

BLOODBORNE PATHOGENS

Bloodborne pathogens are microorganisms that can be present in human blood and are capable of producing diseases in humans. Some examples of bloodborne pathogens are:

- Malaria
- Syphilis
- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Human immunodeficiency virus (HIV)

Once inside the body, bloodborne pathogens inhabit the blood and other body fluids such as, but are not limited to:

- Semen
- Vaginal secretions
- Urine
- Saliva
- Sweat

HOW DO BLOODBORNE PATHOGENS CAUSE DISEASE?

Simply stated, our bodies can be compared to intricate well-balanced machines that depend on good health to function properly. To help maintain our health, the body has certain defense mechanisms that help us to resist different kinds of germs (pathogens). Two of the many type of germs include:

- Bacteria
- Viruses

When a virus or bacteria enters the body, our defense mechanism known as the immune system begins to work to resist it. However, if the immune system cannot provide adequate resistance, the body's defense mechanism will be overcome and the virus and bacteria will multiply and spread causing disease. Different bloodborne pathogens will cause different diseases.

WHAT ARE THE DANGERS OF BLOODBORNE PATHOGEN INFECTION?

The different diseases that are caused by various bloodborne pathogens have the capacity to impair health and destroy human life.

Some diseases:

- Are not treatable.
- Have no known cures.
- Have no vaccines available.
- Can make you sick for a long time .
- May reoccur throughout your life.
- Can damage your health and make you susceptible to other types of disease and illness.
- Can be passed on to your loved ones.
- Can be fatal.

HIV INFECTION AND AIDS

A person infected with HIV may simply carry the virus and remain in apparently normal health for many years. Although many persons infected with HIV go on to develop AIDS, the rate is declining due to new drug treatments. Persons with HIV infection can now live longer, healthier lives. There is still no effective vaccine to prevent AIDS.

HEPATITIS B VIRAL INFECTION

Hepatitis B viral infection, a disease that affects the liver, poses a greater risk to you than HIV infection. Most persons infected with Hepatitis B virus get over their infection, but for some, this disease progresses to chronic liver disease or liver cancer and death. Fortunately, a vaccine is available to protect you against getting the hepatitis B virus.

HEPATITIS C VIRAL INFECTION

Hepatitis C virus also attacks the liver. Since hepatitis B has the same symptoms, a blood test is required to tell the difference. Hepatitis C is more treacherous than Hepatitis B. Currently, there is no effective treatment or protective vaccine for this disease.

HOW DO BLOODBORNE PATHOGENS GET INTO THE BODY?

Generally, bloodborne pathogens may enter the body through the skin and/or mucous membranes and the eyes. Our skin is an important defense mechanism by providing a very resistant barrier to many viruses and bacteria. But unhealthy or damaged skin can prove to be an effective route of entry for a bloodborne pathogen.

Skin conditions susceptible to entry include, but are not limited to:

- Cuts
- Abrasions
- Open blisters
- Puncture wounds (needlesticks etc.)

- Certain rashes
- Open sores
- Any site where the skin is not intact

The delicate mucous membranes that line the body openings and cavities can also be a suitable route of entry for pathogens. Because of its moist condition and exposure potential to splashes and splatters, the eye is another way for bloodborne pathogens to enter the body.

HOW ARE BLOODBORNE PATHOGENS TRANSMITTED?

Bloodborne pathogens may be transmitted by:

- Direct contact between humans.
- Contact with infected body fluids.
- Contact with contaminated sharp objects and other materials.
- Needlestick injuries or needle sharing.
- Passage of the pathogen between the mother and fetus.
- Transfusions of infected blood or plasma.

The manner in which bloodborne pathogen is transmitted will depend on the characteristics of the particular pathogen. For example, some pathogens such as the human immunodeficiency virus (HIV) can only live a short time outside the body. However, a pathogen such as hepatitis B virus (HBV) is stronger and can survive out of the body for longer periods of time. Hepatitis B virus has been found to live for more than a week in or on materials contaminated with blood and other body fluids.

Resistance and durability of a bloodborne pathogen to survive outside of the body greatly increases the chances of becoming infected if there is contact with it.

WHAT ARE THE SYMPTOMS OF BLOODBORNE PATHOGEN INFECTION?

Because each bloodborne pathogen is unique, it will have its own distinct set of symptoms. These symptoms will vary from one pathogen to another. Some pathogens result in infections and communicability with no resulting symptoms.

Each person is also different and because of individual health characteristics, different people infected with the same pathogen may develop symptoms differently. For example, the onset of symptoms for some people may occur quickly, while others may have symptom development prolonged. Depending upon the individual, symptoms can also range from mild to severe.

There are no universal set of symptoms that can be applied to all bloodborne pathogens.

Regardless of the variations in the symptoms, once a person is infected with a bloodborne pathogen, that pathogen may be transmitted to others.

HOW CAN I TELL IF I HAVE BEEN INFECTED?

The only conclusive way to know if you have been infected with a bloodborne pathogen is by medical examination and laboratory testing.

If you have had an exposure incident, it is important that you immediately report it to your employer.

Quick notification of an exposure incident allows for early action and prompt medical follow-up.

REMEMBER, MANY EARLY INFECTIONS CAUSE NO SYSTEMS.

If you have reason to believe that you have become infected with a bloodborne pathogen from a non-occupational source (away from your place of work), you should immediately see a doctor for medical evaluation.

HOW CAN I PROTECT MYSELF AGAINST EXPOSURE?

The following measures are some of the things you can do to reduce your risks of contact with bloodborne pathogens:

⇒ EDUCATION

It has been said, “a little knowledge can be a dangerous thing”, in dealing with bloodborne pathogens, no knowledge can prove equally dangerous. Education and training are key elements in any program aimed at reducing the risks of pathogen exposure. The more you know about specific pathogens, the more likely you are to avoid potential exposures and contamination.

⇒ GOOD HYGIENE PRACTICES

A common sense approach to reducing the risks of pathogen exposure is to use good hygiene habits and practices.

Some examples are:

- Washing your hands with soap and water before eating, drinking, smoking, or after every incident involving blood or other potentially infectious material for at least 10 to 15 seconds and dry with disposable paper towel.
- Consuming food and beverages in appropriate designated areas.
- Washing your hands before and after using the toilet.
- Using your own razor, lip balm, lipstick or other cosmetics. Personal items such as these should not be shared with other people.
- Sharing the same food, beverages, tobacco products and drinking containers should be avoided.

DO NOT EAT, DRINK OR SMOKE AFTER ANOTHER PERSON!!!!

Although only a few hygiene measures are mentioned here, there are a variety of practices that can be beneficial to you. Remember, practicing good hygiene in the workplace not only sets a good example for others, but it's just plain smart.

⇒ **PROTECTIVE BARRIERS**

When accidents happen on the job, it may seem natural to help your co-worker without thinking of your own safety. However, when looking out for others, you must protect yourself. Avoid letting blood or body fluids visibly contaminated with blood contact your skin, eyes, nose, mouth and clothing by using protective barriers such as gloves and a protective smock or apron. Even goggles, gloves and dust masks you use on the job can help to protect you.

In a real emergency, call someone for help while turning off any machinery that might have trapped the victim.

If possible, another co-worker should simultaneously notify emergency responders. First responders are trained to help the accident victim and to protect themselves against bloodborne diseases at the same time.

When CPR is needed, remember to protect yourself. Unprotected mouth-to-mouth resuscitation can be hazardous to you because the victim may have blood or bloody vomit in the mouth. Give CPR only if you are trained to do so. Be prepared by keeping a pocket mask on hand to protect you from the victim's saliva and body fluids.

After the incident, a hazardous situation continues to exist until the workplace is properly cleaned of for blood and body fluids.

SUMMARY

Even though bloodborne pathogens are a threat to workers, you can protect yourself against them. By knowing the facts and using standard precautions, you can overcome the risk of bloodborne infections.

NOTE: TO REPORT BLOODBORNE PATHOGEN EXPOSURES PLEASE CONTACT THE OCCUPATIONAL HEALTH CLINIC DSN: 626-5973, COMM: 081-568-5973.