

What is a Bloodborne Pathogen? A microorganism that lives in your blood and causes disease.

Bloodborne pathogens include:

- Hepatitis B
- Hepatitis C
- HIV-AIDS

Other diseases of concern for educators:

- Hepatitis A
- Tuberculosis



Virus	How spread	Severity of illness
A	Epidemics of Hepatitis A are caused by fecal contaminated food or water. Sporadic cases are spread by household or sexual contact. Not just Bloodborne!	Acute. Symptoms may appear two to six weeks after contact. Usually lasts less than two months.
B	Spread by contact with infected blood, sexual contact with infected person, drug use and from mother to child at birth.	Acute. 90 percent. Symptoms resolve in three to four months. Chronic. 10 percent. Possibility of cirrhosis, liver failure and liver cancer.
C	Primarily spread through contact with infected blood. But almost half of infections can't be traced. This is called the "Stealth Disease" because often symptoms may not be present.	Acute. 15 to 25 percent. Chronic. 75 to 85 percent. 25 to 30 percent develop to cirrhosis.
D	Only occurs in people infected with hepatitis B. Spread through intravenous drug use and sexual contact.	Acute or Chronic. Often more severe than infection with hepatitis B alone. About 70 percent develop to cirrhosis.
E	Most often transmitted through fecal contaminated water. The role of person-to-person transmission is unclear.	Acute. Like A, it's short-lived. Symptoms appear after 15 to 60 days. Can result in liver failure.

Source: © 1995-1998, Mayo Foundation for Medical Education and Research.

Signs and symptoms of hepatitis

- fever
- tiredness
- loss of appetite
- nausea
- abdominal discomfort
- dark urine,
- jaundice (yellowing of the skin and eyes)

Note: -Some persons with hepatitis virus infection may not have any signs or symptoms of the disease.

Risk Groups – Individuals at Risk for Exposure to Bloodborne Pathogens

- Injection drug users
- Sexually active heterosexuals and homosexuals
- Infants born to infected mothers
- Health care workers
- Low socioeconomic level
- Hemodialysis patients
- Infants/children of immigrants from disease-endemic areas
- Sexual/household contacts of infected persons

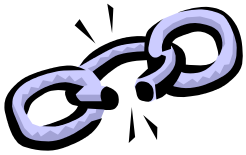
Total AIDS (at age of diagnosis) cases reported through December 2003

Age at Diagnosis	# of AIDS Cases
Under 13	9,419
Ages 13 to 14:	891
Ages 15 to:24	37,599
Ages 25 to 34:	311,137
Ages 35 to 44:	365,432
Ages 45 to 54:	148,347
Ages 55 to 64:	43,451
Ages 65 or older:	13,711
Total	929,985

World wide trends in AIDS diagnosis

- **42 million people are estimated to be living with HIV/AIDS.** Of these, 38.6 million are adults. 19.2 million are women, and 3.2 million are children under 15.
- An **estimated 5 million people acquired the human immunodeficiency virus (HIV)** in 2002, including 2 million women and 800,000 children under 15.
- During 2002, **AIDS caused the deaths of an estimated 3.1 million people**, including 1.2 million women and 610,000 children under 15.
- Women are becoming increasingly affected by HIV. Approximately **50%, or 19.2 million**, of the 38.6 million adults living with HIV or AIDS worldwide are women.

Race or Ethnicity	# of Cumulative AIDS Cases
White, not Hispanic	376,834
Black, not Hispanic	368,169
Hispanic	172,993
Asian/Pacific Islander	7,166
American Indian/Alaska Native	3,026



PREVENTION OF TRANSMISSION OF BLOODBORNE PATHOGENS UNIVERSAL PRECAUTIONS WILL BREAK THE CHAIN OF INFECTION.

Wear Personal Protective Equipment, like Gloves --- Practice good personal hygiene and sanitation

WHY DO I HAVE TO KNOW AND USE UNIVERSAL PRECAUTIONS?

To prevent the spread of contagious diseases, recommended policies and procedures must be followed AT ALL TIMES because:

- People can spread an infection to other people before showing any symptoms of illness.
- People can carry and spread germs without ever getting sick themselves.
- In a care setting, where people from different families spend many hours together in close physical contact, germs are spread more easily.

WHAT WORK TASKS PUT ME AT RISK FOR EXPOSURE TO DISEASE ON THE JOB?

- Providing First Aid and Giving or applying medication or ointment to a student or self.
- Handling food, preparing bottles, or feeding children.
- Using the toilet, assisting a child in using the toilet, or changing diapers.
- Contacting a person's body fluids, including wet or soiled diapers, runny noses, spit, vomit, etc.
- Cleaning up a person, the room, bathroom items, or toys.
- Custodial duties: Cleaning bathrooms, emptying trash, using contaminated tools or equipment.



HANDWASHING

- If gloves are being used, hands should be washed immediately after gloves are removed - even if hands are not visibly contaminated. Use of gloves alone will not prevent contamination of hands or spread of germs and should not be considered a substitute for hand washing.
- Rubbing hands together under running water is the most important part of washing away infectious germs.
- Pre-moistened towelettes may be used as a temporary measure until hands can be washed under running water. Towelettes, wipes, or waterless hand cleaners should not be used as a substitute for washing hands with soap and running water.

HOW TO WASH HANDS

1. Always use warm, running water and a liquid, soap. Antibacterial soaps may be used, but are not required.
2. Wet the hands and apply a small amount of liquid soap to hands.
3. Rub hands together vigorously until a soapy lather appears and continue for at least 15 seconds. (Sing a tune to pass the time!!) Be sure to scrub between fingers, under fingernails, and around the tops and palms of the hands.
4. Rinse hands under warm running water. Leave the water running while drying hands.
5. Dry hands with a clean, disposable towel.
6. Turn the faucet off using the towel.
7. Discard the used towel in a trashcan lined with a fluid-resistant (plastic) bag.
8. Consider using hand lotion to prevent chapping of hands.
9. When assisting a child in hand washing, either hold the child (if an infant) or have the child stand on a safety step at a height at which the child's hands can hang freely under the running water. Assist the child in performing all of the above steps and then wash your own hands.

WHAT IS AN EXPOSURE?

- When someone else's blood gets into your blood through a cut or open wound.
- Needle stick
- Human bite that breaks the skin



IF YOU ARE EXPOSED:

- Wash the exposed area thoroughly with soap and water.
- Report it to your supervisor, IMMEDIATELY
- Seek immediate medical attention

Remember: A person could be HIV or HBV positive and have no symptoms at all. You can't tell by looking. Treat every person, every needle, and every body fluid as if it's infected.

USE UNIVERSAL PRECAUTIONS EVERY TIME

CDC National AIDS Hotline
1-800-342-AIDS
Spanish: 1-800-344-SIDA
TDD: 1-800-243-7889

CDC National Prevention Information Network
P.O. Box 6003
Rockville, Maryland 20849-6003
1-800-458-5231

American Liver Foundation
(800) 223-0179 (GOLIVER)
<http://www.liverfoundation.org>

CDC, Hepatitis Branch: <http://www.cdc.gov/ncidod/diseases/hepatitis/index.htm>

CDC: <http://www.cdc.gov>