

BLOODBORNE PATHOGENS: 1910.1030

INTRODUCTION

This course covers the requirements of OSHA's Blood borne pathogen regulation 29 CFR 1910.1030. The goal of this course is to educate students about the dangers associated with occupational exposure to blood and OPIM (other Potentially Infectious Material) and some precautions that can be taken to avoid an unfortunate occurrence of worker exposure to potentially infectious materials.



INTRODUCTION

In addition, this course also covers OSHA's revisions to 1910.1030 Occupational Exposure to Bloodborne Pathogens; Needlestick and Other Sharps Injuries; Final Rule published on January 18, 2001 and which took effect on April 18, 2001. Compliance with regulatory revisions will help reduce worker risk to potential exposure from bloodborne diseases.



LEARNING OBJECTIVES

- ❑ Know the risks associated with occupational exposure to blood and other bodily fluids
- ❑ Know the precautions to take for occupational exposure to blood or other potentially infectious material
- ❑ Know the requirements for an occupational exposure control plan and methods of compliance
- ❑ Know the requirements for hepatitis B vaccinations and post-exposure evaluation and follow-up



LEARNING OBJECTIVES

- ❑ Know the methods used to communicate hazards to employees
- ❑ Know the requirements for training employees
- ❑ Know the recordkeeping requirements for bloodborne pathogen exposure control programs
- ❑ Know the revisions to the bloodborne pathogen standard covering needlesticks and other sharps injuries

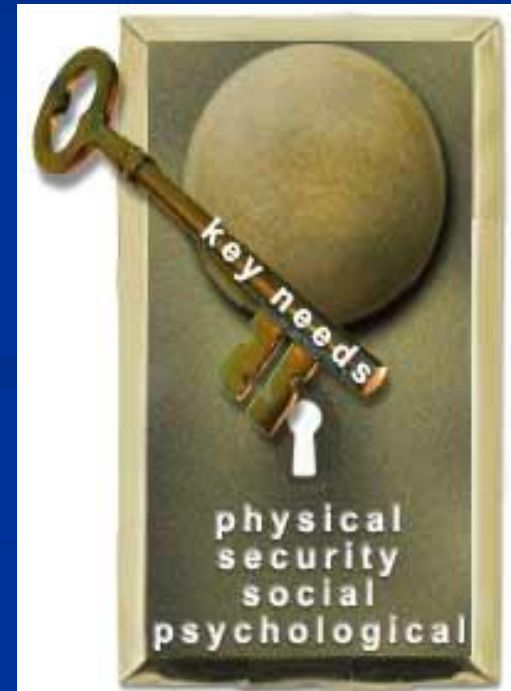


KEY TERMS

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).

Engineering Controls: means controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.



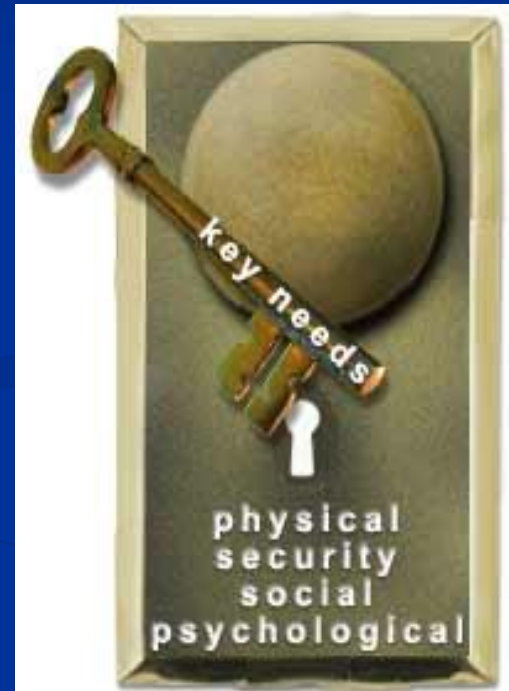
KEY TERMS

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.

HBV: means hepatitis B virus.

HIV: means human immunodeficiency virus.

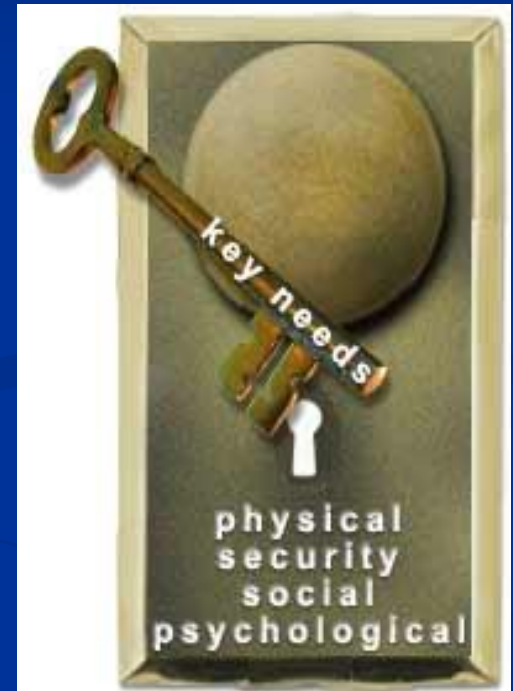
Occupational Exposure: means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.



KEY TERMS

Other Potentially Infectious Materials: means human body fluids such as 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; all body fluids in situations where it is difficult or impossible to differentiate between body fluids; any unfixed tissue or organ (other than intact skin) from a human, living or dead; HIV-containing cell or tissue cultures and organ cultures; 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.



LESSON 1

INTRODUCTION TO BLOODBORNE PATHOGENS

This lesson focuses on the following topics:

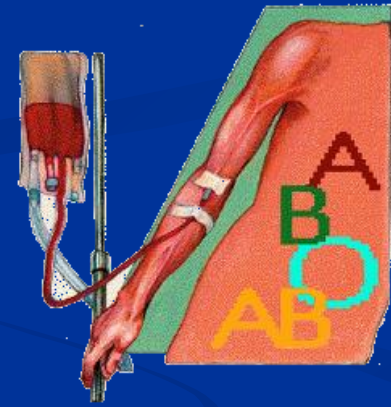
- ❑ Background and history
- ❑ Risks of occupational exposure
- ❑ Precautions and preventative measures

LESSON 1

INTRODUCTION TO BLOODBORNE PATHOGENS

Blood and other potentially infectious materials (OPIM) have long been recognized as a potential threat to the health of employees who are exposed to these materials by percutaneous contact (penetration of the skin). Injuries from contaminated needles and other sharps have been associated with an increased risk of disease from more than 20 infectious agents.

The primary agents of concern in current occupational settings are the human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV).



LESSON 1

INTRODUCTION TO BLOODBORNE PATHOGENS

In September 1986, OSHA was petitioned by various unions representing healthcare employees to develop an emergency temporary standard to protect employees from occupational exposure to bloodborne (see More About icon below) diseases. The agency decided to pursue the development of a Section 6(b) standard and published a proposed rule on May 30, 1989.



LESSON 1

INTRODUCTION TO BLOODBORNE PATHOGENS

The agency also concluded that the risk of contracting the hepatitis B virus (HBV) and human immunodeficiency virus (HIV) among members of various occupations within the healthcare sector required an immediate response and therefore issued OSHA Instruction CPL 2-2.44, January 19, 1988. That instruction was superseded by CPL 2-2.44A, August 15, 1988; subsequently, CPL 2-2.44B was issued February 27, 1990 and the most current compliance directive, CPL 2-2.69, was issued November 27, 2001.

LESSON 1

INTRODUCTION TO BLOODBORNE PATHOGENS

To reduce the health risk to workers whose duties involve exposure to blood or other potentially infectious materials, OSHA promulgated the Bloodborne Pathogens (BBP) standard (29 CFR 1910.1030) on December 6, 1991 (56 FR 64004). The provisions of the standard were based on the Agency's determination that a combination of engineering and work practice controls, personal protective equipment, training, medical surveillance, hepatitis B vaccination, signs and labels, and other requirements would minimize the risk of disease transmission. The Bloodborne Pathogen Standard was revised in 2001 to reflect language in the Needlestick Safety and Prevention Act of November 6, 2000. The revised standard took effect April 18, 2001, but was not enforced until July 18, 2001.

[Click here to view noteworthy](#)

Both the original Bloodborne Pathogen standard (CFR 1910.1030) and CPL 2-2.44C became effective on March 6, 1992.

LESSON 1

RISKS OF OCCUPATIONAL EXPOSURE

Bloodborne pathogens include but are not limited to:

- ❑ HBV, which causes hepatitis B
- ❑ HIV, which causes acquired immunodeficiency syndrome (AIDS)
- ❑ HCV, which causes hepatitis C
- ❑ Human T-lymphotrophic virus Type 1
- ❑ Pathogens causing: malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease, and viral hemorrhagic fever.



LESSON 1

RISKS OF OCCUPATIONAL EXPOSURE

Exposures occur in a variety of ways including through needlesticks or cuts from other sharp instruments contaminated with an infected person's blood or through eye, nose, mouth, or broken skin contact with a person's blood.

Important factors that may determine the overall risk for occupational transmission of a bloodborne pathogen include the type and number of blood contacts that an employee has.



LESSON 1

RISKS OF OCCUPATIONAL EXPOSURE

Most exposures do not result in infection. Following a specific exposure, the risk of infection may vary with factors such as:

- ❑ The pathogen involved
- ❑ The type of exposure
- ❑ The amount of blood/OPIM involved in the exposure
- ❑ The amount of virus in the person's blood/OPIM at the time of exposure

LESSON 1

RISKS OF OCCUPATIONAL EXPOSURE

The employer must have an exposure control plan in place for reporting exposures in order to quickly evaluate the risk of infection, inform employees about treatments available to help prevent infection, monitor employees for side effects of treatments, and to determine if infection occurs. This may involve testing employee's blood and that of the source person and offering appropriate post exposure treatment.

LESSON 1

RISKS OF OCCUPATIONAL EXPOSURE

It is important to know the risks of infection for the various types of bloodborne pathogens to which you may be exposed.

HBV

Workers who have received hepatitis B vaccine and have developed immunity to the virus are at virtually no risk for infection. For an unvaccinated person, the risk from a single Needlestick or a cut exposure to HBV-infected blood ranges from 6-30% and depends on the hepatitis B e antigen (HBeAg) status of the source individual. Individuals who are both hepatitis B surface antigen (HBsAg) positive and HBeAg positive have more virus in their blood and are more likely to transmit HBV.

LESSON 1

RISKS OF OCCUPATIONAL EXPOSURE

HCV

Based on limited studies, the risk for infection after a Needlestick or cut exposure to HCV-infected blood is approximately 1.8%. The risk following a blood splash is unknown, but is believed to be very small; however, HCV infection from such an exposure has been reported.

HIV

The average risk of HIV infection after a Needlestick or cut exposure to HIV-infected blood is 0.3% (i.e., three-tenths of one percent, or about 1 in 300). Stated another way, 99.7% of Needlestick/cut exposures do not lead to HIV infection.

LESSON 1

PRECAUTIONS AND PREVENTATIVE MEASURES

Many needlesticks and other cuts can be prevented by:

- ❑ using safer techniques (e.g., not recapping needles two-handed)
- ❑ disposing of used needles in appropriate sharps disposal containers
- ❑ using medical devices with safety features designed to prevent injuries

Many exposures to the eyes, nose, mouth, or skin can be prevented by using appropriate barriers (e.g., fluid-resistant gloves, eye and face protection, and gowns) when contact with blood/OPIM is expected.

LESSON 1

PRECAUTIONS AND PREVENTATIVE MEASURES

Vaccinations and treatment:

Hepatitis B vaccine has been available since 1982 to prevent HBV infection. All workers who have a reasonable chance of exposure to blood or body fluids should receive hepatitis B vaccine. Vaccination ideally should occur during the health-care worker's training period. Workers can be tested 1-2 months after the vaccine series to make sure that vaccination has provided immunity to HBV infection.



LESSON 1

PRECAUTIONS AND PREVENTATIVE MEASURES

There is no vaccine against hepatitis C, and no treatment after an exposure that will prevent infection. Immune globulin is not recommended. For these reasons, following recommended infection control practices is imperative.

There is no vaccine against HIV. However, results from a small number of studies suggest that the use of zidovudine (and other drugs) after certain occupational exposures, may reduce the chance of HIV transmission.

LESSON 1

PRECAUTIONS AND PREVENTATIVE MEASURES

Post exposure treatment is not recommended for all occupational exposures to HIV because most exposures do not lead to HIV infection and because the drugs used to prevent infection may have serious side effects.

Taking these drugs for exposures that pose a lower risk for infection may not be worth the risk of the side effects. Employees should discuss the risks and side effects with a health-care provider before starting post exposure treatment for HIV.

LESSON 1

PRECAUTIONS AND PREVENTATIVE MEASURES

If the source individual cannot be identified or tested, decisions regarding follow-up should be based on the exposure risk and whether the source is likely to be a person who is infected with a bloodborne pathogen. Follow-up testing should be available to all workers who are concerned about possible infection through occupational exposure.

LESSON 1

PRECAUTIONS AND PREVENTATIVE MEASURES

Treatment for bloodborne pathogen exposure should normally begin as soon as possible. For HBV exposure, treatment should begin as soon as possible, within 24 hours and no later than seven days. For HIV exposure, treatment should begin within hours.

LESSON 2

CONTROL AND COMPLIANCE

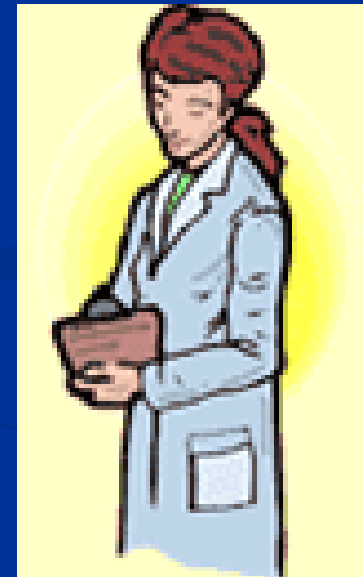
This lesson focuses on the following topics:

- ❑ Exposure control plan requirements
- ❑ Methods of compliance

LESSON 2

EXPOSURE CONTROL PLAN REQUIREMENTS

All employers with employee (s) who have occupational exposure to, or potential occupational exposure to bloodborne pathogens are required to establish a written Exposure Control Plan designed to minimize or eliminate employee exposure.



LESSON 2

EXPOSURE CONTROL PLAN REQUIREMENTS

Written Exposure Control Plans must contain the following elements:

1. An exposure determination
 - ❑ A list of all job classifications in which all employees in those job classifications have occupational exposure
 - ❑ A list of job classifications in which some employees have occupational exposure
 - ❑ A list of all tasks and procedures (or groups of closely related tasks and procedures) in which occupational exposure may occur when they are performed by employees in the listed job classifications

LESSON 2

EXPOSURE CONTROL PLAN REQUIREMENTS

2. Methods of compliance
3. HIV and HBV research laboratories and production facilities (if applicable)
4. Hepatitis B vaccination and post-exposure evaluation and follow-up
5. Communication of hazards to employees
6. Recordkeeping
7. Procedures for evaluating circumstances surrounding exposure incidents

LESSON 2

EXPOSURE CONTROL PLAN REQUIREMENTS

The plan is to be made available for employees to review.

The plan must be review at least annually, and updated as necessary to reflect new or modified tasks and procedures affecting occupational exposure, and to reflect new or revised employee positions having occupational exposure to bloodborne pathogens.

The plan must be available to OSHA upon request for examination and/or copying.

LESSON 2

METHODS OF COMPLIANCE

The first principle of methods of compliance is that universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. If differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

LESSON 2

METHODS OF COMPLIANCE

Engineering controls:

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

Any engineering controls used must be regularly maintained to ensure their effectiveness. In addition, hand washing facilities, or some other effective way for employees to disinfect their hands, must be readily accessible. It is the employer's responsibility to ensure that employees wash as soon as possible after they remove their gloves and personal protective equipment. Employers must also ensure facilities for the flushing of mucous membranes, eyes, face, and the body after any contact with blood or other potentially infectious material (s).



LESSON 2

METHODS OF COMPLIANCE

If contaminated needles or sharps must be recapped, bent, or removed, a one-handed technique or mechanical device must be used.

As soon as possible after use sharps must be disposed of in a proper container, the container must be:

- ❑ Puncture resistant and closable
- ❑ Labeled with the biological hazard placard or red colored
- ❑ Leak proof on the bottoms and sides
- ❑ Be constructed and placed to prevent employees, patients, and visitors from reaching into the container.



LESSON 2

METHODS OF COMPLIANCE

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 to bloodborne pathogens. Refrigerators used to store blood or other potentially infectious material shall not be used for food or beverages, and shall be so labeled.



LESSON 2

METHODS OF COMPLIANCE

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:



LESSON 2

METHODS OF COMPLIANCE

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.

If an employee exposure does occur the employee should immediately;

- ❑ Wash the skin with soap and water and flush mucous membranes with water.
- ❑ Evaluate the exposure source and determine the risk of infection.
- ❑ Seek medical evaluation per the facility's written bloodborne pathogen program

LESSON 2

METHODS OF COMPLIANCE

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 judgment, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

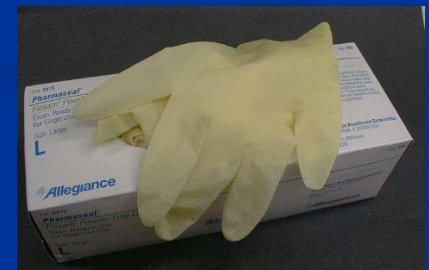
LESSON 2

METHODS OF COMPLIANCE

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, powder less gloves, non-latex, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

The employer must pay for any cleaning, or disposal of PPE, and shall repair or replace PPE as needed.



LESSON 2

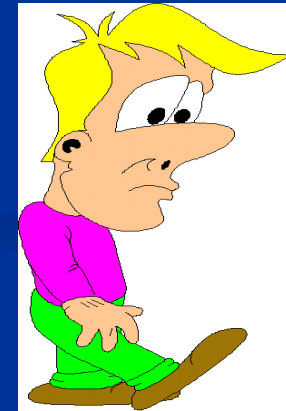
METHODS OF COMPLIANCE

Proper gloves must be worn whenever contact with potentially infectious material is anticipated. Disposable (single use) gloves such as surgical or examination gloves, must 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. Utility gloves can be disinfected for reuse as long as they maintain their integrity.

LESSON 2

METHODS OF COMPLIANCE

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. All personal protective equipment shall be removed prior to leaving the work area, and placed in an appropriately designated area or container for storage, washing, decontamination or disposal.



LESSON 2

METHODS OF COMPLIANCE

Good housekeeping requires that employers ensure the worksite is maintained in a clean and sanitary condition. All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials. Broken glassware which may be contaminated must be cleaned up using mechanical means, such as a brush and dustpan, tongs, or forceps.

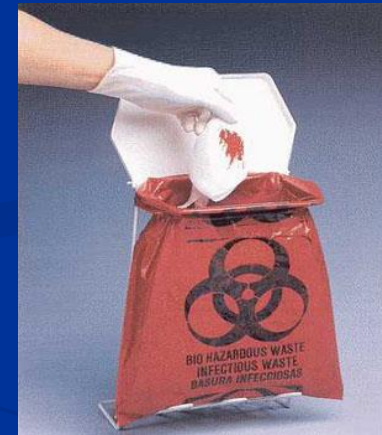


LESSON 2

METHODS OF COMPLIANCE

During use, containers for contaminated sharps must be easily accessible, maintained upright, and not overfilled. Before moving, containers must be closed and labeled. If the sharps container is leaking, it must be placed in a leak proof secondary container.

Contaminated laundry must be handled as little as possible with a minimum of agitation, and be placed and transported in bags or containers which are labeled or color-coded. The employer must ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.



LESSON 3

UNDERSTANDING HEPATITIS B

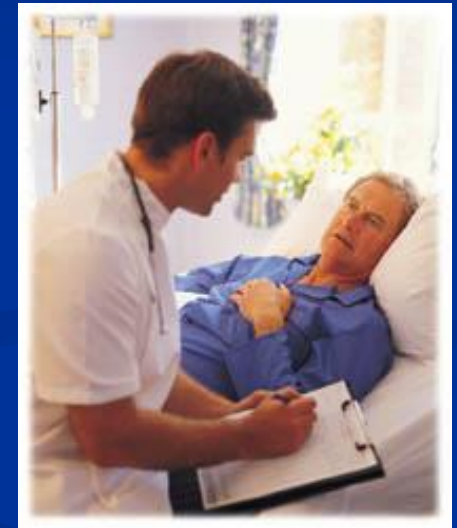
This lesson focuses on the following topics:

- ❑ Risk factors
- ❑ Transmission prevention strategies
- ❑ Employer requirements and services provided

LESSON 3

RISK FACTORS

Although the potential for HBV transmission in the workplace setting is greater than for HIV, the modes of transmission for these two viruses are similar. Both have been transmitted in occupational settings by percutaneous inoculation or contact with an open wound, nonintact (e.g., chapped, abraded, weeping, or dermatitis) skin, or mucous membranes, to blood, blood-contaminated body fluids, or concentrated virus.



LESSON 3

RISK FACTORS

Blood is the single most important source of HIV and HBV in the workplace setting. Protection measures against HIV and HBV for workers should focus primarily on preventing these types of exposures to blood as well as the establishment of an HBV vaccination program and delivery system. Persons who contract HBV are at risk of developing chronic liver disease (chronic active hepatitis, cirrhosis, and primary liver cancer), and are infectious to others.

LESSON 3

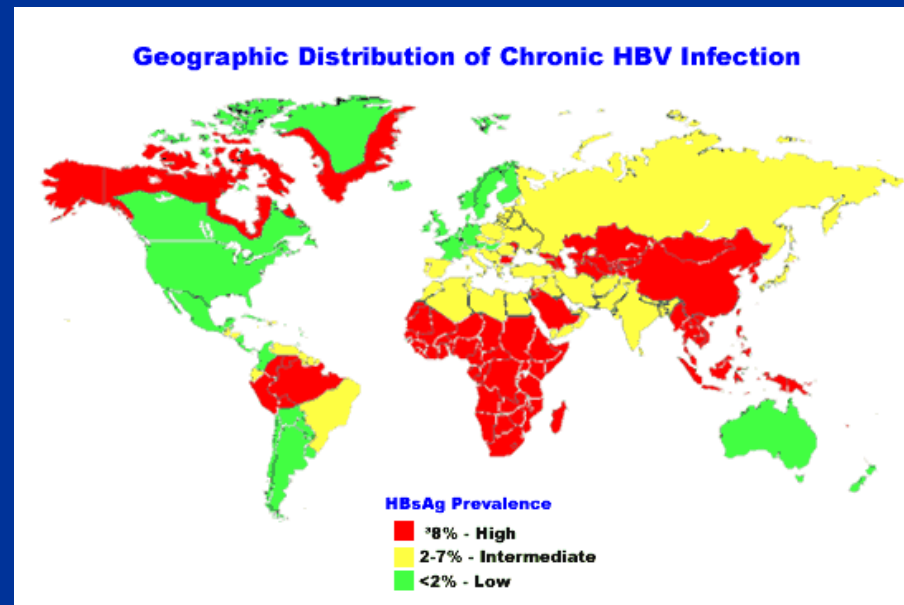
RISK FACTORS

The risk of hepatitis B infection following a parenteral (i.e., needle stick or cut) exposure to blood is directly proportional to the probability that the blood contains hepatitis B surface antigen (HBsAg), the immunity status of the recipient, and on the efficiency of transmission.

LESSON 3

RISK FACTORS

The probability of the source of the blood being HBsAg positive ranges from 1 to 3 per thousand in the general population to 5%-15% in groups at high risk for HBV infection, such as immigrants from areas of high endemicity (China and Southeast Asia, sub-Saharan Africa, most Pacific islands, and the Amazon Basin); clients in institutions for the mentally retarded; intravenous drug users; homosexually active males; and household (sexual and non-sexual) contacts with HBV carriers



LESSON 3

TRANSMISSION PREVENTION STRATEGIES

Universal precautions, engineering controls and personal protective equipment all are effective measures for reducing the exposure risk to employees.

In the hospital and other health-care settings, "universal precautions" should be followed when workers are exposed to blood, certain other body fluids (amniotic fluid, pericardial fluid, peritoneal fluid, pleural fluid, synovial fluid, cerebrospinal fluid, semen, and vaginal secretions), or any body fluid (including saliva during dental procedures) visibly contaminated with blood.

LESSON 3

TRANSMISSION PREVENTION STRATEGIES

Emergency medical and public-safety workers are at higher risk for contracting HBV. This group includes fire-service personnel, emergency medical technicians, paramedics, and law-enforcement and correctional-facility personnel.

Available vaccines stimulate active immunity against HBV infection and provide over 90% protection against hepatitis B for 7 or more years following vaccination.

Hepatitis B vaccines also are 70%-88% effective when given within 1 week after HBV exposure.

LESSON 3

TRANSMISSION PREVENTION STRATEGIES

- ❑ Use of hepatitis B vaccine is strongly endorsed by the medical, scientific and public health communities as a safe and effective way to prevent hepatitis B disease and possible death.
- ❑ Hepatitis B vaccines have been shown to be very safe when given to infants, children and adults.
- ❑ There is no confirmed evidence that indicates that hepatitis B vaccine can cause chronic illnesses.

LESSON 3

TRANSMISSION PREVENTION STRATEGIES

You may have hepatitis B (and be spreading the disease) and not know it; sometimes a person with HBV infection has no symptoms at all. Only a blood test can tell for sure.

If you have symptoms

- ❑ Your eyes or skin may turn yellow
- ❑ You may lose your appetite
- ❑ You may have nausea. Vomiting, fever, stomach or joint pain
- ❑ You may feel extremely tired and not be able to work for weeks or months



LESSON 3

TRANSMISSION PREVENTION STRATEGIES

In addition to universal precautions, the following accepted measures would help reduce employee risk to contracting bloodborne diseases.

1. After they are used, disposable syringes and needles, scalpel blades, and other sharp items should be placed in puncture-resistant containers for disposal; the puncture-resistant containers should be located as close as practical to the use area.
2. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with: blood, other body fluids to which universal precautions apply, or potentially contaminated articles. Hands should always be washed after gloves are removed, even if the gloves appear to be intact.

LESSON 3

TRANSMISSION PREVENTION STRATEGIES

3. All spills of blood and OPIMs should be promptly cleaned up using an EPA-approved germicide or a 1:100 solution of household bleach in the following manner while wearing gloves. Visible material should first be removed with disposable towels or other appropriate means that will ensure against direct contact with blood. The germicidal solution should be carefully poured onto the surface where the spill has occurred, and left for 20 minutes (or whatever the manufacturer's instructions state). After the contact time, the germicidal should be washed off with clean water and then the area should be scrubbed with a liquid soap, and rinsed. Gloves should be worn throughout this activity and if splashing is anticipated, protective eyewear should be worn along with an impervious gown or apron which provides an effective barrier to splashes.

LESSON 3

TRANSMISSION PREVENTION STRATEGIES

4. Although soiled linen may be contaminated with pathogenic microorganisms, the risk of actual disease transmission is low. All soiled linen should be handled as little as possible and with minimum agitation, and bagged at the location where it was used. Linen soiled with blood should be placed and transported in labeled bags that prevent leakage. Normal laundry cycles should be used according to the washer and detergent manufacturers' recommendations. Personnel involved with the handling and sorting of contaminated laundry should wear protective equipment such as gloves, gowns, masks, and eye protection.

LESSON 3

TRANSMISSION PREVENTION STRATEGIES

5. Protective work clothing contaminated with blood or other body fluids to which universal precautions apply should be placed and transported in labeled bags or containers that prevent leakage. Personnel involved in the bagging, transport, and laundering of contaminated clothing should wear gloves.
6. Infectious waste shall be handled as a regulated waste, and as such, shall be stored, transported and disposed of according to current and applicable local, state, and federal regulations.

LESSON 3

TRANSMISSION PREVENTION STRATEGIES

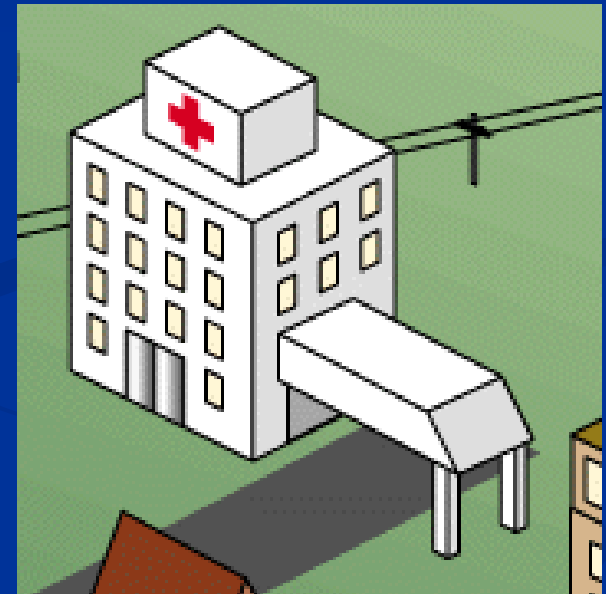
These precautions are employed in the context of an overall exposure control program. An effective program will also include:

1. Classification of work activity
2. Development of standard operating procedures,
3. Provision for training and education,
4. Development of procedures to ensure and monitor compliance
5. Workplace redesign.

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

Employers must make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure to bloodborne pathogens, and post-exposure evaluation and follow-up, to all employees who have had an exposure incident.

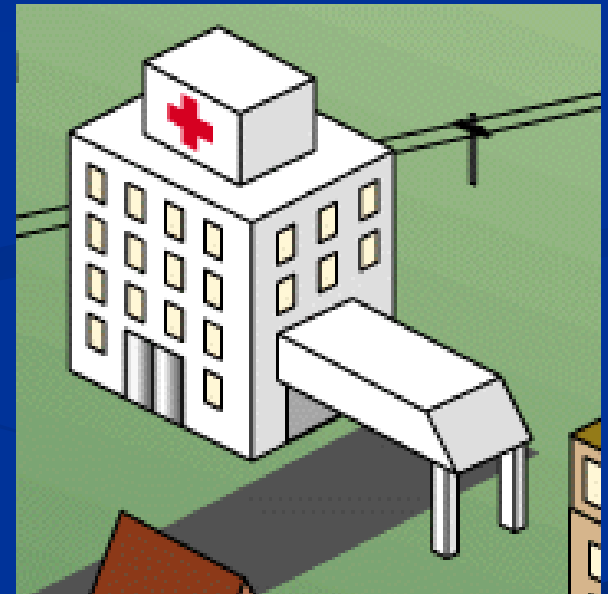


LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

In addition, the employer must ensure all medical evaluations and procedures, including the hepatitis B vaccine and vaccination series and post-exposure evaluation, follow-up, and prophylaxis, are:

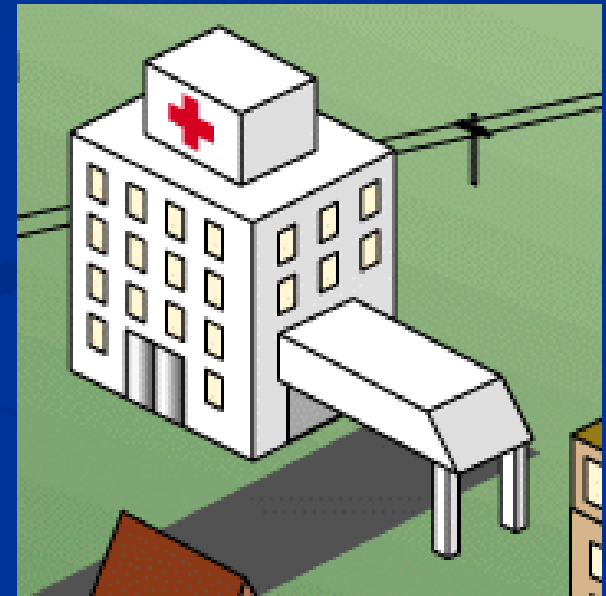
- Made available at no cost to the employee
- Made available to the employee at a reasonable time and place



LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

- Performed by/under the supervision of a licensed physician or by/under the supervision of another licensed healthcare professional
- Provided according to recommendations of the U.S. Public Health Service that are current at the time these evaluations and procedures take place.



Current recommendations of the U.S. public health service can be obtained through the Centers for Disease Control (CDC) or online at cdc.gov

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

Hepatitis B vaccination must be made available after the employee has received the training, and within ten 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
- The vaccine is contraindicated for medical reasons.

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

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. Employees who decline to accept hepatitis B vaccination offered by the employer must sign the following statement.

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

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 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 (**Mandatory** Appendix A of 1910.1030).

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

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:

- Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred
- Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law
- Collection and consent (from both the source and employee) for the testing of their blood for HBV and HIV serological status

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

- Counseling
- Evaluation of reported illnesses

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

The employer also has to ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

- A copy of the OSHA bloodborne pathogen standard
- A description of the exposed employee's duties as they related to the exposure incident

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

- Documentation of the route(s) of exposure and circumstances under which exposure occurred
- Results of the source individual's blood testing, if available
- All medical records relevant to the appropriate treatment of the employee, including vaccination status, which are the employer's responsibility to maintain.

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

The employer also has to 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.

- The healthcare professional's written opinion for Hepatitis B vaccination must be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received the vaccination.

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

The written opinion must be limited to the following information:

- That the employee has been informed of the results of the evaluation
- 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.
- All other findings or diagnoses must remain confidential and must not be included in the written report.

LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

The source individual's blood must 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 must 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, must be tested and the results documented.



LESSON 3

EMPLOYER REQUIREMENTS AND SERVICES PROVIDED

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.

Results of the source individual's testing must be made available to the exposed employee, and the employee must be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.



LESSON 4

COMMUNICATION AND TRAINING

This lesson focuses on the following topics:

- Warning employees of hazards
- Training requirements
- Recordkeeping requirements

LESSON 4

WARNING EMPLOYEES OF HAZARD

Biological and blood related hazards to employees are primarily communicated through labels, tags and placards affixed to containers of blood or other potentially infectious material, and contaminated articles or equipment. That is the visual element of communication of hazards to employees. Proper employee training will provide the necessary knowledge and skills needed to enable employees to fully protect themselves.

LESSON 4

WARNING EMPLOYEES OF HAZARD

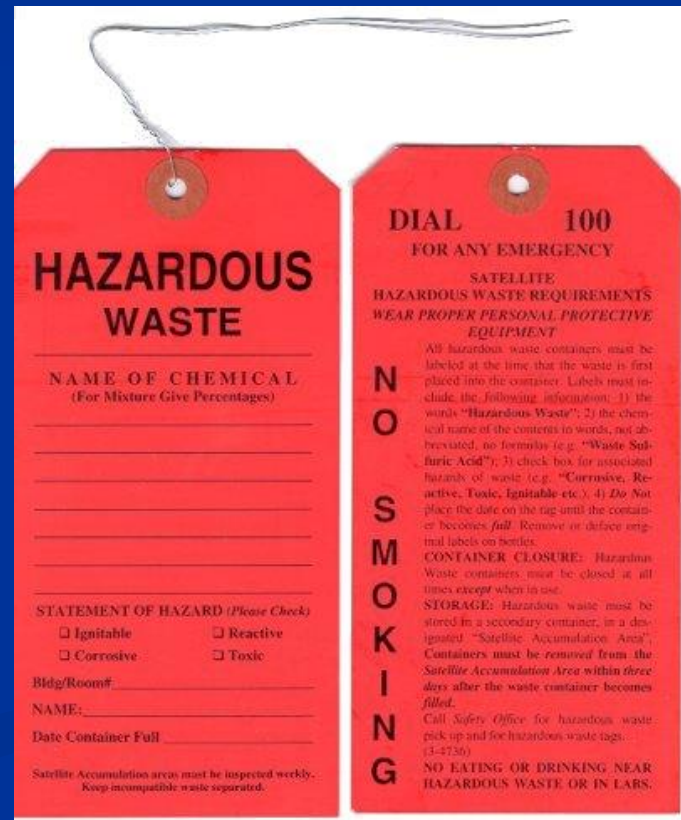
Warning labels help employees easily and quickly identify bloodborne exposure risk when handling containers or equipment. They should be of the fluorescent orange, orange-red, or predominantly so, with lettering and symbols in contrasting colors and the bloodborne placard symbol displayed with the legend '**Biohazard**'.



LESSON 4

WARNING EMPLOYEES OF HAZARD

Warning labels should be affixed to containers and bags of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials; and other containers used to store, transport or ship blood or other potentially infectious materials. OSHA allows the substitution of a solid red bag or container for labels, if necessary.



LESSON 4

WARNING EMPLOYEES OF HAZARD

Labels should be placed directly on, or as close to the container or equipment as feasible, by any method that will prevent it's loss or unintentional removal.

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.



LESSON 4

TRAINING REQUIREMENTS

Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours. Training must be provided at the time of initial assignment, and at least annually thereafter. Training must be appropriate for the student's level of education, literacy, and language.

The person conducting the training has to be knowledgeable in the elements contained in the training program as it relates to the specific workplace where the training is being held.

LESSON 4

TRAINING REQUIREMENTS

Training must include at least the following:

- Accessible copy of the Bloodborne text, and an explanation of it's content;
- A general explanation of bloodborne diseases and their symptoms
- An explanation of the Employer's control plan, and how to obtain a copy
- An explanation of how to recognize tasks that that may involve exposure to blood and other potentially infectious materials

LESSON 4

TRAINING REQUIREMENTS

- An explanation of the use and limitations of methods that will prevent or reduce exposure, including engineering controls, work practices, personal protective equipment, and the signs and symbols used to indicate biohazards
- Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment, and how to select the proper personal protective equipment
- 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

LESSON 4

TRAINING REQUIREMENTS

- Information on the appropriate actions to take and persons to contact in an emergency, and the procedure to follow if an exposure incident occurs, including the method of reporting the incident
- Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- An opportunity to ask the trainer any questions

LESSON 4

RECORDKEEPING REQUIREMENTS

The employer is required to establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020, 'Access to employee exposure and medical records', which includes requirements for employee medical record retention (the duration of employment plus 30 years), written authorizations, access to employee records, and employee information.

LESSON 4

RECORDKEEPING REQUIREMENTS

The required record must include:

- The name and social security number of the employee
- 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 the hepatitis B vaccination
- A copy of all results of examinations, medical testing, and follow-up procedures
- The employer's copy of the healthcare professional's written opinion
- A copy of the information provided to the healthcare professional

LESSON 4

RECORDKEEPING REQUIREMENTS

The employee medical records must be kept confidential, and not disclosed or reported without the employee's express written consent.

Employee medical records required by OSHA shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, and to OSHA.

LESSON 4

RECORDKEEPING REQUIREMENTS

Training records must include the following information:

- The dates of the training sessions
- The contents or a summary of the training sessions
- The names and qualifications of persons conducting the training
- The names and job titles of all persons attending the training sessions.

LESSON 4

RECORDKEEPING REQUIREMENTS

Training records must be maintained for at least 3 years from the date on which the training occurred. Records must be made available to OSHA upon request for examination and/or copying.

Training records must be provided upon request for examination and copying to employees, and to employee representatives.

If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer must notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

LESSON 5

REVISIONS AND ADDITION TO OSHA STANDARDS

This lesson focuses on the following topics:

- The needlestick safety and prevention act
- Bloodborne pathogen standards
- OSHA's revisions to 1910.1030

LESSON 5

THE NEEDLESTICK SAFETY AND PREVENTION ACT

The Needlestick Safety and Prevention Act (the Act) (Pub. L. 106-430) was signed into law on November 6, 2000. Because occupational exposure to bloodborne pathogens from accidental sharps injuries in healthcare and other occupational settings continues to be a serious problem, Congress felt that a modification to OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030) was appropriate to set forth in greater detail (and make more specific) OSHA's requirement for employers to identify, evaluate, and implement safer medical devices.

LESSON 5

THE NEEDLESTICK SAFETY AND PREVENTION ACT

OSHA revised the standard in response to an identified need to provide safer needle devices as they become available, and to involve frontline employees in evaluating and choosing the devices. The updated standard also requires employers to maintain a log of injuries from contaminated sharps.

LESSON 5

BLOODBORNE PATHOGEN STANDARDS

Changes in the bloodborne pathogens standard are intended to reduce needlesticks among healthcare workers and others who handle medical sharps.

Specifically, the revised OSHA bloodborne pathogens standard obligates employers to consider safer needle devices when they conduct their annual review of their exposure control plan. Safer sharps are considered appropriate engineering controls, the best strategy for worker protection.

LESSON 5

BLOODBORNE PATHOGEN STANDARDS

Involving frontline employees in selecting safer devices will help ensure that workers who are using the equipment have the opportunity for input into purchasing decisions. The new needlestick log will help both employees and employers track all needlesticks to help identify problem areas or operations. The updated standard also includes provisions designed to maintain the privacy of employees who have experienced needlesticks.

LESSON 5

BLOODBORNE PATHOGEN STANDARDS

Nearly 10 years have passed since the bloodborne pathogen standard was published. Since then, many different medical devices have been developed to reduce the risk of needlesticks and other sharps injuries. These devices replace sharps with non-needle devices or incorporate safety features designed to reduce injury. Despite these advances in technology, needlesticks and other sharps injuries continue to be of concern due to the high frequency of their occurrence and the severity of the health effects.

LESSON 5

BLOODBORNE PATHOGEN STANDARDS

The Centers for Disease Control and Prevention estimate that healthcare workers sustain nearly 600,000 percutaneous injuries annually involving contaminated sharps. In response to both the continued concern over such exposures and the technological developments which can increase employee protection, Congress passed the Needlestick Safety and Prevention Act directing OSHA to revise the bloodborne pathogens standard to establish in greater detail requirements that employers identify and make use of effective and safer medical devices. That revision was published on Jan. 18, 2001, and became effective April 18, 2001.

LESSON 5

BLOODBORNE PATHOGEN STANDARDS

The revision to OSHA's bloodborne pathogens standard added new requirements for employers, including additions to the exposure control plan and keeping a sharps injury log. It does not impose new requirements for employers to protect workers from sharps injuries; the original standard already required employers to adopt engineering and work practice controls that would eliminate or minimize employee exposure from hazards associated with bloodborne pathogens.

The revision does, however, specify in greater detail the engineering controls, such as safer medical devices, which must be used to reduce or eliminate worker exposure.

LESSON 5

OSHA'S REVISIONS TO 1910.1030

Section 1910.1030 is amended as follows:

Section (b) revised definition for engineering controls:

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.

LESSON 5

OSHA'S REVISIONS TO 1910.1030

Section (b) new definitions added:

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.

LESSON 5

OSHA'S REVISIONS TO 1910.1030

Sharps with engineered sharps injury protections: means a non-needle 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.

LESSON 5

OSHA'S REVISIONS TO 1910.1030

Paragraph (c)(1)(iv) is revised to read as:

(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:

- A. Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and
- B. Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

LESSON 5

OSHA'S REVISIONS TO 1910.1030

Paragraph (c)(1)(v) is re-designated paragraph (c)(1)(vi), and a new paragraph (c)(1)(v) is added to read:

(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.

LESSON 5

OSHA'S REVISIONS TO 1910.1030

A new paragraph (h)(5) is added to read as the following:

(h)(5) Sharps injury log .(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:

LESSON 5

OSHA'S REVISIONS TO 1910.1030

- (i) (A) The type and brand of device involved in the incident,
- (i) (B) The department or work area where the exposure incident occurred
- (i) (C) An explanation of how the incident occurred.

LESSON 5

OSHA'S REVISIONS TO 1910.1030

(h)(5) Sharps injury log. (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 1904.

(h)(5) Sharps injury log .(iii)

The sharps injury log shall be maintained for the period required by 29 CFR 1904.6.