



Acadia University

Laboratory Policies & Procedures

School of Kinesiology
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General Laboratory Safety

When working in a laboratory environment it is very important that safety is ALWAYS your first concern. Laboratories can become very dangerous workplaces when lack of knowledge and experience can contribute to health risks for both yourself and those around you. The risk of injury can never be totally eliminated from a laboratory environment, but it can be reduced by following the proper policies and procedures. When working in the laboratory please be sure to abide by the following rules and regulations:

- Make sure that you follow all the guidelines and instructions that your supervisor tells you.
- When working in the lab wear appropriate clothing (i.e. closed toed shoes and lab coats). Lab coats are especially important since they can provide valuable protection against very harmful spills and breaking glass.
- DO NOT eat, drink, smoke, take medication, or put on make-up in the lab.
- If you are working by yourself do not attempt to undertake hazardous procedures. Wait for assistance.
- Be sure that you are familiar with the Acadia University emergency action plan. Know the location of the emergency shower, eyewash station, first aid kit, AED, fire extinguisher, and emergency exits.
- If a chemical spill does occur and you are unsure of the proper clean-up procedure, STOP and call your supervisor. It is important to know how to clean-up the chemicals that you are working with before beginning your work.
- Never attempt to fix electrical equipment by yourself; only authorized personnel are qualified to make such modifications. If a machine is not working properly call your supervisor and ned.kelleher@acadiau.ca.
- Before beginning your work make sure that you know how to operate the equipment you will be working with.
- When planning to begin a new experiment always consider the hazards that might occur and take the necessary precautions to reduce or eliminate these problems.
- Always report all known or observable hazards, incidents, or injuries to your supervisor, and be sure to complete any necessary forms.

Housekeeping

Good housekeeping in a laboratory can reduce the risk of injury.

- Keep hallways and doorways clear.
- Turn off ALL electronic devices used in the labs when finished.
- Ensure heart rate monitors are rinsed off after use. Let straps hang to dry.
- Store chemicals in appropriate cabinets, refrigerators, or storage rooms to ensure proper segregation.
- Always use the sharps disposal container.
- Clean up all spills immediately.
- Keep the lab free from clutter. Clean up work surfaces when finished.
- Use the shelves provided to store book bags, coats, and personal belongings.
- Store glass bottles in their correct manner.
- If you dirty dishes, wash them and leave them to dry. When they are dry put them away in the proper cabinet.

General Laboratory Procedures

Cleanliness and Tidiness

When you enter the lab leave your belongings in the shelves. Instruct others that are with you to do the same.

- Leave equipment and workspace as found. If you make it dirty, clean it up.
- Clean and sterilize equipment after use, and be sure to come back and put away the dried equipment.
- If you see something that needs to be cleaned, then clean it. Don't wait for someone else to do the work for you.

Breakages and Malfunctions

Everyone MUST report all breakages and malfunctions. In the first instance, inform your supervisor and then the technical staff (ned.kelleher@acadiau.ca), and also place a sign on the equipment to let other lab users know there is a problem. Sign and date this.

Ordering New Supplies

When any lab supply is beginning to get low please contact Ned Kelleher (office in AAC 385B or contact by email ned.kelleher@acadiau.ca).

- When placing an order make sure that you know the specifics of what you are ordering (size, amount, identification number, etc.) If you are not sure about how much to order contact your supervisor.
- Do not wait until you have run out of supplies to place an order. If you notice that quantities are getting low tell ned.kelleher@acadiau.ca.

Computers

Do not install new software on the computers without informing ned.kelleher@acadiau.ca.

- Do not use the computers in the lab as storage space. Take the files you need to your own computer. Do not leave files on a computer in the lab without filing them in a folder with your name. Occasionally the hard drives will be cleaned and files with no clear purpose will be deleted.



- Power down all computers after use.
- Return all software CD's to the drawer in the Exercise-Physiology lab after use.

Emergency Procedures

Lab users should be familiar with the locations of safety and emergency equipment such as fire extinguishers, fire alarms, first-aid kits, emergency telephones, exits and the Acadia University Evacuation Plan.

- Instructions for the *Acadia University Emergency Phone Numbers and Procedures* is posted in AAC 391, AAC 395 and AAC 396.
- Phone numbers for all Faculty members are posted in the Exercise-Physiology lab (AAC 396).
- The first-aid kits and fire extinguishers are located in clear view in AAC 391, AAC 395 and AAC 396.
- Showers for washing emergency chemical spills are located outside the door of the chemical storage room and in the Exercise Physiology (AAC 396) vanity room.
- The eye-wash station is located outside the chemical storage room in Exercise Physiology (AAC 396) .

Fire Instructions

If a fire is discovered in the building:

- Sound the alarm by tripping a manual Pull Station while exiting
- Evacuate the building in an orderly manner, to a designated safe holding area away from the building and fire lanes
- DO NOT USE ANY ELEVATORS
- Report the fire by calling 7-911 from a safe location
- Give the building name and location of the fire
- Report the fire to Safety & Security by calling 585-1103; if safe to do so
- If corridors are smoke filled and exiting is dangerous, find safe shelter and contact Security by dialing 585-1103, advising of your location and condition.
- If special assistance is required to evacuate the building due to physical limitations, find safe shelter and contact Safety & Security by dialing 585-1103, advising of your location and condition.

If the alarm sounds:

- Evacuate the building in an orderly manner, to a designated safe holding area away from the building and fire lanes
- DO NOT USE ANY ELEVATOR
- If corridors are smoke filled and exiting is dangerous, find safe shelter and contact Security by dialing 585-1103, advising your location and condition
- Report any pertinent information to Emergency Responders (Security, Fire, EMS)
- If special assistance is required to evacuate the building due to physical limitations, find safe shelter and contact Safety & Security by dialing 585-1103, advising of your location and condition.

Important:

- Fire alarm and fire protection equipment is to be used only in the case of fire or other emergency. Tampering with fire protection equipment or falsely initiating a fire alarm is punishable under the Criminal Code of Canada.
- Following an evacuation, no one shall enter the building until informed to do so by a member of Acadia University's Safety & Security staff.
- **NOTE:** Silencing of the alarm bells does not indicate that it is safe to enter the building!
- The nearest **Fire Alarm Pull Station** is located on the wall across from the Student Lounge. There are two more Fire Alarm Pull Station's. One is outside of Kim Vaughan's office. The other is on the wall of the landing half way up the stairs to the second floor.

The nearest **EXITS** are:

- Out the main doors of the School
- Out the door by the Student Lounge, down the stairs and turn left. Exit out the Physical Plant office door
- Out any lab then turn right, down the hall and through the door to the Sports Complex. Then exit out the main doors by the ticket wicket/front offices

The nearest **Fire Extinguishers** are:

- On the central post of the Exercise-Physiology lab (AAC 396)
- On the central post of the Anatomy lab (AAC 395)
- On the back wall of the Motor Behaviour laboratories (AAC 391)
- On the wall by the AED across from the Student Lounge
- On the wall outside Kim Vaughan's office

LIFEPAK CR® Plus AED

The **LIFEPAK CR® Plus AED** is located on the wall across from the Student Lounge. The **LIFEPAK CR® Plus AED** is fully automatic, with a simple two-step process that gives the first person to respond to a SCA victim the confidence they need to help save a life. A responder only needs to:

- Turn on the device
- Apply the QUIK-PAK™ electrode pads to the victim

First Aid Kit

- The first-aid kits are located in clear view in AAC 391, AAC 395 and AAC 396.

Safety Considerations

- Loose clothing and long hair must be kept away from moving equipment.
- Closed-toed shoes must be worn when working in the lab.
- Always wear protective gloves when handling chemicals, glutaraldehyde, biological samples, and/or waste. Safety glasses may also be necessary.

Security

- Do not remove anything from the lab without permission.
- The lab doors can be dead bolted from the inside by turning knob on the closed door clockwise.
- The telephone in the Exercise-Physiology lab (AAC 396) can be used to call Safety and Security. Dial the last four digits of any number on campus to connect.

Information Line: 4636

Contact Security: 1103

- ALWAYS lock the laboratory door when leaving the area. Laptops and laboratory equipment are expensive, and can disappear quickly.
- Keep your valuables safe while working in the lab.



- Do not leave stopwatches and heart rate monitors lying around the lab. They disappear quickly too!

Laboratory Booking Procedures

If you would like to book one of the labs please contact Ned Kelleher (office in AAC 385B or contact by email ned.kelleher@acadiau.ca).

- Please book as far in advance as possible to prevent conflict and disappointment. The labs work on a first come, first serve basis.
- Provide an approximate time that will be needed for the lab and the equipment necessary. Be sure to account for preparation, calibration, and clean-up time.
- Inform ned.kelleher@acadiau.ca of any equipment that you will require, and do this ahead of time so that Ned can arrange for that needed equipment to be available. It will be more difficult for him to do that if you tell him the day that you need it.
- Cancel booking as early as possible if your circumstances change.

Cleaning and Sterilizing Equipment

Polar Heart Rate Monitors

- DO NOT immerse the transmitter in water. Rinse under hot water, wipe down with paper towel and leave to dry. The receiver (wristwatch) should be wiped down with paper towel.

What is Glutaraldehyde?

Glutaraldehyde is a hazardous chemical used for cold sterilization of testing, medical and dental equipment. Glutaraldehyde based products are effective sterilants and disinfectants for test, medical and dental devices that cannot be steam sterilized and are particularly heat-sensitive. It is a colorless, oily liquid with a pungent odor. As a cold sterilizer it is commonly used as a 2%-4% aqueous solution. In the lab, the ready to use solution for immersion disinfecting and cold sterilization has 2% glutaraldehyde.

Control Measures

Glutaraldehyde should be used in an area that is properly ventilated. All storage and handling of 2% glutaraldehyde will be done under the fume hood in room AAC397.

Personal Protective Equipment and Emergency Equipment

Workers should wear appropriate PPE designed to protect skin, eyes and clothing from splashes when disinfecting instruments with glutaraldehyde solutions. A lab coat and splash-proof goggles should always be worn when working with glutaraldehyde solutions. Skin should be protected from contact with glutaraldehyde. Gloves impervious to glutaraldehyde, such as nitrile or butyl rubber, should always be worn if there is any possibility of contact with the solution.

An emergency eyewash unit is located within 10 seconds travel time of the glutaraldehyde usage location; AAC 397.

Read page 7 and pages 15-17 of the *Best Practices for the Safe Use of Glutaraldehyde in Health Care*, OSHA, 2006.

Sterilization Procedure:

- Wear appropriate PPE designed to protect skin, eyes and clothing from splashes when disinfecting components (2-way mouthpiece, T-connector and nose clip).
- Disassemble the 2-way mouthpiece and T-connector. Rinse all components (2-way mouthpiece, T-connector and nose clip) with cold tap water from lab sink.
- Get 2% glutaraldehyde bath container from fume hood. Open cover. Immerse all components (2-way mouthpiece, T-connector and nose clip) in the 2% glutaraldehyde bath container.
- Close cover.
- Place the 2% glutaraldehyde bath container under fume hood for at least 45 minutes.
- Fill water bath container with cold tap water from lab sink.
- While under fume hood, remove all components (2-way mouthpiece, T-connector and nose clip) from 2% glutaraldehyde bath container and carefully transfer to water bath container. Close 2% glutaraldehyde bath container and leave under fume hood. Close water bath container.

- Rinse all components (2-way mouthpiece, T-connector and nose clip) with cold tap water from lab sink.
- Let all components (2-way mouthpiece, T-connector and nose clip) air dry on the counter.
- Empty and thoroughly rinse the water bath container and let air dry on the counter

Sweat

- Sweat on equipment and floor is to be wiped away with paper towel. There are bottles with 90% H₂O--10% bleach over by the sink in the wet lab area of the Exercise-Physiology lab. This should be done at the end of every testing session.

Blood Draws and Spills

- All blood draws are to be done by [Professor Jana Wentzell](#). NO exceptions!
- All personnel involved in blood handling are required to wear latex gloves. All blood spills should be wiped away with the 90% H₂O--10% bleach solution.
- Any items involved in blood/body fluid sampling are to be deposited in biological waste containers.
- All sharps are to be deposited in sharps containers.

Laboratory Waste Disposal

Sharps

- All sharps must be deposited into the sharps containers that are provided in the lab. No other waste should be placed in those containers.
- Full sharps containers are boxed, taken to the new Biology building ([Hélène d'Entremont](#)) and autoclaved. Contact ned.kelleher@acadiu.ca and he will have the full sharps container autoclaved then contact Physical Plant to collect it for incineration in Moncton.

Biological Waste

- All (non-sharp) waste items are to be placed in the special garbage cans marked Biohazard Waste. These items include: alcohol swabs, soiled tissues, wipes, syringes, etc. Unsoiled items must NOT be placed in these bags.
- When these bags are full they should be tied. Contact ned.kelleher@acadiu.ca and he have the biohazard bag autoclaved in the new Biology building.

Paper and General Waste

- There is a blue waste container for paper in the Exercise-Physiology lab.
- All other waste must be placed in the garbage bins. Do not mix this waste with the biological waste.
- This waste will be emptied by the cleaners.