AUTOCLAVE SAFETY

- Autoclaves use high pressure, water and heat to create superheated steam to kill bacteria, viruses, fungi.
- Autoclaves can also be used to sterilize surgical instruments, media and other equipment.
- Sterilization relies on temperature, pressure and exposure time. Time will vary based on the container size, material and volume.

Water vapor transfers heat more efficiently than dry air and penetrates microbial cells more effectively than dry air.

<table>
<thead>
<tr>
<th>CYCLE</th>
<th>DETAILS</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry / Gravity</td>
<td>121°C, 30-90 min, 20psi</td>
<td>Glassware, pipet tips, surgical instruments</td>
</tr>
<tr>
<td>Liquid / Gravity</td>
<td>121°C, 20-90 min, 20psi (slow exhaust)</td>
<td>Media, water</td>
</tr>
<tr>
<td>Decontamination</td>
<td>121°C, 60-90 min, 20psi (slow exhaust)</td>
<td>Biohazardous waste</td>
</tr>
</tbody>
</table>

NEVER AUTOCLAVE THE FOLLOWING
- Bleach
- Radioisotopes
- Volatile chemicals (e.g. Alcohol)
- Toxic chemicals
- Corrosives
- Plastic not rated for >121°C

MANDATORY PPE
- EYE PROTECTION
- LAB COAT
- HEAT PROOF GLOVES
- CLOSED TOE SHOES

CONTACTS
For help with autoclaves please contact the following
- Antonio Alvarez – x4460
- Laboratory Safety – x8515
AUTOCLAVE SAFETY

**DO**
- Wear PPE at all times.
- Place materials in a secondary container.
- Use containers rated for over 121°C.
- Loosen the caps of vessels containing liquid.
- Only fill liquid containers half full.
- Open the autoclave slowly, standing behind the door.

**DON’T**
- Use an autoclave without training.
- Remove items without wearing protective gloves.
- Leave your items in the autoclave after the run is done.
- Autoclave without a secondary container.
- Stand directly in front of the door as it opens.
- Overfill the autoclave.

Secondary containers unable to withstand autoclave cycle temperature.

Explosion due to incorrect door closure.