

# AUTOCLAVE USE AND SAFETY

## AUTOCLAVE HAZARDS



**Heat & Steam**

- Burns
- Scalds



**Shattered Glass & High Pressure**

- Cuts
- Eye Injury



**Infectious Waste**

- Biological Exposure\*

\*Biological exposure may result from inappropriate cycle selection, incorrect packaging, or autoclave failure.

## SAFE USE PRACTICES

- ✓ **Inspect** for spills or debris; **check** door gasket for cracks or bulges; **inspect** glassware for cracks.
- ✓ **Check** that plastics are compatible with the autoclave. Not all plastics can be autoclaved.
- ✓ **Allow** sufficient space between items for steam. For **bagged items**, loosely tape or tie closed. Leave an opening for steam to penetrate the bag. For **liquids**, leave caps loose or cover with foil to allow steam penetration and pressure release.
- ✓ **Use** secondary containment in case of spillover and lead-free autoclave tape to **ensure** 121°C is reached within the chamber.

- ✓ **Select** appropriate cycle (e.g., dry heat, sterilize media, sterilize biohazardous waste).
- ✓ Slowly **open** the door to allow steam to escape gradually. **Keep** your face away from the door. **Allow** items to stand in the autoclave for 10 mins.



## TRAIN AND MAINTAIN

- **Designate a responsible person** for the autoclave. The responsible person will train users and establish SOPs.
- All **training must include a hands-on demonstration** and a supervised run.
- **Implement a regular maintenance schedule** to ensure safe operation. Per [CDC guidance](#), a **monthly spore test must be conducted** if autoclaving infectious waste.



## PERSONAL PROTECTIVE EQUIPMENT

### Basic Gear

✓ Safety Goggles

✓ Heat Resistant Gloves

✓ Lab Coat, sleeves extended to the wrist

✓ Long Pants

✓ Close-toed Shoes

### Additional Gear when Autoclaving Liquids

✓ Face Shield

✓ Rubber Apron



- ✗ **Do not autoclave** flammable, combustible, reactive, corrosive, toxic, or radioactive materials.
- ✗ **Do not agitate** containers as boiling or superheated liquids can explode if moved too quickly.

- ✗ **Do not fill** liquid containers more than 75% capacity to allow room for expansion.

