



Objectives:

- Define infection and infection control terms
- Identify common infections
- Describe how infections are spread
- List the In-Home Aide's role in infection control

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Infection Control and the In-home Aide's Role

More than 2 million infections start every year in a hospital, nursing home, or another healthcare setting. 100,000 people die each year as a result of getting an infection in a hospital, nursing home, or another healthcare setting. The US spends more than \$45 billion every year for the extra care and treatment that is needed.

The leading cause of death among residents in a nursing home is infection. Infection is also the most frequent reason for a person to be moved from the nursing home to a hospital for care. Although difficult to track as if someone were in the hospital, **infections are much more unlikely to happen in the home if one practices good infection control.**

Examples of infections that home care agencies track include: catheter related urinary tract infections, wound infections, and pneumonia in clients who have recently had surgery. **Infection control and the prevention of infections must be a regular part of everything the nurse aide does.**

As health care workers, you have always had a huge responsibility to protect yourself, your family, and your residents from danger because you work in an environment that must strongly guard against infections. The people you care for are generally elderly, sickly, and/or susceptible to diseases. What is just a cold to most people can be deadly to the older adult.

If you can break any link in the chain of infection, you can prevent the occurrence of new infections. Nurse aides have many chances in their work to break the chain of infection.

TIP: Bring agency approved hand soap, paper towels, and hand sanitizers with you to each client's home. Many homes will not be able to supply these items. Never wash your hands with the client's bar soap or dry hands on the client's towels hanging in the kitchen or bathroom. These may be dirty or possibly could have been hanging for several days. Check with your agency about approved lotions. If you take a bag in the home, don't place it on the floor. Be sure to know your agency policies about "bag technique" in the home.

Protections Provided by OSHA's Bloodborne Pathogens Standard

The OSHA standard's requirements state what employers must do to protect workers who are occupationally exposed to blood or other potentially infectious materials (OPIM), as defined in the standard. That is, the standard protects workers who can reasonably be anticipated to come into contact with blood or OPIM as a result of doing their job duties. (see more detail on page 4)



We must provide care using infection control guidelines in a consistent manner!

Hand Washing:

- When hands are visibly dirty or soiled, wash hands with soap and water.
- If hands are not visibly dirty or soiled, it is ok to use an alcohol-based hand rub for routinely cleaning hands - in other situations best practice is always hand washing.
- Hand hygiene, hand washing, or using an alcohol-based hand rub, should be done at all of the following times:
 - Before shift begins
 - Before donning sterile gloves for any task
 - Before and after contact with a person's skin (taking a pulse or blood pressure, lifting, etc.)
 - After contact with body fluids or excretions, mucous membranes, broken skin, or wounds dressings.
 - If moving from a contaminated body site to a clean body site.
 - After contact with contaminated items or environments.
 - After removing gloves.
 - Wash hands with soap and water before eating and after using a restroom.
 - After coughing, sneezing, or blowing ones nose.
 - After contact with soiled linen.
 - Before leaving the facility or person's house at the end of the shift.

How germs spread:

- Colds and flu are caused by viruses, and these viruses can be all around us: in the air we breathe, on objects we touch, etc. These viruses can be easily transferred as we share the air and touch many of the same objects: doorknobs, pencils, light switches, faucets, etc. **In fact, germs can even be transferred by people who do not seem to be sick themselves!** Germs can be expelled into the air by sneezing and coughing. Covering one's nose and mouth when sneezing or coughing can prevent germs from being expelled into the air.

How does infection spread?

- The chain of infection is the foundation for spreading and preventing an infection. For an infection to occur and spread, each of the six links of the chain must be present. By breaking any link in the chain, a new infection can be prevented.
- **Infection control practices such as hand washing, cleaning equipment, and using masks, when used properly, will break a link in the chain. The links and actions that can be used to break it are:**
- ♣ To have an infection, there must be a germ that can cause an infection. This germ is called the **infectious agent**.
- ♣ The infectious agent (germ) must have a place to live or hide out. This hide out is called a **reservoir**. (Reservoirs are animals, insects, humans, objects, surfaces, equipment, or almost anything in the environment including food, water, and even the air).
- ♣ The germ needs a way to leave its home or hide out. This is called a **portal of exit**, or way to escape from the reservoir. Examples of how germs exit the human body are through blood from a wound, semen and vaginal secretions from the reproductive tract and genitalia, tears from tear ducts, urine from the urinary tract, feces from the gastrointestinal tract, mucous discharge from the respiratory tract, drainage from open wounds and across the mother's placenta to the fetus.
- ♣ Once the germ exits its hide out (reservoir), it must find a way to move to its next victim. This is called **the mode of transmission**. There are many routes for germs to be transmitted to another. The most common and frequent modes of transmission are direct contact, indirect contact, and droplet contact (infected person transfers germ to another person, eating or drinking contaminated food, coughing, sneezing).

- ♣ Once a germ leaves its hide out and finds a way to travel, a **portal of entry** is necessary. Germs can enter the body through breaks in the skin, through eyes, nose or mouth, through the digestive tract, through the urinary and reproductive tracts, the respiratory system and the circulatory system. Points of exit and entry are the same.
- ♣ If the host's defenses are strong, it may stop the germ's invasion. If not, the host becomes a **susceptible host**, unable to fight off the germs and the germs enter the body.

 Bloodborne pathogens, such as HIV and Hepatitis B, C, and D, are a classification of microorganisms that cause disease.

 Precautions with an HIV patient need not be different than for other patients. Hand washing is the best way to prevent infections, and always wear gloves if you are coming into contact with **any** bodily fluids.

Be sure to ask your supervisor any questions you may have related to infection control in order to protect yourself and your client's!

If you have an injury or exposure make sure you contact your supervisor and follow the agency protocol for infection control, in the allotted time frames.



● **Examples of how to break the chain of infection:**

- Use alcohol based hand rubs
- Cover mouth when sneezing/coughing
- Stay home when sick
- Proper waste and trash disposal
- New toothbrush every few months
- Wiping doorknobs with antiseptic solution
- No artificial nails
- Bathing daily
- Clean gloves
- Immunizations
- Proper diet
- Wear clean uniform daily
- **Hand washing, hand washing, hand washing!**

Individuals have different responses to infection. Not all symptoms will be experience by all people. Learn the usual health status of each person you are caring for so you will know when there is a change in their typical health status.

 **Report any signs or symptoms immediately to the nurse. The earlier an infection is found, the easier it may be to treat.**

● If an infection does occur, the body takes steps to fight it off. When the body fights an infection, certain signs and symptoms occur.

● Signs and symptoms of infection can include:

- Fever
- Nausea, vomiting, and diarrhea
- Rash
- Loss of appetite
- Local redness, swelling
- Foul smelling drainage or urine
- Urinary frequency
- Pain or tenderness at the site of a wound or "pimple" like area
- Fatigue
- Flu-like symptoms

 **There are also certain factors which contribute to increased illness susceptibility in patients, including poor nutrition, advanced age, mental status, inactivity and other factors such as catheters and feeding tubes.**

OSHA[®] FactSheet

OSHA's Bloodborne Pathogens Standard

Bloodborne pathogens are infectious microorganisms present in blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV), the virus that causes AIDS. Workers exposed to bloodborne pathogens are at risk for serious or life-threatening illnesses.

Protections Provided by OSHA's Bloodborne Pathogens Standard

All of the requirements of OSHA's Bloodborne Pathogens standard can be found in Title 29 of the Code of Federal Regulations at 29 CFR 1910.1030. The standard's requirements state what employers must do to protect workers who are occupationally exposed to blood or other potentially infectious materials (OPIM), as defined in the standard. That is, the standard protects workers who can reasonably be anticipated to come into contact with blood or OPIM as a result of doing their job duties.

In general, the standard requires employers to:

- **Establish an exposure control plan.** This is a written plan to eliminate or minimize occupational exposures. The employer must prepare an exposure determination that contains a list of job classifications in which all workers have occupational exposure and a list of job classifications in which some workers have occupational exposure, along with a list of the tasks and procedures performed by those workers that result in their exposure.
- **Employers must update the plan annually** to reflect changes in tasks, procedures, and positions that affect occupational exposure, and also technological changes that eliminate or reduce occupational exposure. In addition, employers must annually document in the plan that they have considered and begun using appropriate, commercially-available effective safer medical devices designed to eliminate or minimize occupational exposure. Employers must also document that they have solicited input from frontline workers in identifying, evaluating, and selecting effective engineering and work practice controls.
- **Implement the use of universal precautions** (treating all human blood and OPIM as if known to be infectious for bloodborne pathogens).
- **Identify and use engineering controls.** These are devices that isolate or remove the bloodborne pathogens hazard from the workplace. They include sharps disposal containers, self-sheathing needles, and safer medical devices, such as sharps with engineered sharps-injury protection and needleless systems.
- **Identify and ensure the use of work practice controls.** These are practices that reduce the possibility of exposure by changing the way a task is performed, such as appropriate practices for handling and disposing of contaminated sharps, handling specimens, handling laundry, and cleaning contaminated surfaces and items.
- **Provide personal protective equipment (PPE), such as gloves, gowns, eye protection, and masks.** Employers must clean, repair, and replace this equipment as needed. Provision, maintenance, repair and replacement are at no cost to the worker.
- **Make available hepatitis B vaccinations to all workers with occupational exposure.** This vaccination must be offered after the worker has received the required bloodborne pathogens training and within 10 days of initial assignment to a job with occupational exposure.
- **Make available post-exposure evaluation and follow-up to any occupationally exposed worker who experiences an exposure incident.** An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM. This evaluation and follow-up must be at no cost to the worker and includes documenting the route(s) of exposure and the circumstances

under which the exposure incident occurred; identifying and testing the source individual for HBV and HIV infectivity, if the source individual consents or the law does not require consent; collecting and testing the exposed worker's blood, if the worker consents; offering post-exposure prophylaxis; offering counseling; and evaluating reported illnesses. The healthcare professional will provide a limited written opinion to the employer and all diagnoses must remain confidential.

- **Use labels and signs to communicate hazards.** Warning labels must be affixed to containers of regulated waste; containers of contaminated reusable sharps; refrigerators and freezers containing blood or OPIM; other containers used to store, transport, or ship blood or OPIM; contaminated equipment that is being shipped or serviced; and bags or containers of contaminated laundry, except as provided in the standard. Facilities may use red bags or red containers instead of labels. In HIV and HBV research laboratories and production facilities, signs must be posted at all access doors when OPIM or infected animals are present in the work area or containment module.
- **Provide information and training to workers.** Employers must ensure that their workers receive regular training that covers all elements of the standard including, but not limited to: information on bloodborne pathogens and diseases, methods used to control occupational

exposure, hepatitis B vaccine, and medical evaluation and post-exposure follow-up procedures. Employers must offer this training on initial assignment, at least annually thereafter, and when new or modified tasks or procedures affect a worker's occupational exposure. Also, HIV and HBV laboratory and production facility workers must receive specialized initial training, in addition to the training provided to all workers with occupational exposure. Workers must have the opportunity to ask the trainer questions. Also, training must be presented at an educational level and in a language that workers understand.

- **Maintain worker medical and training records.** The employer also must maintain a sharps injury log, unless it is exempt under Part 1904 -- Recording and Reporting Occupational Injuries and Illnesses, in Title 29 of the Code of Federal Regulations.

Additional Information

For more information, go to OSHA's Bloodborne Pathogens and Needlestick Prevention Safety and Health Topics web page at: <https://www.osha.gov/SLTC/bloodbornepathogens/index.html>.

To file a complaint by phone, report an emergency, or get OSHA advice, assistance, or products, contact your nearest OSHA office under the "U.S. Department of Labor" listing in your phone book, or call us toll-free at **(800) 321-OSHA (6742)**.

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; the teletypewriter (TTY) number is (877) 889-5627.

For assistance, contact us. We can help. It's confidential.

