

Bloodborne Pathogens Training

This training module is designed to provide a basic understanding of Bloodborne pathogens, common modes of their transmission, methods of prevention, and other pertinent information. This training material is designed to meet the requirements of Occupational Safety and Health Administration's (OSHA) Bloodborne pathogens standard (29 CFR 1910.1030).

Bloodborne Disease

Bloodborne pathogens are disease-causing microorganisms such as viruses or bacteria that may be present in human blood and can cause disease in people. It is hepatitis B (HBV), hepatitis C (HCV) and human immunodeficiency virus (HIV) that may represent the greatest threat in our work environment and are addressed by the OSHA Bloodborne Pathogen Standard.

Modes of Transmission

HBV, HCV, and HIV can be transmitted through contact with infected human blood and other potentially infectious body fluids such as:

- Semen
- Vaginal secretions
- Bloody Saliva (in dental procedures)
- Any body fluid that is visibly contaminated with blood,

Transmission of Bloodborne pathogens can occur through the following routes:

- Mucous membrane – exposure through a mucous membrane in the eye, nose or mouth from a splash or spray of contaminated material.
- Parental exposure – the pathogen is introduced directly into the body through a break in the skin (cuts, sores, abrasions, dermatitis, sunburn or blisters), needle stick, or through a cut with a contaminated object.

Work Practice Controls

Work practice controls reduce the likelihood of exposure to blood and other potentially infectious material by altering the manner in which a task is performed.

Universal Precautions

Universal Precautions is the name used to describe a prevention strategy in which all blood and potentially infectious materials are treated as if they are, in fact, infectious, regardless of the perceived status of the source individual.

If you are working in an area where there is a reasonable likelihood of exposure, you should never:

- Eat
- Drink
- Smoke
- Apply makeup or lip balm
- Handle contact lenses

Hand washing

Hand washing is one of the most important and easiest practices used for infection control and to prevent transmission of disease-causing organisms. Wash hands with soap and water:

- Before and after contact with each client
- Before applying and after removing gloves
- Before eating or drinking
- After contact with blood or other potentially infectious materials

If you are working in an area without access to such facilities, you may use an antiseptic cleanser or hand cleanser gel in conjunction with clean cloth/paper towels or antiseptic towelettes. If these alternative methods are used, hands should be washed with soap and running water as soon as possible.

Broken Glassware

- Broken glassware that has been visibly contaminated with blood must be decontaminated with an approved disinfectant solution before it is disturbed or cleaned up.
- Glassware that has been decontaminated may be disposed of in an appropriate sharps container: i.e., closable, puncture-resistant, leak-proof on the sides and bottom.
- Broken glassware should not be picked up directly with the hands. Sweep or brush the material into a dustpan.
- Uncontaminated broken glassware may be disposed of in a closable, puncture resistant container such as a cardboard box or coffee can.

Personal Protective Equipment

Personal protective equipment (PPE) is worn to prohibit blood or other potentially infectious material from passing through to clothing, skin, eyes or mucous membranes. PPE must be removed before leaving the work area and disposed of or laundered properly.

Rules to follow

- Always wear PPE in exposure situations
- Remove and replace PPE that is torn/punctured, or has lost its ability to function as a barrier to Bloodborne pathogens.
- Remove PPE before leaving the work area.

If you work in an area with routine exposure to blood or potentially infectious materials, the necessary PPE should be readily accessible. Contaminated gloves, clothing, PPE or other materials should be placed in appropriately labeled bags or containers until it is decontaminated, disposed of or laundered.

Gloves

If gloves are thin or flimsy, double glove (two pair). If you have cuts or sores on your hands, you should cover them with a bandage as an additional precaution before putting on gloves. Always inspect your gloves for tears or punctures before putting them on. If a glove is damaged, do not use. When removing contaminated gloves, do so carefully. Make sure you do not touch the outside of the gloves with any bare skin, and be sure to dispose of them in a proper container so that no one else will come in contact with them.

Clothing

Normal clothing that becomes contaminated with blood or other body fluids should be removed as soon as possible because fluids can seep through the cloth and come into contact with skin. Contaminated laundry should be handled as little as possible, and it should be placed in an appropriately labeled bag or container until it is decontaminated, disposed of or laundered.

Blood Spills

To clean up a blood spill, first be sure to put on your gloves. Then carefully cover the spill with paper towels or rags, prepare a mixture of a quarter cup of bleach per one gallon of water, then gently pour the solution over the towels or rags and leave it for at least 10 minutes.

Emergency Procedures

In an emergency situation involving blood or potentially infectious materials, you should always use Universal Precautions. If you are exposed, you should do the following:

- Wash the exposed area thoroughly with soap and running water. Use non-abrasive, antibacterial soap if possible.
- If blood is splashed in the eyes or mucous membranes, flush affected area with running water for at least 15 minutes.
- Report exposure to your physician as soon as possible

Source of information: Bloodborne Pathogen Training Module, 2007, Washington State Region 2 Medical Reserve Corps by Kitsap County Health District