Welcome to this training session about bloodborne pathogens. This session is intended for any employee who is likely to be exposed to potentially infectious bodily fluids, such as first-aid responders, janitorial staff, maintenance personnel, and personnel assigned to clean up after an industrial accident.

This session discusses how you might be exposed to bloodborne pathogens and infectious diseases, how you can protect yourself from exposure, and how to clean up bodily fluids.

Even if your job does not normally expose you to bodily fluids, this session is helpful to raise your awareness of bloodborne pathogens, to recognize that you should not come in contact with them, and to understand that it is important to report a spill of blood or bodily fluids so that they can be cleaned up safely.
The objectives of the session are to train you to:

• Identify bloodborne pathogens, or BBPs, that might be present in the workplace;
• Understand how certain diseases are transmitted through blood;
• Determine your risk of exposure to bloodborne pathogens in the workplace;
• Protect yourself from exposure through prevention and by following certain procedures if you are exposed;
• Respond appropriately if you are exposed to bloodborne pathogens; and
• Understand your right to medical evaluations.
What are bloodborne pathogens?

- Bloodborne pathogens, or BBPs, are defined by OSHA as microorganisms present in human blood that can cause disease. These microorganisms include:
  - Viruses such as hepatitis and flu; bacteria such as tuberculosis and gonorrhea; parasites such as malaria and trichinosis; and certain fungi.

The three primary pathogens found in the workplace are:

- Human Immunodeficiency Virus, or HIV, which causes Acquired Immunodeficiency Syndrome, or AIDS;
- The hepatitis B, or HBV, virus; and
- The hepatitis C, or HCV, virus.
What are HIV and AIDS? Here are the basic facts you should know:

- HIV is the virus that leads to AIDS. A person can carry HIV for many years and not have symptoms until it turns into full-blown AIDS.
- HIV attacks and depletes the human immune system, which makes it difficult to fight off common diseases.
- Early HIV symptoms resemble the common cold or flu virus.
- An HIV antibody test is the only way to know for sure if you have HIV.
- In certain conditions, the virus can survive outside the body for several weeks.
- Survival depends on which body fluid it is in, volume of the body fluid, concentration of the virus within it, temperature, acidity, and exposure to sunlight and humidity.
- Finally, there is no cure yet for HIV or AIDS.
Information about the hepatitis B, or HBV, virus includes:

- More than 1 million people nationwide are infected with hepatitis B. Symptoms of hepatitis B include:
- Jaundice, fatigue, and abdominal pain; and Loss of appetite, intermittent nausea and vomiting.
- A vaccine against hepatitis B is available.
- Hepatitis B can survive outside the body for at least 1 week in dried blood.
Information about the hepatitis C, or HCV, virus:

• HCV is the most common chronic bloodborne infection, with about 3.9 million Americans infected.

• Symptoms can take years to manifest
  o Flu-like symptoms, jaundice, dark urine, and fatigue; and
  o Loss of appetite, nausea and vomiting, and abdominal pain.

Treatment of hepatitis C is only marginally effective. There are drugs to treat it, but only 10 percent to 40 percent of patients respond to the drugs.
Transmission of Pathogens

Transmission of pathogens in the work environment is most likely to occur in the following ways:

- First, transmission by contaminated sharp objects or needles is the most common.
- Broken skin, including rashes or abrasions, can also be a point of transmission if an infected object makes contact with it.
- Mucous membranes of your eyes, mouth, and nose may be points of transmission for infection.

Remember, the contaminated blood or bodily fluid must make direct contact with your blood in order for transmission to occur.
Routes of Exposure

“Routes of Exposure” means the different ways you might be exposed to bloodborne pathogens in the workplace. They include:

- Contact with a co-worker who suffers a bleeding injury
- Contact with blood while administering first aid,
- Touching a contaminated surface, such as a table, tool, or control panel, that has been contacted with infected blood.
- Being assigned to clean up blood or bodily fluids after an injury
- Contact with contaminated paper products or equipment; this could happen when cleaning in a rest room; and
- Using a tool that is covered with dried blood.
The federal Bloodborne Pathogens Rule is found in the Code of Federal Regulations at Title 29, Section 1910.1030, and is enforced by the Occupational Safety and Health Administration (OSHA). This rule requires employers with workers who might be exposed to bloodborne pathogens in the workplace to provide:

- A written Exposure Control Plan, or ECP;
- Engineering and work practice controls to prevent exposure to infectious materials;
- Personal Protective Equipment, or PPE; and
- Training in how to protect yourself against exposure to bloodborne pathogens.
- Medical surveillance;
- Free hepatitis B vaccination;
- Signs and labels that warn you about the potential for exposure; and
- Other equipment and procedures to minimize the risk of disease transmission.
Medical Surveillance

DePaul University will make available the Hepatitis B vaccine and vaccination series to all employees who have occupational exposure.

DePaul University shall ensure that all medical evaluations and procedures including the Hepatitis B vaccine and vaccination series are:

• Made available at no cost to the employee;
• Made available to the employee at a reasonable time and place;
• Performed under the supervision of a licensed physician or under the supervision of another licensed healthcare professional; and
• Provided according to the recommendations of the U.S. Public Health Service.
Post Exposure Evaluation and Follow-up:

All employees who incur an exposure incident will be offered confidential post-exposure evaluation and follow-up in accordance with the OSHA standard. Illinois Masonic Medical Center (emergency room) will perform all post exposure evaluations and follow-up, which will include at least, the following elements:

• Documentation of the route of exposure,
• Identification and documentation of the source individual,
• 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,
• 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 shall be made available to the exposed employee
Exposure Control Plan

What is an Exposure Control Plan (ECP): DePaul University’s ECP

- ECP identifies the jobs and tasks for potential exposure to infectious material.
- Describes engineering and work practice controls, including the PPE you should use.
- Outlines the training requirements for employees.
- Identifies the placement and use of signs and labels.
- Describes how biohazard waste is handled to prevent others from coming in contact with it.
- Explains the recordkeeping requirements
Universal Precautions

Taking universal precautions means:

- Treating all blood and bodily fluids as if they are infected.
- Using barrier protection—gloves, masks, aprons, protective eyewear—to avoid contact with bodily fluids.
- Immediately clean up and decontaminate surfaces and equipment.
Personal Protective Equipment

Use personal protective equipment to prevent exposure to bloodborne pathogens.

- Barrier protection is a vital part of preventing exposure.
- Use gloves, made of latex or nitrile, for applying bandages, cleaning up, and decontaminating. You should wear gloves in any situation that involves potential contact with blood or bodily fluids.
- Eyewear such as goggles, or even a face shield, is needed to protect against splashes of blood that might be absorbed through your mucous membranes.
- Protective clothing or aprons protect skin and clothing against spurting blood.
- You may need to use impromptu barriers such as a garbage bag, plastic, paper, or even your shirt. This could be true if you are responding quickly to an emergency and do not have time or access to proper PPE. The idea is to try to use something as a barrier between your skin and the victim’s blood or bodily fluid.
Avoid Puncture Wounds

Avoid puncture wounds, which can be caused by sharp objects such as broken glass, sheared metal, or even hard plastic.

• Use tongs, forceps, or similar tools to pick up contaminated items, especially sharp objects. Also, use tongs or a similar tool to sort through materials that might be mixed with sharp objects that you cannot see, such as a pile of rags or other debris.
Safe Work Practices--------Do’s

Common safe work practices:

- **DO**—remove contaminated PPE and clothing as soon as possible.
- **DO**—disinfect equipment, tools, and work surfaces that may have been contacted with blood or bodily fluids.
- **DO**—wash up immediately after you may have come into contact with blood or bodily fluids.
- **DO**—seek immediate medical attention after possible exposure.
- **DO**—consider double-gloving, do not put the outer glove back on; use a new one.
- **DO**—dispose of contaminated items properly if they cannot be decontaminated.
Safe Work Practices---------Don’ts

Safe work practices can also mean NOT doing certain things:

- **DON’T**—eat, drink, smoke cigarettes, apply cosmetics, or handle contact lenses in any work area where there is the possibility of exposure to infected blood or bodily fluids.
- **DON’T**—place or store food or drink on bathroom shelves, cabinets, countertops, or work surfaces in any work areas where blood or bodily fluids might be found.
Clean-up Decontamination

Decontamination of tools, equipment, and work surfaces is an important way to prevent exposure to infectious diseases. General procedures for decontamination include:

- Wear appropriate gloves and eye protection to protect your eyes, nose, mouth, and skin. Remember to take universal precautions, and assume that the bodily fluids that need to be cleaned up are infected.
- Use a bodily fluid disposal kit, which contains cleanup materials such as absorbent powder, a disinfectant, a disposal bag, and PPE such as gloves, eye protection, an apron, and possibly shoe covers. The absorbent powder can be sprinkled on bodily fluids, scooped up, and placed in the disposal bag.
- Use a 10 percent bleach solution or an EPA-approved disinfectant when wiping down potentially contaminated surfaces to ensure that all bloodborne pathogens are killed.
- Immediately dispose of all contaminated materials that you have used for cleanup in the disposal bag.