

Don't Take Your Work Home With You...

PROTECT YOURSELF FROM HIV, HEPATITIS C AND OTHER BLOODBORNE PATHOGENS

Getting on Track With Laboratory Safety

Occupationally acquired infections occur to healthcare workers every year. Accidental needlesticks or inadvertent cuts from contaminated laboratory equipment can lead to infections from hepatitis B virus (HBV) or human immunodeficiency virus (HIV). Approximately 8,700 healthcare workers contract hepatitis B each year. Of these more than 200 workers die each year as a result of these infections. The following steps can help laboratory workers reduce their risk of infection by improving their safety practices.



Appropriate Training and Written Policies

Laboratory workers should receive annual training on bloodborne pathogens and other safety issues. Policies and procedures should be documented. OSHA requires laboratories to have an appropriate sharps safety program that includes the evaluation and selection of safer sharps and needles. Non-management employees are required to be involved in this selection process. Hospital laboratories must document the evaluation of commercially available safe medical devices such as safety needles, safety scalpels and plastic lab ware. Hospitals are required to offer the three-injection hepatitis B vaccination series free to all employees who may be exposed to blood or other potentially infectious materials.



Use Safety Laboratory Products

Use safety products to transfer contaminated fluids when available. Safety products are available for transfer of blood to glass slides for differential slide preparation.⁸ When typing or cross-matching blood samples, a technologist removes a flexible segment of tubing filled with blood from a blood bag, cuts through the tubing with scissors, and squeezes the sample into a glass test tube. This often results in blood spraying onto the lab counter and the technician, and unnecessarily exposes the technician to potential sharps injuries. Improper cleaning of the scissors between cuttings can also cause contamination of blood samples. Use a safety segment splitter to minimize risk.⁹

Gowns, Gloves, Eye Protection, Personal Habits

Laboratory workers should wear appropriate protective clothing and equipment, which can protect from unwanted spills or injuries. Personal Protective Equipment (PPE) includes gloves¹, lab coats, facemasks, face shields and other eye protection devices². Always remove PPE before leaving the lab. Never apply makeup or lip balm, eat, drink, smoke or handle contact lenses in areas where exposure to blood or other potentially infectious materials is possible. Always wash hands when leaving the lab.



Proper Disposal of Sharps

Dispose of sharps immediately after use. Puncture-resistant containers¹⁰ must be available nearby to hold contaminated sharps. Never reach into contaminated sharps containers. The containers must be replaced routinely and not be overfilled, which can increase the risk of needlesticks. Radioactive sharps should be disposed of properly.

Safety Scalpels, Lancets, Heel Stick Devices

Safety scalpels³ are available with movable shields or retracting blades that offer clinicians protection without compromising procedures. Use automatically retracting finger lancets⁴ or heel stick⁵ devices in place of manual lancets or non-retracting spring-loaded lancets.



Maintain a Sharps Injury Log

Employers must maintain a sharps injury log that includes the type and brand of device involved in an exposure, the department or work area where the exposure occurred, and an explanation of how it happened.

Blood Collection and Capillary Tubes

Replace glass blood collection and capillary tubes with safety plastic versions where available. Plastic evacuated blood collection tubes⁶ are safer than traditional glass vessels, and they are as clear as glass but are unbreakable. Capillary tubes have been used for the collection of blood in a variety of healthcare settings. Accidental breakage of these slender, fragile tubes occurs at times when the tubes are inserted into sealing putty and during centrifugation. Utilizing plastic capillary tubes⁷ or glass capillary tubes with a plastic wrap minimizes the risk of exposure to bloodborne pathogens. Substitute plastic ware for glassware whenever possible.



Proper Cleaning of Work Surfaces

All work surfaces and equipment should be decontaminated with an appropriate disinfectant after completing procedures involving exposure to blood.



1. Gimbel™ Bio-Protective Gloves, Gimbel Glove Company
2. Face Mask With Splash ShieldZ™—DeRoyal; SplashGard—SafeGard Medical
3. Bard-Parker SafetyLock™-Disposable Scalpel, Becton Dickinson; DeRoyal Safety Scalpel, DeRoyal; OMI Safe Scalpel, OMI Limited; Futura™ Safety Scalpel, Futura Medical Corp.; Personna Safety Scalpel, Personna Medical
4. Monojet Monoletter™ safety lancet—Tyco Healthcare/Kendall Healthcare Products Co., BD Genie™ Lancet—Becton Dickinson, SurgiLance™ One-Step safety lancet—Surgilance, Unistick 2—Medi-dose, Inc., Single-Let—Bayer Corp., Haemolance Plus—Hypoguard, Glucolet 2™ retracting lancet—Miles Inc., Unistick 2™—Owen-Mumford, Inc., EZ-Lets II—Palco Labs, Accu-Check Safe-T-Pro—Roche Diagnostics, Safe-T-Lance Plus™—Futura Medical Corp.
5. BD Quikheel™ Lancet—Becton Dickinson, Tenderfoot®—International Technidyne Corp., Nicky & Little Nicky™—Infant Heel Incision Devices, Helena Laboratories
6. BD Plastic Vacutainer™—Becton Dickinson, Vacuette® Blood Collection System—Greiner Bio-One GmbH
7. BD SafeCrit™—Becton Dickinson, MiniCollect® capillary tubes—Greiner Bio-One GmbH, Plastic Micro-hematocrit Tube—Norfolk Scientific, HEMATO-CLAD Hematocrit Tubes—Drummond Scientific Co.
8. H-Pette, Helena Laboratories, SAFE-T-FILL Capillary Blood Collection System—RAM Scientific, Diff-Safe Blood Dispenser—Alpha Scientific Corp.
9. SegMed Blood Tubing Sampling System—National Hospital Specialties, Safety Segment Slitter—Innovative Laboratory Acrylics, Tube Segment Opener—Sarstedt, Inc., Segsafe Segment Processor—Alpha-Scientific Corp.
10. Sharps Containers—Kendall Healthcare Products Co., Bio-Plexus, Inc, SIMS/Portex, Greiner Bio-One, Becton Dickinson, Medidose Inc—EPS Inc., SafeGard Medical, Futura Medical Corp.

© 2002 ISIPS, Inc.



Even if you are on the right track, you will get run over if you just sit there. — Will Rogers