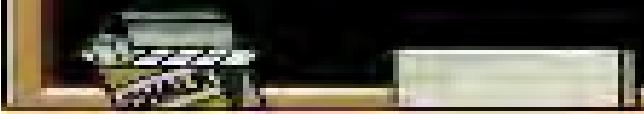


# Bloodborne Pathogen Training for The Center for Collaborative Solutions Comprehensive Substitute Solutions



This information was customized for The Center for Collaborative Solutions based on information provided by the Ohio Department of Health, School and Adolescent Health

# Who Has to Take this Course?

- ▶ Employees who have been identified as working in “at risk” categories, meaning they have a higher risk of coming in contact with bloodborne pathogens (BBP) must take this course.
- ▶ The Center for Collaborative Solutions has identified substitutes as employees who may be at risk for exposure to BBP.



# Why do I need this training?

- Schools and their service providers are responsible for identifying and educating employees who could be “reasonably anticipated”, as a result of performing their job duties, to be in contact with bloodborne pathogens.
- It is extremely important that you understand and know how to access The Center for Collaborative Solutions’ Exposure Control Plan!
  - *You will be directed to it as part of this training.*



# How Do I Complete this Course?

## ➤ Part One

- A review of the information contained in these slides
- Please review this information carefully and completely!

## ➤ Part Two

- A review of The Center for Collaborative Solutions' Exposure Control Plan



# What Will I Learn Through this Course?

- A basic understanding of:
  - Bloodborne pathogens (BBP)
  - Common modes of transmission of BBP
  - Methods to prevent the transmission of BBP
  - Information to help substitutes maintain compliance with the BBP Standard



# Regulatory Authority Regarding Bloodborne Pathogen Training and Compliance

## OSHA

Occupational Safety & Health Administration

- Federal agency
- Covers private sector employees including private schools.

## Ohio PERRP

Public Employee Risk Reduction Program

- Ohio Bureau of Worker's Compensation
- Covers public sector employees including public schools in state, county and local districts.

These prescribe safeguards to protect workers against the health hazards from exposure to blood and other potentially infectious materials.  
Standards in schools apply only to staff, not students.



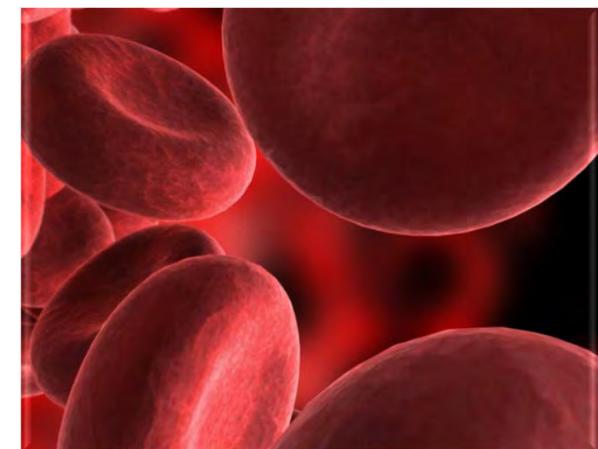
# Bloodborne Pathogens Training

- Must be completed
  - Upon initial hire, if in “at risk” category, and
  - Annually thereafter, and
  - Any time your job duties change and put you at a higher risk of exposure



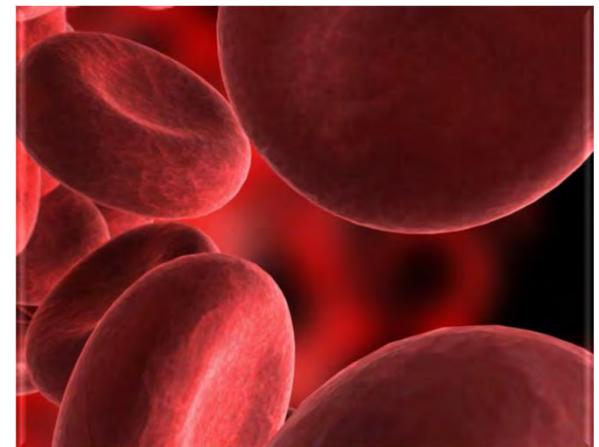
# What are Bloodborne Pathogens?

- Viruses, bacteria and other microorganisms that are carried in the bloodstream and can cause disease.
- The most common bloodborne pathogens are:
  - Human Immunodeficiency Virus (HIV)
  - Hepatitis B Virus (HBV)
  - Hepatitis C Virus (HCV)



# Other Bloodborne Pathogens

- Others include:
  - Hepatitis D (HDV)
  - Hepatitis G (HGV)
  - Cytomegalovirus (CMV)
  - Parvovirus B19, Erythema Infectiosum (EI)
- We are going to address the three most common ...



# Hepatitis B Virus (HBV)

- Hepatitis means “inflammation of the liver”
  - HBV may lead to acute hepatitis, chronic active hepatitis, cirrhosis, liver cancer, liver failure and death.
- Most infectious bloodborne hazard
  - Symptoms appear two to six months after exposure
  - The virus can survive outside the body for up to a week.



# HBV Symptoms

- If you become infected with HBV you may have:
  - Flu-like symptoms
  - Pain on the right side of the abdomen
  - A condition in which the skin and the whites of the eyes turn yellow in color (jaundice)
  - Dark urine (like cola or tea)
  - Pale stools
- Some people have no symptoms at all!
- There is no specific treatment for HBV.



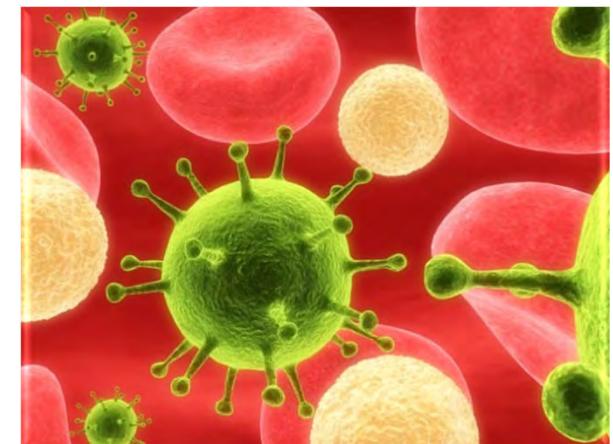
# Hepatitis B Vaccine



- There is a vaccine available to **PREVENT** Hepatitis B infection.
- Hepatitis B vaccine series is available at no cost to all substitutes who **ARE AT RISK OF AN OCCUPATIONAL EXPOSURE** to blood or Other Potentially Infectious Materials (OPIM).
- Vaccination is a series of three injections over seven months, with relatively few side effects.
- Vaccination **immediately after exposure** to the Hepatitis B Virus may prevent infection!

# Hepatitis C Virus (HCV)

- Long-term effects include chronic liver disease, cirrhosis and death
- Hepatitis C is the leading cause of liver transplants
- No treatment or vaccine is available for HCV
- This virus does not survive well outside of the body



# HCV Symptoms

- Hepatitis C symptoms are very similar to Hepatitis B symptoms
  - Pain on the right side of the abdomen
  - Jaundice
  - Fatigue
  - Appetite loss
  - Nausea
  - Dark-colored urine
  - Stools become pale in color
- Symptoms may appear two to six months after exposure. However, 80% of those infected with HCV have no signs or symptoms.

# Human Immunodeficiency Virus (HIV)

- HIV attacks the immune system and can cause the disease known as AIDS
- AIDS is the second-leading cause of death for age group 25–44 years.
- Not transmitted through casual person-to-person contact.
- Mostly commonly spread by unprotected sex or sharing needles.



# Symptoms of HIV

- Flu-like symptoms, which may develop within one to two months
- Night sweats or fever
- Weight loss
- Fatigue
- Swollen glands
- May also develop AIDS-related illnesses including neurological problems and cancer

*A person with HIV may carry the virus without developing symptoms for 10 years or more.*

*Those exposed to HIV should be tested in 6 weeks to 12 months so that treatment can start.*

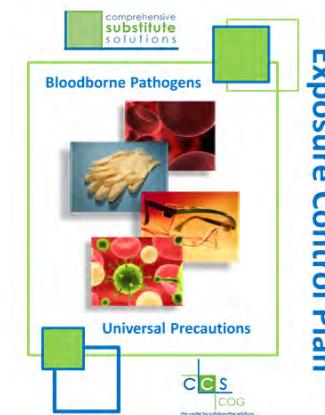
# Transmission: How BBP Enter Your Body

- Bloodborne pathogens can be transmitted when there is **DIRECT CONTACT** with blood or OPIM of an infected person
- Contact occurs by:
  - Blood entering open cuts, wounds or skin abrasions
  - Blood splashing into your eyes, nose or mouth area (mucous membranes)



# The Center for Collaborative Solutions' Exposure Control Plan

- The Center has a Plan to protect our substitutes from BBP. This Plan ...
  - Identifies jobs and tasks “at risk”
  - Explains the vaccination program
  - Presents work practice controls
  - Explains the use of personal protective equipment (PPE)
  - Directs substitutes to the Accident / Exposure Incident Report
  - Explains the post-exposure incident procedure
- You will be directed to it at the end of this training.



# Potential Risk of Exposure

- The Center for Collaborative Solutions has identified substitutes as employees who may be at risk for exposure to BBP.



# Potential Risk of Exposure

- The following job tasks and procedures may be performed in the above job classifications and pose a potential risk of occupational exposure to bloodborne pathogens:
  - Provision of first aid
  - Provision of rescue breathing
  - Clean-up of blood or other body fluids



# Work Practice Controls

- In addition to the use of Universal Precautions, the following work practice controls and procedures are to be followed:
  - Any unprotected skin surface which comes into contact with blood shall be immediately washed with soap and running water.
  - Mucous membranes contaminated with blood shall be flushed with water for at least fifteen (15) minutes.
  - Hand washing will occur immediately after the removal of protective gloves or other personal protective equipment.
  - When hand washing facilities are available in the classroom, the exposed employee shall wash his/her hands and any other exposed skin area with soap and running water,
  - If a hand washing facility is not available the employee shall use an antiseptic cleaner with paper towels, or towelettes, which are to be kept in the designated area in the classroom, not accessible to students. This procedure shall be followed with the use of soap and running water as soon as possible.
  - Puncture-proof, biohazard-labeled containers will be used for sharps.
  - Forceps, tongs, brushes or dust pans will only be used to pick up broken glass.



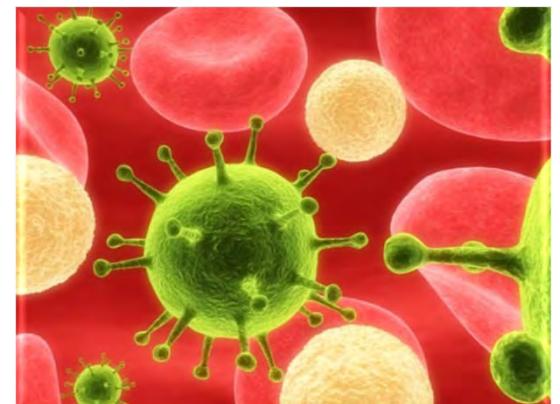
# Work Practice Controls

- And these:
  - Contaminated needles and other contaminated sharps shall not be bent.
  - Shearing or breaking contaminated needles is prohibited.
  - Eating, drinking, smoking, applying cosmetics, or handling of contact lenses is prohibited in work areas where there is reasonable likelihood of occupational exposure.
  - Food or drink shall not be kept in refrigerators, freezers, shelves, cabinets, countertops, or bench tops where blood or potentially infectious materials are present.
  - The handling and transporting of specimens of blood or other potentially infectious materials will be done in leak proof containers.
  - Equipment that may be contaminated with potentially infectious materials must be properly labeled.
  - Reusable equipment, such as bandage scissors, contaminated with blood shall be immediately placed in a puncture resistant, leakproof container containing a tuberculocidal disinfectant solution. The container is biohazard-labeled. Tongs are used to remove instruments from the container and to hold the instrument while removing organic material.



# Universal Precautions

- The practice of treating all human blood or body fluids as if they are infectious
- Universal Precautions ...
  - Assist in the prevention of contact with blood and other body fluids
  - Provide the first line of defense against the risks of exposure to bloodborne pathogens



# Universal Precautions

- Remember ...
  - Everyone has something you don't want!
  - You should universally treat everyone the same to protect yourself!



# Hand Washing

- Wash hands before
  - Eating or touching your face
- Wash hands after
  - Any contact with blood, body fluids or soiled objects
  - Using the toilet
  - Assisting with personal hygiene
- REMEMBER ... this is the single most important technique for preventing the spread of infectious diseases.



# Hand Washing Technique



- Use soap and water to wash hands when available.
- Or use an alcohol based hand sanitizer with at least 60% alcohol\*
- Always use soap and water if hands are heavily soiled.

\*Alcohol based sanitizers need to be between 60%–95% alcohol for maximum germ killing effectiveness

# Alcohol-based Hand Sanitizers

- Must have at least 60% alcohol content to effectively kill germs and bacteria
- Procedure:
  - Apply to palm of one hand
  - Rub hands together
  - Rub the product over all surfaces of hands and fingers until hands are dry
- REMEMBER ... if hands are heavily soiled, wash with soap and water!



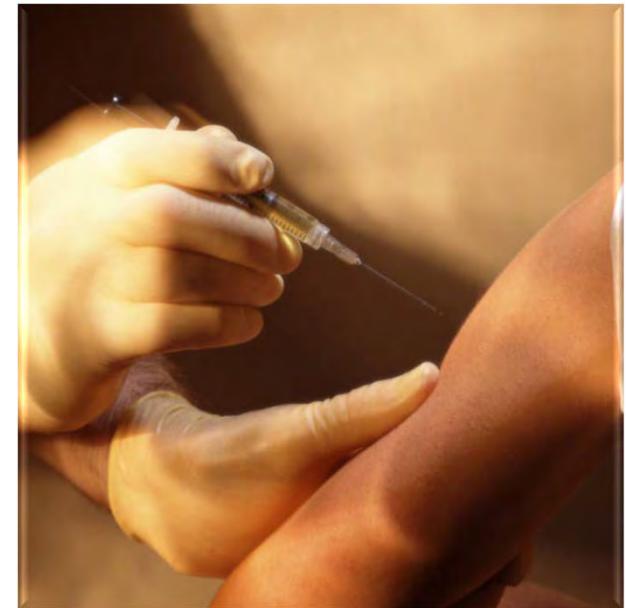
# Personal Protective Equipment (PPE)

- Specialized clothing or equipment that provides protection against infectious material
  - Gloves
  - Gowns
  - Eye protection
  - Face masks
  - Resuscitation devices for performing CPR



## Personal Protective Equipment in Schools

- PPE is provided at no cost to staff members
- Must be accessible
- The type of PPE used is determined by the task the staff member is performing



# How to Choose the Right Type of Personal Protective Equipment (PPE)

- Gloves are to be worn by all personnel when it is “reasonably anticipated that there will be hand contact with blood or other body fluids”
- Gowns, aprons, masks and eye protection are to be used when there is the risk of exposure due to splashes, sprays and splatters



# PPE Guidelines: Gloves



- Wear gloves when contact with potentially infectious materials is anticipated
- Check gloves before use - no holes, tears, cracks - by quickly inspecting the gloves
- Remove contaminated gloves before leaving the work area
- Wash hands after removing gloves
- Never reuse disposable gloves
- Types of gloves that can be used include vinyl, latex, neoprene or utility gloves

# Glove Removal Demonstration



Step 1



Step 2



Step 3

1. Using your gloved hand, grasp the outside edge of one glove near the wrist (glove touching glove).

2. Peel dirty glove away from the hand – turning glove inside out.

3. Hold dirty glove in your hand that still has a glove on it. Slide your ungloved, clean finger under the wrist of the remaining dirty glove. (skin touching skin). Be careful not to touch the outside of the dirty glove.

# Glove Removal Demonstration



Step 4



Step 5

4. Peel off dirty glove from the inside.  
This creates a “bag” for both gloves.

5. Discard gloves.  
Wash hands immediately.

# Handling of Sharps

- Sharps are anything that can puncture your skin (needles, broken glass, razor blades, etc.)
- Sharps should not be picked up directly with your hands. DO NOT GET CUT!
- Find appropriate equipment (dustpan and broom) to clean up sharps.



# Disposing of Sharps

- All sharps contaminated with blood or other body fluids MUST BE discarded as soon as possible in a designated sharps container.
- Containers will be found where sharps are used. Check with the School Nurse!
- Disposal is regulated by the Ohio EPA.



# Signs and Labels

- Check for the biohazard sign which warns that the container holds blood or other infectious material.
- Staff members who are responsible for biohazard waste disposal will be informed of the organization's policy and procedures.
- Waste such as bloody tissues can be disposed of in plastic-lined trash cans and do not need a biohazard label.



# Cleaning Blood Spills

- All surfaces and equipment that come in contact with blood must be decontaminated with an appropriate cleaning solution.
  - Check with your building's custodian or administrator for proper cleaners.
- Wear appropriate Personal Protective Equipment (PPE).
- Take your time and be careful!
- Avoid splashing contaminated fluids.



# Cleaning and Decontamination

- Some commercially available solutions will effectively disinfect surfaces and equipment.
  - Look for “tuberculocidal agent that kills hepatitis B virus”
  - Store cleaners according to label instructions
- Household chlorine bleach is also effective
  - Solution must be made fresh every 24 hours
  - Use a 10% bleach solution
    - One (1) cup of bleach to nine (9) cups of water



# Cleaning Up a Blood Spill

- Cleaning process for hard surfaces
  - **ALWAYS WEAR GLOVES**
  - Using absorbent toweling, absorb the spill
  - Apply a 10% bleach solution or approved disinfectant
  - Let solution sit for the appropriate length of time
    - Bleach solution = 15 minutes
    - Follow label directions for other products
  - Wipe clean and allow surface to dry



# What is an Exposure Incident?

- A specific incident, while performing job duties, that results in blood or Other Potentially Infectious Material “getting in” through
  - Non-intact skin (cuts, scrapes, etc.)
  - Mucous membranes (eyes, nose, mouth)



# What To Do If An Exposure Occurs

- **Immediately** seek First Aid and ...
  - Wash the exposed area with soap and running water
  - Flush splashes to nose, mouth or skin with water for at least fifteen (15) minutes
  - Irrigate eyes with water or saline
- **Immediately** report the incident to the School Office and to HCESC Human Resources.
  - If you are unsure whether or not there has been an exposure, contact HCESC's School Nurse Supervisor, Lauren Brown, at 674-4310 or [Lauren.brown@hcesc.org](mailto:Lauren.brown@hcesc.org) or your building's school nurse.
- **Within 24 hours** of an exposure, you must go to a healthcare provider at one of the Bethesda Care locations.
- **Within 24 hours**, complete the CCS Accident / Exposure Incident Report located on the CCS Comprehensive Substitute Solutions website.



# Questions???

- If you have any questions or concerns, you have sources of additional information
  - Your School Nurse
  - Lauren Brown, HCESC School Nurse Supervisor
    - 674-4310
    - [Lauren.brown@hcesc.org](mailto:Lauren.brown@hcesc.org)
  - HCESC Human Resources
    - Robin Bates 674-4242
    - Brenda Dowers 674-4267
    - Kelly Samad 674-4201

