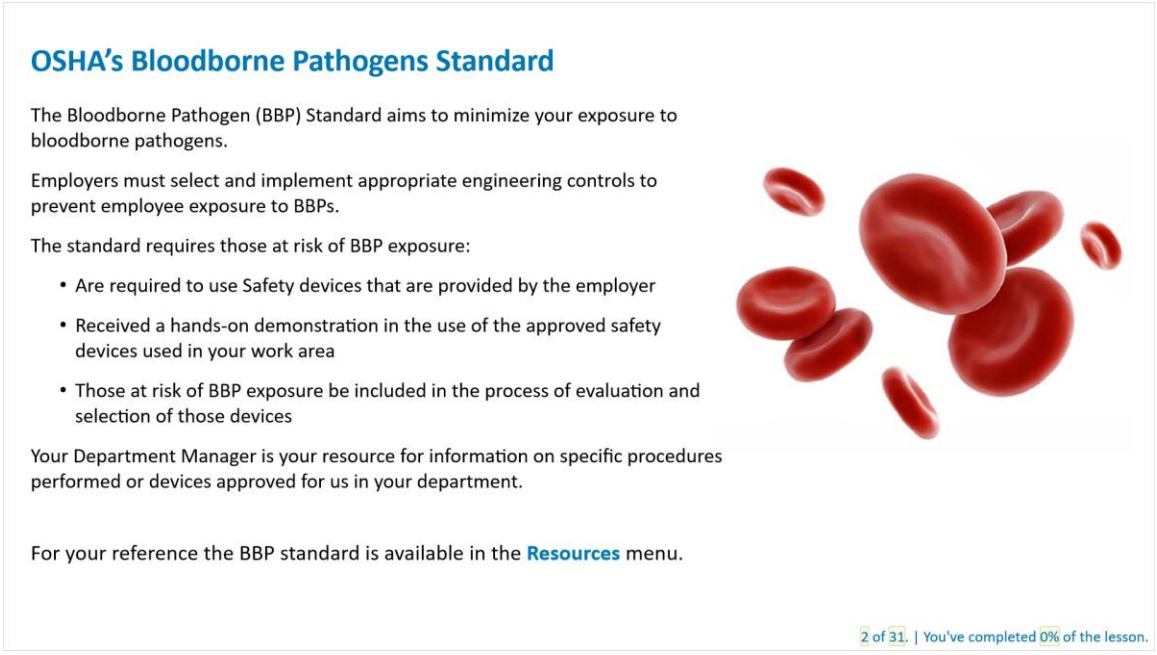
Infection Prevention and Control (MOC)

1. Bloodborne Pathogens

1.1 Bloodborne Pathogens

1.2 OSHA's Bloodborne Pathogens Standard



1.3 Asking Questions

Asking Questions

The BBP standard requires that you have an opportunity for interactive questions and answers about this material. **Contact your local Infection Prevention or Employee Health department (EH&S Community).**

If you do not know how to contact them, you can find their contact information in the **Resources** menu.

In addition, OSHA's BBP Standard requires that our records include a summary of the training content and the names and qualifications of the trainers. KP's BBP training was created by National EH&S and content was developed by our national Subject Matter Expert (SME) for Bloodborne Pathogens with contributions from national and regional Infection Prevention and Employee Health leaders. Onsite support is provided by your local EH&S, Employee Health and Infection Prevention departments.

The BBP Training Addendum in the **Resources** menu provides a summary of course elements and the qualifications of our training developers.

3 of 31. | You've completed 0% of the lesson.

1.4 Epidemiology and Symptoms of BBPs

Epidemiology and Symptoms of BBPs

BBPs are pathogenic microorganisms present in human blood that can cause disease in humans. **BBPs are transmitted** through direct contact of the eyes, nose, mouth or non-intact skin with:

- The **blood or body fluids** of an infected person
- **Objects** (like needles and syringes) that have been contaminated

These pathogens include, but are not limited to, Human Immunodeficiency Virus (HIV), Hepatitis B virus (HBV), Hepatitis C virus (HCV) and Ebola.

Click on each button.

Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV) Hepatitis C Virus (HCV)	Ebola

4 of 31. | You've completed 0% of the lesson.

HIV (Slide Layer)

Human Immunodeficiency Virus

Infection by **Human Immunodeficiency Virus (HIV)** causes the progressive loss of immune system function. Acquired Immunodeficiency Syndrome (AIDS) can result from HIV infection.

Symptoms may include but are not limited to:	
Flu-like illness	Fever
Sore throat	Swollen lymph nodes
Muscle aches	Fatigue
Chills	

CLOSE

4 of 31. | You've completed 0% of the lesson.

Hepatitis B and C (Slide Layer)

Hepatitis B and C

Hepatitis is an **inflammation of the liver**, and one type is viral hepatitis. **Hepatitis B and C** are the more serious viral forms and are **spread through contact with human blood or tissue** and perhaps through contact with other body fluids. They can result in chronic, debilitating and potentially fatal liver disease.

You can have Hepatitis B or C for many years before you even know you have the virus. You can be infectious weeks before the onset of symptoms, and you will stay infectious while you are sick. Most people with Hepatitis C, and some people with Hepatitis B remain infectious indefinitely.

Symptoms of infection from Hepatitis B and C include, but are not limited to:	
Loss of appetite	Abdominal discomfort
Nausea and vomiting	Joint pain and rash
Jaundice (yellowing of the skin and eyes	Flu-like symptoms

CLOSE

4 of 31. | You've completed 0% of the lesson.

Ebola (Slide Layer)

Ebola

Ebola Virus Disease (EVD) is an infectious disease classified as a viral hemorrhagic fever (VHF) because of the fever and abnormal bleeding. Ebola is feared because of its high mortality. Supportive therapy can be provided to address bleeding and other complications.

- Persons are not contagious until they develop symptoms.
- Persons at highest risk for EVD include healthcare workers and family and friends of infected patients. Effective isolation of patients and appropriate infection control measures applied to any suspect EVD patient would contain any potential spread.
- **Healthcare workers who will care for patients with suspected or confirmed Ebola will receive additional training.**

Symptoms of infection from Ebola may appear 2 to 21 days after exposure to Ebola and include:	
Fever	**Vomiting**
Severe headache	**Stomach pain**
Joint and muscle aches	**Diarrhea**
Weakness	**Unexplained hemorrhage**

CLOSE

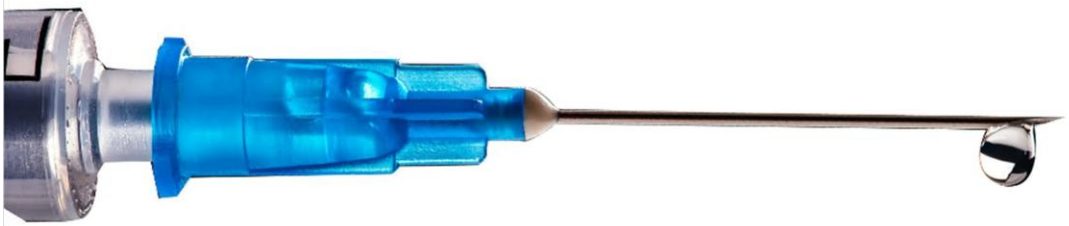
4 of 31. | You've completed 0% of the lesson.

1.5 BBP Modes of Transmission

BBP Modes of Transmission

The modes of BBP transmission to healthcare workers are:

- Needlesticks/punctures
- Splashes into the nose, mouth or eyes
- Cuts or contact with non-intact skin (percutaneous)



5 of 31. | You've completed 0% of the lesson.

1.6 BBP Exposure Control Plan

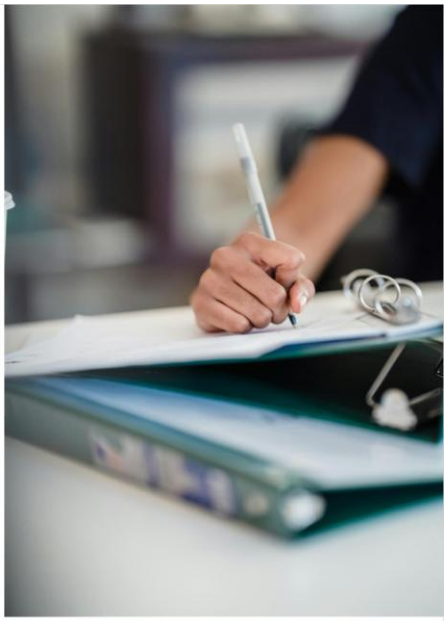
BBP Exposure Control Plan

Each Kaiser Permanente clinical facility maintains a **Bloodborne Pathogen Exposure Control Plan**.

Your Facility's plan:

- Describes Kaiser Permanente's role in protecting employees and your obligation to use protective measures.
- Identifies the procedures that put employees at risk and the protective measures to be taken.
- Describes the procedure for reporting BBP Exposure and Post-Exposure Prophylaxis.

You can obtain a copy of your site's BBP Exposure Control Plan from your supervisor or contact Environmental Health & Safety, Infection Prevention or Employee Health Services.



6 of 31. | You've completed 0% of the lesson.

1.7 Activities That May Involve BBP Exposure

Activities That May Involve BBP Exposure

Examples of tasks that could involve exposure to **Bloodborne Pathogens or Other Potentially Infectious Materials (OPIM)** include any assigned duties during which skin, nose, mouth, eye, or parenteral contact with blood or OPIM can be reasonably anticipated.

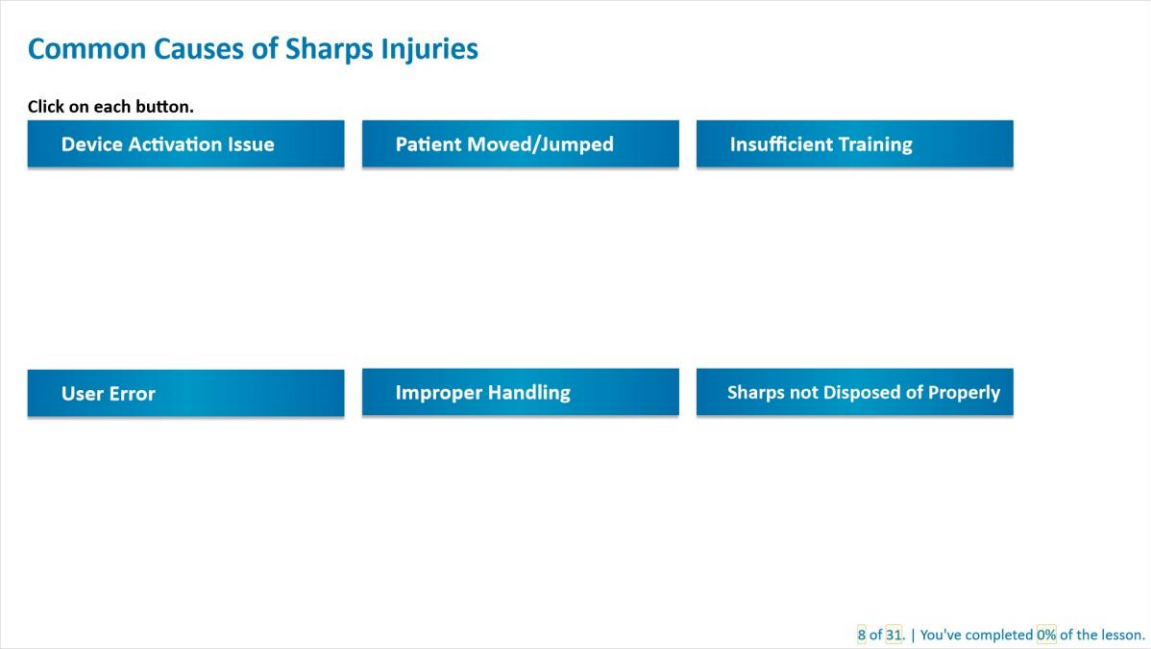
Including:

- Surgical or invasive procedures
- Splash-related events
- Blood drawing
- Cleaning up blood or body fluid spill

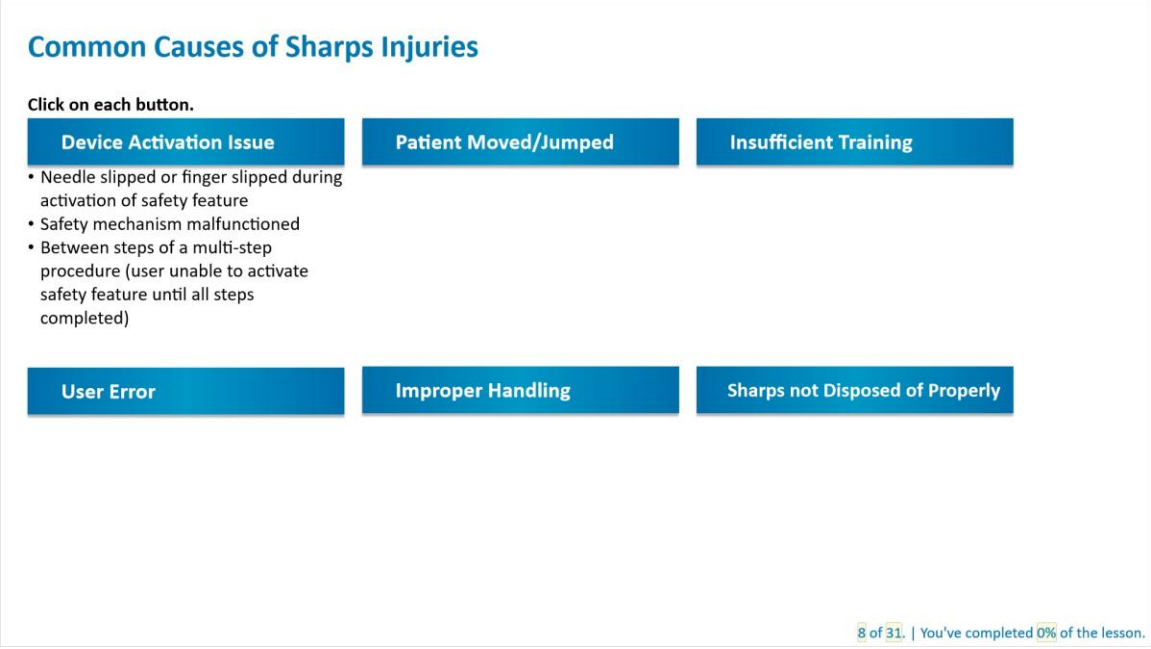
There is a list of procedures in the **Resources** menu that may lead to exposure to BBPs.

7 of 31. | You've completed 0% of the lesson.

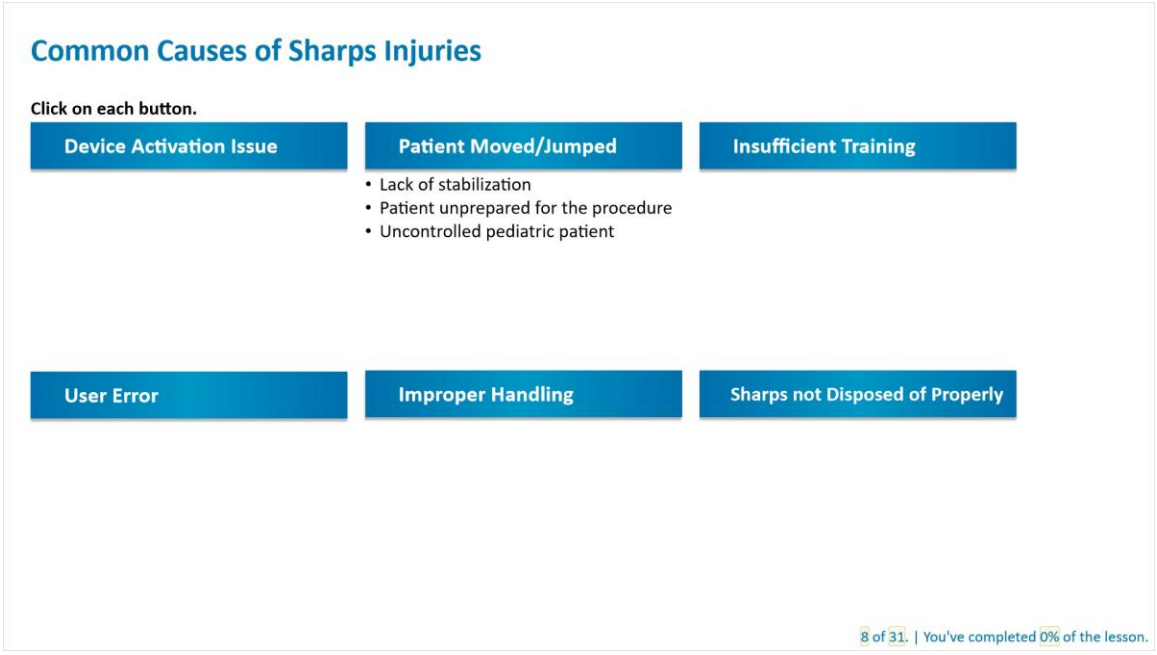
1.8 Common Causes of Sharps Injuries Click on each button.



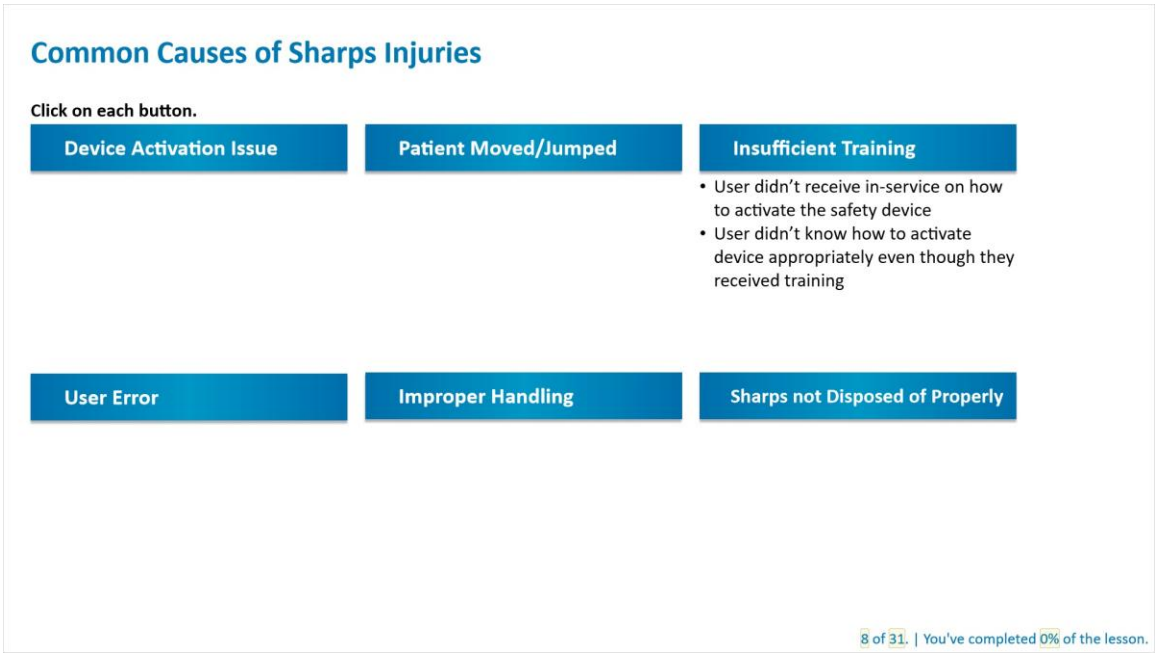
Device Activation (Slide Layer)



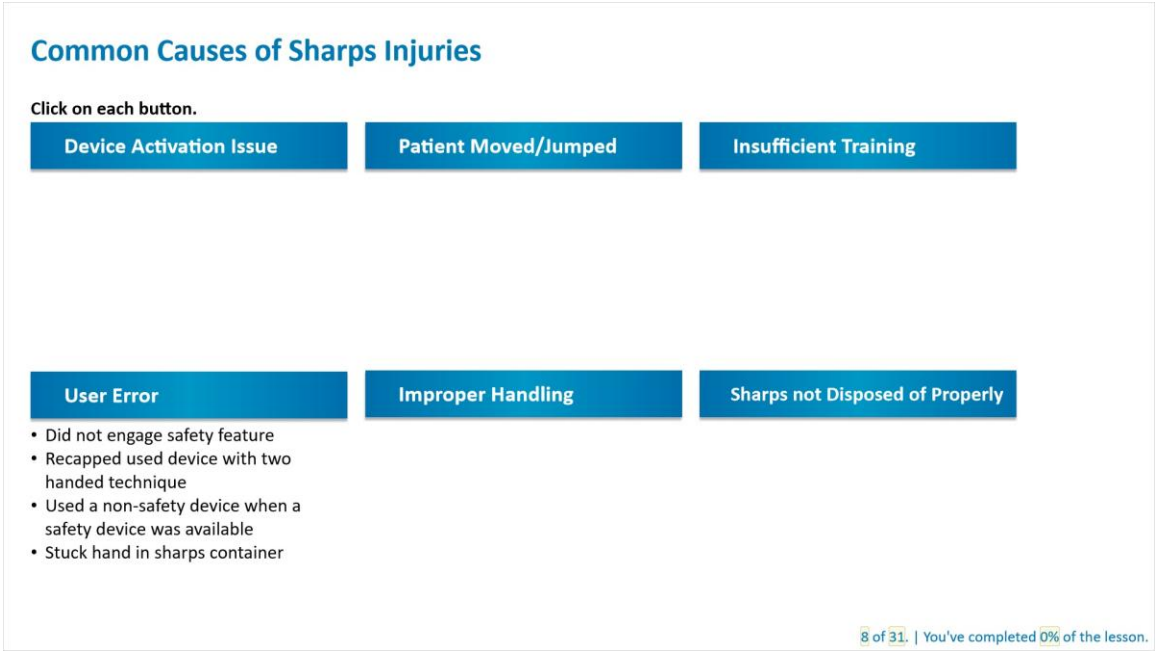
Patient Moved/jumped (Slide Layer)



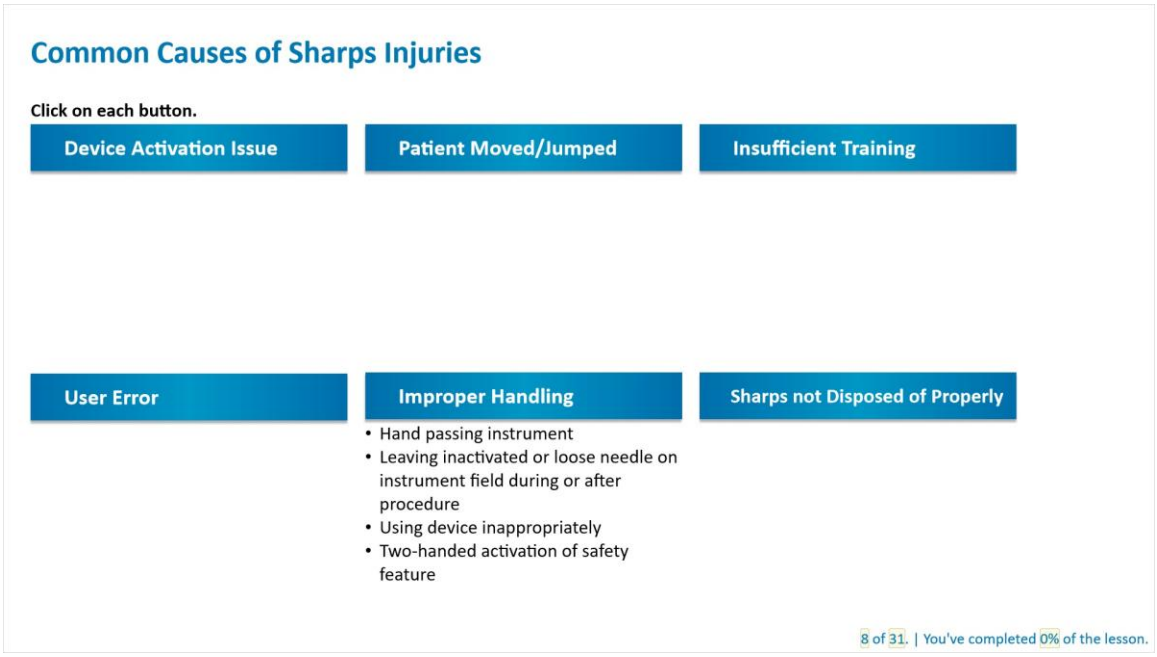
Insufficient Training (Slide Layer)



User Error (Slide Layer)



Improper Handling (Slide Layer)



Sharps not Disposed (Slide Layer)

Common Causes of Sharps Injuries

Click on each button.

Device Activation Issue | **Patient Moved/Jumped** | **Insufficient Training**

User Error | **Improper Handling** | **Sharps not Disposed of Properly**

- Sharps sticking out of sharps container
- Sharps found outside of sharps container (e.g., found in trash, floor, bed cracks, linen, food tray, etc.)
- Overfilled sharps container

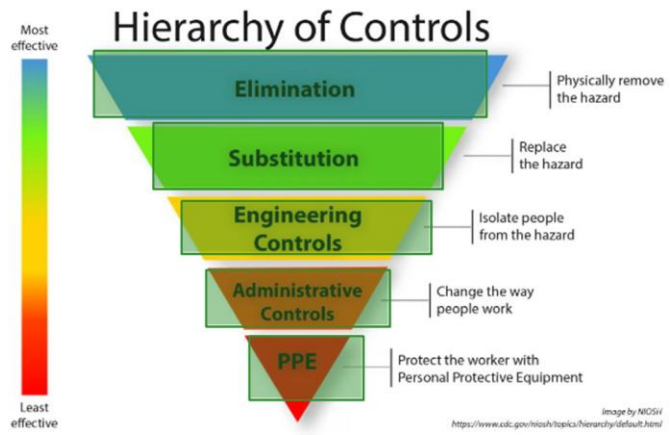
8 of 31. | You've completed 0% of the lesson.

1.9 Prevention of BBP Exposure

Prevention of BBP Exposure

Hierarchy of Controls must be used to prevent and reduce exposure to Bloodborne Pathogens.

Starting with Elimination click through each level for more information.



9 of 31. | You've completed 0% of the lesson.

PPE (Slide Layer)

PPE

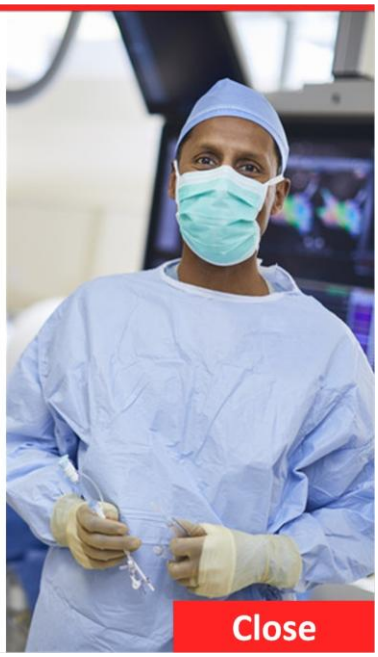
PPE can protect the skin, eyes, mouth and nose during normal use and during the entire length of time it is worn. Examples of PPE are gloves, gowns and/or disposable plastic aprons, masks, face shields and protective eyewear.

Located in the **Resources** menu is a list of commonly performed procedures and the PPE required.

Your **department manager** is **responsible for maintaining an adequate supply** of protective gear to prevent employee exposure and for **informing you** of the proper use, location, removal, handling, cleaning, decontamination and disposal of PPE used at your worksite.

NOTE:

- *Disposable gloves cannot be washed or decontaminated for reuse.*
- *Employees must remove any PPE when it becomes torn or damaged, before leaving the work area, or when the PPE becomes contaminated, and place it in appropriate containers for decontamination or disposal. Disposable PPE, when contaminated with visible fluid blood, dried caked on blood or other infectious material, should be discarded in a biohazard container (or in a chemo container if the PPE has come in contact with chemotherapeutic agents).*



Close

Work practices (Slide Layer)

Administrative Controls

Handle blood/body fluids of all patients and laboratory specimens as potentially infectious.

Decontaminate hands before putting on gloves, before patient contact, after touching equipment, after touching patient's environment, after specimen contact and after removal of gloves.

Place used sharps in sharps container immediately after use. Do not recap or manipulate needles.

Do not eat, drink, apply cosmetics or lip balm, or handle contact lenses in patient care areas or laboratory processing areas.

Do not pick up used sharps or broken glassware that may be contaminated directly with your hands. Perform clean up using tools such as a brush and dustpan.

Protect your non-intact skin (i.e., chapped or abraded skin) from contact with blood or bloody fluids.

Close

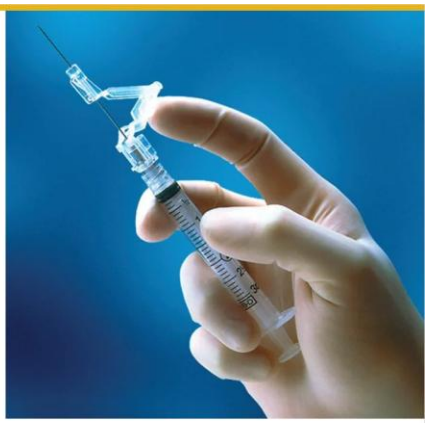
Engineering (Slide Layer)

Engineering Controls

Use sharps safety devices. Use of these devices is required by OSHA with only a few exceptions.

A limitation of safe needle devices is that most devices have safety features that must be actively engaged to be effective.

Employees and physicians are required to use safety devices that are provided by the employer!



Close

Elimination (Slide Layer)

Elimination

Where clinically appropriate, look for ways to eliminate sharps use.

Examples include using needleless IV systems and surgical adhesives (a non-invasive alternative to skin sutures and staples).

Image source: B Braun

Close

Substitution (Slide Layer)

Substitution

There are ways of reducing the risk of a sharps injury by substituting the type of device or material used.

Examples include:

- Using blunt filter/fill needles for medication preparation.
- Using plastic test tubes instead of glass, where clinically appropriate, to reduce potential cuts.
- Using blunt-tip suture needles for suturing fascia, muscle, fat, and organ tissue is recommended by American College of Surgeons where clinically appropriate.

Image source: BD

Close

1.10 Explanation for Selection of PPE

Explanation for Selection of PPE

Your supervisor will need to review your job responsibilities for tasks that may involve exposure to bloodborne pathogens.

Selection of Personal Protective Equipment (PPE) is based on the type and degree of risk associated with the task being performed.

Any concerns about PPE (what type to use, proper training, evaluation) should be discussed with your department manager or contact your EH&S Department for more information.

10 of 31. | You've completed 0% of the lesson.

1.11 Hepatitis B Vaccine

Hepatitis B Vaccine

KP offers hepatitis B vaccine to all employees. The vaccine can be obtained **free of charge** from Employee Health Services. The benefit of being vaccinated against hepatitis B is that it will prevent infection and liver disease associated with exposure to the hepatitis B virus.

The vaccine:

- is highly effective and safe
- is recommended for all employees
- does not expose the recipient to bloodborne pathogen diseases
- is given in three injections in the arm at day 0, 1 month and 6 months

Adverse reactions to the hepatitis B vaccine are rare but include:

- injection site reactions, including redness, soreness, swelling
- fatigue/weakness
- headache
- malaise
- irritability

For more information on the Hepatitis B Vaccine see the **Resources** menu.

Hepatitis B vaccine must be offered to all employees at risk for blood or body fluid contact, and is strongly recommended for all employees. A declination form (available from Employee Health Services) must be signed if you choose to refuse the vaccine. You may decide later to be immunized.

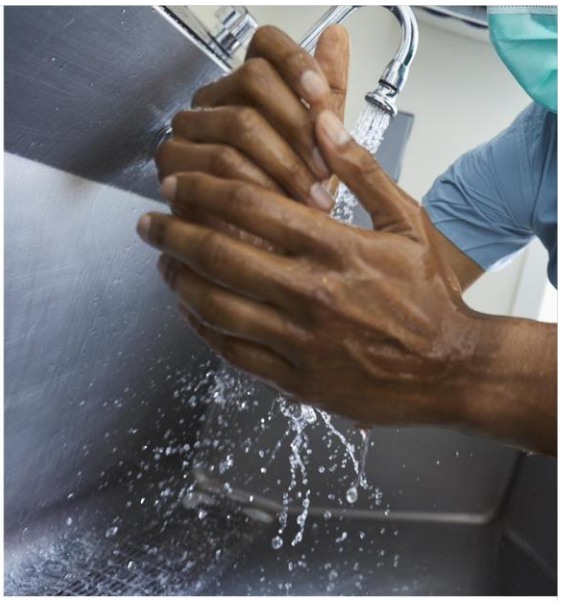
11 of 31. | You've completed 0% of the lesson.

1.12 For your reference the BBP standard is available

Actions to Take in an Emergency

The most obvious exposure incident is a needlestick. However, when blood or other infectious material comes in contact with your eyes, nose, mouth, other mucous membrane, or non-intact skin, this is also considered an exposure incident.

- Skin – intact or non-intact – should be washed IMMEDIATELY with soap and water.
- Nose, mouth and eyes can be flushed with water or saline. You may use an emergency eyewash station if available.
- Next, follow the procedures appropriate for your region as described in the following slides.



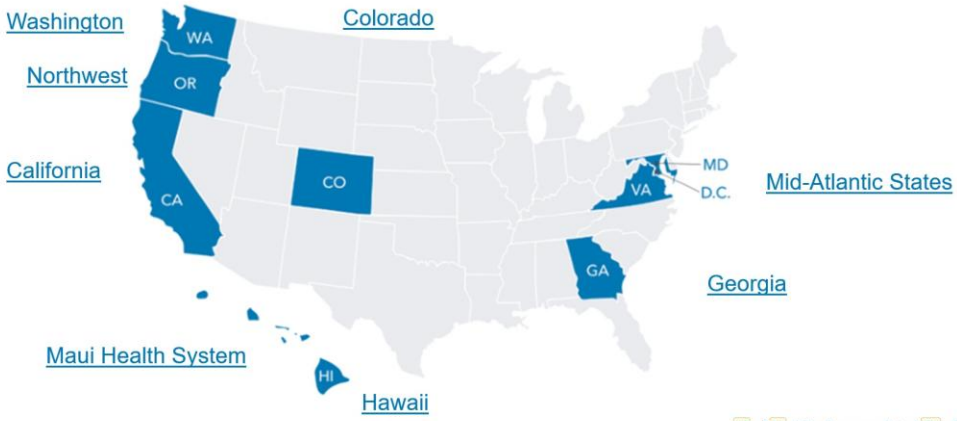
12 of 31. | You've completed 0% of the lesson.

1.13 Where Do You Work?

Where Do You Work?

Click on the Market you work in to get Market-specific information on actions to take in an emergency (i.e., if you have a BBP incident).

If you work in Program Office or are a Shared Services employee or physician, select the Market you work in.



13 of 31. | You've completed 0% of the lesson.

1.14 Georgia

Georgia

IMMEDIATELY notify your supervisor.

The supervisor notifies Employee Health and sends the employee to Internal Medicine (or ED if the employee is working in the hospital).

Employee to complete the Sharp/Splash Exposure Interview Form and email (don't fax) the form to Employee Health mailbox:
KPGA-Employee-Health@kp.org

! of 31. | You've completed 0% of the lesson.

1.15 Colorado

Colorado

IMMEDIATELY notify your Manager and call Employee Health at **(303) 344-7527**.

Urgent care may be utilized after hours and holidays.

! of 31. | You've completed 0% of the lesson.

1.16 Northwest

Northwest

IMMEDIATELY contact **Employee Health** at

1-844-951-2060 during business hours (8:30 a.m. – 5:00 p.m.).

After business hours or on weekends:

- **Hospital Staff:** Call the on-site Hospital Supervisor (HAS).
- **Ambulatory/Dental Staff:** Proceed to nearest Urgent Care.
- **Ambulatory Surgery Center (ASC) and Care Essentials Locations:** Utilize your after-hours resource binder.

! of 31. | You've completed 0% of the lesson.

1.17 Hawaii

Hawaii

IMMEDIATELY notify your supervisor/manager or person in charge and you will be directed for evaluation and treatment.

1.18 MAS

Mid-Atlantic States - Maryland, Virginia and Washington DC

IMMEDIATELY notify Employee Health and your supervisor for any bloodborne pathogen exposures.

After hours, on weekends and holidays: Healthcare workers should seek post-exposure evaluation, care and treatment at **Urgent Care** centers.

1.19 California NCAL and SCAL Markets

California NCAL and SCAL Markets

IMMEDIATELY notify your department manager and contact Employee Health or the Emergency Department (within the first **2 hours of exposure**).

1.20 Maui

Maui Health Systems

IMMEDIATELY notify Manager, Charge AND Notify Nursing Supervisor.

Seek medical treatment in the ED within **2 hours of exposure**.

Follow up with Employee Health the next business day, call **(808) 442-5051**.

1.21 KP Washington

KP Washington

IMMEDIATELY notify your department manager/supervisor or person in charge and page Employee Health at **206-344-9375**.

On the KP network, visit the KPWA SharePoint website via https://mykp.kp.org. **Search** for "**Employee Health WA**," then "**Click Here**" for NEEDLESTICK OR SPLASH EXPOSURE?

1 of 31. | You've completed 0% of the lesson.

1.22 Post-Exposure Procedure

Post-Exposure Procedure

In the event you are exposed to any blood or other infectious materials, it is CRUCIAL that you follow your site's procedures to facilitate immediate intervention that can deter the development of HBV, HCV, HIV and other potential infections.

Examples of information needed to report BBP exposure:

- The name and medical record number of the source patient (if known)
- The type and level of exposure
- The protective equipment or clothing you were wearing at the time of exposure
- Information on the device involved (including device type, brand/manufacturer, model, volume, gauge and length)
- Whether or not a safety feature was utilized

Employee Health Services enters information provided by the employee regarding the exposure incident into the National BBP Exposure Incident database. The **Sharps Injury Log** for each facility is generated from this database.

Employees who have had an exposure are offered an immediate medical evaluation with appropriate follow-up.

14 of 31. | You've completed 0% of the lesson.

1.23 Post-Exposure Medical Evaluation

Post-Exposure Medical Evaluation

- Counseling
- Appropriate lab work and treatment in line with current US Public Health Service recommendations and regional policies and procedures.
- At the time of exposure, you will be offered baseline testing for HIV, HCV and immunity to HBV. Follow-up testing for HIV, HCV and HBV (if not immune) may also be recommended if there is a concern that you had a significant exposure.
- Chemoprophylaxis (drug therapy) may be recommended after a high-risk exposure.
- If you do not have immunity to HBV, you may be offered Hep B immunoglobulin and possible revaccination (if needed) at the time of high-risk exposure to HBV.
- Evaluation of reported illnesses that may be related to the exposure.

15 of 31. | You've completed 0% of the lesson.

1.24 Biohazard Labeling

Biohazard Labeling

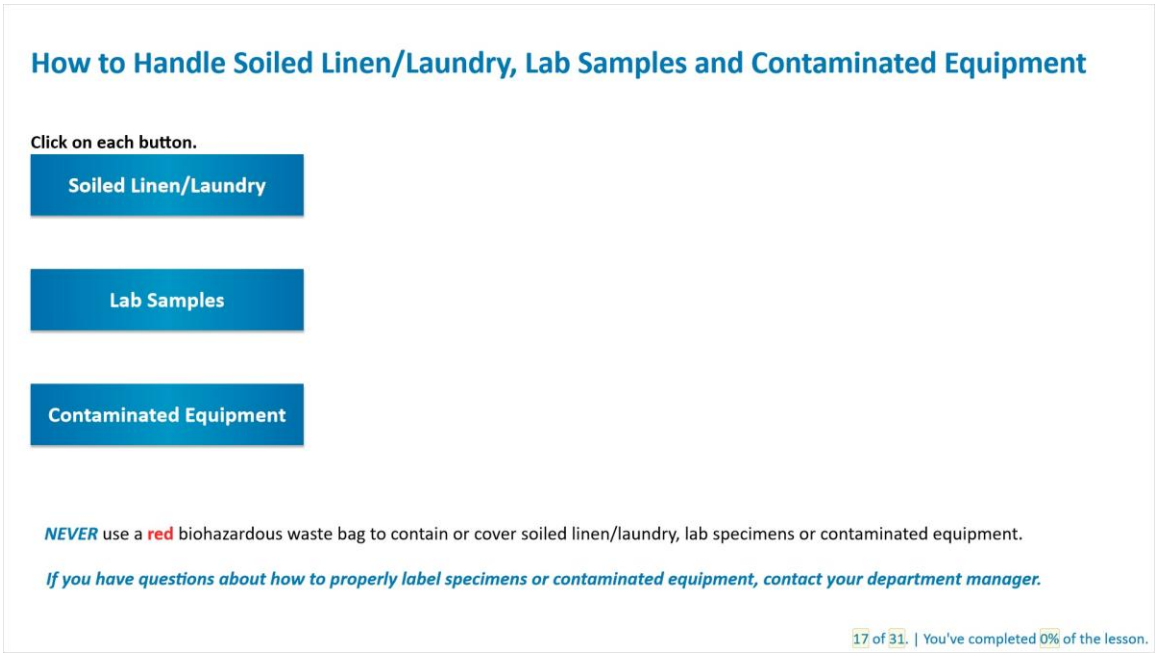
Biohazard warning labels must be affixed to containers of biohazardous materials. Labels must include the universal biohazard symbol and the legend **BIOHAZARD** or in the case of sharps containers and regulated waste, **BIOHAZARDOUS WASTE** or **SHARPS WASTE**.

Labels are fluorescent orange or orange-red, with lettering and symbols in a contrasting color.

Your department manager will instruct you on proper waste disposal practices for your job duties.

16 of 31. | You've completed 0% of the lesson.

1.25 How to Handle Soiled Linen/Laundry, Lab Samples and Contaminated Equipment



Soiled Linen/Laundry (Slide Layer)

Lab Samples (Slide Layer)

How to Handle Soiled Linen/Laundry, Lab Samples and Contaminated Equipment

Click on each button.

Soiled Linen/Laundry

Lab Samples

Contaminated Equipment

Only use designated specimen bags and coolers to contain laboratory specimens. **NEVER** place specimens in a red biohazard bag.

NEVER use a **red** biohazardous waste bag to contain or cover soiled linen/laundry, lab specimens or contaminated equipment.

If you have questions about how to properly label specimens or contaminated equipment, contact your department manager.

17 of 31. | You've completed 0% of the lesson.

Contaminated Equipment (Slide Layer)

How to Handle Soiled Linen/Laundry, Lab Samples and Contaminated Equipment

Click on each button.

Soiled Linen/Laundry

Lab Samples

Contaminated Equipment

Contaminated equipment needing cleaning or reprocessing (e.g., scopes, surgical tools, slings, IV poles, commodes, etc.) should **NEVER** be placed in or covered by a red biohazard bag.

Only use the specifically designated proper label or tote.

NEVER use a **red** biohazardous waste bag to contain or cover soiled linen/laundry, lab specimens or contaminated equipment.

If you have questions about how to properly label specimens or contaminated equipment, contact your department manager.

17 of 31. | You've completed 0% of the lesson.