

# ***Bloodborne Pathogens***

This PowerPoint is designed to inform those who may be exposed to blood and other bodily functions how to prevent spreading, avoid exposure, and what to do if exposed to infectious material.



# Bloodborne Pathogens



**Bloodborne pathogens** are bacteria and viruses that are existent in blood and other bodily fluids and could cause diseases.

Main concerns with bloodborne pathogens- hepatitis B, hepatitis C, and HIV

- These bloodborne pathogens can be spread two ways:
  1. **Direct contact:** Infected fluid from one person enters another person at a correct entry site. Example- infected blood splashing in the eye.
  2. **Indirect contact:** A person's skin comes in contact with an object that contains infected blood or bodily fluid.



# *Preventing the Spread of Bloodborne Pathogens*

The Red Cross recommends that you use **standard precautions** that require that ALL blood and other bodily functions be treated as infectious!

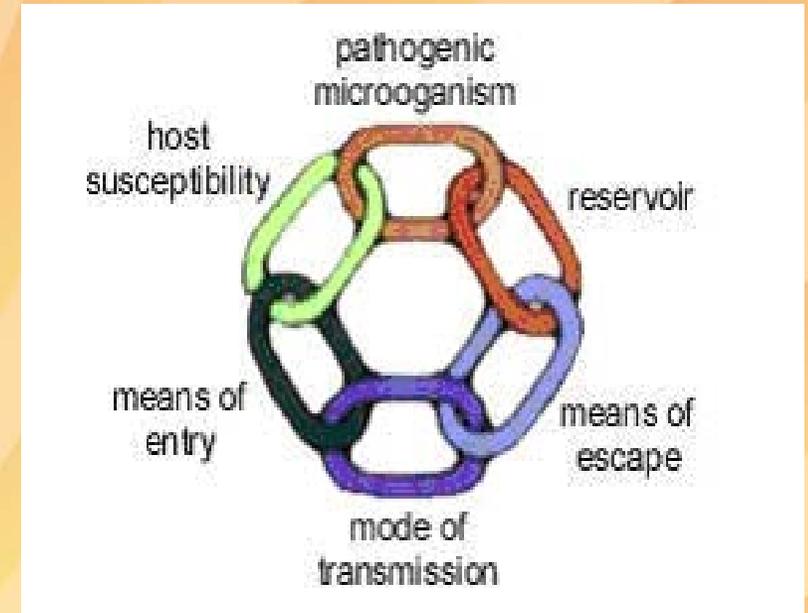
- Some examples of standard precautions are:
  - Maintaining personal hygiene
  - Frequent and thorough hand washing (the best way)
  - Using personal protective equipment (PPE) such as gloves
  - Engineering controls
  - Work practice controls
  - Proper equipment cleaning
  - Proper spill cleanup procedures



# How an Infection Occurs from Bloodborne Pathogens- The Chain of Infection

An infection follows a chain of 6 related components

1. **Pathogens-** bacteria, viruses, fungi. Must be present and capable of producing an infection.
2. **Reservoir-** people, plants, food. Pathogens must have a place to live and multiply.
3. **Portal of Exit-** Nose, mouth. Pathogens must have a way to escape the reservoir.
4. **Mode of Transmission-** Indirect/Direct contact. Pathogens must have a way to travel to a new host.
5. **Portal of Entry-** Nose, mouth. Pathogens must have a way to enter the new host.
6. **Susceptible Host-** The new host must be susceptible to the pathogen



# *Preventing Infections from Bloodborne Pathogens*

To prevent infections, you must **break the chain** of infection and get rid of at least one of the 6 links!

The Red Cross recommends several guidelines to follow to break the chain

- Try not to come in contact with blood or other bodily functions
- Use CPR breathing barriers such as masks
- Wear disposable gloves and other personal protective equipment
- Cover any cuts and remove jewelry before wearing gloves
- Change gloves after each person
- Remove gloves without touching the contaminated areas and dispose properly
- Wash your hands and contaminated areas before and after providing care



# Hand washing

Hand washing is the **BEST** way to prevent pathogens and infections from spreading!

## Tips for hand washing

- The sooner you wash after being exposed the better!
- Wash before and after leaving work, after providing medical care to others, after touching blood, bodily fluids or objects that could be contaminated, after using PPE, before and after eating, drinking, smoking, and after using the restroom
- Stand so that clothing isn't touching the sink to prevent contamination
- Turn the water temperature to warm
- Rub hands vigorously in a circular motion
- Interlace fingers
- Wash at least one inch above the contaminated area.
- Wash under your fingernails
- Use paper towels to turn off faucets and open doors

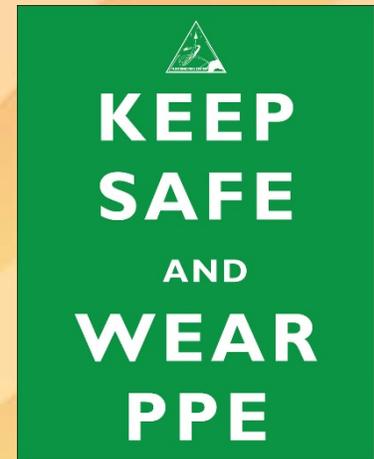


[https://www.youtube.com/watch?v=i\\_Fs0Qrtu90](https://www.youtube.com/watch?v=i_Fs0Qrtu90)



## *Staying Safe from Blood Exposure on the Job*

- Maintain a safe work environment and watch out for hazards that could lead to blood exposure
- Learn and follow your employers exposure control plan
- Use work practice controls that protect you from exposure
  - Washing your hands, wearing PPE, using proper cleaning and storing
- Use engineering controls that protect you from exposure
  - Hand washing facilities, PPE, biohazard containers/bags,
- Use frequent and thorough hand washing to help
- Use PPE to protect yourself from exposure
- Know how to handle and dispose sharps safely



# Using Personal Protective Equipment (PPE)

Personal protective equipment are barriers that protect you from being exposed to blood or other bodily fluids

## Tips for using personal protective equipment

- Know and follow your facility's guidelines for what PPE to wear and when
- Most are to be used once and then thrown away properly in marked biohazard containers
- Always wear disposable gloves when you could come in contact with blood or other bodily fluid or contaminated items
  - Before wearing the gloves wash and dry hands, cover cuts with bandages, and remove jewelry
  - Use gloves that fit, avoid touching uncontaminated areas
  - Remove gloves right after use, wash hands, and do not reuse gloves
  - Never touch your skin with contaminated gloves
  - Be sure to remove and dispose of gloves properly  
<https://www.youtube.com/watch?v=S4gyNAsPCbU>
- Discard PPE in biohazard containers/bags



# What to Do During an Incident

## Key Steps-

### 1. Check the scene

- See if the injury is life threatening. If it is, call 911 and remain calm

### 2. Protect yourself

- Protect your hands, mouth, eyes, or any part of your body that might come in contact with any other person's blood or bodily fluids.

### 3. Control or Flag the Area

- Follow work practice controls and use cones, flags, or tape to mark off the site.

### 4. Make a Report

- Report the incident to your supervisor immediately and list anyone involved in the incident in the report.



# What to Do After an Incident

## Key Steps-



### 1. Clean it Safely

- Treat items as if they could infect you, wear gloves or other protective coverings, place sharp objects in proper containers, use disposable towels or pads to absorb spills, apply disinfectant to contaminated area and wipe up mess, and place all disposable material in a biohazard container.

### 2. Remove PPE Carefully

- Take off clothing carefully by peeling away from your body and place in a biohazard container for cleaning, remove gloves last and dispose of them in biohazard container, and wash your hands well.

### 3. Wash Thoroughly

- Wash your hands, between your fingers, under your nails, wrists, and forearms well with soap and then rinse well with warm water.

# What To Do When You Are Exposed

Key Steps-

**1. Stay calm**

**2. Wash Immediately**

- Wash with soap and water, flush eyes, mouth, or nose for 15 minutes with clean water if exposed, if hair or clothing is exposed remove clothing and wash your whole body.

**3. Report Immediately**

- Write down how, when, and where the incident occurred and whose blood or bodily fluids came in to contact with you. Describe exactly what happened.

**4. Seek Medical Attention**

- Follow exposure control plan for medical evaluation, healthcare professional will provide you with testing and you decide if you want your blood tested for diseases. Do what you think is best for your health and future.



# *Employee Exposure Control Plan*

1. Wash hands
2. Use protective gear, devices
3. Wash hands after removing gear
4. Dispose of any blood related items via bio hazard bag then to the fire department



## ***For More Information***

- OSHA's Website:  
[www.osha.gov](http://www.osha.gov)

- Red Cross Fact Sheet:

[http://www.redcross.org/images/MEDIA\\_CustomProductCatalog/m28240107 Preventing the Spread of Bloodborne Pathogens Fact and Skill Sheets.pdf](http://www.redcross.org/images/MEDIA_CustomProductCatalog/m28240107_Preventing_the_Spread_of_Bloodborne_Pathogens_Fact_and_Skill_Sheets.pdf)

