Child/Youth Safety and Health: Bloodborne Pathogens (A-BBP)

To satisfy the training requirements for A-BBP on your Individual Development Plan (IDP), the following documents need to be reviewed and signed:

a. **Bloodborne Pathogen Training for the Childcare Worker Presentation Slides, version 1, 2017**

   Credit:
   Army Public Health Nursing, Army Public Health Center
   US Army Child and Youth Services

b. **Bloodborne Pathogen Test**
   (**Signature required**)

Bloodborne Pathogen Training for the Childcare Worker

UNITED STATES ARMY
CHILD & YOUTH SERVICES

Version 1, 2017

UNCLASSIFIED

Objectives

1. Define Bloodborne Pathogens (BBPs)
2. Explain the Occupational Health & Safety Administration (OSHA) Standard
3. Review common BBPs: Hepatitis B, Hepatitis C, and HIV
4. Describe who's at risk for BBPs
5. Review BBP occupational exposures
6. Explain BBP transmission and routes of entry
7. Define Exposure Incident
8. Provide overview of BBP prevention, safe work procedures, treatment, and reporting of exposure incidents
9. Caring for child with BBP
10. Review local Exposure Control Plan

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Definition: Bloodborne Pathogens

- The Occupational Safety & Health Administration (OSHA) defined Bloodborne Pathogens (BBPs) as follows:

  "**infectious microorganisms in human blood that can cause disease in humans**"

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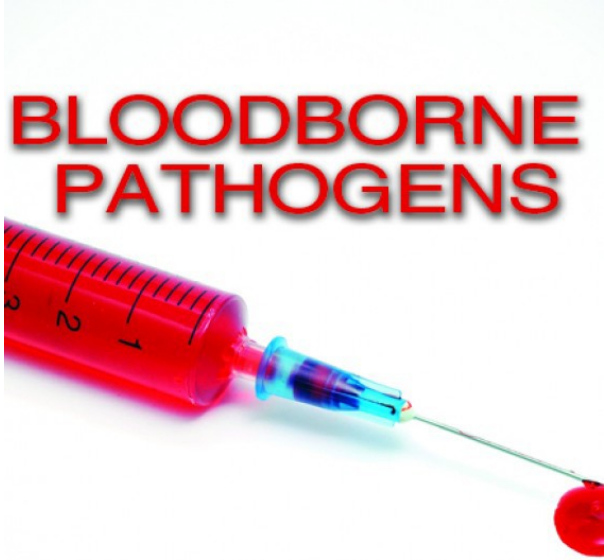
Where are BBPs Found?

- **In blood and blood products to include:**
  - Semen, vaginal secretions
  - Cerebrospinal fluid
  - Breast milk
  - Amniotic fluid
  - Other body fluids



OSHA BBP Standard

- OSHA's BBP Standard (29CFR 1910.1030, effective 6 MAR 92) requires **occupationally exposed** employees to receive BBP training upon initial assignment and at least annually. The following regulations require that all Childcare Workers adhere to the OSHA BBP training requirement:
  - *The U.S. Army Child, Youth, and School (CYS) Services Operations Manual* [2-65 b.(1)-(4)]
  - *Caring for Our Children* Prevention of Exposure to Blood and Body Fluids Standard (3.2.3.4)

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Common BBPs

- Hepatitis B
- Hepatitis C
- Human Immunodeficiency Virus (HIV)

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Hepatitis B (1/2)

- Hepatitis B is a severe disease caused by the Hepatitis B virus (HBV)
- HBV attacks the liver and can lead to lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death
- In 2013, there were an estimated 19,764 new HBV infections in the United States
- In the United States, approximately 700,000 to 1.4 million persons have chronic HBV infection

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Hepatitis B (2/2)

- **Signs and Symptoms (S/S) of HBV:** Fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored bowel movements, joint pain, jaundice (yellow skin/eyes)
- HBV is transmitted via blood and sexual contact
- HBV is very durable and can survive in dried blood for up to 7 days
- HBV is vaccine-preventable!!!
  - Most effective method to reduce the risk of HBV transmission (Provides immunity to HBV 95% of time)
  - Three-shot series administered over six-month period
  - Is safe for both adults and children

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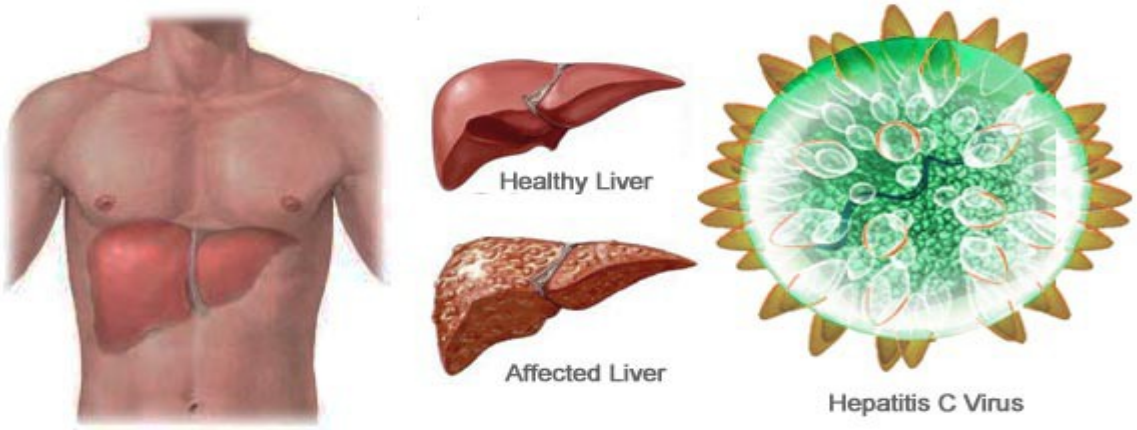
Hepatitis C (1/2)

- Hepatitis C is a contagious liver disease that results from infection with the Hepatitis C virus (HCV). It can range in severity from a mild illness lasting a few weeks to a serious, lifetime illness
- In 2013, the Centers for Disease Control and Prevention (CDC) estimated that there were 29,713 new cases of HCV
- In the U.S., approximately 2.7 million people are living with chronic HCV infection

Hepatitis C (2/2)

- **S/S of HCV:** Fever, fatigue, dark urine, clay-colored stool, abdominal pain, loss of appetite, nausea, vomiting, joint pain, jaundice
- HCV is usually spread via blood
- There is no vaccine for HCV



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HIV (1/2)

- HIV is the virus that can lead to Acquired Immunodeficiency Syndrome (AIDS). HIV depletes the immune system by destroying T-Cells. T-Cells are responsible for fighting off infections in the body
- The Centers for Disease Control and Prevention (CDC) estimates that about 50,000 people get infected with HIV each year in the U.S.
- Approximately 1.2 million people in the U.S. are HIV-Infected

HIV (2/2)

- **S/S of HIV:** 2 to 4 weeks after initial infection some people will experience flu-like symptoms (fever, chills, rash, night sweats, muscle aches, sore throat, fatigue, swollen lymph nodes, or mouth sores) lasting from a few days to a few weeks
- HIV is most commonly spread through blood and sexual contact
- There is no vaccine or proven cure for HIV

Who is at Risk for BBPs?

- Intravenous drug users
- Persons with multiple sexual partners
- Close contacts of chronically infected persons
- Infants born to infected mothers

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Occupational Exposures Childcare Facilities

- Changing diapers
- Performing first aid
- Nosebleeds
- Injuries sustained at play
- Working in Infant/Toddler areas
- Sharing of personal items

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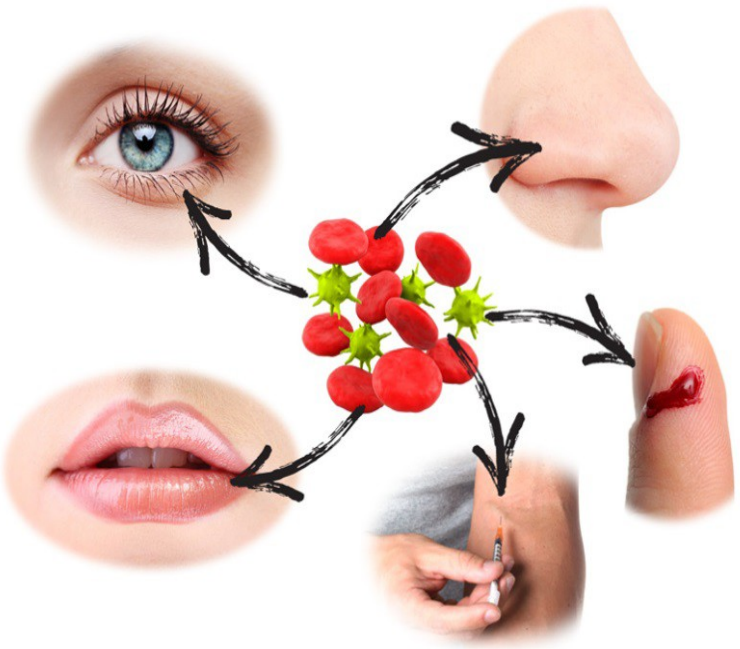
BBP Transmission

- For a BBP to spread, the bodily fluids of an infected person must enter into the bloodstream of another person
- They are **NOT** spread by food, water, or casual contact

BBP Routes of Entry

- Mucous Membranes:
  - Eyes, mouth, nose
- Broken Skin:
  - Cut or open wound
  - Fresh scab
  - Rash
- Punctures:
  - Handling contaminated sharp objects
  - Needle sticks
  - Sharing needles during injection drug use



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Exposure Incident

- Contact with blood or infectious materials with the employee's eyes, mouth, mucous membranes, or non-intact skin resulting from the performance of the employee's duties

- Must be reported immediately to employer to arrange for immediate medical evaluation and follow-up

BBP Prevention

- **ALWAYS** use Universal Precautions!!!
  - Treat all human blood and bodily fluids as if they are infected
- Wear Personal Protective Equipment (PPE) when handling blood or bodily fluids:
  - Disposable Gloves
  - CPR Masks
  - Eye Protection
- Moisture-resistant disposable diaper table paper acts as a barrier to help prevent contact with bodily fluids

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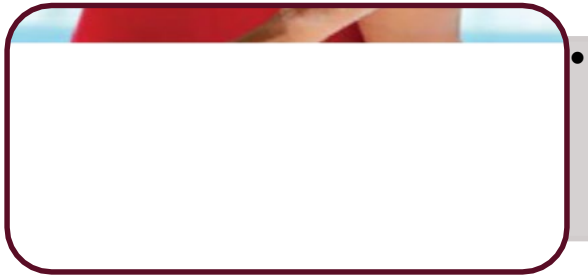
Use Safe Work Procedures

- Promptly clean and use the correct disinfectant solution and/or methods on areas contaminated by blood, fecal materials, or other potentially infections materials
- Use proper methods and correct Personal Protective Equipment (PPE)
- For blood spills or other potentially infectious body fluids, to include fluids from injuries:
  - The area should be cleaned and disinfected
  - Use eye protection to avoid splashing of contaminated fluids onto any mucous membrane (eyes, nose, mouth)
- Blood-contaminated material and diapers should be disposed of in a plastic bag with a secure tie

Removing Disposable Gloves

- Pinch the palm side of one glove near your wrist. Carefully pull the glove off so that it is inside out.



- Hold the glove in the palm of your gloved hand. Slip 2 fingers under the glove at the wrist of the remained gloved hand.

- Pull the glove until it comes off, inside out. The first glove should end up inside the glove you just removed.

- Dispose of gloves and other PPE in trash can.
- Wash hands thoroughly with soap and running water.

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The "Stop Disease" Method of HANDWASHING!

STOP DISEASE

Step 1 Wet hands under running water

Step 2 Apply liquid soap on hands & lather

Step 3 Rub vigorously for at least 20 seconds

- ✓ back of hand
- ✓ between fingers
- ✓ wrists
- ✓ under fingernails

Step 4 Rinse under running water until hands are free of dirt and soap

Step 5 Dry hands thoroughly with paper towel

Step 6 Turn off water using the paper towel to prevent re-contaminating your hands

Step 7 Discard the paper towel in the trash

GOOD HANDWASHING IS EVERYONE'S RESPONSIBILITY!

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2016 Handwashing Steps

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Treatment of Exposure Incidents

- If blood or bodily fluids enter a mucous membrane (eyes, nose, mouth):
  - Flush the exposed area thoroughly with water for at least 15 to 20 minutes
- If bitten by a child and the skin is broken:
  - Immediately clean the wound carefully with soap and water
- Report the incident to your director
- Contact Preventive Medicine/Occupational Health Department for further guidance
- If you have not received the Hepatitis B Vaccine Series, you should be vaccinated immediately after exposure

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Caring for Child with BBP

- Child with known BBP infection would have a Multidisciplinary Inclusion Action Team (MIAT) meeting prior to placement into CYS Services program to assess the optimal setting for care based on the overall health of the child
  - Knowledge of the child's condition will be limited to those who have a legitimate need to know, **taking into account the following:**
    - Specific infection control procedures needed to protect the child or the child's caregivers
    - Home health procedures dictated by the child's medical treatment plan
    - Supportive environmental needs due to developmental, neurological, or behavioral deficiencies

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Exposure Control Plan

- **Discuss Local Exposure Control Plan**
- An Exposure Control Plan should address:
  - Spill clean-up procedures
  - Contaminated laundry
  - Hand washing
  - Hygiene
  - Maintenance and housekeeping
  - HBV vaccination
  - Post-exposure follow-up and treatment

Summary

- The best protection against BBPs is to avoid the source whenever possible
- Always use PPE and Universal Precautions when exposed to blood or other bodily fluids
- Hepatitis B Vaccination is highly recommended and encouraged

Questions

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References

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Bloodborne Pathogen Training for the Childcare Worker
Post Test (18 points)

Employee Name: _____ Date: _____

Instructor name: _____

1. Bloodborne Pathogens can only be found in blood. (1 point)
   a. True
   b. False

2. The following standard(s) and/or regulation(s) require(s) that occupationally exposed workers, to include childcare workers, receive Bloodborne Pathogen training upon initial assignment and at least annually: (1 point)

   a. The U.S. Army Child, Youth and School Services Operations Manual [2-65 b. (1)-(4)]
   b. Occupational Safety & Health Administration (OSHA) Standard 29 CFR 1910.1030
   c. Caring for Our Children Prevention of Exposure to Blood and Body Fluids Standard (3.2.3.4)
   d. All of the above
   e. None of the Above

3. A *Bloodborne Pathogen* is a virus or bacteria that live in human blood and/or bodily fluids that can cause specific diseases. Name two common Bloodborne Pathogens: (2 points)

   a. _____

   b. _____

4. Please indicate whether or not a vaccine is available for the following Bloodborne Pathogens: (3 points)

Human Immunodeficiency Virus (HIV)	YES	NO
Hepatitis B (HBV)	YES	NO
Hepatitis C (HCV)	YES	NO

5. Who is at risk for Bloodborne Pathogens? (1 point)
    a. IV drug users
    b. Infants born to infected mothers
    c. Persons with multiple sexual partners
    d. Close contacts of chronically infected persons
    e. All of the above
    f. None of the above

6. Which of the following are potential occupational exposures to Bloodborne Pathogens among childcare workers? (1 point)
    a. Changing diapers
    b. Performing first aid
    c. Nosebleeds
    d. Injuries sustained at play
    e. All of the above
    f. None of the above

7. Bloodborne pathogens are not spread by food, water, or casual contact. (1 point)
    a. True
    b. False

8. Contact with blood or other potentially infectious materials with the employee's eyes, mouth, mucous membranes, or non-intact skin resulting from the performance of the employee's duties is the definition of an Exposure Incident? (1 point)
    a. True
    b. False

9. Which of the following personal protective equipment (PPE) should be used, <u>as appropriate</u>, when handling blood or bodily fluids: (1 point)
    a. CPR mask
    b. Eye protection
    c. Disposable gloves
    d. All of the above
    e. None of the above

10. *Universal precautions* refers to the practice of avoiding contact with bodily fluids, by means of wearing gloves, goggles, and/or face shields. You should always use Universal Precautions when handling Bloodborne Pathogens. (1 point)
    a. True
    b. False

11. Blood-contaminated materials and diapers should be: (1 point)
    a. Placed in a trash can and set on fire
    b. Be disposed of in a plastic bag with a secure tie
    c. Flushed down the toilet
    d. All of the above
    e. None of the above

12. A childcare worker should promptly clean up areas contaminated by blood, fecal materials, or other potentially infectious materials, using proper methods to include wearing disposable gloves. (1 point)
    a. True
    b. False

13. If blood or bodily fluids enter a mucous membrane (eyes, nose, mouth), you should first: (1 point)
    a. Flush the exposed area thoroughly with water for at least 15 to 20 minutes
    b. Only take action if the child or contact is known to have a Bloodborne Pathogen
    c. Immediately call 9-1-1 and go to the emergency room
    d. All of the above
    e. None of the above

14. After a potential Bloodborne Pathogen exposure, you should: (1 point)
    a. Report the incident to the director
    b. Follow-up with occupational health or the emergency room
    c. Receive the Hepatitis B Vaccine series (if not already received)
    d. All of the above
    e. None of the above

15. If a child has a known Bloodborne Pathogen, they will not be allowed to participate in CYS Programs. (1 point)
    a. True
    b. False

I, _____ have reviewed and acknowledge the Blood-borne Pathogen Standardized Training.