

BLOODBORNE PATHOGENS



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Based upon SAISD presentation from
SAISD Student Health Services

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Why Talk About Bloodborne Pathogens (BBP's)?

- Bloodborne pathogens (BBP's) can cause life threatening diseases.
- Exposure to BBP's is preventable.
- HB 2085 passed in 1999 required TDH (now DSHS) to write rules related to BBP exposure for employees of governmental entities.
 - HB 2085 requires initial and annual training of District employees

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What Will You “Get” From Today’s Presentation...

You will

- know what a bloodborne pathogen is.
- understand how a BBP is transmitted and what an exposure is.
- know ways to prevent exposure.
- know what to do if an exposure occurs.
- be able to apply the CDC (Center for Disease Control) work practices to campus incidents.

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Bloodborne Pathogens Are:

- Microorganisms which can cause diseases and are found in:
 - Blood
 - Semen
 - Vaginal secretions
 - Breast milk
 - Tissue cultures
 - Organ donation



Frederick A. Murphy/CDC

The Ebola virus, pictured above in the image from a special type of microscope, is the agent that causes Ebola Hemorrhagic Fever (EHF).

<https://www.osha.gov/SLTC/ebola/index.html>

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TRANSMISSION OF BBP's

1. Blood and / or contaminated bodily fluids (including vomit) with pathogen(s) like HIV or Hep B
2. A point of entry like:
 - Cut
 - Scrape
 - Acne
 - Dermatitis
 - Eye penetration
 - Needle stick
3. A sufficient amount of pathogen to cause an infection

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➤ HIV Is a Bloodborne Pathogen

- Transmitted by sexual contact.
- No vaccine to prevent HIV.
- Initial infection flu-like symptoms goes away
 - Immune system is attacked & damaged
 - AIDS victim usually dies opportunistic infection like pneumonia
- Additional information:
 - <http://www.cdc.gov/hiv/> (CDC HIV/AIDS)

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“Hepatitis” Inflammation of the Liver

Liver Vital Organ

- Processes nutrients,
- Filter blood, and
- Fights infections

Hepatitis caused by:

- Viruses – Hepatitis A, B & C
- Heavy alcohol use,
- Toxins (solvents / heavy metals), and
- Certain medical conditions

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Signs & Symptoms Hepatitis A, B & C

- Jaundice
 - yellow staining of skin and whites of the eyes
- Fatigue
- Nausea
- Loss of Appetite
- Abdominal Pain
- Diarrhea - Hepatitis A
- Joint Pain & Vomiting - Hepatitis B
- Dark Urine - Hepatitis C

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Hepatitis B Is a Bloodborne Pathogen

Hep B transmission by exposure to infections blood / body fluids:

- Sexual contact,
- Blood transfusions,
- Contaminated needles & syringes, &
- Mother to baby during childbirth

Hep B is a Killer!

Hep B Symptoms (Acute):

- Often within 3 months
- Last few weeks to several months
- May include: fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, grey-colored stools, dark urine, joint pain, jaundice

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Hepatitis B Is a Bloodborne Pathogen

Hep B Symptoms (Chronic):

- Many have no symptoms
- Up to 30 years to develop
- 15 – 25% with chronic Hep B develop serious liver problems: liver failure, damage, cirrhosis, and liver cancer

Hep B is a Killer!

Every year Thousands in US die from Hep B
Vaccine

- Adults - 3 shots over 6 month period

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Hepatitis C is a BBP

- Spread by blood transmission
 - Needle stick
 - IV drug use
 - Blood transfusions
 - Mother to unborn child
- Long term effects include:
 - Chronic infection
 - Chronic Liver Disease
 - Death from chronic liver disease
 - Need for liver transplant

There is no vaccine for Hepatitis C

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Hepatitis A is NOT a BBP

- Found in stool of infected person
- No chronic (long-term) infection
- 15% of infected have symptoms 6-9 months
- Once you get it, you cannot get it again!
- Not fatal

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Universal (Standard) Precautions

Principle: Treat blood & body fluids as if infected with a blood-borne pathogen

Include:

- Hand hygiene
- Personal protective equipment
 - Gloves, eye / face protection
- Work practices / procedures to minimize exposure such as.:
 - Never re-use gloves,
 - Changes gloves if damaged,
 - Clean blood spills as soon as practicable, etc.

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Custodial Practices – Spills involving blood / bodily fluids



Food Service can substitute 50 ppm bleach solution for Triad disinfectant

1. Isolate spill area Required
 - Use caution signs, custodial cart, etc., post and seal doors, etc.
2. Spray spill area with disinfectant cleaner
 - Triad III
3. Put on disposable protective gloves (plus goggles if splash hazard present) Required

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Custodial Practices – Spills involving blood / bodily fluids

4. Clean / remove spilled blood/fluids Required
 - Absorbent paper towels or rags, or
 - Sweeping compound (e.g., Sweep Ez)
5. Place waste in plastic bag Required
 - Use broom & dustpan (always with sharps)
6. Spray cleaned affected area with disinfectant
 - Let it work for at least 10 minutes Required
7. If needed, wipe down area with clean towels/rags

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Custodial Practices – Spills involving blood / bodily fluids

8. Place all remaining waste in plastic bag including used disposable gloves Required
9. Seal the waste bag and place into 2nd sealed bag
10. Dispose of sealed waste in the campus dumpster
11. Wash hands as soon as practicable Required
12. Report any contact with blood or body fluids immediately Required
 - Supervisor
 - Risk Management

Hand washing: vigorously scrub hands with soap and water for at least 10-20 seconds!

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REMOVING PPE

Remove PPE at doorway before leaving patient room or in anteroom

GLOVES

- Outside of gloves are contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist



GOGGLES/FACE SHIELD

- Outside of goggles or face shield are contaminated!
- To remove, handle by "clean" head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container



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Biohazard Labeling - Blood / Body Fluids / Sharps (Check with Campus Nurse)



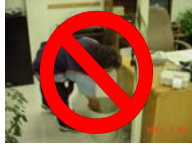
Information / Training: Proper Disposal of Sharps / Insulin Needles

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General Do's and Don'ts

- Do clean-up spills safely & as soon as possible
- Do follow the universal (or standard) precautions
- Do hold trash bags away from body
- **Do not** reach into trash containers
- **Do not** compact trash with your hands or feet
- **Do not** pick up glass with your hands



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If Exposed to a Blood Source, What Do I Do?

- Wash affected area - soap & water
- Report exposure
- Get assistance - clean and dress the wound.
- Follow directions - Risk Management / doctor
 - You will be told when to begin Hepatitis B series and if you will need further testing.

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SAISD Post Exposure Vaccination Program

- NO cost to employees
 - workers compensation.
- Vaccine > 90% effective in preventing Hepatitis B.
- Activated when you report an exposure.
- 3 doses of Hepatitis B vaccine over 6 months

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Be SMART

- Use protective equipment.
- *Report dangerous practices.*
- Call for help when needed.
- Report exposures.

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MRSA

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MRSA – Methicillin-resistant Staphylococcus aureus (“Staph”)

- A type of bacteria that is resistant to certain antibiotics including methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin.
- Staph infections, including MRSA, occur most frequently among persons in hospitals and healthcare facilities who have weakened immune systems.
- Community-associated (CA)-MRSA infections are usually skin infections, such as abscesses, boils, and other pus-filled lesions.

Standard precautions (for BBP) are effective against MRSA!

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What MRSA looks like.



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Questions???

Your campus based nurse
or
SAISD Student Health Services
210-554-2435

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