



### Proper Use of a Steam Autoclave

Laboratories use autoclaves as a method to sterilize instruments, glassware or media. The lab can also use the autoclave to decontaminate waste before disposal. The chart and tips provided in this article can be used as a guide and reference for all personnel who use autoclaves. Safe use and operation of the autoclave will ensure that the desired outcome is achieved without an incident or injury.

Autoclaving Steps	Remember to.....	Typical Examples
<u>Material Preparation</u>	<input type="checkbox"/> Never Autoclave chemicals or radioactive material	
	<input type="checkbox"/> Inspect glassware for cracks or damage	
	<input type="checkbox"/> Loosely cap media containers (do not tighten)	
	<input type="checkbox"/> Place items in <u>heat-resistant secondary containers</u> – Polypropylene Trays	
	<input type="checkbox"/> Add 250ml of water to Biohazard autoclave bags to ensure steam penetration	
<input type="checkbox"/> Never leave biohazard waste unattended	<div style="border: 1px solid black; padding: 5px; width: fit-content;">Always use heat-resistant secondary containers</div>	

<u>Autoclave Loading</u>	<input type="checkbox"/> Wear personnel protective equipment (Lab coat, heat-insulated gloves, eye/face protection)		<div style="border: 1px solid black; padding: 5px;">Loading media into autoclave</div>
	<input type="checkbox"/> Do not over load—Leave sufficient room for steam circulation		
	<input type="checkbox"/> Inspect drain strainer and clean when blocked. Daily inspection is best		<div style="border: 1px solid black; padding: 5px;">Loading Biowaste into autoclave</div>
	<input type="checkbox"/> Close and latch the door firmly		

### Training

Most of EHSO's Trainings are available online. [ehso.emory.edu](http://ehso.emory.edu)

Rad Safety Training  
2nd Tuesdays at 10:00am (monthly)

Lab Safety Training  
3rd Thursdays at 10:00am (monthly)

### Chemical/ Radioactive Waste

#### Full Schedule here...

All **chemical** waste pick up should be requested by emailing [chemwaste@emory.edu](mailto:chemwaste@emory.edu)

All **radioactive** waste pick up should be requested via EHS Assist pick-up.

**Chemical** waste disposal inventory form and/or **radioactive** waste inventory form should accompany all waste containers at the time of pick-up.

### PPE

Choice to be based on potential exposures involved:

**Eye:** Glasses, goggles & face shields

**Gloves:** Appropriate for the type of procedure

**Clothing:** Gowns, lab coats, aprons, coveralls

**Respirators:** Appropriate for the type of procedure

# Proper Use of a Steam Autoclave (con't)

Autoclaving Steps	Remember to.....	Typical Examples
<u>Operating the Autoclave</u>	<ul style="list-style-type: none"><li><input type="checkbox"/> Choose the appropriate cycle for the material</li><li><input type="checkbox"/> Complete the autoclave user log (if available)</li><li><input type="checkbox"/> Check the cycle printout verify the temperature every load (250 degrees Fahrenheit or 121 degrees Celsius)</li><li><input type="checkbox"/> If there is a problem with the autoclave cycle, notify facilities, and record the problem on the autoclave user log</li><li><input type="checkbox"/> Only qualified professionals are permitted to make repairs to an autoclave. Contact your department's representative to schedule repair or service calls</li></ul>	 <p>Close and latch the autoclave door</p>  <p>Choose appropriate autoclave cycle</p>  <p>Check cycle printout to verify cycle temp...</p>

<u>Unloading the Autoclave</u>	<ul style="list-style-type: none"><li><input type="checkbox"/> Allow the autoclaved material to stand in the chamber for 10 minutes after cycle completes</li><li><input type="checkbox"/> Wear personnel protective equipment (heat-insulated gloves, lab coat, face shield)</li><li><input type="checkbox"/> Do not agitate or shake any autoclaved liquids. Never allow autoclaved biohazard waste bags to accumulate inside the autoclave room</li><li><input type="checkbox"/> Never transport super heated liquids.</li><li><input type="checkbox"/> Close the autoclave door and allow items to cool before transporting them</li></ul>	   <p>Wear lab coat, insulated gloves, and face shield to unload autoclave</p>
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## Eye Wash Testing

Eyewash Stations should be tested and documented once a month by lab personnel

## Certifications

Biosafety Cabinets, Geiger Meters and Chemical Fume Hoods Certifications are required annually.

## Fire Extinguishers

Visual fire extinguisher inspections conducted monthly:

- A. Is it present and mounted in its proper location?
- B. Is it readily accessible?
- C. Initial and date attached tag.

If it appears to need servicing contact the Maintenance HELP line at 7-7463

## Tell us how we are doing!

The newsletter has a new home. Every individual article is now hosted online at [blogs.emory.edu/labratnews/](http://blogs.emory.edu/labratnews/)

Got something to share? [Tell us!](#) Post comments, related articles/links, and safety concerns.

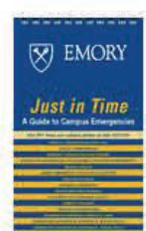
Feel free to also send your comments to [bi-ospace@emory.edu](mailto:bi-ospace@emory.edu).

We look forward to reading your ideas and comments!

## Building Liaisons

[Click here](#) to find your building's Radiation and Research liaisons.

# Proper Use of a Steam Autoclave (con't)

Autoclaving Steps	Remember to.....	Typical Examples
<p><u>Spills and Incident Response</u></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Wait until the autoclave has cooled to room temperature.</li> <li><input type="checkbox"/> If any liquid is present, contain the spill with paper towels or use your laboratory spill kit</li> <li><input type="checkbox"/> Dispose of the spill debris into the proper waste stream</li> <li><input type="checkbox"/> Report the spill and any release of biohazardous material to EHSO (including genomic DNA or recombinant/synthetic nucleic acids)</li> <li><input type="checkbox"/> If an injury occurs, perform first aid. Then, seek medical attention: Employee Health Services (8am to 4pm—Room D219 in Emory Univ. Hospital) or the University Emergency Room</li> </ul>	 <p>Contain spills and discard materials into the proper waste stream</p>  <p>Use the Just in Time Flip Chart for spill procedures</p>

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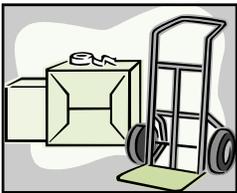
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## Is Your Lab Leaving Emory or Relocating to another Lab on Campus?



Prior to departing from an assigned research space, all labs are requested to contact EHSO to schedule a Lab Decommissioning meeting. During this meeting, our office provides a comprehensive overview of the decommissioning process. This meeting is an opportunity to discuss the safety requirements that apply to your lab move. Additionally, at the meeting, we review the Lab Decommissioning Guidelines and assist with identifying the various waste streams present in the lab. To schedule a Lab Decommissioning meeting, contact your designated Research Safety Building Liaison or call the EHSO main line (404-727-5922). Labs should also review the Lab Decommissioning Guidelines for detailed instructions. Visit the following link to access the Lab Decom-

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## Please Read—

Signature indicates: I have read and I understand the information in this issue of Lab Rat Newsletter. Use an additional sheet of paper for more signatures, if needed and attach to this document.

- This newsletter is a tool to help fulfill a legal requirement for ongoing safety training.
- Supervisors are responsible for ensuring that individuals in their area have read and understood the information that applies to their area.
- The signed newsletter should be placed into the PIs EHSO Lab Safety Binder.

## Signature Here

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