



**Taking it one step at a time.**

# **BLOODBORNE & AIRBORNE PATHOGENS**

*What personal precautions should you take before rendering First Aid to an injured person? Experts agree that blood and other body fluids should always be considered potential sources of pathogen infections, including HIV (AIDS) and Hepatitis B and C. Diseases such as colds, influenza, tuberculosis, and meningitis can be transmitted via airborne pathogens.*

## **“Universal Precautions”**



The dangers of exposure to bloodborne and airborne pathogens are not always obvious, but they are very real. “Universal Precautions” is the name used to describe a prevention strategy in which all blood and potentially infectious materials are treated as if they are, in fact, infectious, regardless of the perceived status of the source person. To protect yourself, it is essential to have a barrier between you and the potentially infectious material.

## **Personal Protective Equipment (PPE)**

PPE provides a barrier between you and the potentially infectious material. Important PPE rules to follow:

- ▶ Always wear personal protective equipment in potential exposure situations.
- ▶ Remove/replace PPE that is torn, punctured, or has lost its ability to function as a barrier.
- ▶ Remove and properly dispose of PPE before leaving the exposure area.
- ▶ Minimum PPE items include: latex gloves, fluid-resistant apron, safety goggles, face mask, long-sleeved shirt, long pants, and shoes



## **Bloodborne/Airborne Pathogens Kit:**

A portable kit designed for use when rendering First Aid can literally save your life! It may include:

- Plastic bucket with lid -
  - Used to hold everything else!
  - Also used to mix the disinfecting bleach solution. It is helpful to mark the side of the container with fill lines for one part unscented household bleach to ten parts water.
- Small bottle of unscented household liquid bleach (5.25% sodium hypochlorite)
  - Use bucket to mix a disinfecting solution of one part bleach to ten parts water
  - Use disinfecting solution to clean up any spills (see reverse side of this flyer)
- 1 large garbage bag - For disposal of contaminated materials. Choose a strong bag (≥ 1 mil thickness) to ensure it doesn’t break
- Antibacterial hand cleaner - The no-water-needed variety is good
- Germicidal cloth wipes - Baby Wipes® or any other alcohol-based brand
- Antimicrobial wipes - Hibistat Wipes® or equivalent, available at medical supply stores.
- CPR mask with one-way breathing valve - ask your CPR instructor for a local source or purchase from the American Red Cross
- Several pair of latex gloves -
  - Blow them up like a balloon to ensure they are not damaged.
  - Remove them carefully to ensure they do not contact any exposed skin
- Fluid-resistant apron - (or a large garbage bag with holes cut for neck and arms - works great and it’s disposable!)
- Fluid-resistant cap- a shower cap works just fine
- Pair of goggles and a face mask. (A full face shield provides additional protection from splashing)

## Precautionary Hygiene Practices

*It is your personal responsibility to follow these guidelines whenever there is potential for exposure.*

**General Hygiene:** Whenever there is reasonable likelihood of exposure, **you must never:**

- ⇒ Eat
- ⇒ Drink
- ⇒ Smoke
- ⇒ Apply cosmetics or lip balm
- ⇒ Handle contact lenses

No food or drink should be kept in refrigerators, freezers, shelves, cabinets, or on counter tops where blood or potentially infectious materials are present.



**Handwashing** is one of the most important (and easiest!) practices used to prevent transmission of bloodborne or airborne pathogens. Hands or other exposed skin should be thoroughly washed as soon as possible following an exposure incident. Use soft, antibacterial soap, if possible. Avoid harsh, abrasive soaps, as these may open fragile scabs or other sores. Hands should also be washed immediately (or as soon as feasible) after removal of gloves or other personal protective equipment.



**Do not use contaminated water to wash your hands!** If proper handwashing facilities are not available, you may use bottled water, water that has been boiled for 3 - 5 minutes, or antibacterial soap/towelettes designed for use without water. You may also purify water for hand washing using unscented household liquid bleach (5.25% sodium hypochlorite). Add 16 drops of bleach to a gallon of water, stir, and let stand for 30 minutes. If the water does not have a slight bleach odor, repeat the dosage and let stand for another 15 minutes.

**Decontamination and Sterilization:** All surfaces that come in contact with blood or potentially infectious materials must be decontaminated as soon as possible. Decontamination should be accomplished by using a solution of unscented household bleach (5.25% sodium hypochlorite) diluted about 1:10 with water.

*Handy Tip: When gathering decontamination supplies, measure and mark the fill lines on your bucket ahead of time, one fill line for the bleach, and another fill line for the water. You might also want to pre-mark a spray bottle, which may be easier to use than a bucket for smaller spills. Pre-marking your containers gives you easy, measuring-free mixing of your bleach cleaning solution when you need to use it.*



If you are cleaning up a spill of blood, carefully cover the spill with paper towels or rags, then gently pour your 10% solution of bleach over the towels or rags. This will help decrease the chances of causing a splash when you pour the bleach on it. **Leave it in place for at least 10 minutes.** This will help ensure that the bloodborne pathogens are killed before you actually begin cleaning or wiping the material up.

The same is true when decontaminating equipment or other objects (knives, tweezers, mechanical equipment upon which someone has been cut, first aid boxes, or whatever): you must leave your disinfectant in place for *at least 10 minutes* before continuing the cleaning process. Any materials used to clean up a spill must also be decontaminated immediately, including mops, sponges, re-usable gloves, buckets, etc.



**Accidental Exposure:** Even with all these precautions, you may still be exposed to contaminated water or human waste. Flush the exposed area immediately with plenty of clean water. If the exposure occurred by splashing onto mucous membranes of the eyes, nose, or mouth, or onto non-intact skin (abrasion, eczema, or other damaged skin), seek advice from a medical professional within two hours! Timely intervention is necessary for the initiation of preventive medication or vaccination.)

