



SAFETY SERVICES
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WHITEPAPER

Spilling the Truth on Bloodborne Pathogens



Bloodborne pathogens are defined as microorganisms in the blood or other body fluids that can cause illness and disease. These microorganisms are transmitted through the eyes, skin, nose or mouth, also known as mucous membranes, or under the skin by means of puncture. Exposure can result from cuts or puncture wounds caused by sharp objects, such as blades, needles, or knives. There is also risk of exposure in a situation where blood or body fluid is splashed on open cuts or mucous membranes.

The most common diseases caused by exposure are hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV). People who carry bloodborne pathogens may not be aware that they are infected.

In March 1992 OSHA adopted a bloodborne pathogen training policy (CFR 1910.1030) designed to limit exposure to blood and other bodily fluids at the workplace. The policy was initially tailored for hospitals, funeral homes, nursing homes, clinics, law enforcement agencies, emergency responders, and HIV/HBV research laboratories. However, the standard grew to cover any employer where there is a reasonable chance of exposure to bloodborne pathogens.

Compliance with the standard requires employers to have in place a policy and training plan dealing with the hazards of bloodborne pathogens, vaccination, handling and more. Through independent studies OSHA has confirmed employers who have a safety and health training program in place experience a 52 percent lower rate of “injury with days away” than employers without a program.

What are Bloodborne Pathogens?

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1. HBV- is a severe life threatening liver infection transmitted through infected blood or body fluids. The Center for Disease Control estimates 280,000 people each year are infected with HBV in the United States. The virus may exist in the body for up to six months before symptoms appear.

Symptoms of HBV are like a mild "flu". They include fatigue, stomach pain, loss of appetite, and even nausea. As the disease continues to develop, jaundice (a distinct yellowing of the skin and eyes), and a darkened urine will often occur. After exposure, it can take 1-9 months before symptoms become noticeable.

2. HCV- is transmitted through exposure to infected blood or body fluids. Individuals who contract HCV are at risk of developing cirrhosis of the liver or liver cancer. The difference between HBV and HCV is 80% of people with HCV do not have symptoms. In those who do, symptoms may not appear for 10-20 years, or even longer. There are no effective treatments or vaccines available to combat HCV.

Few people have symptoms during the early acute phase of the infection. These symptoms typically develop 5-12 weeks after exposure to HCV. Some describe the symptoms as being flu-like and last a few weeks or months.

3. HIV- is the virus causing Acquired Immunodeficiency Syndrome (AIDS). Nearly 2 million Americans are infected with HIV. HIV attacks the white blood cells and eliminates the body's ability to fight infections. AIDS is a serious, life-threatening disease and currently there is no cure or vaccination for HIV.

What's Needed and Who Needs it?

In March 1992 OSHA adopted, CFR 1910.1030, a policy designed to limit exposure to blood and other bodily fluids at the workplace. [3] The policy was initially tailored for hospitals, funeral homes, nursing homes, clinics, law enforcement agencies, emergency responders, and HIV/HBV research laboratories. Compliance with the standard requires employers to meet these criteria with a bloodborne pathogen training.

The Hepatitis B Vaccination- All employers are required to provide employees with potential for exposure access to a Hepatitis B vaccination, unless the employee has previously received the complete Hepatitis B vaccination series. If the employee initially declines Hepatitis B vaccination but later decides to accept the vaccination, the vaccination shall then be made available. All employees who decline the Hepatitis B vaccination offered shall sign the OSHA required waiver indicating their refusal.



Exposure Mitigation Plan- Employers are required to develop an exposure mitigation plan. This plan must identify, in writing, tasks and procedures as well as job classifications where occupational exposure to body fluids may occur. It must also set forth provisions specifying the procedure for evaluating circumstances surrounding exposure incidents. The plan must be accessible to employees and available to OSHA. Employers must review and update the plan annually.

Personal Protection Equipment Program- Employers must provide, at no cost, and require employees to use, appropriate personal protective equipment such as gloves, gowns, masks, mouthpieces and resuscitation bags. In addition to providing this equipment, employers must train employees on the proper use of this equipment.

Training- OSHA requires employers to have annual refresher training in place where employees are at a high risk for exposure. This training must occur before employees are allowed to perform any tasks. Additional training will be provided when changes such as modification of tasks or procedures affect the employee's occupational exposure. Any employee who is exposed to infectious materials shall receive training, even if the employee was allowed to receive the HBV vaccine after exposure.

Exposure's Financial Impact

According to OSHA 6,000 workers die in this country each year from workplace injuries. Another 50,000 die from illnesses caused by exposure to workplace hazards. [1] These deaths are heartbreaking to families and financially crippling to employers. The US Department of Labor estimates these injuries and deaths cost employers \$1 billion a week in worker's compensation costs and when lost productivity, increased insurance premiums and other costs are added in , the total economic impact of occupational accidents is more than \$4 billion a week or \$668 for every citizen in the United States. [2]

In addition to the financial ramifications due to health related issues, OSHA can fine employers for not having a safety manual or policy in place. These fines start at \$7,000. Let us help you find training.

Does Training Work?

While the blow of a workplace injury is crippling many companies, safety training programs are proven to drastically reduce the risk of injury and increase workplace productivity.

- Average sales rose 7.5 percent [4]
- Manufacturing defects and waste dropped from \$2.7 million in 2001 to \$435,000 in 2005 [4]
- Increased worker involvement [4]
- Improved decision-making [4]
- EMR dropped by 45% [4]

The value of training is further emphasized by a study of 41 workers hospitalized for hand injuries. Through the survey of these employees conducted by members of National Institute for Occupational Safety and Health (NIOSH) it was discovered more than half had no on the job training for the equipment that caused their injury.

Workplaces that establish safety and health management systems can reduce their injury and illness costs by 20 to 40 percent, according to OSHA. Studies not only show the impact safety training has in increasing productivity and preventing injury. It shows the value training has to prevent casualties. [5] A NIOSH study of 55 confined workplace fatalities found that only three of those losing their lives ever received training on the proper workplace safety procedures.

A study of the California insurance industry also revealed that every dollar invested in safety training resulted in \$3 or more in savings. Bloodborn pathogen safety training is not a cost, it is an investment.



Citations

- [1] http://www.osha.gov/OshDoc/data_General_Facts/jobsafetyandhealth-factsheet.html
- [2] <http://www.osha.gov/dcsp/products/topics/businesscase/index.html>
- [3] http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10051
- [4] <http://www.labor.state.ny.us/workerprotection/safetyhealth/PDFs/WSLP/Cost%20Benefit%20Safety.pdf>
- [5] <http://www.osha.gov/Publications/safety-health-addvalue.html>

This publication does not itself alter or determine compliance responsibilities, which are set forth in OSHA standards themselves and the Occupational Safety and Health Act. Moreover, because interpretations and enforcement policy may change over time, for additional guidance on OSHA compliance requirements, the reader should consult current and administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the Courts.

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