

## Bloodborne Pathogens

- First Aid and Prevention in ECOM



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## HIV AND AIDS

**HIV leads to AIDS**

**HIV attacks and depletes the human immune system**

**Early HIV symptoms resemble common cold or flu virus**

**HIV antibody test is the only way to know for sure**

**HIV does not survive outside the body**

**No cure yet**

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## SESSION OBJECTIVES

**You will be able to:**

- Identify bloodborne pathogens (BBPs)**
- Understand how diseases are transmitted**
- Determine your risk of exposure**
- Protect yourself from exposure through prevention**
- Respond appropriately if exposed**
- Understand your right to medical evaluations**

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## HEPATITIS B VIRUS (HBV)

**1 million people infected**

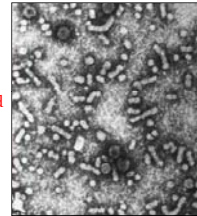
### Symptoms

Jaundice, fatigue, and abdominal pain

No appetite, nausea, and vomiting

**Vaccine is available**

**HBV can survive outside the body**



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## WHAT ARE BLOODBORNE PATHOGENS?

**Micro-organisms present in human blood that can cause disease**

**Viruses, bacteria, parasites, fungi**

### Primary workplace pathogens

**Human immunodeficiency virus (HIV)**

**Hepatitis B virus (HBV)**

**Hepatitis C virus (HCV)**

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## HEPATITIS C VIRUS (HCV)

**HCV is the most common chronic bloodborne infection—3.9 million infected**

**Symptoms can take years to manifest**

Flu-like symptoms, jaundice, dark urine, and fatigue

Loss of appetite, nausea, and vomiting, and abdominal pain


**Treatment is marginally effective**

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### TRANSMISSION OF PATHOGENS

- Contaminated sharp objects or needles
- Broken skin, including rashes
- Mucous membrane
- Eyes
- Mouth
- Nose




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### BLOODBORNE PATHOGENS LAW

29 CFR 1910.1030 and Cal/OSHA §5193 requires:


- A written Exposure Control Plan (ECP) is required,
- Engineering and work practice controls,
- Personal protective equipment (PPE),
- Training



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### ROUTES OF EXPOSURE


- Contact with a co-worker who suffers a bleeding injury,
- Contact with blood while administering first aid,
- Touching a contaminated surface,
- Assigned to clean up blood.



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### PROTECT YOURSELF


- Review the ECP and OSHA regulation,
- Take universal precautions,
- Use personal protective equipment,
- Follow safe work practices,
- Get the Hepatitis B vaccination,
- Follow decontamination and disposal procedures



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### ROUTES OF EXPOSURE (CONT.)


- Contact with contaminated paper products or equipment in restrooms,
- Using a tool covered with dried blood



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### TAKE UNIVERSAL PRECAUTIONS

- Treat all blood and bodily fluids as if infected,
- Use barrier protection (gloves, masks, aprons, eyewear) to avoid contact with infected bodily fluids,
- Immediately clean up and decontaminate surfaces and equipment



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### USE PERSONAL PROTECTIVE EQUIPMENT

Barrier protection prevents exposure,

Use gloves when applying bandages or cleaning up,

Eyewear or masks protect against splashes,

Protective clothing or aprons protect against spurting blood.



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### GENERAL DECONTAMINATION

Wear appropriate gloves and glasses to protect eyes, nose, mouth, and skin.

Use a bodily fluid disposal kit.

Use 10% bleach or EPA-approved disinfectant for spills.

Immediately dispose of contaminated items.



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### AVOID PUNCTURE WOUNDS

Use tongs, forceps, or similar tools to pick up contaminated items, especially to protect against sharp objects.



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### DECONTAMINATION INVOLVING SHARP OBJECTS

Remove glass and other sharps materials using a brush and dust pan, or tongs.

Do not use your hands.

Use paper/absorbent towels to soak up the residual liquids.

Disinfect all surfaces, and allow time to dry before using again.

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### SAFE WORK PRACTICES—DO'S

Remove contaminated PPE and clothing before leaving the work area,

Disinfect contaminated equipment,

Wash up immediately after exposure,

Seek immediate medical attention,

Double-glove to reduce contamination risk,

Dispose of contaminated items properly.

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### BIOHAZARD DISPOSAL— REGULATED WASTE

Liquid or semi-liquid blood or other potentially infectious materials (OPIM).

Contaminated items that would release blood or OPIM if compressed.

Contaminated sharp objects.

Items caked with dried blood or OPIM, capable of release during handling.

Pathological and microbiological wastes containing blood or OPIM.

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### LABEL ALL REGULATED WASTE CONTAINERS

Labels communicate a hazard.

Place regulated waste in containers that have the universal biohazard symbol.

The term "Biohazard" must be on the label!



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### POST-EXPOSURE EVALUATION

Confidential medical evaluation.

Document route of exposure.

Identify source individual.

Test source person's blood.

Provide results to source and exposed employees.



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### BIOHAZARD DISPOSAL—UNREGULATED WASTE

Blood or OPIM absorbed without the release of liquid when compressed.

Band-aids or tissues  
Gauze, paper towels,  
and disposable PPE.

Absorb all liquid.

Double bag waste.



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### HEPATITIS B VACCINATION

Endorsed by medical communities.

Safe when given to infants, children, and adults.

Offered to all potentially exposed individuals.

Provided at no cost.

Vaccination declination.

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### EXPOSURE INCIDENT

Wash cuts and skin thoroughly.

Rinse nose and mouth.

Flush eyes with clean water or sterile solution.

Clean all contaminated surfaces.

Report all incidences.



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### KEY POINTS TO REMEMBER

Bloodborne pathogens can cause fatal disease.

Be aware of exposure when in EMCOM deployment.

Take universal precautions

Use PPE and safe work practices.


Decontaminate yourself and equipment.

Understand and follow exposure incident procedures.

Report incidences of exposure.

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**SUMMARY**

You may never need this information, but it's critical to know about BBP's if you ever are exposed.

Hospital deployment can always put you in a potential for BBP harms way, in an ER or other hospital locations.

If deployed to a field location, an emergency first aid situation can always occur.

**YOU NEED TO BE PREPARED!**

Thanks for listening... Ken KI6HRH

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