

Beaumont

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Area Laboratory-Safety
Applicability All Beaumont Hospitals

Laboratory Electrical Safety Related Work Practices

Document Type: Policy

I. PURPOSE AND OBJECTIVE:

- A. The potential for electrical hazards exists in all laboratories and administrative areas. Safety for an individual using any electrical equipment is achieved by achieving proper grounding and by inspection of all electrical equipment and electrical cords at time of use. Adherence to electrical safety policies is essential to prevent injuries, including shock, fire, or burns.
- B. This policy outlines the procedure for all employees to use to be kept safe while using electrical equipment.

II. POLICY STATEMENT:

- A. Laboratory personnel shall be trained in electrical safety practices as personnel face the risk of electrical shock (i.e. equipment, systems, etc.).
- B. Laboratory personnel shall check equipment prior to use.
- C. Refer to [Medical Equipment Management Program: General Safety Precautions](#)

III. PROCEDURE:

- A. **Emergency:** In case of an **electrical fire or smoke is visible:**
 1. Personnel are to pull the fire alarm.
 2. If possible, disconnect the power to the equipment.
 3. Use the proper fire extinguisher (ABC dry chemical) to extinguish a small fire.
 4. Contact Security to coordinate area.

B. General

1. Do NOT use equipment if it causes smoke, tingling, sparks, burning odor, or if performing suspiciously.
2. Employee MUST stop using equipment immediately. Report incident to Security, contact Facilities Maintenance, a Manager/Supervisor and/or safety officer.
3. If possible, unplug equipment.
4. Tag out the equipment using the Repair Request Forms. Refer to [Medical Equipment Management Program: Repairs](#) for additional information.

C. First Aid

1. If victim is still being exposed to electrical current, immediately contact Facilities Maintenance for immediate shut off. Do NOT touch the victim until electrical current has been shut off.
2. If victim is not breathing, immediately contact the site Rapid Response Team (RRT) or operator to contact RRT.
3. Contact Security to coordinate area.

D. New Electrical Equipment

1. All incoming electrical equipment brought into the Corewell Health laboratories must have an electrical safety check performed before being put into use. Refer to [Medical Equipment Management Program: Incoming Equipment](#). Contact Facilities Maintenance.
2. Employee owned electrical equipment is not permitted in the laboratory areas unless it is approved by a department Manager/Supervisor and it passes an electrical safety inspection by Facilities Maintenance. Refer to [Medical Equipment Management Program: Privately Owned Electrical Equipment](#)
3. Refer to [Safe Use of Non-Medical Equipment](#) for additional information.

E. Electrical Cords, Extension Cords, Plugs

1. Refer to [Medical Equipment Management Program: Relocatable Power Taps \(RPTs\) and Extension Cords](#).
2. All employees must conduct a visual inspection of all equipment and electrical cords before use.
3. Care should be taken when removing cords/plugs from outlet receptacles. Do not stress cords by stretching or pulling plugs from receptacles by jerking on the wire. Grasp the plug.
4. Frayed or damaged electrical cords, extension cords or equipment must NOT be used. Have these repaired or replaced. (See "Repair of Equipment" below)
5. Arrange equipment cords and cables away from foot traffic, and keep them off stairs and out of aisles. Power cords must NOT be placed across pathways. In an emergency situation, power cords that are temporarily placed across pathways should be positioned in a "Floor Duct Cord Protector" by Facility Maintenance.

6. Use equipment with grounded (3-wire) cords, or double insulated protection. Do not use equipment designed solely for home or light duty use. Two-wire extension cords and three-prong to two-prong adapters (cheater plugs) are prohibited.
7. Do NOT break off the ground prongs on electrical plugs or use equipment with missing ground prongs.
8. Do NOT use multiple (3-way) add-on plugs to increase the amount of equipment on a service outlet. Do NOT construct a wire "octopus/daisy-chain" by using multiple connected power cords or strips. Instead look for alternative outlets or report the need for more circuits to manager.

F. Repair of Equipment

1. Employees are to follow [Lock Out/Tag Out](#) to remove defective electrical equipment from use.
2. Employees are to complete the Repair Request Form and place it visibly on the equipment for users to see. Do NOT operate equipment that has a tag attached and do NOT remove a tag. Refer to [Medical Equipment Management Program: Repairs](#) for additional information.

G. Fuses

1. Manipulating any equipment fuses must be done under strict direction from the manufacturer.
2. Do NOT manipulate any fuses involving Corewell Health electrical outlet, lines, etc. Contact Facilities Maintenance.

H. Water, Chemicals, Clutter

1. Keep cables and cords protected from oil, chemicals, hot or sharp objects. Do NOT place liquids on top of or near electrical equipment.
2. Keep electrical cords and equipment at least six (6) inches off the floor, in case of flooding.
3. Use only dry hands when plugging or unplugging electrical cords or working with electrical equipment that is plugged in.
4. Do NOT place anything on top of electrical cords.

IV. REFERENCES:

- A. [Medical Equipment Management Program: Privately Owned Electrical Equipment.](#)
- B. [Medical Equipment Management Program: Incoming Equipment.](#)
- C. [Energized Electrical Work and Arc Flash](#)
- D. [Medical Equipment Management Program: General Safety Precautions](#)
- E. [Medical Equipment Management Program: Repairs](#)
- F. MIOSHA Part 37 – Accident Prevention Signs and Tags
- G. MIOSHA Part 40 – Electrical Safety Work Practices

- H. 29CFR1910.147 – OSHA Standard Control of Hazardous Energy (Lockout-Tag Out)
 - I. Medical Equipment Management Program
 - J. Lock Out/Tag Out
 - K. Safe Use of Non-Medical Equipment

Approval Signatures

Step Description	Approver	Date
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