MISSION CIT
Critical Immersive Training





OSHA CARE BY MISSIONCIT™

Bloodborne Pathogens

OSHA Care Ch 04

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Lessons

1. Bloodborne Pathogens and Exposure
2. OSHA Standards for Controlling Bloodborne Pathogens
3. FAQs on OSHA Standards

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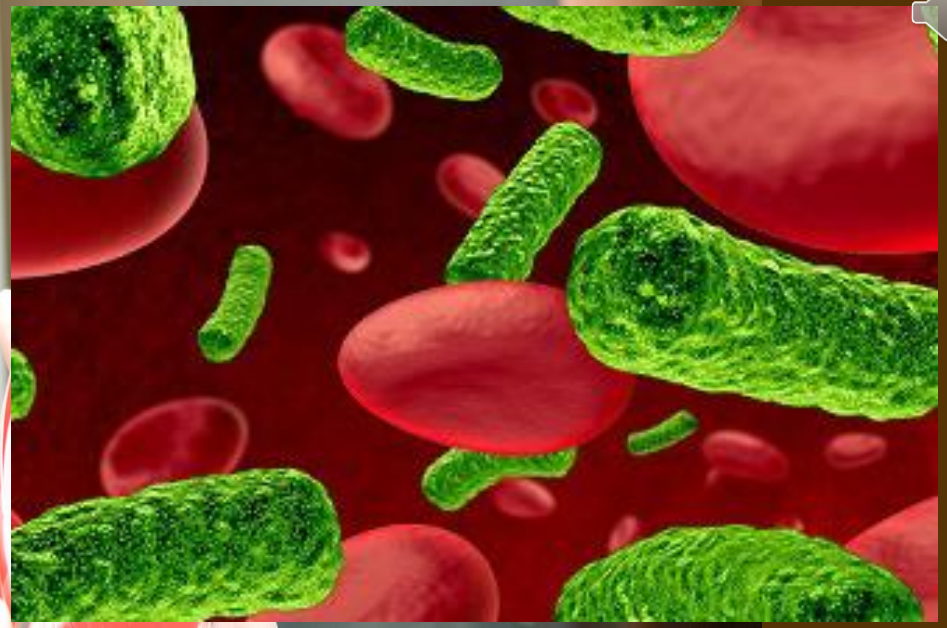
Bloodborne Pathogens and Exposure



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What are Bloodborne Pathogens?

- Infectious microorganisms present in the human
- Quickly spread from an infected person to a healt individual
- Standard medical practice treats all blood and bo fluids as infectious
- Hepatitis B, C, and D, Syphilis, Malaria, Babesiosis, Brucellosis, Leptospirosis, Arboviral infections, Creutzfeldt-Jakob disease, Human T-Lymphotropi Virus Type I, and Viral Hemorrhagic Fever

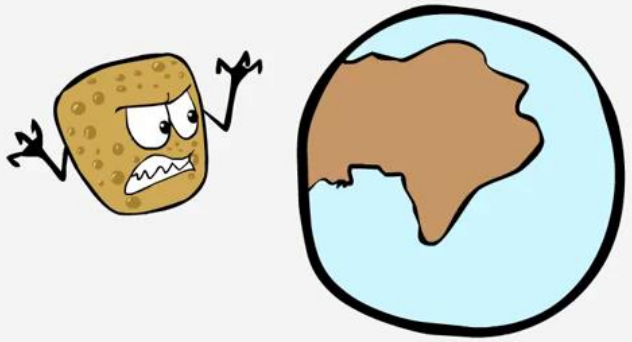




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WHO: Prevent Hepatitis

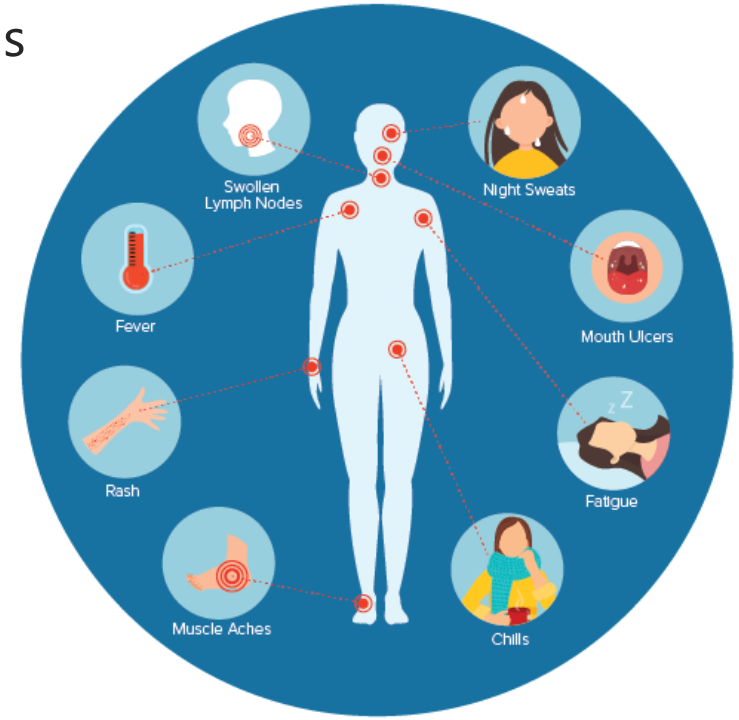
Viral hepatitis kills 1.45 million people worldwide every year



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Common Bloodborne Diseases

- Common diseases: Hepatitis B, C, and D
- Hepatitis B affects 12 million Americans
- Hepatitis C is the most common chronic bloodborne infection
- HIV affects the body's immune system and stays infected for life. Leads to AIDS





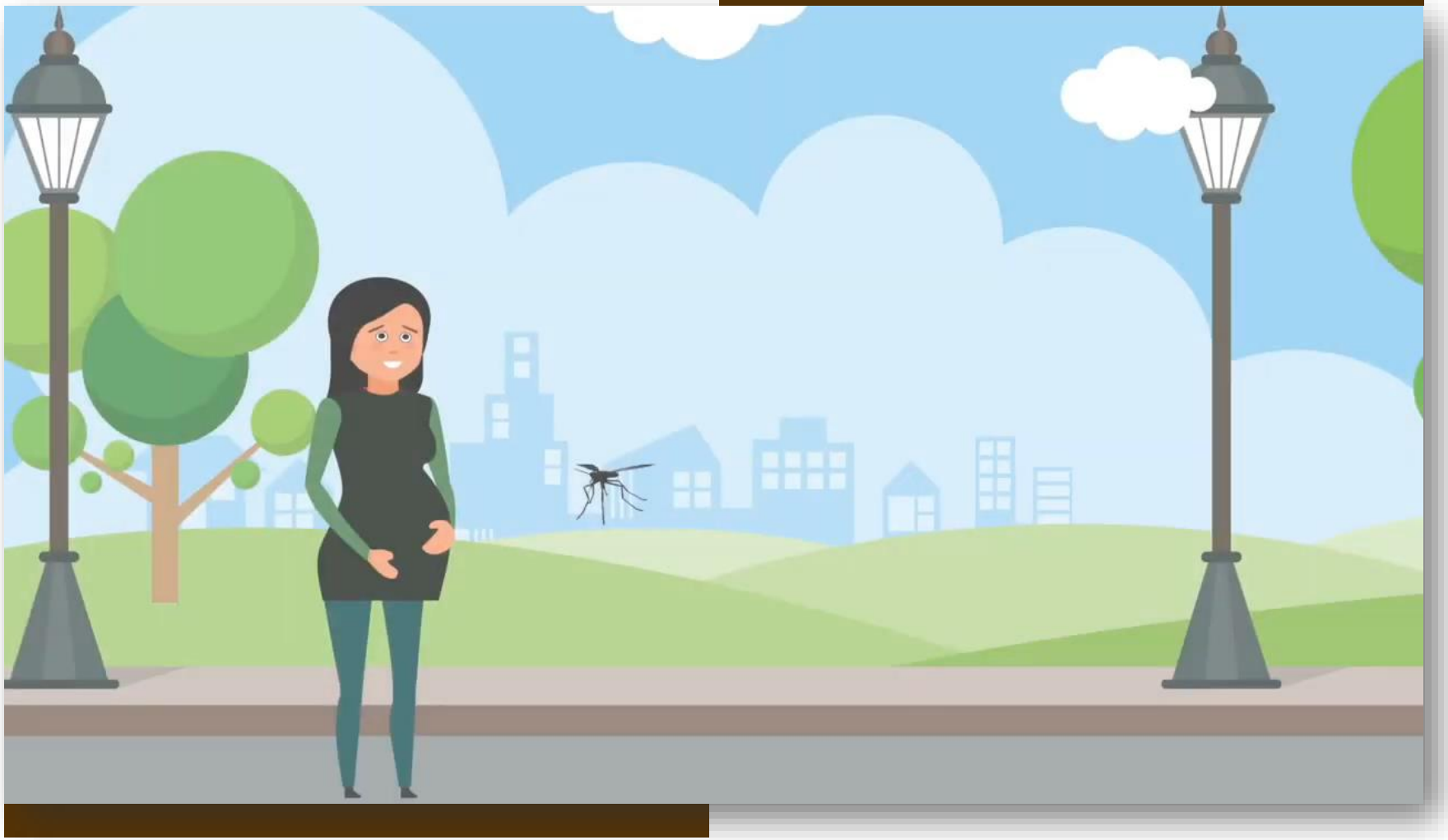
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HIV Basics

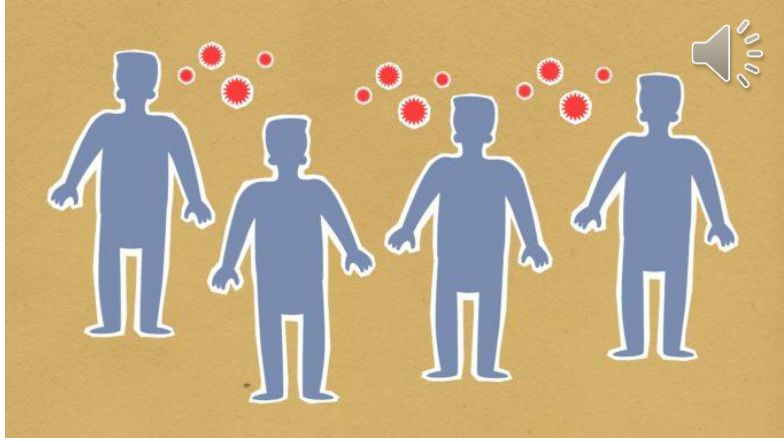


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Zika virus disease (ZVD)

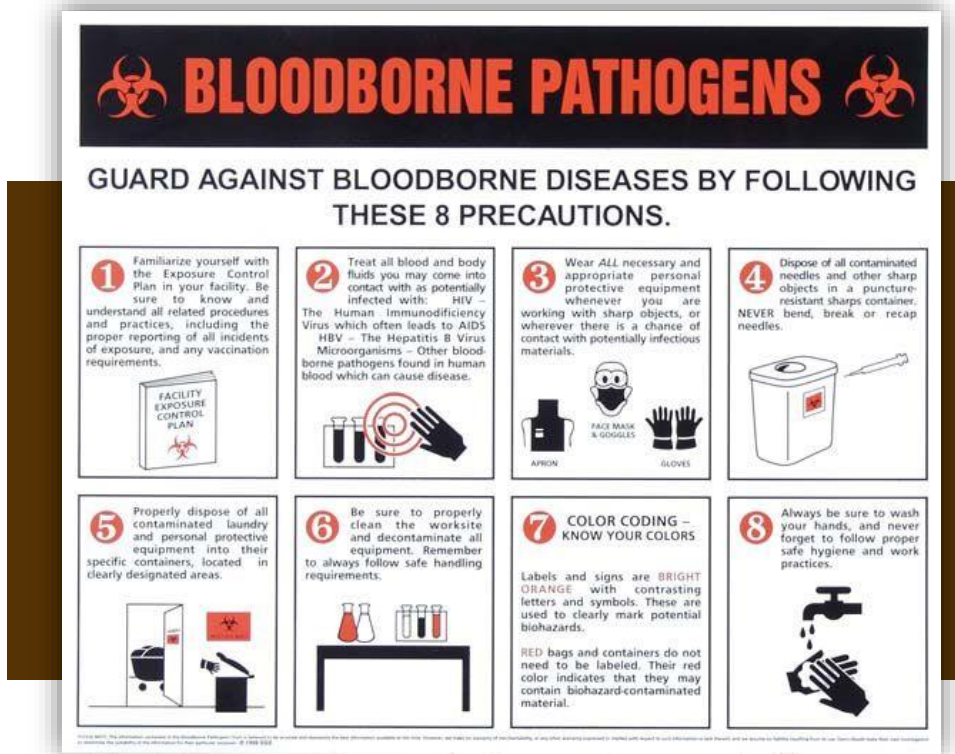


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Possible Routes of Exposure

- Spread through blood, human body fluids, unfixed tissue or organ from the infected individual, cultures, and experimental blood
- Direct/indirect contact
- Respiratory transmission
- Vector-borne transmission



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WHO Vector-borne disease animation



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Needlestick Injuries

- Needlestick injuries happen due to accidental puncturing of medical needles and sharps
- Contaminated needles spread bloodborne diseases
- Lack of awareness is the main issue

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Occupational Exposure

- Occupational exposure likely in first responders, housekeeping staff, and healthcare professionals
- CDC states that 5.6 million workers are impacted
- OSHA has elaborate standards and precautions to prevent exposure





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OSHA Standards for Bloodborne Pathogens



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Exposure Control Plan

- Mandatory written plan for handling exposures
- Explains measures taken to control exposure to employees
- Key elements: Exposure determination, schedule and method of implementation, procedures for evaluation of exposure incidents, and documentation
- Accessible to employees
- Evaluated and updated annually

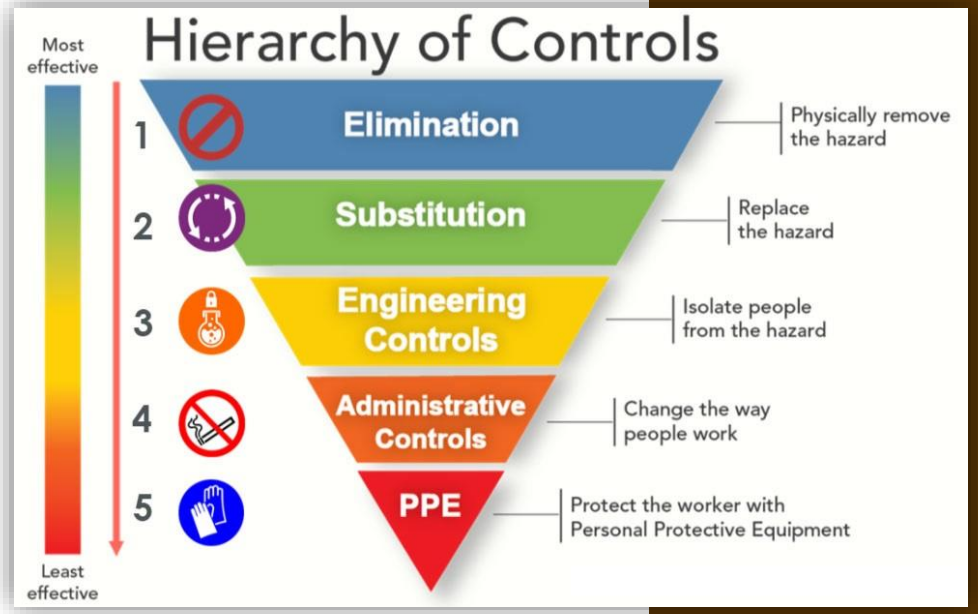




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Controlling Exposures

- Treat all fluids as contaminated
- Ensure proper clean-up and decontamination
- Engineering controls: Sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections, and needleless systems
- Work practice controls: Regular hand hygiene, the use of safe medical devices, and the proper disposal of sharps
- Containers for handling specimens

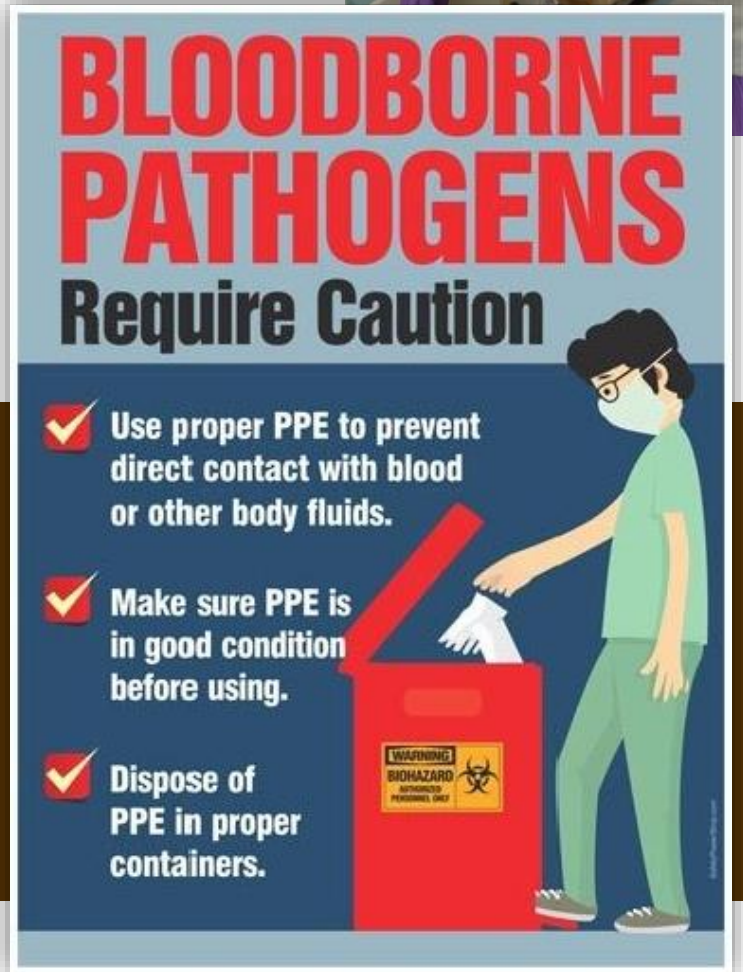


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Wearing PPE

- PPE is a key strategy for controlling exposure
- Employers' responsibility
- No extra cost for the employee
- PPE includes:
  - ✓ Gloves
  - ✓ Masks
  - ✓ Aprons, smocks, and gowns
  - ✓ Face shields
  - ✓ Mouthpieces
  - ✓ Safety glasses
  - ✓ CPR pocket masks





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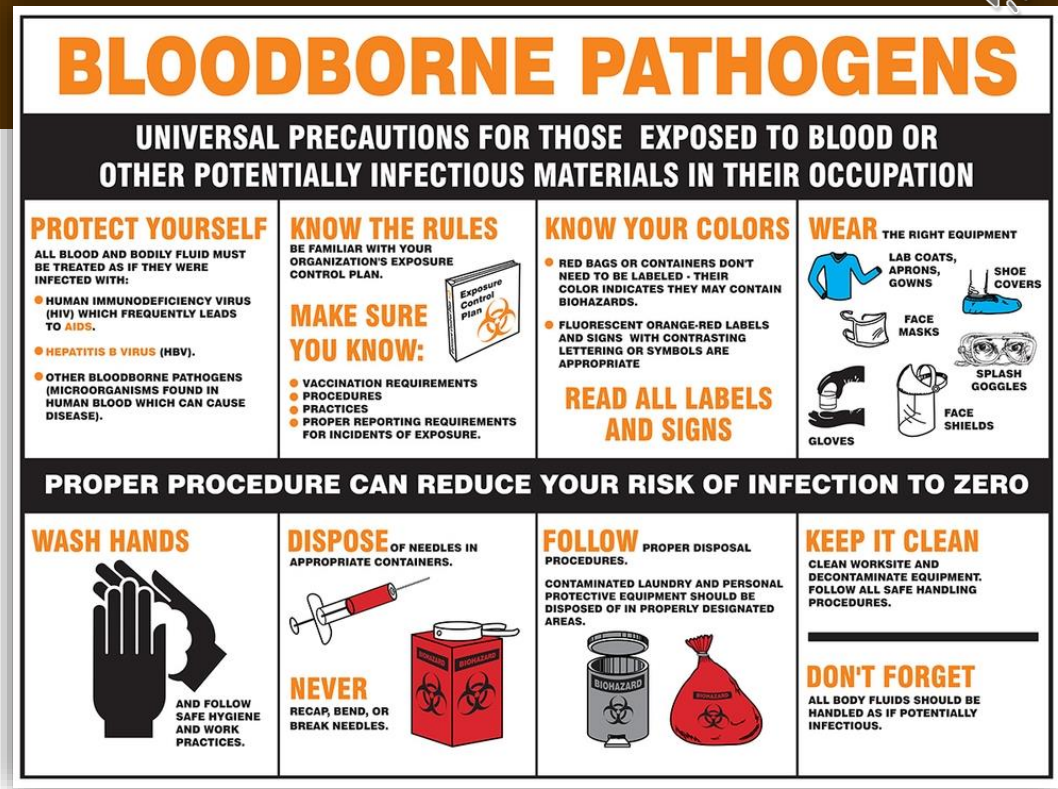
Employer's Responsibilities

- Periodically do a hazard assessment
- Update the Exposure Control Plan
- Educate and train employees
- Maintain the PPE
- Continuously review and update the policies

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Employee's Responsibilities

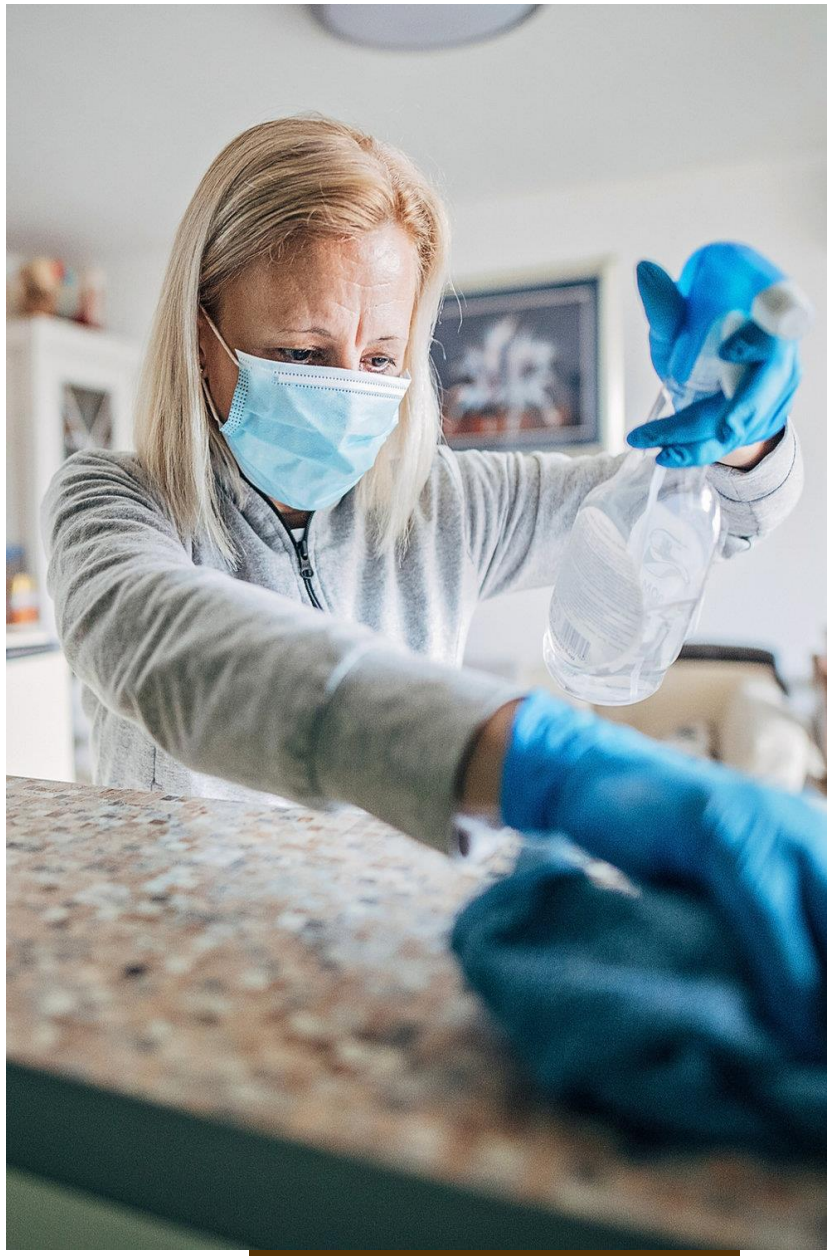
- Wear PPE
- Attend all training sessions
- Notify the employer when repairs or replacement is needed
- Intimate exposures and follow the employer's directive





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Housekeeping

- Essential part of safety
- Written schedule for cleaning and decontamination
- No sharps and other hazardous items must be picked by hands
- Mechanical cleaning equipment
- Gloves are a must

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Cleanup and Decontamination

- Cleanup process is elaborate and documented
- Employees must wear PPE
- Disinfectant must be used
- Employees must be familiar with the cleaning process
- Thorough cleanup after exposure
- Onus on employer to dispose cleaning materials safely





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Regulated Waste Disposal

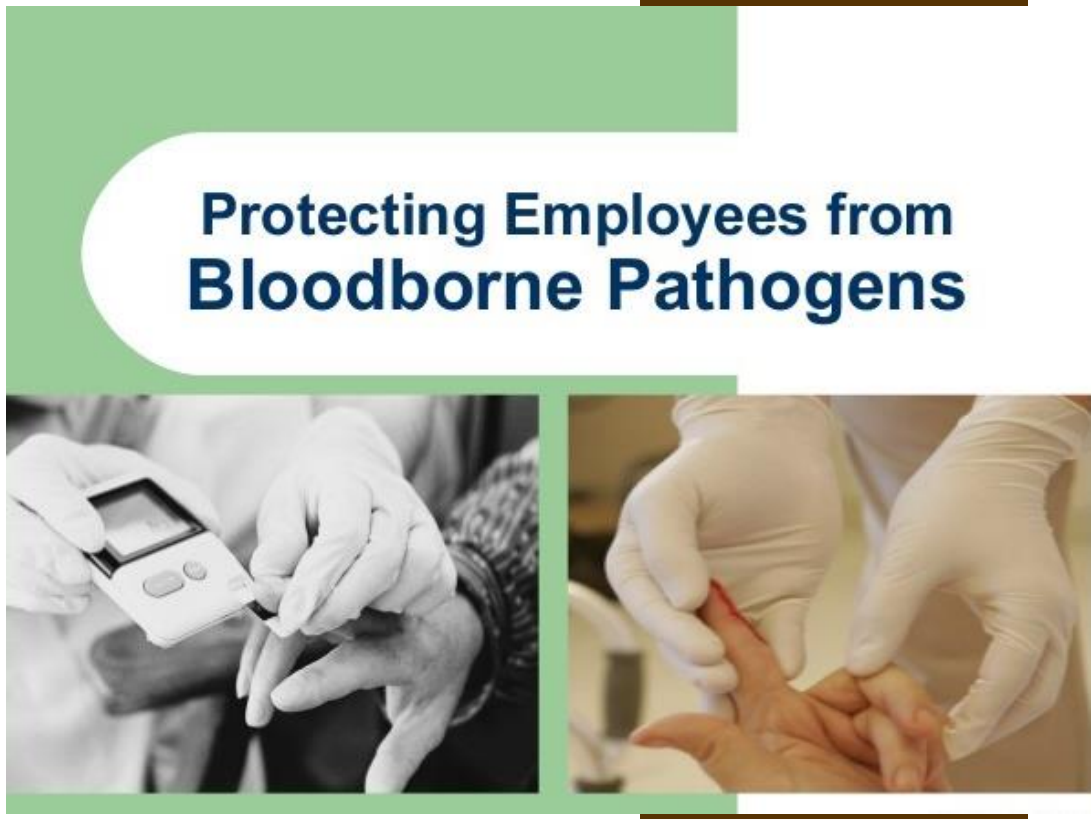
- Used PPE and cleaning materials must be disposed in leakproof red bags
- Alternatively, they must have biohazard labels
- Sharps must be disposed in a closable and puncture-proof garbage back
- Reusable PPE must be containerized in the place of use



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Training

- Employer must provide training
- During working hours
- No extra cost for employees
- Once a year and at the time of starting work
- Must include modified tasks and guidelines of OSHA



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Vaccinations



- No vaccines for HIV or Hep C
- Hep B vaccine offered to all employees
- No extra cost to employees
- Administered within 10 days of occupational exposure
- Declination form must be collected from employees

Cleaning After an Exposure

- Wash the exposed area with soap and water
- Splash water in nose and mouth
- Use water and saline for the eyes



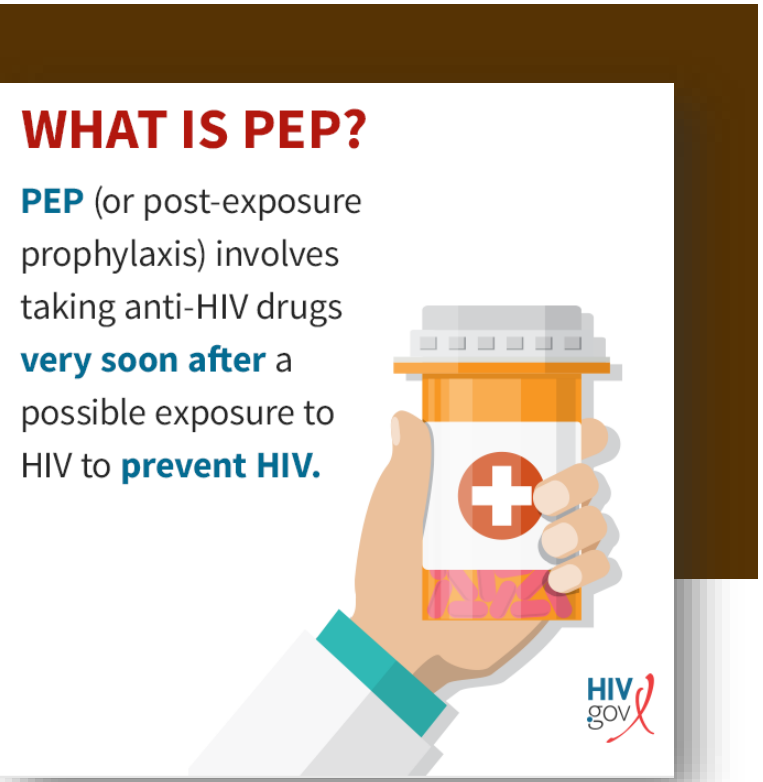


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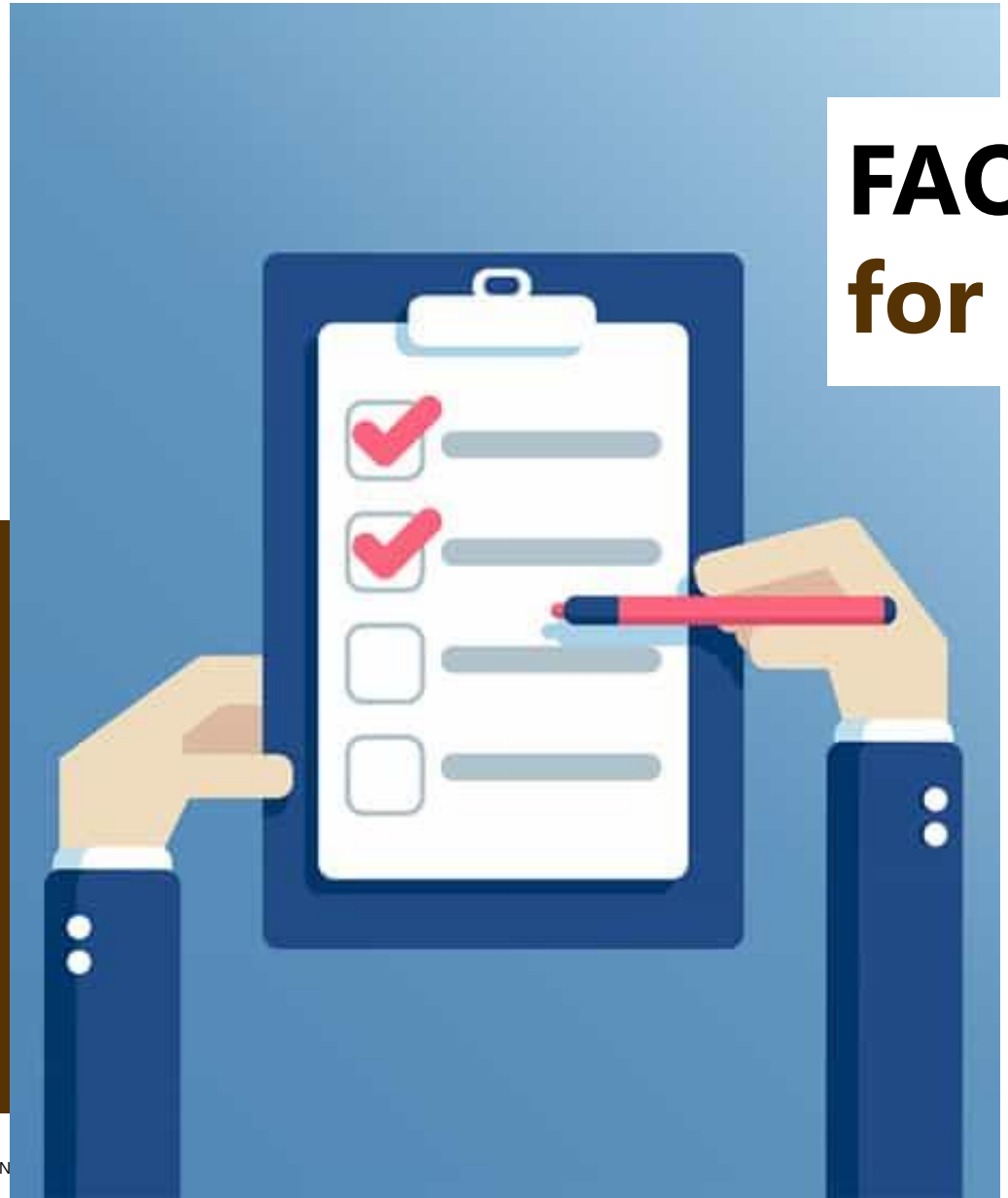
Handling Exposures



- Encourage employees to report exposure
- Confidential medical evaluation and follow-up
- Identify the circumstances of exposure
- Know the source
- Collect/test blood samples
- Post-exposure prophylaxis
- Counseling
- Evaluate the employee's health



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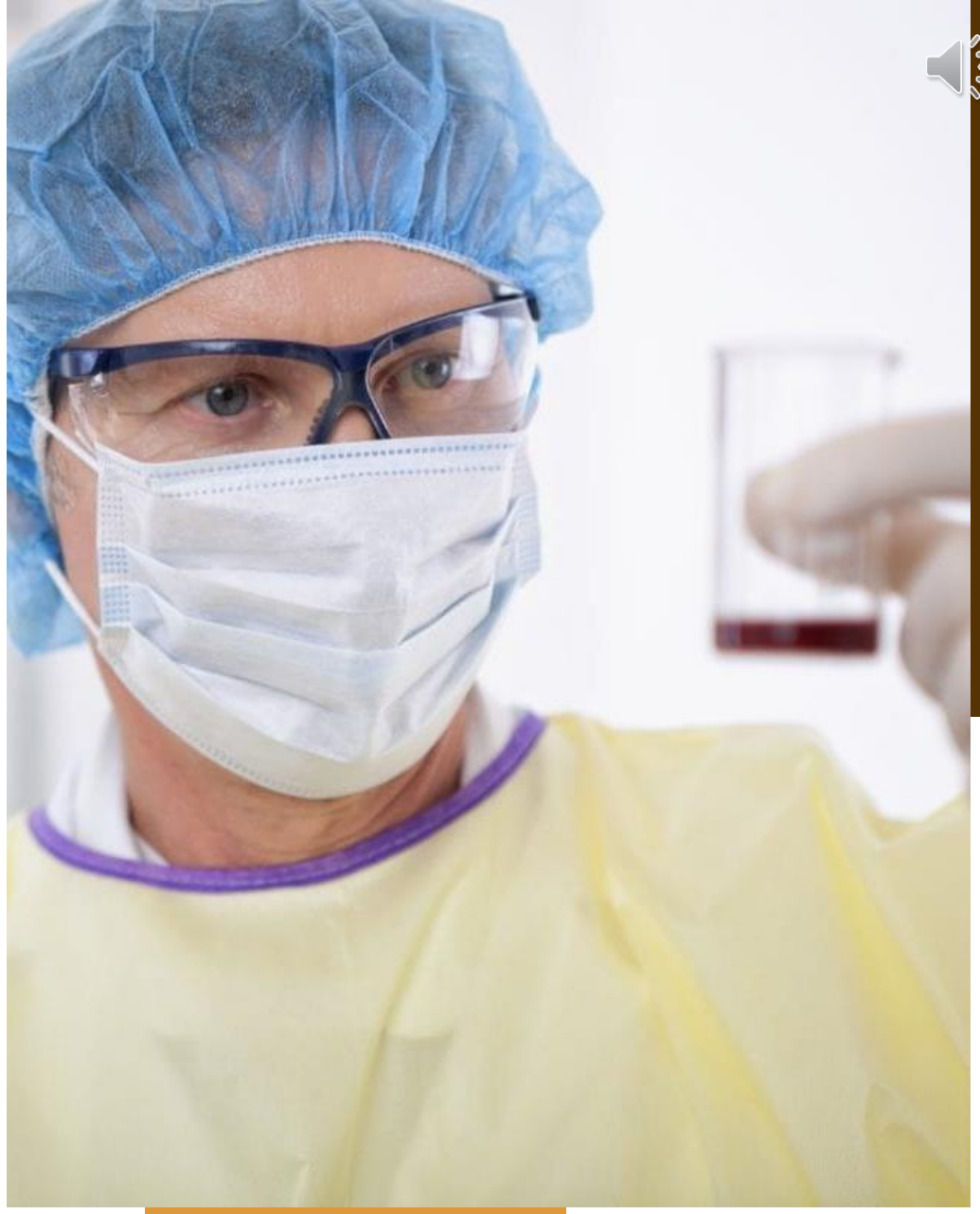
FAQs On OSHA Standards for Bloodborne Pathogens



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Who is Covered by these OSHA Standards?

- All employees who have occupational exposure to infected blood and OPIM
- Occupational exposure is anticipated infected due to the nature of an employee's duties
- Blood is human blood and its components
- OPIM
- Volunteers are not covered
- Students are covered if they get remuneration



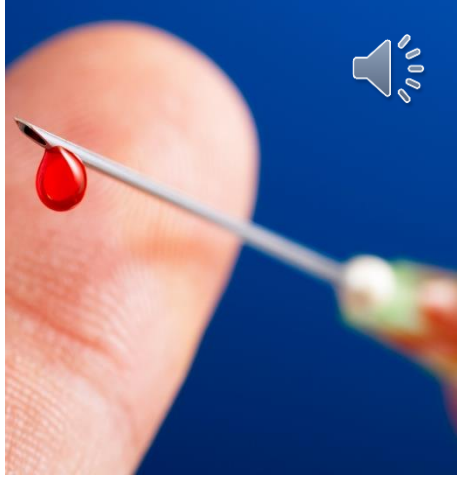
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What is the Needlestick Safety and Prevention Act?

- Mandates OSHA to revise specific guidelines
- Include additions to exposure control plan such as annual reviews and updates
- Mandates the maintenance of a log of sharps injury

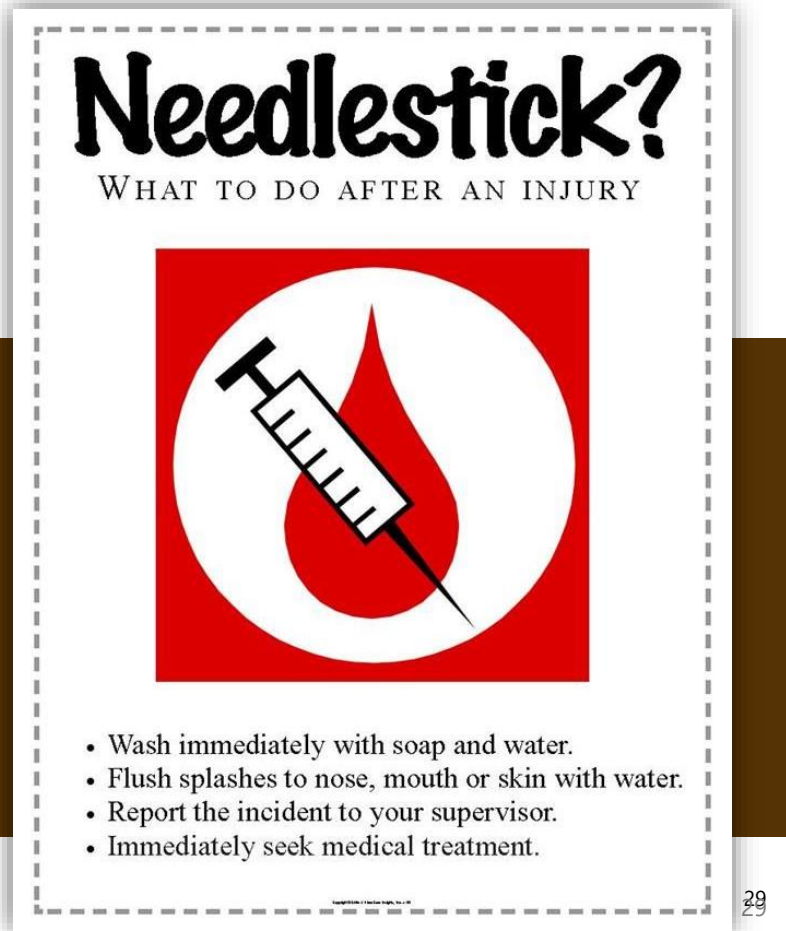


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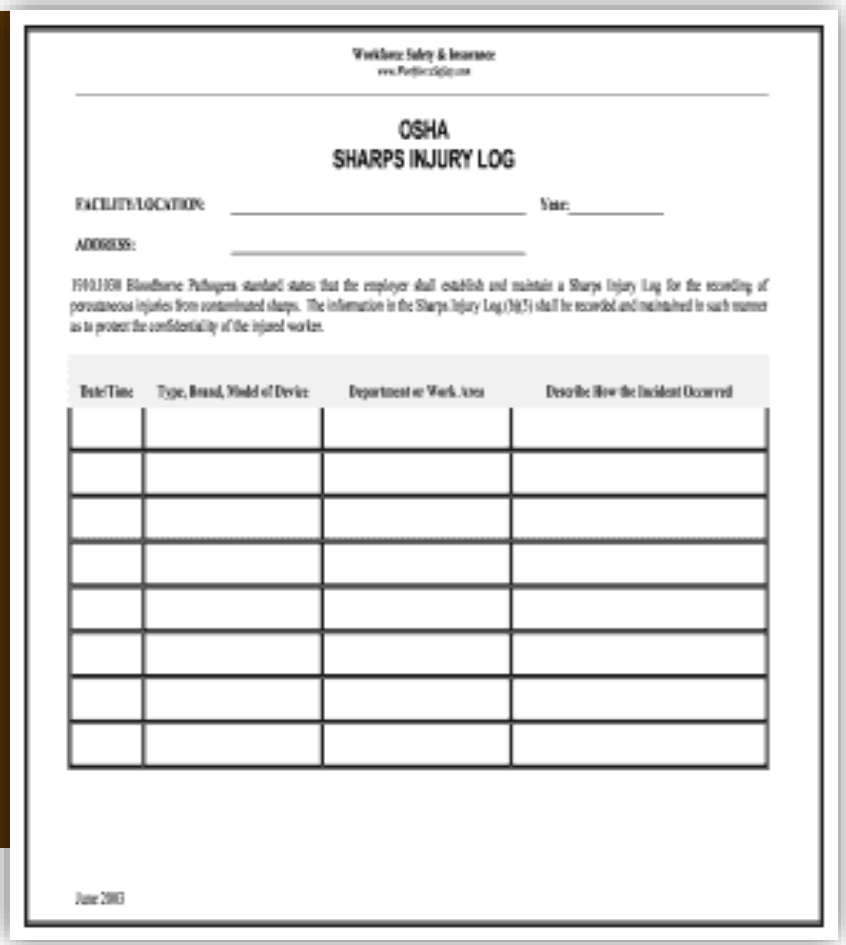


Does OSHA approve any medical device to prevent needlestick injuries?

- OSHA does not approve or endorse any specific equipment
- Provides a broad guideline to employers
- Lays down the engineering controls



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Workforce Safety & Insurance

OSHA
SHARPS INJURY LOG

FACILITY/LOCATION: _____ Year: _____

ADDRESS: _____

1910.1030 Bloodborne Pathogens standard states that the employer shall establish and maintain a Sharps Injury Log for the recording of percutaneous injuries from contaminated sharps. The information in the Sharps Injury Log (1910.5) shall be recorded and maintained in such manner as to protect the confidentiality of the injured worker.

Date/Time	Type, Brand, Model of Device	Department or Work Area	Describe How the Incident Occurred

June 2003

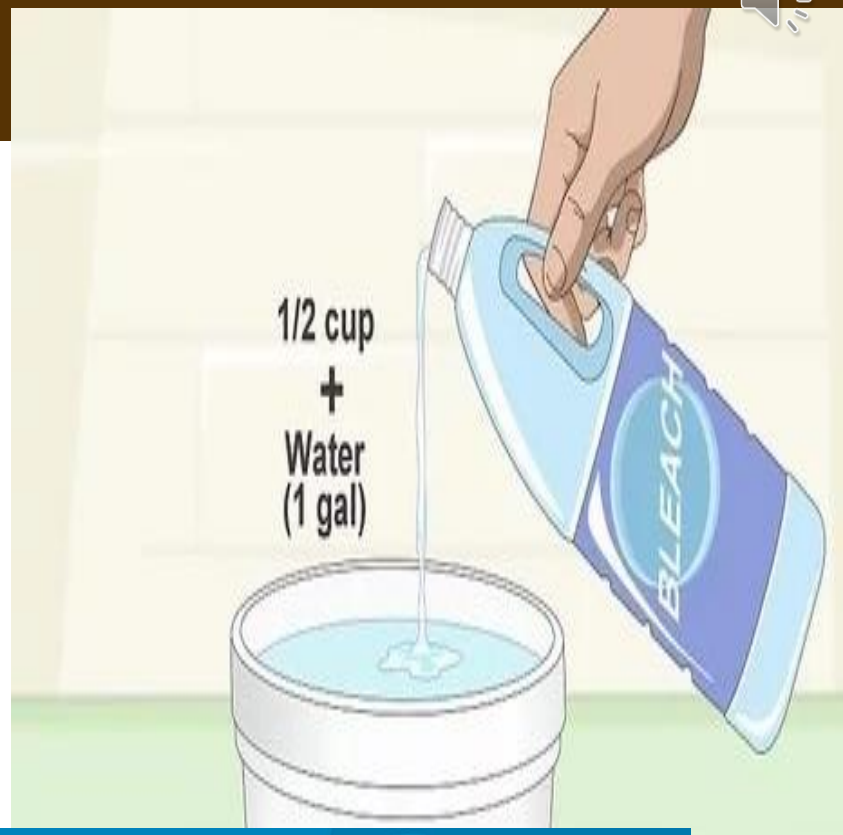
What's a Sharps Injury Log?

- Tracks devices causing injuries
- Surveillance tool for healthcare facilities
- Get insights
- Create a plan

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What are the Disinfectants on OSHA's List?

- Hep B virus can survive for one week in dried blood
- Specific disinfectants needed
- Diluted bleach solution
- EPA-registered antimicrobial products
- Fresh solutions of diluted household bleach made up every 24 hours
- Products registered by the EPA as HIV effective are not necessarily effective against tuberculosis

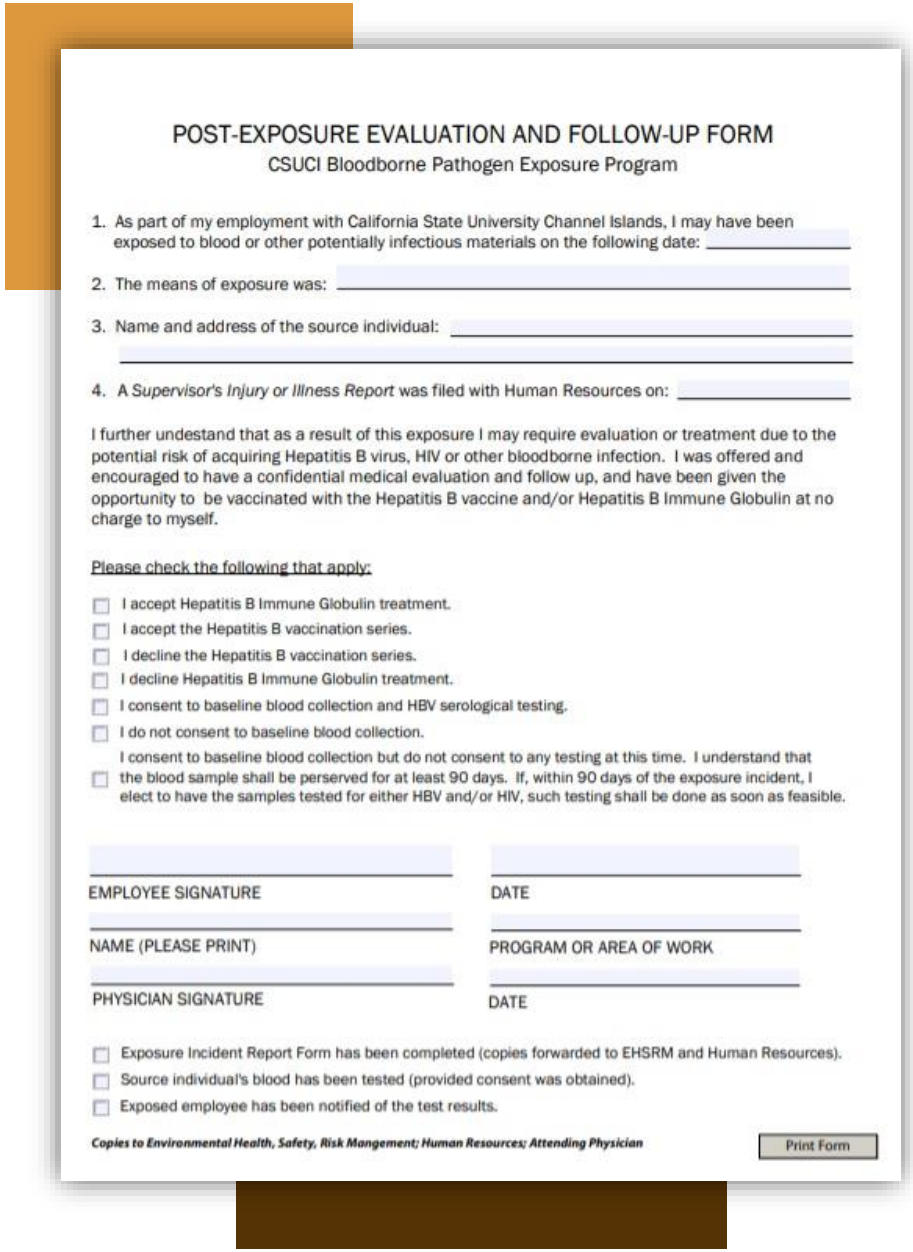




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What must be Included in the Evaluation Report?

- Engineering controls and work practices must be followed
- Description of device
- Protective equipment or clothing
- Location of the incident
- Procedures being done
- Employee's training
- Source



POST-EXPOSURE EVALUATION AND FOLLOW-UP FORM

CSUCI Bloodborne Pathogen Exposure Program

1. As part of my employment with California State University Channel Islands, I may have been exposed to blood or other potentially infectious materials on the following date: _____
2. The means of exposure was: _____
3. Name and address of the source individual: _____
4. A *Supervisor's Injury or Illness Report* was filed with Human Resources on: _____

I further undestand that as a result of this exposure I may require evaluation or treatment due to the potential risk of acquiring Hepatitis B virus, HIV or other bloodborne infection. I was offered and encouraged to have a confidential medical evaluation and follow up, and have been given the opportunity to be vaccinated with the Hepatitis B vaccine and/or Hepatitis B Immune Globulin at no charge to myself.

Please check the following that apply:

- ☐ I accept Hepatitis B Immune Globulin treatment.
- ☐ I accept the Hepatitis B vaccination series.
- ☐ I decline the Hepatitis B vaccination series.
- ☐ I decline Hepatitis B Immune Globulin treatment.
- ☐ I consent to baseline blood collection and HBV serological testing.
- ☐ I do not consent to baseline blood collection.
- ☐ I consent to baseline blood collection but do not consent to any testing at this time. I understand that the blood sample shall be perserved for at least 90 days. If, within 90 days of the exposure incident, I elect to have the samples tested for either HBV and/or HIV, such testing shall be done as soon as feasible.

EMPLOYEE SIGNATURE _____ DATE _____

NAME (PLEASE PRINT) _____ PROGRAM OR AREA OF WORK _____

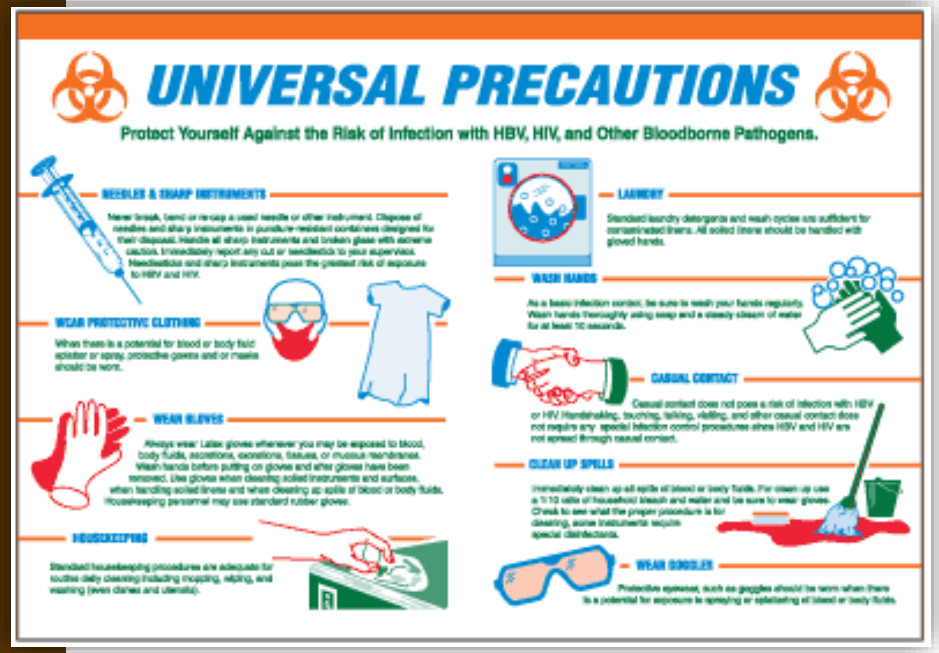
PHYSICIAN SIGNATURE _____ DATE _____

- ☐ Exposure Incident Report Form has been completed (copies forwarded to EHSRM and Human Resources).
- ☐ Source individual's blood has been tested (provided consent was obtained).
- ☐ Exposed employee has been notified of the test results.

Copies to Environmental Health, Safety, Risk Mangement; Human Resources; Attending Physician

Print Form

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- The required method of control to protect employees from exposure to all human blood and OPIM
- Treat all fluids as infectious
- Body Substance Isolation

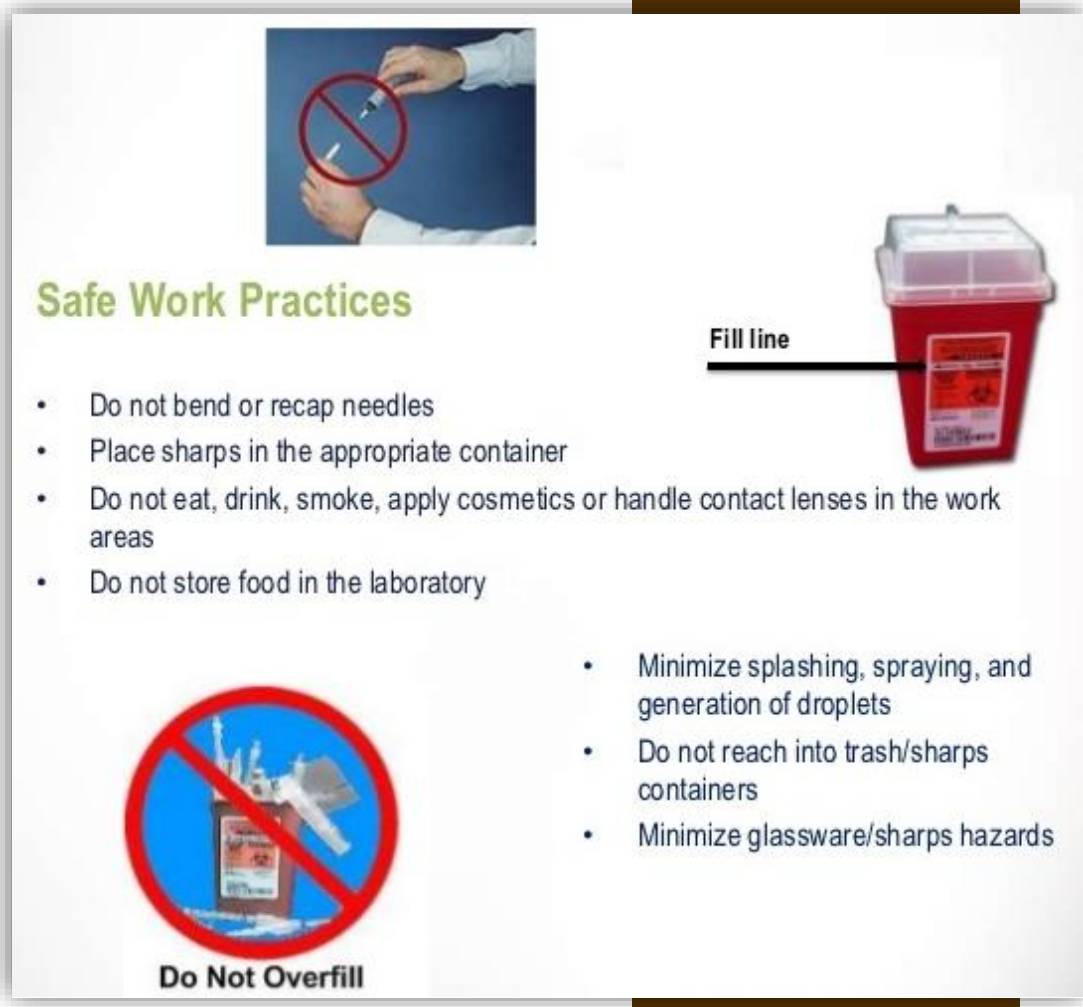
What are Universal Precautions?



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Is Recapping of Needles Allowed?

- Bending, recapping or removing contaminated needles is prohibited
- No two-hand procedure even when there are no alternatives
- Shearing or breaking is completely prohibited



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What are the Alternatives for Soap and Running Water?





- Antiseptic hand cleansers
- Clean cloth/paper towels
- Antiseptic towelettes
- Wash with soap and water as soon as possible
- Acceptable only at worksites

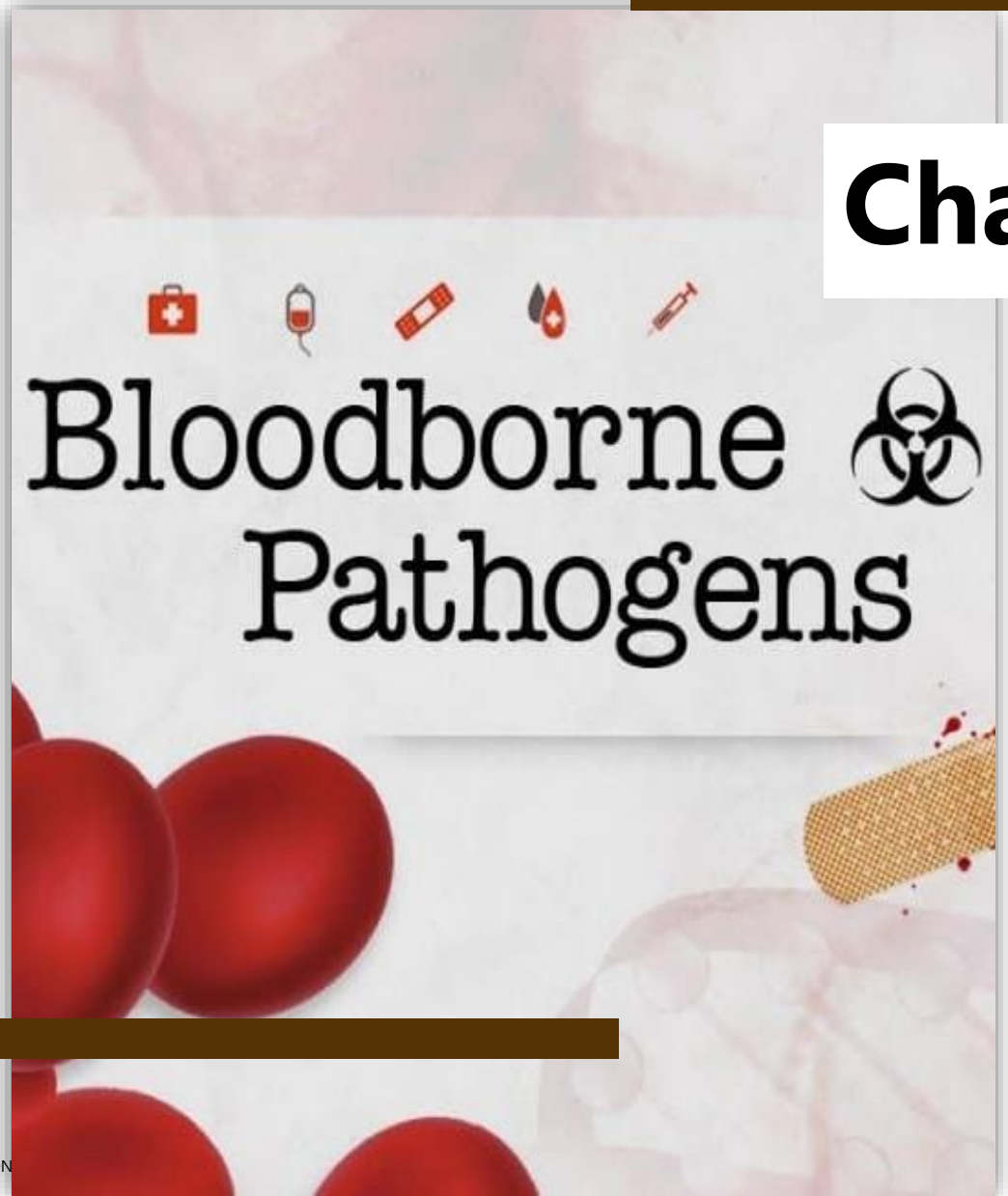
What are Some of the Labeling Requirements?



- Warning label contains universal biohazard symbol
- Readily observable label
- “Biohazard” words must be present along with the label
- Fluorescent orange or prominent red
- Symbols and letters in contrasting color
- Labels must be an integral part of the container and can’t be removed



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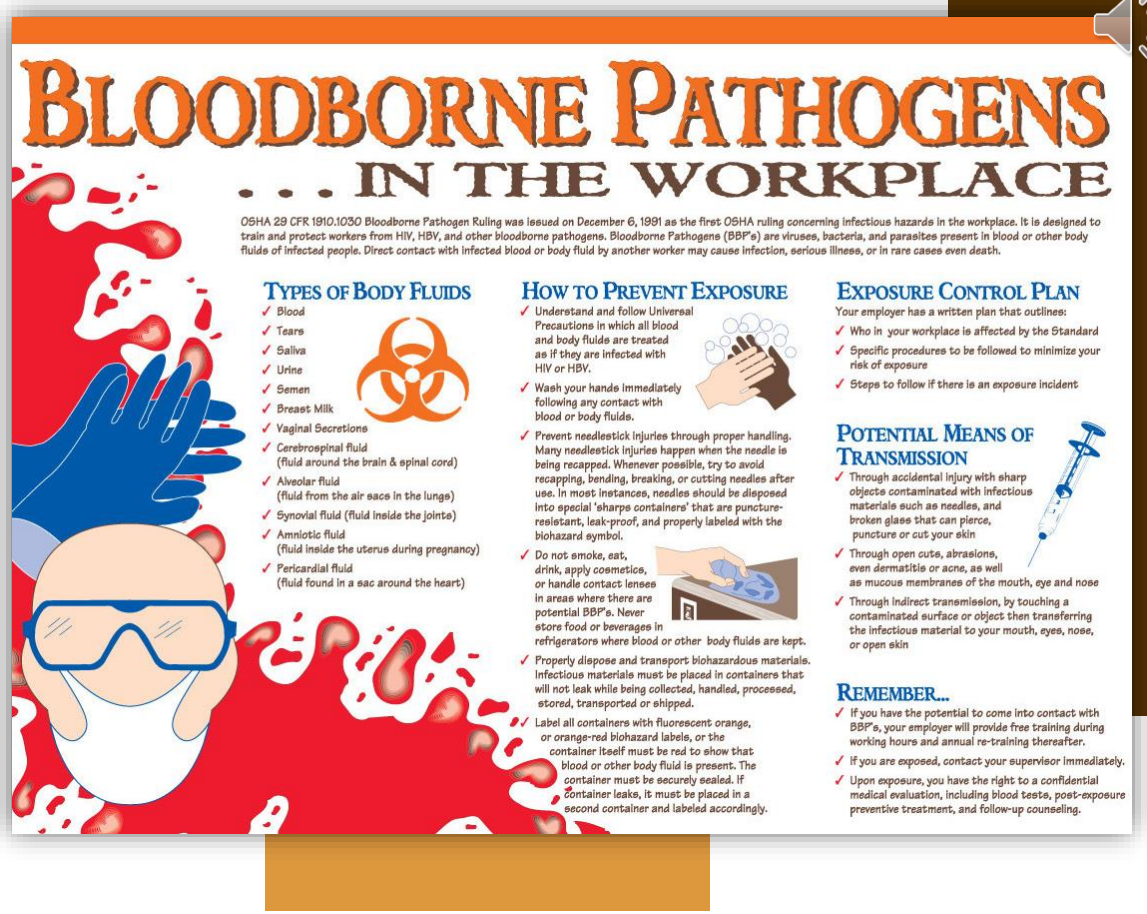
Chapter Review



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Lesson 1 – Bloodborne Pathogens and Exposure

- Infectious microorganisms present in the human blood
- Spread through blood, human body fluids, unfixed tissue or organ from the infected individual, cultures, and experimental blood
- Direct/indirect contact
- Respiratory transmission
- Vector-borne transmission
- Needlestick injuries



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Lesson 2 – OSHA Standards for Controlling Bloodborne Pathogens

- Exposure control plan:
  - ✓ Mandatory written plan for handling exposures
  - ✓ Key elements: Exposure determination, schedule and method of implementation, procedures for evaluation of exposure incidents, and documentation
  - ✓ Accessible to employees
  - ✓ Evaluated and updated annually
- Treat all fluids as contaminated
- Ensure proper clean-up and decontamination
- PPE is a key strategy for controlling exposure



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Lesson 3 – FAQs on OSHA Standards

- All employees who have occupational exposure to infected blood and OPIM
- Needlestick Safety and Prevention Act Mandates OSHA to revise specific guidelines
- OSHA does not approve or endorse any specific equipment
- BSI, an acceptable alternative to Universal Precautions
- Bending, recapping or removing contaminated needles is prohibited
- Warning label should contain universal biohazard symbol

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