

Occupational Exposures to Bloodborne Pathogens

Bloodborne pathogens are microorganisms that spread disease by contact with blood or other body fluid from an infected person. Diseases such as hepatitis B, hepatitis C, and HIV can be transmitted if infected blood from one person enters the bloodstream of another person. Bloodborne pathogens can also be present in other body fluids such as semen; vaginal secretions; fluid around the brain, heart, and chest organs; unfixed organs and tissues from living or dead humans; saliva during dental procedures and more.

An *occupational exposure* to bloodborne pathogens can occur when, during the performance of your job you get a needlestick or cut from a sharp instrument contaminated with infected blood. Occupational exposures can also occur when infected blood or other body fluid contaminated with infected blood splashes in the eye, nose, mouth or opening in the skin. Though most exposures do not result in infection, several factors are used by professionals to estimate the risk of disease transmission following an occupational exposure:

- *The pathogen involved.* It is far more likely to contract hepatitis B than HIV following an occupational exposure.
- *The type of exposure.* A deep puncture to the skin with a hollow needle containing contaminated blood is more likely to transmit disease than a minor scratch from a solid sharp instrument with contaminated blood on its surface.
- *The amount of blood involved in the exposure.* Higher volumes of contaminated blood increases the risk of disease transmission.
- *The amount of virus in the sick person's blood* at the time of the exposure. Blood containing a large number of bloodborne pathogens can transmit disease more easily than blood containing a small number of bloodborne pathogens.

Following an occupational exposure to bloodborne pathogens, a physician should quickly evaluate the risk of infection, inform you about treatments available to help prevent infection, monitor you for side effects of treatment, and determine if infection occurs. This may involve testing your blood and that of the second individual, offering you post-exposure treatment and recommending medical follow-up.

Many occupational exposures can be prevented by using safer techniques while handling items contaminated with blood or other body fluids, cleaning up body fluids in a safe manner, and working safely while performing your job duties. Fundamental to preventing occupational exposures is wearing appropriate personal protective equipment such as gloves, eye protection and masks while performing high risk duties on the job.