

### OVERVIEW OF FACT SHEET

The purpose of this fact sheet is to inform the campus community about laboratory glassware safety including safe work practices to avoid injury. Laboratory glassware comes in all shapes and sizes of vessel, flask, bottle, container, tubing, etc. and is used in various applications. Cuts from damaged or broken glass can be serious.



Safe work practices and the use of PPE like cut resistant gloves can minimize the risk of injury while handling laboratory glassware.



If you have any questions regarding lab Safety, please contact your supervisor and/or the [Environmental Health and Safety Office](#) at 704-687-1111.

# Laboratory Glassware Safety

- **Inspect Glassware Before Handling / Use** – Before use, check that all glassware is free from cracks, flaws, or scratches that may cause it to fail in use. Dispose of damaged glassware or send to a glass shop for repair.
- **Safe Handling Practices** –
  - Hold beakers, bottles, flasks and other pieces of glassware by the sides and bottoms rather than by the tops. The rims or necks of these items may break if used as a lifting point.
  - Avoid carrying glassware by hand; use a suitable container. Avoid trying to catch falling glassware.
  - Where possible make use of SafetyBarbs, pre-drilled bungs/stoppers.
  - Fire polish or file the ends of all glass tubing and rods with a Microtorch to remove cutting edges before inserting into bungs/stoppers.
  - When fitting plastic or rubber tubing to glassware, lubricate the glass with water or glycerol and soften the ends of plastic tubing by brief immersion in hot water.
  - Do not use excessive force. Do not exert force in a direction that will make the glass snap. Think about where the sharp edge of the glass might go if it does break and arrange your grip accordingly. Wrap the glass in a towel or thick layers of paper tissue. Reduce the leverage on pipettes by holding them near the end when fitting fillers. When removing plastic tubing, cut off tubing that does not yield to gentle pressure.
- **Cleaning Up Broken Glass** – Use a brush, dustpan, tongs, forceps or other appropriate devices to clean up broken glass. Be especially careful when cleaning broken glass from a sink where water can make sharp edges difficult to see.
- **Personal Protective Equipment** – Protect hands with cut-resistant gloves, a towel or tubing holder when inserting glass tubing into bungs/stoppers. Lubricate the tubing and stopper with water or glycerol. Keep hands on tubing close to the stopper and out of line with end of the tube. Do not use excessive force; NEVER push with the palm of the hand.
- **Emergency Preparedness (Serious Laceration)** – A cut or laceration from glassware can be a medical emergency. Management must review emergency procedures with laboratory workers. Specific lab emergency procedures are available in the laboratory safety plan. General emergencies should be reported to Campus Police at 911 from a campus phone or 704-687-2200.
- **Reporting Glassware Injuries** – Injuries from laboratory glassware incidents need to be reported to the appropriate supervisor and the EHS Office following [EHS guidelines](#).
- **Broken Glass Waste Disposal** – Dispose of glass "sharps" in special containers used solely for this purpose and labeled appropriately. Do not overfill. Do not dispose of broken glass in the ordinary waste bins.