

Body Substance Isolation

AND

UNIVERSAL

PRECAUTIONS TRAINING

PERSONAL PROTECTIVE EQUIPMENT

- Blocks entry of an organism into the body
 - Gloves are most common
- Make sure all first aid kits contain several pairs of vinyl, laytex, or Nitrile gloves
- Protective eyewear, standard surgical masks, and/or respirators may be necessary
- Mouth to barrier (breathing masks) are also recommended

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- No case of disease transmission to a rescuer as a result of performing unprotected CPR in an infected victim has been documented (only 15 cases of infection reported in last 30 years!) . However, mouth to barrier devices are still **strongly recommended!**

UNIVERSAL PRECAUTIONS

- Individuals infected with Hepatitis B Virus (HBV) or HIV may not show symptoms and may not even know they are infectious.
- All human blood and body fluids should be considered infectious, and precautions should be taken to avoid contact.

UNIVERSAL PRECAUTIONS

- The Body Substance Isolation (BSI) technique assumes that all body fluids are a potential risk.
- Follow BSI procedures even when blood and/or body fluids are not visible

UNIVERSAL PRECAUTIONS

- Wear appropriate PPE, such as gloves
- Use absorbent barriers to soak up blood or other infectious materials
- Clean the spill area with an appropriate disinfecting solution, such as bleach
- Discard contaminated materials in an appropriate waste disposal container

UNIVERSAL PRECAUTIONS

- If you have been exposed to blood or body fluids:
- Use soap and water to wash the parts of your body that have been contaminated
- If exposure happens at work, report the incident to your supervisor
- OR contact your physician (non work related)

AIRBORNE DISEASE

- Bacteria or viruses are introduced into the air by coughing or sneezing
- Carried by droplets of mucus
- Can be inhaled by other individuals
- TB (tuberculosis) infection rate has been increasing in recent years - it settles in the lungs and can be fatal

AIDS/HIV

- APPROXIMATELY 900,000 CASES REPORTED TO CDC (total)
 - Approximately 100+ Health Care Workers
- Virus is Very Fragile Outside Host and Dies in a Few to Several Minutes
- No known Cure - Almost Always Fatal

Hepatitis B Virus

- APPROXIMATELY 300,000 NEW CASES ANNUALLY
 - 8,000-9,000 Health Care Workers
- HBV Has Been Documented to Survive Two Weeks in Dried Blood
- Can Be Vaccinated for HBV
- May Not Express Outward Symptoms
- May Carry Disease for Life

OTHER DISEASES

- Herpes
- HCV...HHV.
- Influenza
- Infectious mononucleosis
- Microbacterium tuberculosis
- ??????

DECONTAMINATION

- “The use of physical or chemical means to remove, inactivate, or destroy blood borne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.”

DECONTAMINATION CHEMICALS

- Not recommended for decontamination of possible AIDS/HIV, HBV and Herpes exposures:
 - Alcohols, quaternary ammonium compounds, phenolics
- Recommended:
 - sodium hypochlorate solution having at least 500 ppm free available chlorine (1/4 cup liquid household bleach per gallon of tap water.
 - Iodine, formaldehyde, glutaraldehyde (may cause toxic fumes in certain circumstances)

DECONTAMINATION METHODS

- ALWAYS wear gloves, face shields, protective smocks, etc. as indicated by the hazard(s) involved
- REMEMBER blood or other body fluids may be present even when you don't see it
- Use a strong bleach solution to wash down contaminated areas
- Keep surfaces wet with decontamination fluids for at least 10 minutes.

WHO IS CONTAMINATED OR INFECTED?

- You can not determine who does and who does not pose a bacterial or viral threat just by looking at them
- People from all walks of life, socio-economic backgrounds and races are contaminated with diseases like AIDS, HBV, Herpes, etc.
- Some do not even exhibit any outward signs of the disease they carry.
- Some do not even know they are infectious or carry a serious disease

WILL I BE CONTAMINATED BY:

- Working with someone who is infected with AIDS or HBV? NO! as long as you are not in contact with body fluids, there is no known transmission through casual contact.
- If I come in contact with blood, vaginal secretions, semen, etc. THE POTENTIAL EXISTS IF YOU DO NOT PROTECT YOURSELF!

HOW DO I GET CONTAMINATED/EXPOSED?

- To infect you, HBV, Aids, etc. must get inside your body through a break in your skin, or through your eyes, nose, mouth, or other mucous membranes
- Don't forget to decontaminate an exposed work area or tool
- Don't forget to decontaminate your first aid or jump kit after treating a patient!

HOW DO YOU PROTECT YOURSELF ON THE JOB?

- Universal Precautions
- Scrubbing with soap and water
 - anti bacterial scrubs where soap and water are not readily available - followed by soap and water at earliest convenience
- Careful and thorough decontamination of exposed or suspected exposed surfaces, areas, and tools, etc.
