



Bloodborne Pathogens

PFW RADIOLOGICAL & ENVIRONMENTAL MANAGEMENT

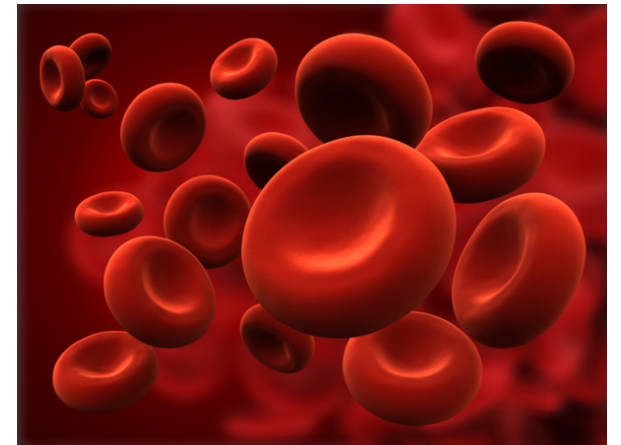
Training Topics

- ▶ What are Bloodborne Pathogens?
- ▶ Common methods of transmission
- ▶ Risks of exposure
- ▶ Methods of Prevention
- ▶ What to do if exposed



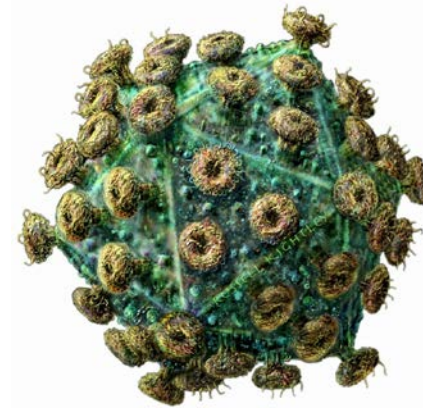
What are bloodborne pathogens?

- ▶ **Bloodborne Pathogen:** microorganisms present in human blood that cause disease in people (Ex. viruses and bacteria). They can cause illness or injury to the body, and even death.
- ▶ Because of the danger posed by bloodborne pathogens, the **Occupational Safety & Health Administration** has issued safety rules known as the Bloodborne Pathogens Standard to help increase awareness and prevent the spread of disease.

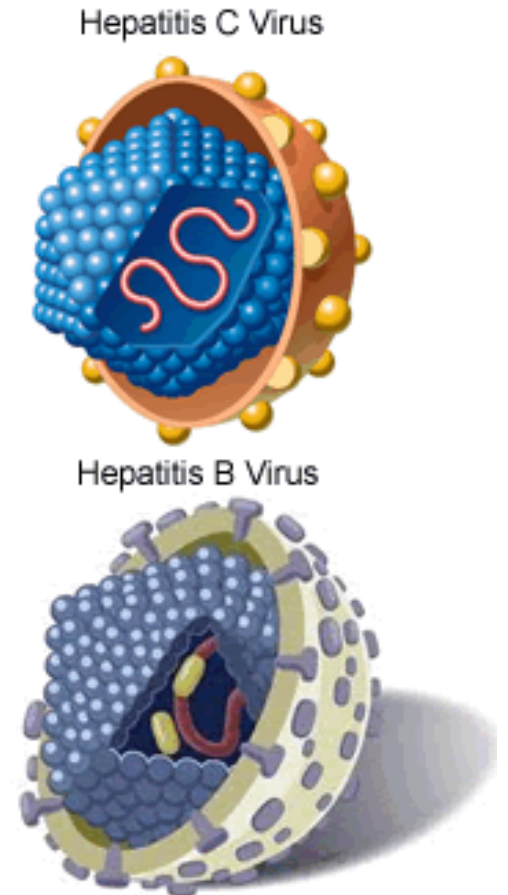


Primary Pathogens of Concern

- ▶ 3 primary bloodborne pathogens of concern:
 - ▶ Hepatitis B virus (HBV)
 - ▶ Hepatitis C virus (HCV)
 - ▶ Human Immunodeficiency Virus (HIV)



HIV Virus

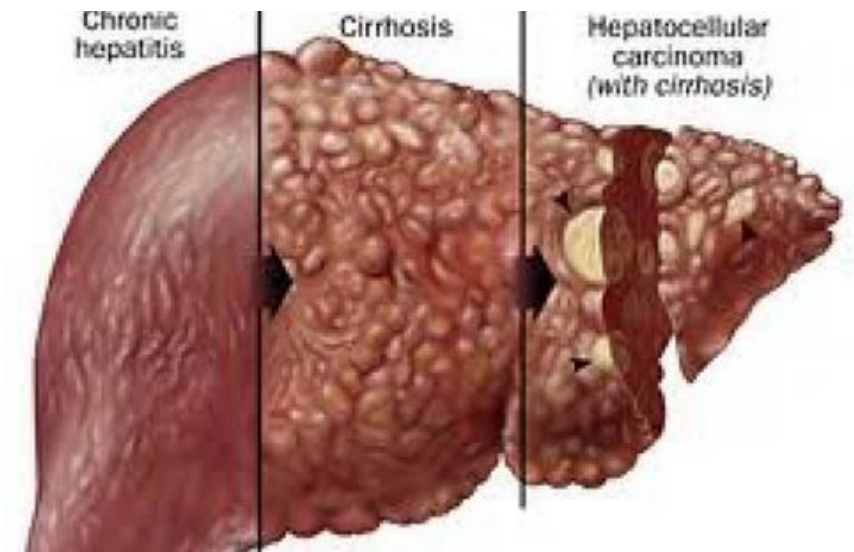


Hepatitis C Virus

Hepatitis B Virus

Hepatitis B Virus (HBV)

- ▶ Infects the liver
- ▶ Most recover within a few weeks/months with no long-term problems
- ▶ Once you've had HBV and recover, you cannot get it again
- ▶ In some cases the infection can last longer than a few weeks or months, or may never go away, which can lead to:
 - ▶ Scarring of the liver (cirrhosis)
 - ▶ Liver cancer
 - ▶ Liver failure
 - ▶ Death



Hepatitis B Virus (HBV)

- ▶ There is no cure for HBV
- ▶ There are tests to determine if a person has or has had HBV
- ▶ There are treatments to help people with long-term HBV
- ▶ There is a vaccine consisting of 3 separate shots taken over several months to decrease the chances of getting HBV



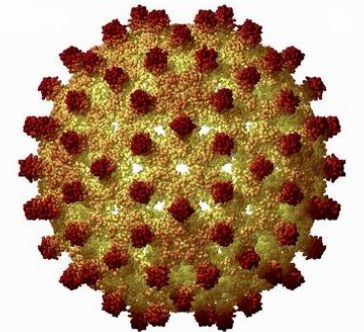
HBV Vaccine

- ▶ If an employer can reasonably anticipate that an employee may come into contact with BBPs while performing normal job duties, the employer must offer the HBV vaccine
- ▶ The employer must provide training about the vaccine and how it works
- ▶ The employer must make the vaccine available **within the first 10 days** of the job assignment that potentially exposes the worker
- ▶ An employee can choose to not get the vaccine, but must sign a form declining the vaccine if that is the case
- ▶ An employee can later request to have the vaccine, even if they declined it before, and the employer must offer it at not cost to employee



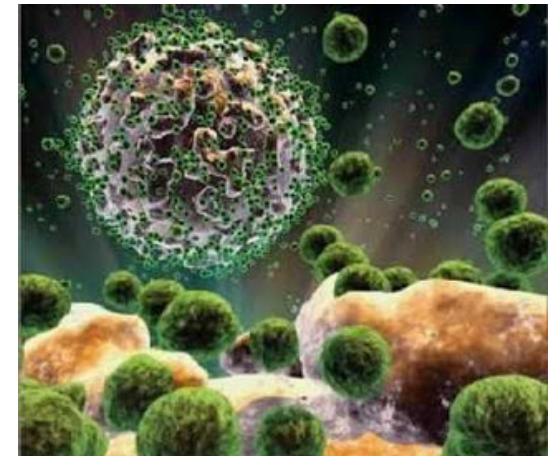
Hepatitis C Virus (HCV)

- ▶ Infects the liver
- ▶ Most serious of the hepatitis viruses
- ▶ Many infected with HCV show no symptoms and don't know they have it
- ▶ Can be infected for decades before signs of serious liver damage are discovered
- ▶ HCV eventually leads to cirrhosis, liver cancer, liver failure, or death
- ▶ There are no cures or vaccines for HCV
- ▶ There is a test to determine if a person has HCV, and there are treatments to help infected people



Human Immunodeficiency Virus (HIV)

- ▶ The virus that leads to AIDS
- ▶ Attacks the body's immune system
- ▶ One can be infected with HIV and not know, and still appear healthy
- ▶ Eventually (and sometimes years later) the body becomes so weak that it can't fight off other diseases
- ▶ This weakened condition is known as AIDS
- ▶ Without treatment, most people die



HIV

- ▶ There are no vaccines or cures for HIV
- ▶ There is a test to determine if a person has HIV
- ▶ There are treatments to help infected people



Methods of Transmission

- ▶ BBPs can be present in body fluids, including:
 - ▶ Blood
 - ▶ Semen
 - ▶ Vaginal fluids
 - ▶ Lung fluids
 - ▶ Heart fluids
 - ▶ Joint fluids
 - ▶ Any body fluid contaminated with human blood

Routes of Infection

- ▶ Sexual Contact
- ▶ Sharing syringes or other needles
- ▶ Puncture wounds from contaminated medical needles
- ▶ Other contaminated sharp objects
- ▶ Contact between infected body fluids and mucous membranes (e.g. eyes, nose, mouth)
- ▶ Contact between infected body fluids and damaged skin

Transmission

- ▶ Because a virus must contact your blood or certain body fluids to infect you the chances of being infected during normal activities at work are very low.
- ▶ You cannot get these diseases by shaking hands, being coughed on, or sharing public facilities like workout equipment, restrooms, or drinking fountains.



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Transmission

- ▶ You can be infected if you come into contact with blood and body fluids while helping someone who is sick or injured.
- ▶ Because people can be infected for years and show no symptoms, practice **Universal Precautions**, which is an approach to infection control where you always treat blood and body fluids as if they are infectious.



Methods of Prevention

- ▶ Preventative measures are designed for your protection and help prevent the transmission of bloodborne pathogens
- ▶ In order to prevent exposure, it is extremely important to take precautionary actions including:
 - ▶ Preventative housekeeping and work practices
 - ▶ Use of protective barriers
 - ▶ Proper hygiene and waste disposal



Methods of Prevention

- ▶ It is important to maintain a protective barrier between you and potentially infected material in order to protect yourself
- ▶ Always wear disposable gloves or use a protective barrier to avoid direct contact with blood or body fluids
- ▶ If necessary, put on safety goggles and an apron or smock to protect yourself and your clothes from contamination



Methods of Prevention

- ▶ Avoid unprotected mouth-to-mouth resuscitation by using the protective barrier found in some first aid kits
- ▶ When removing protective barriers avoid touching your skin with contaminated items and properly dispose of them in red biohazard bags
- ▶ Using these measures will significantly reduce your risk of exposure to bloodborne pathogens



Methods of Prevention

- ▶ It is extremely important to stay alert when handling trash and when working around sharp objects
- ▶ Sharp items such as coffee can lids, broken glass, and knife blades can easily cut or puncture the skin and should be disposed of properly
- ▶ Always use gloves when picking up sharp objects or use a brush to sweep items into a dustpan
- ▶ All spills of blood or other body fluids visibly contaminated with blood should only be cleaned by a person trained or authorized to do so

Disinfecting Surfaces

- ▶ Any surface that could've been soiled with blood should be disinfected with a mixture of one 1 bleach to 10 parts water (1:10)
- ▶ When working in potentially contaminated areas keep your hands away from your eyes, nose, and mouth
- ▶ After exiting a potentially contaminated area remove your protective clothing and wash your hands thoroughly



Handwashing

- ▶ Handwashing is a critical prevention measure taken to stop the transmission of bloodborne pathogens
- ▶ Wash your hand immediately after contact with blood or body fluids, even if gloves or other barriers are used
- ▶ When washing your hands use a soft anti-bacterial soap if possible
- ▶ Keep your hands under the running water for at least 20 seconds, and then dry them with disposable towels



Waste Disposal

- ▶ When cleaning blood or body fluids, place any potentially contaminated item in a red bag marked with the universal biohazard symbol
- ▶ Bags used in the clean-up process should be double-bagged to guard against possible leakage
- ▶ Contact Radiological & Environmental Management for disposal:
 - ▶ 260-481-4193 or 260-481-5744

Preventing Needlestick Injuries

- ▶ **“Sharp”** – medical needle or other sharp object used to puncture skin
- ▶ Accidental needlestick injuries are especially common in health care industries
- ▶ Needlestick injuries are a growing risk in other industries, as more people with health conditions use sharps to help regulate their condition



Preventing Needlestick Injuries

- ▶ If you use sharps at work, tell your supervisors so they can install proper sharps disposal containers
- ▶ Always put used sharps in these containers
- ▶ Be careful in bathrooms and when handling trash to avoid getting stuck by a sharp that hasn't been disposed of properly



Bloodborne Pathogen Exposure Situations

- ▶ Remain calm
- ▶ Wash exposed skin with non-abrasive soap and water
- ▶ Flush exposed mucous membranes with water for at least 15 minutes



Bloodborne Pathogen Exposure Situations

- ▶ Report the incident to your supervisor

- ▶ Report within 24 hours to either:
 - IPFW Center For Healthy Living** – 260-481-5748
 - or Walb Union, Rm 234
 - Parkview Occupational Health** - 260-373-9300
 - 3415 Hobson Rd

Bloodborne Pathogen Exposure Situations

Remove contaminated gloves/cloths/shoes as soon as possible and place in biohazard bag



Report the incident to your supervisor



Report within 24 hours to either:

IPFW Center For Healthy Living – 260-481-5748

or

Parkview Occupational Health - 260-373-9300

Walb Union, Rm 234

3415 Hobson Rd

Be Aware

- ▶ Exposure to bloodborne pathogens can be avoided.
- ▶ It's essential for all personnel to recognize these hazards and know the appropriate steps to take in order to prevent contamination
- ▶ Take notice of where Personal Protective Equipment (PPE) and emergency spill kits are located



Stay Alert, Stay Safe

- ▶ Stay alert and never take unnecessary risks
- ▶ Avoid letting blood contact your skin, eyes, nose, mouth, and clothes
- ▶ Always follow the proper procedures if there is an exposure incident
- ▶ Following the proper guidelines and procedures can make a safer work environment for everyone.

Contact Radiological & Environmental Management with Questions

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