

## *One Hour Safety Presentation*

The main goal of the Division of Safety & Hygiene is the reduction of accidents and illnesses in the workplace. Toward this goal, the *One Hour Safety Presentation* is designed to support the delivery of a presentation to co-workers in your workplace to help them understand and promote safer and healthier work environments. It is recommended that you take the DSH Training Center course as a background for using *One Hour Safety Presentation* to train others at your workplace. Call 1-800-OHI OBWC, option 2, 2, 3, for class dates and locations.

The *One Hour Safety Presentation* contains:

- **Transparency Masters** from which films can be made to use on an overhead projector,
- **Instructor Notes** which gives the instructor suggestions and script notations to use during the presentation, and
- **Student Handouts** which can be copied for those attending the presentation.

Materials are included for a one-hour presentation on each of these topics:

- ✓ Accident Analysis
- ✓ Bloodborne Pathogens
- ✓ Developing an Ergonomics Process
- ✓ Hazard Communication
- ✓ Lockout/Tagout
- ✓ Respiratory Protection
- ✓ Violence in the Workplace

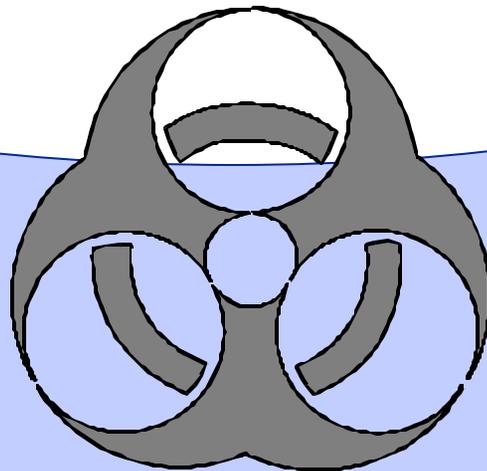
Applications used:

- 1) Text documents (ending in **.txt**) can be opened with any word processing program.
- 2) Microsoft PowerPoint slides (ending in **.ppt**) can be opened with the Microsoft PowerPoint program. If you do not have PowerPoint and you do have Windows 95, 98, 2000 or Windows NT operating system, you can view the PowerPoint slides by downloading a free PowerPoint Viewer from the following website:  
<http://office.microsoft.com/downloads/default.aspx?Product=PowerPoint&Version=95|97|98|2000|2002&Type=Converter|Viewer>
- 3) Adobe Reader document (ending in **.pdf**) contains the *One Hour Safety Presentation* in read-only format. It can be opened when you download Adobe Reader, which is available free of charge at the following website:  
<http://www.adobe.com/products/acrobat/readstep2.html>

If you have comments or questions about these materials for *One Hour Safety Presentation*, please e-mail us: OCOSHTrng@bwc.state.oh.us

# Transparency Masters

# BLOODBORNE PATHOGENS



# Objectives



Upon completion of the course, students will be able to:

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- **List bloodborne pathogens, their signs and symptoms, and how they are transmitted**
  - **Recognize methods of control and their application**
  - **Determine criteria for occupational exposure**
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# Bloodborne Pathogens

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**Pathologic organisms present in human  
blood that can cause disease in  
humans**



# Means of Transmission

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- Unsafe sexual practices
- Sharing of needles
- *Skin punctures or contact with non-intact skin*
- *Exposure to eyes, mouth or nose*
- Mother to infant
- Blood transfusion



# Hepatitis A

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- **Not bloodborne**
- **Severity of disease**
- **Poor sanitation**
- **Raw seafood**
- **Daycare centers**
- **Vaccine**



# Hepatitis B

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- **Most common occupationally-acquired infection**
- **Current number of cases**
- **Type of workers affected**
- **Vaccine available**
- **Outcomes**



# Hepatitis B

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## Found in:

- **Blood**
- **Vaginal Secretions**
- **Semen**
- **Saliva**



# Signs and Symptoms:

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- Nausea
- Lack of appetite
- Fatigue
- Joint pain
- Dark urine
- Jaundice
- Fever



# Hepatitis C

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- **Previous name**
  - **Blood tests**
  - **Degree of risk**
  - **Current trends for workers**
  - **No vaccine available**
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# HIV



- **History**
- **Statistics**
- **Positive HIV**
- **No vaccine, no cure**
- **Degree of risk**
- **Health care workers**

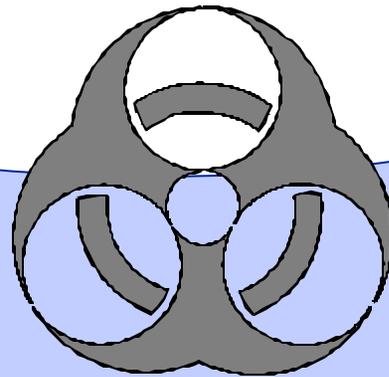
# HIV Signs & Symptoms

(many have all, none, or some)

- Night sweats
- Swollen glands
- Fever, chills
- Flu-like
- Joint Pain
- Fatigue
- Rash



# Exposure Control



# Occupational Exposure

**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.**



# Other Potentially Infectious Materials

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**Semen**

**Vaginal Secretions**

**Sterile body fluids**

**“Visibly” soiled**

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## **DOES NOT INCLUDE:**

- Sputum
  - Vomitus
  - Sweat, Tears, Urine/Feces
  - Nasal Secretions
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# Collateral Duties

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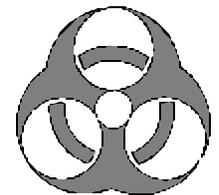
## First Aid Providers

- **Federal Coverage**

**Exposure**

- **State Coverage**

**Exposure Incident**



# Methods of Control

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## (1) Engineering controls



# Methods of Control (Cont.)

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## (2) Work Practice Controls

- **Hand-washing**
  - soap selection
  - alternatives
- **Universal Precautions**



# Universal Precautions

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**An approach to infection control. All human blood and certain body fluids are treated as if known to be infectious.**



# Methods of Control (cont.)

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## (3) Personal Protective Equipment

- Selection
- Adequate fit
- Maintenance
- Latex sensitivity



# Gloves

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- **Disposable - not reused**
- **Change if torn or punctured**
- **Awareness of latex allergic reactions**
- **Use of utility gloves**



# Hepatitis B Vaccine

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- **Background**
- **Series of shots**
- **Employees affected**
- **Refusal form**
- **Side effects**
- **Counterindications**
- **How to access medical services**



# Exposure Incident

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**A specific eye, mouth, or other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.**

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# Post-exposure follow-up

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- **Definition of “exposure”**
- **Selecting medical service**
- **Informing the employee**
- **Recordkeeping**
- **Confidentiality of results**



# Blood spill clean-up

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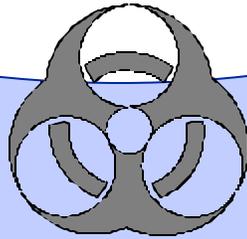
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- **Equipment used**
  - **Analyzing your needs**
  - **Purchasing appropriately**
  - **Approved disinfectants**
- 
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# Instructor Notes

# BLOODBORNE PATHOGENS



# Objectives



Upon completion of the course, students will be able to:

- List bloodborne pathogens, their signs and symptoms, and how they are transmitted
- Recognize methods of control and their application
- Determine criteria for occupational exposure

# Bloodborne Pathogens

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**Pathologic organisms present in human  
blood that can cause disease in  
humans**



Emphasize that we are talking about Human blood that can transmit these diseases, not animal blood.

## Means of Transmission

- Unsafe sexual practices
- Sharing of needles
- *Skin punctures or contact with non-intact skin*
- *Exposure to eyes, mouth or nose*
- Mother to infant
- Blood transfusion



Are main concern is the occupational work setting.

- ***Skin punctures or contact with non-intact skin***
- ***Exposure to eyes, mouth or nose***

So in manufacturing or construction the blood component is the key.

# Hepatitis A

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- **Not bloodborne**
- **Severity of disease**
- **Poor sanitation**
- **Raw seafood**
- **Daycare centers**
- **Vaccine**



We talk about Hepatitis A because people associate it with a bloodborne pathogen. It is not.

Good hand washing of course is the key to this one.

The vaccine for this hepatitis is NOT required by OSHA !

# Hepatitis B

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- **Most common occupationally-acquired infection**
- **Current number of cases**
- **Type of workers affected**
- **Vaccine available**
- **Outcomes**



A few years ago 5,000 to 8,500 cases a year were reported (in Ohio).

That has dropped dramatically to about a 1,000 reported cases a year.

## OUTCOMES

- 1) Get it ; Get Over it
- 2) Carrier
- 3) Chronic Liver Disease

# Hepatitis B

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## Found in:

- **Blood**
- **Vaginal Secretions**
- **Semen**
- **Saliva**



Blood is the main emphasis here.

It takes so many parts per million of saliva to cause transmission it is not to be concerned about.

## **Signs and Symptoms:**

- Nausea
- Lack of appetite
- Fatigue
- Joint pain
- Dark urine
- Jaundice
- Fever



These symptoms can be mistaken for flu like symptoms.

# Hepatitis C



- Previous name
- Blood tests
- Degree of risk
- Current trends for workers
- No vaccine available

Previous name:

Before 1992 there was no test, diagnosis was by exclusion and was referred to as NON A/NON B.

The test:

- 1) Initial Exposure
- 2) 6 weeks Later
- 3) then follow up 2 months later

Degree of Risk ( talk about a good rule of 3 here shortly)

85 % of Hepatitis C exposures are carriers for life.

IV Drug users

Prison Population

Social Economic Problem

Bad Liver ( Cost to you)

Drug therapy-- \$1200 per month

# HIV



- **History**
- **Statistics**
- **Positive HIV**
- **No vaccine, no cure**
- **Degree of risk**
- **Health care workers**

Early 80's really became noticeable.

Degree of Risk--- Rule of 3 is the best way to remember this.

Good Needle Stick

1) 30 % Chance Hep B

2) 3% Chance Hep C

3) .3% Chance Hiv

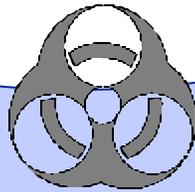
# HIV Signs & Symptoms

(many have all, none, or some)

- Night sweats
- Swollen glands
- Fever, chills
- Flu-like
- Joint Pain
- Fatigue
- Rash



# Exposure Control



# Occupational Exposure

**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.**



# Other Potentially Infectious Materials



**Semen**

**Vaginal Secretions**

**Sterile body fluids**

**“Visibly” soiled**

**DOES NOT INCLUDE:**

- Sputum

- Sweat, Tears, Urine/Feces

- Vomitus

- Nasal Secretions

Sterile Body Fluids:

Spinal Fluids

Plural Fluids

The “Does not Include” -- OSHA does not care about these

# Collateral Duties

## First Aid Providers

- **Federal Coverage**  
**Exposure**
  
- **State Coverage**  
**Exposure Incident**



In 1991 the Standard came out.

Maybe called on -not Primary Duty

- Training
- Do not have to offer vaccine

Federal Coverage

Exposure:

- Blood is present
- Report to Human Resources
- Than offer vaccine

State Coverage

Exposure Incident

ACTUAL EXPOSURE

# Methods of Control

## (1) Engineering controls



What do you think they are ?

Engineering Controls --- Manufacturing ?

Federal

State Level

Only Health Care

Nursing Home

Front Line Worker

Involve Record Keeping

Sharps Container

Needle Sticks --- Senate Bill 183 Legislation

# Methods of Control (Cont.)

## (2) Work Practice Controls

- **Hand-washing**
  - soap selection
  - alternatives
- **Universal Precautions**



### Hand Washing

Not a Harsh Soap (Talk about How to and emphasize it is friction that helps to remove harmful bacteria and viruses)

Should be in your exposure control Plan

Eating

Drinking

Smoking

### Soap Selection Alternatives

Squirt

Gels

Foams

### Universal Precautions

Discrimination (Violation if not)

# Universal Precautions

**An approach to infection control. All human blood and certain body fluids are treated as if known to be infectious.**



# Methods of Control (cont.)

## (3) Personal Protective Equipment

- Selection
- Adequate fit
- Maintenance
- Latex sensitivity



Methods of Control

Latex Sensitivity

Anaphylactic Shock

Neo Premium

# Gloves

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- **Disposable - not reused**
- **Change if torn or punctured**
- **Awareness of latex allergic reactions**
- **Use of utility gloves**



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Clean -up Kits

Health Care -- Have to have two way breathing barrier.

# Hepatitis B Vaccine

- **Background**
- **Series of shots**
- **Employees affected**
- **Refusal form**
- **Side effects**
- **Counterindications**
- **How to access medical services**



The hepatitis vaccine has been on the increase for the last 20 years.

Series of Shots: 0; 1 Month; 6 Months.

Employees Affected: Listed on the the exposure control plan or you can always provide as a benevolent act.

Cannot charge the employee.

With an authority form/consent form can not have release of liability.

Refusal form: Employee can say no then renege and you have to offer it to them.

Side Effects: Stiff Arm; Flu like symptoms.

Counterindications:

Pregnancy, not contraindicated, go to your OBGYN or Phycian

How to access medical services:

You as the employer can decide where and when to have this offered.

Some groups don't build immunity as fast:

Older, Obese, Smoker, Location of HIP ?

# Exposure Incident

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**A specific eye, mouth, or other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.**

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## Post-exposure follow-up

- Definition of “exposure”
- Selecting medical service
- Informing the employee
- Recordkeeping
- Confidentiality of results



Def of Exposure ?

Selecting Medical Service : Do this ahead of tiical me. Decide where you want to send them

Medical Record--not the Boss, not HR.... If you don't have this set up,leave the record at the Urgent Care Facility.

Keep these records 30 years beyond employment.

Needle Sticks recorded on the OSHA log.

# Blood spill clean-up



- **Equipment used**
- **Analyzing your needs**
- **Purchasing appropriately**
- **Approved disinfectants**

Do not have to have a Kit

- EPA Approved
- Tuberculosis (cidal)
- Hepatitis B approved

Absorbent, Disinfect & Through away

- 1part bleach & 10 parts water
- No older than 24 hours
- Education thing
- Bleach ....corrosive

Dispatch -- a stabilized bleach solution has a shelf life of 1 year

Lysol IC (Infection Control)

*Don't be impressed by just AIDS control*

**Blood** means human blood, human blood components, and products 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)

**Clinical Laboratory** means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

**Contaminated** means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

**Contaminated Laundry** means laundry soiled with blood or other potentially infectious materials or may contain sharps.

**Contaminated Sharps** means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

**Decontamination** means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

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

**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.

**Handwashing Facilities** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

**Licensed Healthcare Professional** is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph

**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.

**Other potentially infectious materials** means

- (1) The following human body fluids: 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, and all body fluids in situations where it is difficult to differentiate between body fluids;
- (2) any unfixed tissue or organ (organ than intact skin) form a human living or dead; and
- (3) HIV-containing cell or tissue culture, organ cultures, and HIV or HBV-containing culture medium or other solutions; and blood, organs, or other tissues form experimental animals infected with HIV or HBV.

**Parenteral** means piercing mucous membrane or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

**Personal Protective Equipment** is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

**Production Facility** means a facility engaged in industrial-scale, large volume or high concentration production of HIV or HBV.

**Regulated Waste** means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

**Research Laboratory** means laboratory producing or using research laboratory-scale amounts of HIV or HBV but not in the volume found in production facilities.

**Source Individual** means any individual living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Example include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims, clients of drug and alcohol treatment facilities; residents of hospice and nursing homes; human remains; and individuals who donate or sell blood or blood components.

**Sterilize** means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

**Universal Precautions** is an approach to infectious control. According to the concept of Universal Precaution all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

**Work Practice Controls** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique.)

**Exposure Control Plan** Each employer having an employee with occupational exposure shall establish a written exposure control plan designed to eliminate or minimize employee exposure.

# Student Handouts

Bloodborne Pathogens Division of Safety & Hygiene

# BLOODBORNE PATHOGENS



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Bloodborne Pathogens Division of Safety & Hygiene

## Objectives

Upon completion of the course, students will be able to:

- List bloodborne pathogens, their signs and symptoms, and how they are transmitted
- Recognize methods of control and their application
- Determine criteria for occupational exposure



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Bloodborne Pathogens Division of Safety & Hygiene

## Bloodborne Pathogens

Pathologic organisms present in human blood that can cause disease in humans



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## Means of Transmission

- Unsafe sexual practices
- Sharing of needles
- *Skin punctures or contact with non-intact skin*
- *Exposure to eyes, mouth or nose*
- Mother to infant
- Blood transfusion



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## Hepatitis A

- Not bloodborne
- Severity of disease
- Poor sanitation
- Raw seafood
- Daycare centers
- Vaccine



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## Hepatitis B

- Most common occupationally-acquired infection
- Current number of cases
- Type of workers affected
- Vaccine available
- Outcomes



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## Hepatitis B

### Found in:

- Blood
- Vaginal Secretions
- Semen
- Saliva



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## Signs and Symptoms:

- Nausea
- Lack of appetite
- Fatigue
- Joint pain
- Dark urine
- Jaundice
- Fever



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## Hepatitis C



- Previous name
- Blood tests
- Degree of risk
- Current trends for workers
- No vaccine available

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Bloodborne Pathogens Division of Safety & Hygiene

# HIV



- History
- Statistics
- Positive HIV
- No vaccine, no cure
- Degree of risk
- Health care workers

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Bloodborne Pathogens Division of Safety & Hygiene

# HIV Signs & Symptoms

(many have all, none, or some)

- Night sweats
- Swollen glands
- Fever, chills
- Flu-like
- Joint Pain
- Fatigue
- Rash



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Bloodborne Pathogens Division of Safety & Hygiene

# Exposure Control



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## Occupational Exposure

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.



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## Other Potentially Infectious Materials



|                     |                    |
|---------------------|--------------------|
| Semen               | Vaginal Secretions |
| Sterile body fluids | "Visibly" soiled   |

**DOES NOT INCLUDE:**

- |           |                             |
|-----------|-----------------------------|
| - Sputum  | - Sweat, Tears, Urine/Feces |
| - Vomitus | - Nasal Secretions          |

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## Collateral Duties

### First Aid Providers

- Federal Coverage  
Exposure
- State Coverage  
Exposure Incident



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## Methods of Control

### (1) Engineering controls



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## Methods of Control (Cont.)

### (2) Work Practice Controls

- Hand-washing
  - soap selection
  - alternatives
- Universal Precautions



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## Universal Precautions

An approach to infection control. All human blood and certain body fluids are treated as if known to be infectious.



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## Methods of Control (cont.)

### (3) Personal Protective Equipment

- Selection
- Adequate fit
- Maintenance
- Latex sensitivity



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## Gloves

- Disposable - not reused
- Change if torn or punctured
- Awareness of latex allergic reactions
- Use of utility gloves



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## Hepatitis B Vaccine

- Background
- Series of shots
- Employees affected
- Refusal form
- Side effects
- Counterindications
- How to access medical services



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## Exposure Incident



A specific eye, mouth, or other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.

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## Post-exposure follow-up

- Definition of "exposure"
- Selecting medical service
- Informing the employee
- Recordkeeping
- Confidentiality of results



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## Blood spill clean-up



- Equipment used
- Analyzing your needs
- Purchasing appropriately
- Approved disinfectants

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