



# The Lab Rat NEWS

November 2013

## Laboratory Ergonomics By Heather Banta

When most people hear the word “ergonomics,” they immediately think of an office setting. However, ergonomics has many other applications and it applies to any worker, performing any task, in any work environment. The goal is to optimize the individual’s health and well-being, while improving overall system performance.

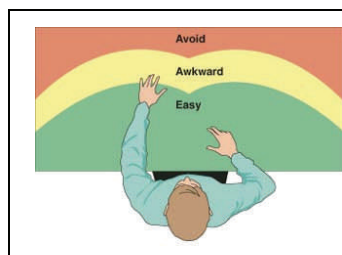
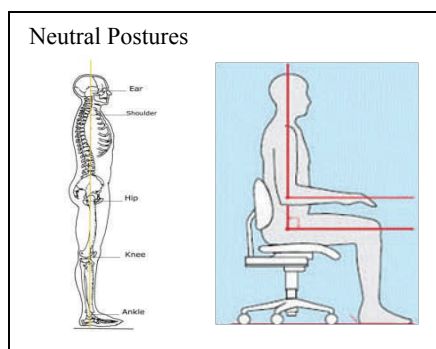
Research labs commonly focus on experimental efficiency, often times sacrificing proper ergonomic practices. Therefore, many tasks performed in laboratories can put workers at risk of aches, strains, and musculoskeletal disorders (MSDs). It is important for lab workers to understand ergonomic risk factors and how to control them in order to prevent injuries.

### Common Laboratory Ergonomic Risk Factors

- Static postures
- Repetitive motions
- Awkward postures
- Heavy, frequent, or overhead lifting

### Tips to Reduce Risk of MSDs:

- **Be aware of your posture**
  - Maintain a neutral posture, where the ears, shoulders, and hips are in the same plane.
  - Support your lumbar spine by sitting against the back of your chair with your feet supported by the floor or foot rest.
  - Adjust the position of your work so that you are sitting in an upright position with your arms supported.
  - Avoid the need to reach by keeping frequently used supplies within close reach.
  - If standing for long periods, wear supportive shoes and use anti-fatigue floor mats to reduce back and leg strain.
- **Keep arms and hands relaxed**
  - Maintain your wrists in a neutral position, as if shaking hands with someone.
  - Select equipment, such as pipettes or forceps, that is the right size for your hand.
  - Use light hand pressure.
  - Wear gloves that fit properly. Ill-fitting gloves can increase pinch and grip forces.
  - Avoid overreaching to use equipment or instruments.
- **Avoid static postures**
  - Keep moving!
  - Take frequent mini-breaks such as stretching or going for a quick walk.
  - Vary activities; change your position at least every 20 minutes.
  - If you are working at a computer screen, look away and focus on something in the distance every 5 minutes.
  - Alternate how you hold small objects, like forceps or pipettes.
- **Pipetting**
  - Use electronic pipettes whenever possible.
  - Do not twist or rotate your hand.
  - Hold the pipette with a relaxed grip.
  - Take a 1-2 minute break every 15 minutes.



### Training

Most of EHSO’s Trainings are available online. [www.ehso.emory.edu](http://www.ehso.emory.edu) for registration information.

**Radiation Safety Training**  
2nd Tuesdays at 10:00 am  
**Laboratory Safety Training**  
3rd Thursdays at 10:00 am

### Chemical/Radioactive Waste Pick-up Schedule

[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

## • Microscopy

- Pad hard edges where forearms rest on the desk or table.
- Keep elbows close by your sides.
- Elevate the microscope to avoid bending your neck.
- Every 15 minutes, close your eyes or focus on something in the distance.



## • Working in a chemical fume hood (CFH) or biosafety cabinet (BSC)

- Apply foam padding (must be sanitizable) to the front edge of the CFH/BSC.
- Ensure lights are working properly.
- Use an adjustable chair to make sure you are working at a height that prevents overreaching.
- Position materials as close to the front of the CFH/BSC as possible to prevent overreaching.
- Avoid clutter. Do not store items in the CFH/BSC.



## Reporting an Injury

If you are experiencing discomfort or have sustained an injury that you feel is related to work activities in your laboratory, submit an incident report via PeopleSoft (<https://hrprod9.emory.edu/>).

If you would like more information or would like to request an ergonomic assessment, please contact EHSO at [indhvg@emory.edu](mailto:indhvg@emory.edu).

### Picture Credits:

Standing neutral posture - <http://santispilates.com/category/posture/>

Sitting neutral posture - <http://www.romi.org/2012-0105>

Reach - <http://visn22.kramesonline.com/3,5,85589>

Pipeting - [http://www.labbulletin.com/labbulletin/view\\_profile/10#.UmlyCIOCWSo](http://www.labbulletin.com/labbulletin/view_profile/10#.UmlyCIOCWSo)

Microscope - <http://www.microworld.com/insan.htm>

BSC - <http://labds.com/products/fume-hoods/biosafety-cabinets/>

## Recent Updates and Changes

Research Safety recently added members to the group and adjusted the Building Liaison assignments for the laboratories. Your previous Research Safety Building Liaison or Radiation Safety Liaison may have changed. Review the list to ensure you contact the appropriate person for any laboratory safety or radiation safety related information or questions.



### New Research Safety Building Liaison Assignments

- **Rodrick Esaw** ([resaw@emory.edu](mailto:resaw@emory.edu)) - *Whitehead, Atwood, Emerson, Oxford*
- **Paula Pleger** ([ppleger@emory.edu](mailto:ppleger@emory.edu)) - *Winship B, Winship C, Emory Eye Center*
- **Rebecca Neill** ([rebecca.neill@emory.edu](mailto:rebecca.neill@emory.edu)) - *Rollins Research Center*
- **Andy Cohen** ([amcohen@emory.edu](mailto:amcohen@emory.edu)) - *Claudia Nance Rollins, Math & Science, Briarcliff, Carlos Museum*
- **Meagan Fitzpatrick** ([meagan.fitzpatrick@emory.edu](mailto:meagan.fitzpatrick@emory.edu)) - *Midtown CTRL, Emory Children's Center, Dental Building, Michael Street Greenhouse, Health Sciences Research Building (HSRB)*
- **Richard Hasse** ([rhasse@emory.edu](mailto:rhasse@emory.edu)) - *Anthropology, Wesley Woods Health Center, Psychology*
- **Michele Edenfield** ([michele.edenfield@emory.edu](mailto:michele.edenfield@emory.edu)) - *Yerkes Primate Center*
- **Dionna Thomas** ([dgilb01@emory.edu](mailto:dgilb01@emory.edu)) - *Woodruff Memorial Bldg, Woodruff Extension Bldg., Hope Clinic, North Decatur Human Genetics, Human Anatomy Labs, Ponce Center, Medical Office Tower (Midtown)*

### New Radiation Safety Building Liaison Assignments

- **Paula Pleger** ([ppleger@emory.edu](mailto:ppleger@emory.edu)) - *Clinic B, Clinic C, Yerkes*
- **Rebecca Neill** ([rebecca.neill@emory.edu](mailto:rebecca.neill@emory.edu)) - *Rollins Research Center, N. Decatur Human Genetics Bldg.*
- **Andy Cohen** ([amcohen@emory.edu](mailto:amcohen@emory.edu)) - *Woodruff Memorial Bldg, Claudia Nance Rollins, Emerson/Atwood, Math & Science*
- **Richard Hasse** ([rhasse@emory.edu](mailto:rhasse@emory.edu)) - *Whitehead, Anthropology, Dental, Health Sciences Research Bldg (HSRB), Emory Children's Center (ECC)*

## Eye Wash Testing

Eyewash Stations should be tested 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 [biosafe@emory.edu](mailto:biosafe@emory.edu).

We look forward to reading your ideas and comments!

## Building Liaisons

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

# We Need You!

## Be a part of the **GREEN LAB**



# PILOT!



☆ The **Green Lab Program** was developed as a collaborative effort between EHSO, Sustainability Initiatives, Campus Services and Procurement. We are ready to test the program and need your help to implement elements of the Green Lab Program!

☆ If your lab is interested in becoming more sustainable by participating in the pilot, submit your information [here](#).

☆ Green Lab Pilot laboratories will be eligible to receive funding to assist with purchasing sustainable lab supplies and products.

**Deadline to submit info to be a pilot lab is December 9<sup>th</sup>, 2013.**



### **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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