exposures, 24 hour assistance is available from the Clinicians' Post Exposure Prophylaxis Hotline (PEPline) at 1-888-448-4911.

For your health and that of others, please do not remove, insert, or handle your jewelry in the studio.

We will do it for you.

APP

ASSOCIATION OF PROFESSIONAL PIERCERS

We reserve the right to refuse service to anyone at anytime for any reason

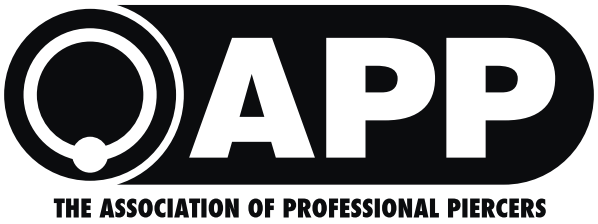
Studio_____

Date	Cycle #	Contents	Time	Temperature	Solution Used	Initials

APP ULTRASONIC LOG

APP STERILIZATION LOG

Date	Cycle #	Contents	Time	Temperature	Pressure	Initials	Integrator


APP
THE ASSOCIATION OF PROFESSIONAL PIERCERS