

Universal Precautions

“Universal Precautions,” as defined by the [CDC](#), are a set of precautions designed to prevent transmission of human immunodeficiency virus (HIV), hepatitis B virus (HBV) and other bloodborne pathogens when providing first aid or health care. Under Universal Precautions, blood and certain other human body fluids are considered potentially infectious for HIV, HBV and other bloodborne pathogens.

Bloodborne disease transmission

Bloodborne disease transmission requires the agent to enter the recipient's general blood circulation. This can be through direct blood-to-blood (e.g. - transfusions) or indirect (e.g. - dirty needles) transmission. Less obvious routes of transmission are via the mucous membranes of the eye, nose or mouth or through breaks in the skin, which can be a result of simple dermatitis, acne, cuts, abrasions or hangnails.

Materials to be handled using Universal Precautions

Universal precautions apply to blood, other body fluids containing visible blood, semen and vaginal secretions. Universal precautions apply to tissues and to the following fluids: cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids. Universal precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine and vomitus unless they contain visible blood. Universal precautions do not apply to saliva except when visibly contaminated with blood or in the dental setting where blood contamination of saliva is probable.

Bloodborne disease statistics

AIDS: At the end of 2013, the [CDC](#) estimated that 1,144,500 million U.S. residents over the age of 13 are living with HIV infection, many of them (~180,900 or 15.8%) unaware of their own HIV status.

Hepatitis B (HBV): The CDC estimates that the number of new infections per year has declined from an average of 260,000 in the 1980s to about 18,800 in 2011. This decline is thought to be associated with routine hepatitis B vaccination. See <http://www.cdc.gov/hepatitis/statistics>

Common Personal Protective Equipment

Gloves - Worn for touching blood and body fluids requiring universal precautions, mucous membranes or non-intact skin of all patients and for handling items or surfaces soiled with blood or body fluids to which universal precautions apply.

Masks, eye protection, face shields- Worn to prevent exposure of mucous membranes of the mouth, nose and eyes during procedures that are likely to generate droplets of blood or body fluids requiring universal precautions.

Lab coats, gowns, aprons - Worn during procedures that are likely to generate splashes of blood or body fluids requiring universal precautions.

Resource links

- [CLSI Released a New Edition of Its Standard About Protection of Laboratory Workers From Occupationally Acquired Infections](#)
- [Centers for Disease Control and Prevention](#)