

BLOODBORNE DISEASES

- Prevention of transmission for school staff
 - for staff not directly responsible for providing care or cleaning up blood

MASSACHUSETTS DIVISION OF OCCUPATIONAL SAFETY

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OSHA STANDARD ON BLOODBORNE DISEASES

- OSHA Bloodborne Pathogens standard that addresses means of prevention issued in December 1991 - took full effect in 1992
- Standard was amended in 2001



OSHA IN MASSACHUSETTS

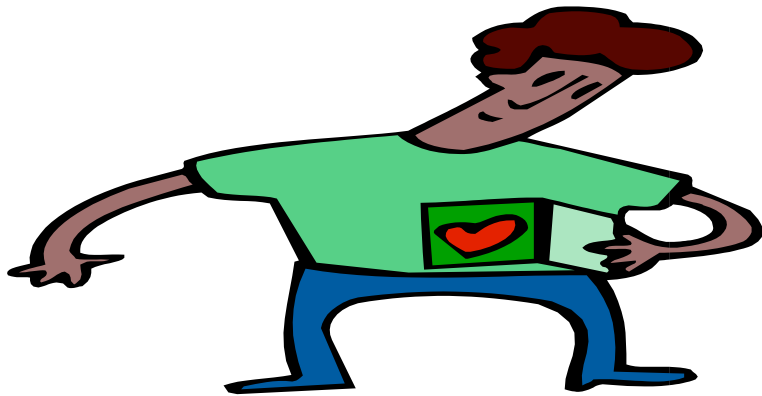
- OSHA does not cover public sector workplaces in Massachusetts
- OSHA standard is a standard of care, however
- significant risk of liability if the standard isn't followed & transmission of disease occurs

MASSACHUSETTS DIVISION OF OCCUPATIONAL SAFETY (DOS)



- DOS covers municipal and county workers via M.G.L.. Chapter 149.
- Interpretation by DOS is that, to meet the intent of Ch.149 section 6, OSHA standards should be followed as a minimum for county and municipal workplaces (including schools).

BLOODBORNE: DEFINITION



- Bloodborne diseases:
- potentially transmitted when an infected person's body fluids somehow get inside another person's body

BLOODBORNE: DEF. (CONT'D)



- Bloodborne diseases:
- not transmitted through casual contact - won't get them by shaking an infected person's hand or by using the same bathroom or kitchen facilities

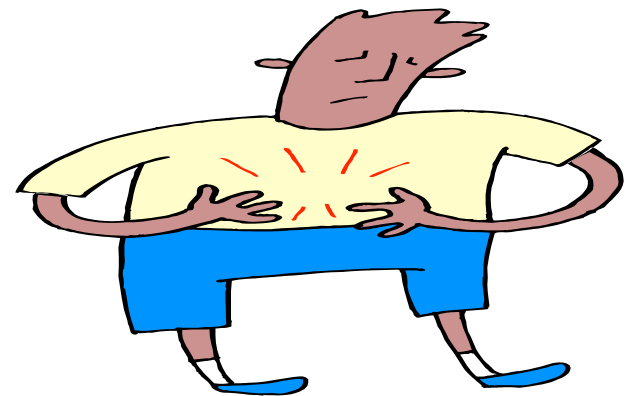
BLOODBORNE DISEASES: EXAMPLES

- Examples of bloodborne diseases:
- Hepatitis B
- Hepatitis C
- AIDS (HIV)



HEPATITIS B (HEP B)

- Hep B: inflammation of the liver caused by the Hepatitis B virus
- Disease is not always evident- can go misdiagnosed or undiagnosed – may have flu-like symptoms
- Preventive vaccine available



HEPATITIS C (HEP C)



- Currently, most common type of viral hepatitis in the United States
- Leading cause for need for liver transplants in the U.S.
- No cure
- No vaccine available

HIV INFECTION



- HIV (Human immunodeficiency virus) or AIDS virus may lead to disease AIDS
- HIV attacks the immune system - a person becomes unable to fight off other infections
- No vaccine available
- Treatment is available

TIME FRAME



- With any of these diseases, it is possible that at least some infected people may look and feel well, perhaps for years
- Despite this, they are still potentially infectious for others and may develop serious diseases

BODY FLUIDS THAT POTENTIALLY TRANSMIT THESE DISEASES

- Blood
- Semen
- Vaginal secretions
- Breast milk
- Fluids that surround our internal organs

BODY FLUIDS (CONT'D)

- Body fluids or substances that, only if contaminated with blood, would be considered potentially infectious. According to Centers for Disease Control and Prevention (CDC), these include:

saliva, urine, feces, vomitus, sweat, tears

SURVIVAL OUTSIDE THE BODY

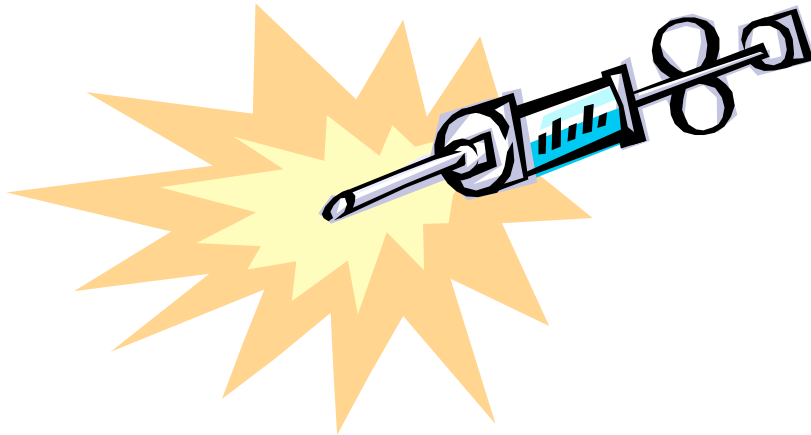


- These diseases may be transmitted indirectly
- This can happen when you touch an object or surface contaminated with blood or infectious materials and transfer them to your mouth, eyes, nose or opening in your skin.

SURVIVAL OUTSIDE THE BODY (CONT'D)

- Hepatitis B virus may be able to survive even in dried blood on environmental surfaces for one to two weeks (maybe even longer)
- HIV begins to die off almost immediately once it is outside of the body (exposed to air)
- Hepatitis C virus - limited information exists

MODES OF TRANSMISSION (NON-OCCUPATIONAL)



- Transmission can occur only when an individual's infected body fluids get inside another person's body. This can happen by:
 - sexual contact
 - sharing needles (ex: drug needles, tattooing, body piercing, body mutilation)

MODES OF TRANSMISSION (OCCUPATIONAL)

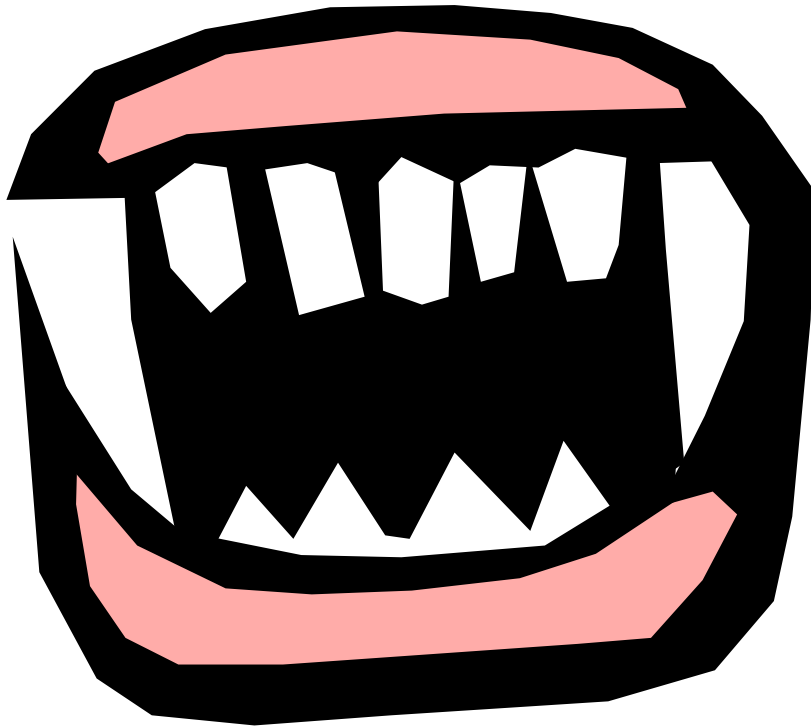


- What are ways you can be exposed at work?
- For workers, there are generally three ways that transmission can occur:
 - opening in the skin
 - through the mucous membranes (eyes, nose, mouth)
 - needlestick

MODES OF TRANSMISSION (CONT'D)

- **The skin, if intact, is a good barrier**
- But, if infected body fluids get into **broken** skin, there is a slight possibility of transmission
- If infected body fluids get in the eyes, mouth, or nose, there's a slight possibility of transmission
- Sharps injuries (for ex., needlesticks) are the riskiest. Other sharps include broken glass, knives, orthodontic wires)

MODES OF TRANSMISSION (CONT'D)



- There is evidence that Hep. B can be transmitted through a bite
- There is no evidence that the AIDS virus can
- Hepatitis C – no indication found at this time

UNIVERSAL PRECAUTIONS / BODY SUBSTANCE ISOLATION



- To protect yourself & your families, consider all persons to be potentially infectious & take precaution.
- Body substance isolation is when all body fluids or substances are considered potentially infectious.

MEANS OF PREVENTION: HEPATITIS B VACCINE

- For those anticipated to be exposed, series of three shots is available
- If you get the first one today, the second would be one month from today, and the third would be four to six months after the first shot



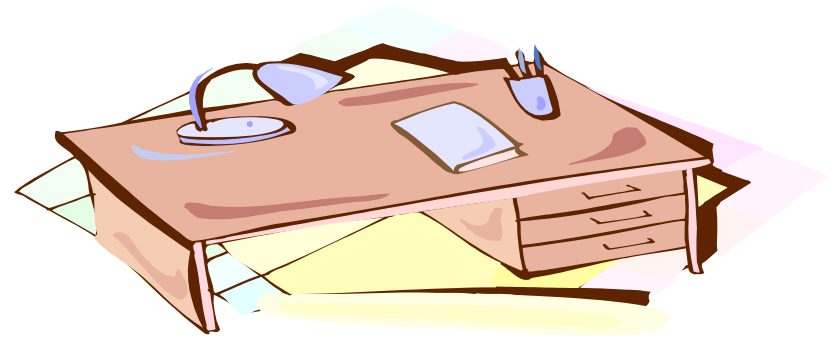
PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Gloves to prevent skin contact with blood or other body fluids
- Available in different sizes
- If a person is allergic to latex, use gloves of other material (e.g., nitrile or vinyl)
- Gloves are removed inside out : don't touch outside of gloves with bare hands
- Wash hands after remove gloves



PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Gloves should be readily available
- They should be kept in a universal location (for example, in the upper right hand drawer of the teacher's desk).



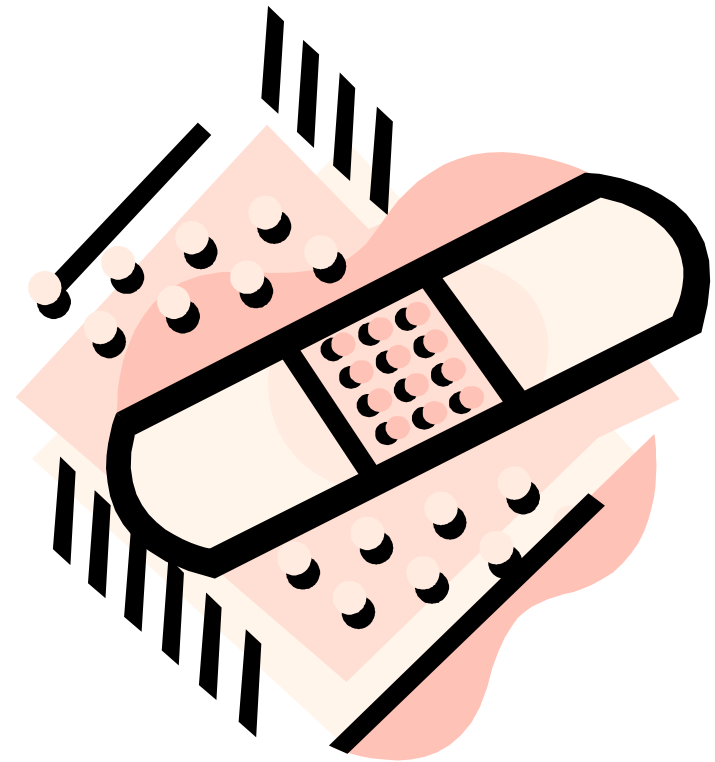
PERSONAL HYGIENE

- After removing gloves:
- Wash hands with soap (liquid, if possible) and running water. Do for at least 20 seconds.
- Use waterless hand cleanser if soap and running water not immediately available. Then, wash with soap and running water as soon as possible.

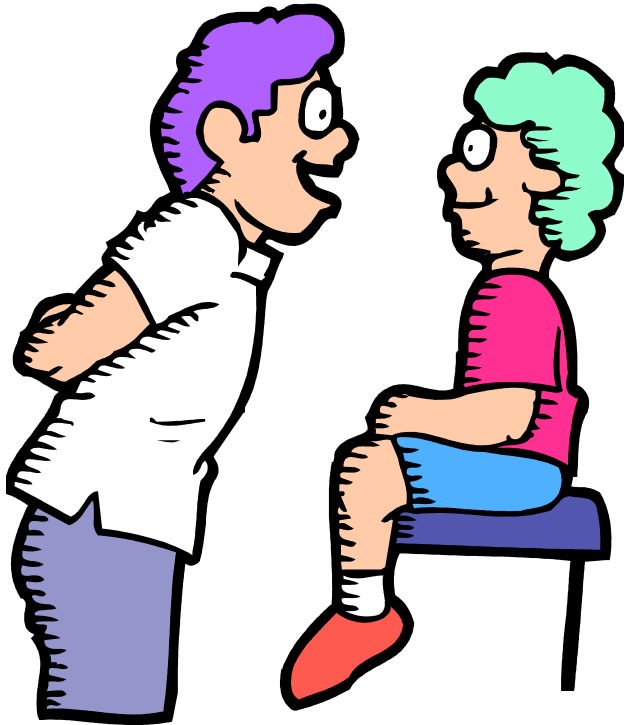


TIPS TO CONSIDER

- To avoid exposures, **protect yourself first**
- If you have an open wound or cut, make sure you have a bandaid on.
- Always have gloves on hand: e.g., on field trips or at sports events or on the playground



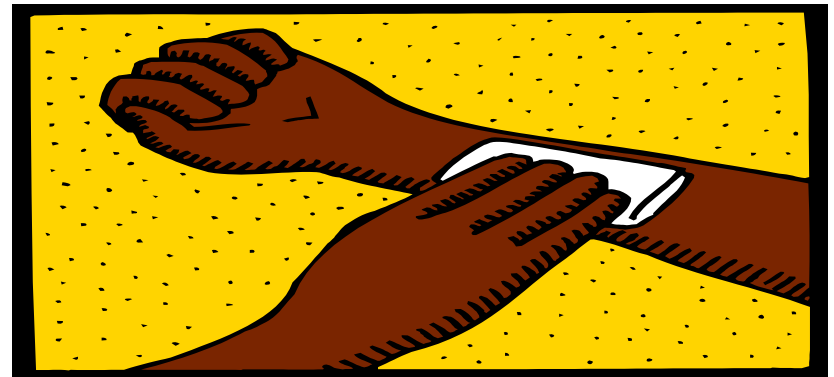
TIPS TO CONSIDER (CONT'D)



- Use your words instead of your body:
- If necessary, you could supply protective covering (e.g., tissue, gauze) to the injured student or employee but, tell him/her to treat his/her own wound, if at all possible. Remember, any barrier is better than none.

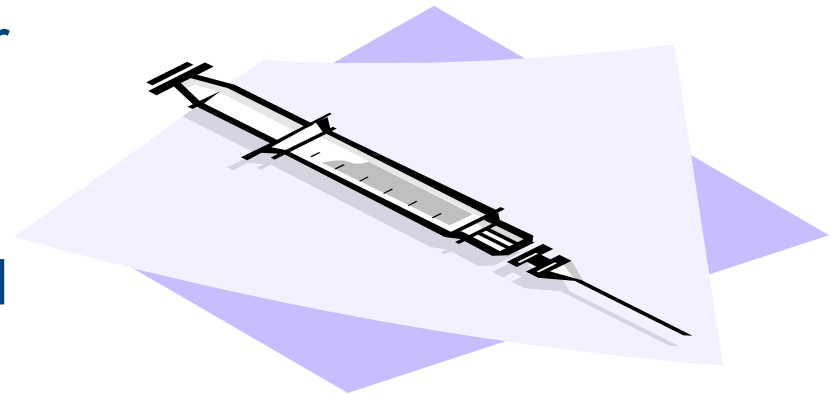
TIPS TO CONSIDER (CONT'D)

- The student or employee, if possible, should hold pressure on a wound and wash wound himself.
- Have the individual pinch her own nose if she has a nose bleed
- Remind the individual to wash his or her hands



SAFE PROCEDURES: NEEDLES OR OTHER SHARPS

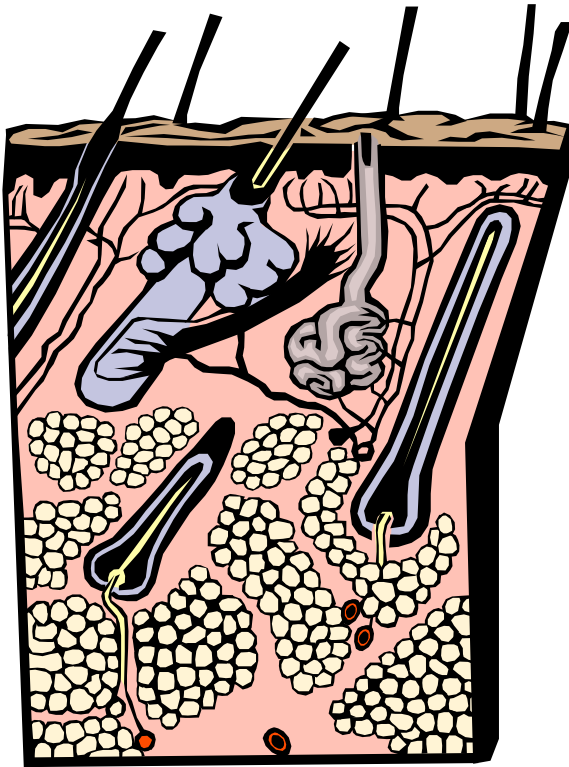
- If found, needles or other sharps must not be recapped.
- They should be disposed of in rigid, puncture resistant containers with sharp side facing down.
- These containers should be in the nurse's office.
- Notify appropriate personnel.



IF AN INCIDENT OCCURS BUT YOU'RE NOT EXPOSED...

- If a spill of blood occurs (e.g., a student cuts him or herself or has a nose bleed) and you are **not** exposed:
- Call the appropriate personnel (e.g., nurse) for treatment of injured person
- Secure the area
- Call the appropriate personnel (e.g., custodian) for clean up

IF AN EXPOSURE OCCURS...



- If body fluids, particularly blood, get into an opening in the skin, wash the area with soap and running water
- **Applying bleach to the skin is not recommended**
- If body fluids, particularly blood, get into the eyes, flush with water or a saline solution

STEPS TO TAKE IF EXPOSED

- Report the incident to the appropriate personnel (e.g., the nurse, principal, department head)
- Seek medical attention immediately

WHEN IS MEDICAL ATTENTION APPROPRIATE?



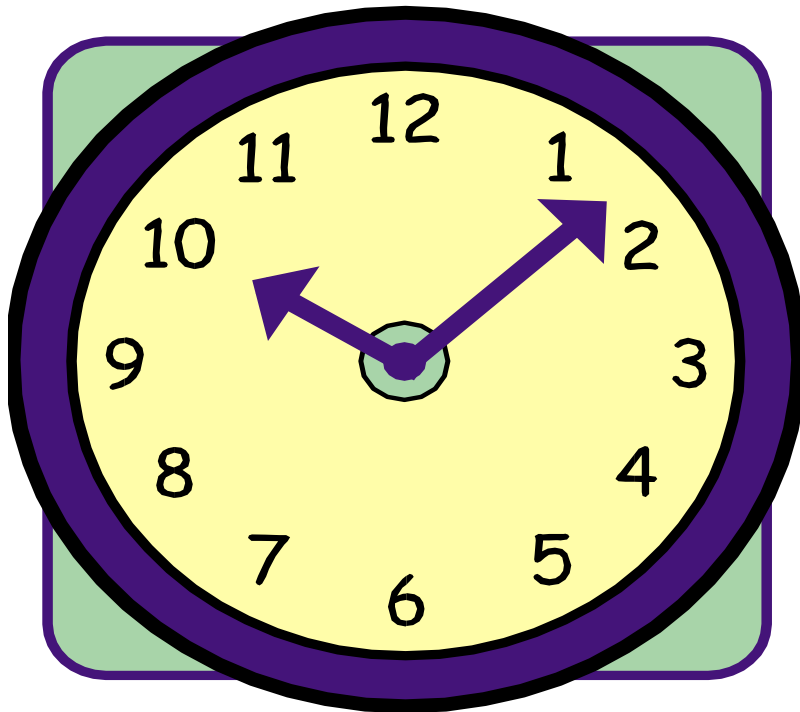
- Follow-up (medical attention) is needed if you have an unprotected exposure. Examples are:
- Blood splashing into an open cut or into the eyes
- An accidental needlestick
- A bite that breaks the skin

POST-EXPOSURE FOLLOW-UP

- Whether you need treatment is dependent on different factors, such as type of exposure.
- If necessary, medication is available that may decrease an individual's risk of becoming infected with at least some of the diseases.



TREATMENT AFTER AN EXPOSURE



- If medication is indicated, the sooner it is provided after an exposure, the more effective it will be.
- Other treatment that may be appropriate include blood test and counseling.

PLEASE RECALL...

- Remember - even if you have been exposed, the odds are that you will not become infected.



TRAINING



- Training on infectious diseases and their prevention should be offered to new employees and annually thereafter.

RESOURCES (STATE)

- MA Division of Occupational Safety (DOS)
 - Tel: (617) 969-7177
 - website: www.state.ma.us/dos
- MA Department of Public Health (DPH)
 - Tel: (617) 624-6000
 - web site: www.state.ma.us/dph

RESOURCES (FEDERAL)

- Centers for Disease Control & Prevention (CDC)
 - tel: 1-800-311-3435 or 1-888-232-3228
 - web site: www.cdc.gov
- National Institute for Occupational Safety and Health (NIOSH)
 - tel: 1-800-356-4674
 - web site: www.cdc.gov/niosh

RESOURCES - FEDERAL (CONT'D)

- Occupational Safety and Health Administration (OSHA)
 - tel: 617-565-9860
 - web site: www.osha.gov