

CAL / OSHA: BLOODBORNE PATHOGENS FACT SHEET

LENGTH: 12 MINUTES

PROGRAM SYNOPSIS:

Bloodborne pathogens are tiny microorganisms in human blood that can cause disease in humans, including various types of Hepatitis and HIV. Understanding the hazards presented by bloodborne pathogens and controlling your exposure by following safe work practices is critical to prevent the spread of bloodborne diseases. This program provides an overview of California OSHA's requirements related to bloodborne pathogens while showing viewers how they can control their exposure by following universal precautions and other methods for avoiding contact.

Topics include occupational exposure, routes of entry, risk identification, avoiding contact to prevent exposure, use of barrier devices, safe handling of potentially infectious material, decontamination and disposal of contaminated items and how to respond to an exposure.

PROGRAM OBJECTIVES:

After watching the program, the participant should be able to explain the following:

- How the Bloodborne Pathogens Exposure Control Plan works;
- How bloodborne pathogens can enter our bodies;
- What universal precautions are and why it is important to follow them;
- How to safely handle potentially infectious material;
- How to respond to an exposure.

PROGRAM OUTLINE:

BLOODBORNE DISEASES

- HIV attacks the body's immune system leaving it vulnerable to other infections. The symptoms of HIV include weakness, fever, sore throat, diarrhea and nausea.
- Hepatitis is a disease that attacks the liver and can be fatal. There are various types of Hepatitis; each different strain carries a unique letter designation. The strains most likely transmitted by bloodborne pathogens include type B and C.
- The symptoms of Hepatitis include fatigue, stomach pain, jaundice, darkening of the urine and loss of appetite; however, victims of Hepatitis C often show no symptoms until later stages of the disease.

THE EXPOSURE CONTROL PLAN & OCCUPATIONAL EXPOSURE

- Controlling our exposure to bloodborne pathogens can prevent these diseases and save lives. California OSHA requires most employers to develop a Bloodborne Pathogens Exposure Control Plan.
- In the state of California, the written Exposure Control Plan includes the following elements:
 - A list of all jobs, tasks, and procedures in which occupational exposure may occur.
 - A description of how the employer intends to comply with the specific requirements of the Bloodborne Pathogen Standard, based on the criteria that they must follow for their industry.
 - The procedure for evaluating injuries and exposure incidents.
 - An effective procedure for gathering the information required by the Sharps Injury Log.
 - Additional requirements that vary based on the work environment.
- For instance, hospitals, emergency services, dental offices and other high-risk facilities have unique requirements that other industries don't.
- Some examples of jobs with occupational exposure include custodial staff who may be exposed to broken glass, soiled bandages or other contaminated items, company authorized first responders who offer first aid to injured workers, occupational health nurses or other healthcare providers who are exposed to bodily fluids or used needles and laundry personnel who may contact contaminated uniforms, linens or other materials.
- Workers who have occupational exposure to bloodborne pathogens are eligible to receive the Hepatitis B vaccine at no cost to the employee.

- An Exposure Control Plan should also contain descriptions of engineering and work practice controls, employee training, medical and vaccination information, and a listing of the signs and labels used to identify biological hazards on-site.
- The written Exposure Control Plan must be available for employee review.

BLOODBORNE PATHOGENS TRAINING

- In California, bloodborne pathogens training shall be provided to workers at the time of initial appointment to tasks where exposure may take place, and also at least annually thereafter.
- Cal/OSHA requires that the training must cover a brief explanation of the Bloodborne Pathogen standard, a general explanation of the various diseases and their symptoms, as well as the various modes of transmission, or “routes of exposure” by which bloodborne pathogens can enter the body of an unprotected person.

ROUTES OF ENTRY

- Sexual contact is one route of entry for bloodborne pathogens.
- Other routes of entry include ingestion, which occurs when infected material is eaten or swallowed; absorption, which occurs when infectious material is absorbed into the body through contact with open cuts, sores or contact with mucus membranes; and injection, which occurs when a contaminated sharp object punctures the skin.
- Understanding these routes of entry is the first step towards controlling exposure to bloodborne pathogens.

RISK IDENTIFICATION & UNIVERSAL PRECAUTIONS

- Another requirement is to educate workers on risk identification. For instance, you must understand that infected blood looks identical to non-infected blood and that a contaminated needle looks identical to a non-contaminated needle. In other words, you cannot determine simply by looking whether something is contaminated with bloodborne pathogens.
- An understanding of the concept known as “universal precautions” will help you with risk identification. Universal precautions means treating all blood, bodily fluids, and potentially infectious material as if they are infected with bloodborne pathogens.
- The first rule of universal precautions is to avoid contact or exposure altogether. Recall the routes of entry we discussed earlier. Preventing exposure means not allowing contaminated material access to these routes of entry.

AVOIDING CONTACT TO PREVENT EXPOSURE

- Exposure due to ingestion can be prevented by thoroughly washing your hands prior to eating, by not eating, drinking or applying makeup in areas containing potentially infectious materials and by not storing food or drinks in areas containing potentially infectious materials.
- The most effective way to prevent exposure due to absorption or injection is to avoid direct contact with all potentially infected materials and sharp objects. For most employees, this simply means not touching such objects but reporting them to the proper authority instead.
- This also means avoiding any direct contact with an injured or bleeding co-worker while immediately activating the facility’s emergency plan to respond to an injury.
- Avoiding contact and reporting the situation is the best course of action because it allows properly trained personnel to respond quickly, render assistance, properly dispose of the contaminated materials and decontaminate the area.

USE OF BARRIER DEVICES

- If avoiding contact is not possible or your job duties require contact, then following universal precautions requires that a barrier device be used. A barrier device is a piece of protective equipment designed to reduce or prevent direct contact with contaminated items, blood or other bodily fluids.
- Latex or rubber gloves are a common example of a barrier device. Other examples of barrier devices include masks, goggles, face shields and lab coats.
- The type of barrier device required will depend on the potential for exposure. Situations which involve a greater risk of exposure will require more protection, while simple exposure situations require less protection.
- Gloves and all other barrier devices must be inspected for cracks, holes or tears before use.

SAFE HANDLING OF POTENTIALLY INFECTIOUS MATERIAL

- Using these types of barrier devices provides protection from the absorption of bloodborne pathogens; however, sharp objects still present an injection hazard or may cut through the barrier device, making it ineffective while also leaving an open wound.
- This is why following universal precautions requires never directly contacting needles, broken glass or similar sharp objects. Use tongs, a broom and dustpan or similar objects to avoid contact with sharps.

DECONTAMINATION & DISPOSAL

- California OSHA also requires workers to receive information on decontamination and disposal. This includes information on the decontamination and disposal of personal protective equipment and contaminated items.
- Proper disposal is essential to controlling employee exposure to bloodborne pathogens.
- Decontamination and disposal procedures will be determined by the employer, but must also comply with the regulatory requirements.
- For instance, in most situations, potentially infectious material must be placed into approved biohazard containers. Approved biohazard containers are usually red in color and labeled with the biohazard symbol.
- Some potentially infected materials that must be disposed of properly include disposable gloves, dressings, bandages or any similar items.
- Potentially contaminated sharp objects such as needles or broken glass present an increased hazard and must be disposed of in an approved biohazard "sharps" container. These rugged containers allow handling without the risk of being cut or punctured.
- Never place contaminated sharps into the regular trash; this places other workers at risk of exposure.
- Potentially contaminated work areas and non-disposable protective equipment must be thoroughly cleaned and decontaminated before being put back into service. Simply cleaning contaminated objects with soap and water is not sufficient against bloodborne pathogens.
- A 10 percent solution of bleach and water or an EPA-approved disinfectant is the general guideline for killing any infectious materials that may be present.

RESPONDING TO AN EXPOSURE

- Cal/OSHA also requires that your training include information on what to do in the event you come in direct contact with blood or other bodily fluids.
- Immediately wash the affected area thoroughly with warm water and an anti-bacterial soap. If potentially infected material splashes into your eyes, rinse them thoroughly using an eyewash station for 15 minutes.
- The Exposure Control Plan will contain a plan of action which must be followed if an exposure occurs. This is why all exposures must be reported as soon as possible. Reporting an exposure right away allows any necessary medical testing, treatment, and record keeping to promptly take place.
- With employee consent, blood tests may be performed to determine if an infection has occurred. In addition, the source material may be tested to determine if it was contaminated with bloodborne pathogens.
- Exposed employees may also be eligible to receive the Hepatitis B vaccine which can still be effective even after an exposure has occurred.
- Workers who do not have occupational exposure to bloodborne pathogens have a low risk of coming into contact with blood or other potentially infected materials; however, they must still be prepared.

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ANSWERS TO THE REVIEW QUIZ

1. c

2. a

3. d

4. b

5. a

6. c

7. b

8. c

9. a

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REVIEW QUIZ

The following questions are provided to determine how well you understand the information presented in this program.

Name _____ Date _____

1. Victims of _____ often show no symptoms until later stages of the disease.
 - a. Hepatitis A
 - b. Hepatitis B
 - c. Hepatitis C

2. California OSHA requires most employers to develop a Bloodborne Pathogens Exposure Control Plan.
 - a. True
 - b. False

3. Which of the following is a route of entry for bloodborne pathogens?
 - a. Sexual contact
 - b. Ingestion
 - c. Injection
 - d. All of the above

4. The first rule of universal precautions is to always handle potentially infected materials with latex or rubber gloves.
 - a. True
 - b. False

5. Which of the following are NOT considered barrier devices?
 - a. Bandages
 - b. Latex gloves
 - c. Face shields
 - d. Lab coats

6. Approved biohazard containers are usually _____ in color.
 - a. Blue
 - b. Green
 - c. Red

7. Cleaning objects that have been contaminated by bloodborne pathogens with soap and warm water is effective in killing all infectious materials that may be present.
 - a. True
 - b. False

8. How long should you rinse your eyes if a potentially infected material splashes into your eyes?
 - a. 5 minutes
 - b. 10 minutes
 - c. 15 minutes

9. The Hepatitis B vaccine can still be effective even after an exposure has occurred.
 - a. True
 - b. False