**Glassware Management**

Broken glass is one of the most common causes of laboratory injuries. To reduce the chance of cuts or punctures follow these practices for using laboratory glassware safely:

* Inspect glassware before and after each use. Discard or repair any cracked, broken, or damaged glassware.
* When inserting glass tubing into rubber stoppers, corks, or tubing,
  1. Use adequate hand protection
  2. Lubricate the tubing
  3. Hold hands close together to minimize movement if the glass breaks
* Heat and cool large glass containers slowly. Use Pyrex or heat-treated glass for heating operations. Leave at least 10 percent air space in containers with positive closures
* Use thick-walled round-bottomed glassware for vacuum operation.
* Do not use chromic acid to clean glassware. Use a standard laboratory detergent. Chromic acid must not be disposed in the sanitary sewer system.
* When handling cool flasks, grasp the neck with one hand and support the bottom with the other hand.
* Lift cool beakers by grasping the sides just below the rim. For large beakers, use two hands: one on the side and one supporting the bottom.
* Never carry bottles by their necks.
* Do not pick up broken glass with bare or unprotected hands. Use a brush and dust pan to clean up broken glass. Remove broken glass in sinks by using tongs for large pieces and cotton held by tongs for small pieces and slivers.
* Glass contaminated with biological, chemical, or radioactive materials must be decontaminated before disposal or be disposed of as hazardous waste.
* Dispose broken glass in a rigid container such as cardboard with a plastic liner and mark it "Broken Glass." Seal the container tight with a tape before putting it out on the corridor for pick up.
* Carefully handle vacuum-jacketed glassware to prevent implosions. Dewar flasks, vacuum desiccators, and other evacuated equipment should be taped or shielded and for vacuum work, use only glassware designed for that purpose.