



Albert Einstein College of Medicine

Fire Safety Manual

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I. Purpose

Fire emergencies can be a very real threat to our students, faculty, and staff. Building designers plan for fire safety in the construction and renovation of the buildings on campus. Each person must be aware of the fire protection features of their building and be careful not to undermine their effectiveness. In addition, occupants must practice fire safety to identify hazards and prevent emergencies. Our buildings may be constructed to the highest standards, but they can only be as safe as the behavior of its occupants.

The Department of Environmental Health and Safety at Einstein is responsible for fire safety on our campus as well as a number of off-site clinics. The primary objective in fire safety is fire prevention. To accomplish this objective, fire safety information is compiled in this manual and made available to everyone. Knowing what to do in the event of a fire situation is the key element for one's own safety and the safety of others.

Fire prevention measures are proposed to reduce the incidents of fire by eliminating opportunities for ignition. This is to be accomplished as part of an ongoing program of training and indoctrination for all building occupants. Personnel must be made aware of the actions required of them should an actual fire occur. This manual will provide the practical information you will need to initiate fire safety procedures and contain a fire until the arrival of the Fire Department.

Fire is the third leading cause of accidental death in the United States and most people choose to ignore it. Our objective is to prevent fires by eliminating the hazard. With training and the practice of safe work habits, along with some common sense, we can ensure a safe environment for all of us at Einstein.

II. Scope

The procedures outlined herein apply to all Einstein faculty, staff, and students.

III. Procedures

III.A. General

III.A.1. How Fires Start

Fire is a chemical reaction involving the rapid oxidation or burning of a fuel. The process needs three components to occur and sustain it. They are:

Fuel – Fuel can be any combustible material, solid liquid or gas. These can be paper or cloth, flammable liquids such as oils, alcohol, and gases such as acetylene and LPG.

Oxygen – The air that we breathe is approximately 21% oxygen. Fire only needs an atmosphere with about 16% oxygen.

Heat – Heat is the energy necessary to raise the temperature of fuel where sufficient vapor is given off for ignition.

Chemical Reaction – A chain reaction can occur when these three elements are present in the proper proportions and conditions. Take any one of these factors away and fire cannot occur. The aim of fire prevention is to reduce or eliminate the likelihood of all these conditions to exist together.

III.A.2. How Fires are Classified

CLASS A – Ordinary combustible or fibrous materials such as: wood, paper, cloth, rubber and some plastics

CLASS B – Flammable or combustible liquids such as: gasoline, kerosene, paint, paint thinners and alcohols.

CLASS C – Energized electrical equipment such as: appliances, switches, panels, transformers, wiring and power tools.

CLASS D – Combustible metals such as: magnesium, titanium, potassium and sodium. These metals burn at very high temperatures and give off oxygen to support combustion.

CLASS K – A relatively new classification restricted to fires in cooking appliances, involving combustible cooking media such as: vegetable or animal oils and fats.

III.A.3. How to Use an Extinguisher

Determining the class of a fire is important to note when there is to be an attempt to contain and extinguish a fire. Extinguishers must be selected according to the potential fire hazard present. Each extinguisher will have a label identifying the class of fire on which it will be effective. These labels will have the designation plus a brief description on how it is to be used.

Please take the time to locate the fire extinguisher closest to your area and identify and read these instructions prior to a fire situation occurring. If the need for an extinguisher should arise, this is not the time to figure out how to use it.

In deciding to fight a fire, you need to determine a few things. First, if there is a fire extinguisher with the proper fire rating and classification available; second, the size of the fire; anything more than a wastebasket is probably too large; third, the amount of firefighting ability needed to address the situation. If you are not completely confident, close the door to the fire area, evacuate and activate the fire alarm.

Remember the Acronym PASS:

Pull the Pin.

Aim the Extinguisher nozzle at the base of the Fire.

Squeeze the handle while holding the Extinguisher upright.

Sweep from side to side covering the fire with extinguishing agent.

III.A.3(a) When Attempting to Extinguish a Fire

1. Activate the nearest fire alarm.
2. Make certain that the Fire Department is notified.
3. Have the proper, working extinguisher, and know how to use it.
4. Approach the fire with your back to an exit to ensure a way out.

Remember, if your path of escape is being threatened, if the extinguisher is running out of agent, or should the extinguisher prove to be ineffective and you can no longer safely fight the fire, leave the area immediately.

III.A.3(b) Extinguisher Locations

Fire extinguishers are located throughout the Einstein Campus and can be found mounted on walls or in wall cabinets. You will always be near an extinguisher. Make sure you are aware of the location and type of extinguisher closest to your work place.

Each laboratory is equipped with a dry powder extinguisher. Additional extinguishers are in the passageways of all Einstein buildings. If you feel the need for additional fire extinguishers due to the nature of your work, please contact the Department of Environmental Health & Safety at X2031.


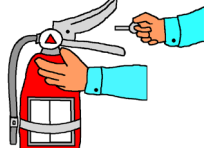

III.A.3(c) Types of Extinguishers

There are a variety of extinguisher types in use around the Einstein Campus, each having its designation labeled on it. Pressurized Water, Dry Chemical, CO₂, and Ansul Extinguishers are in areas where the type is most appropriate. Pressurized Water and Dry Chemical are the most common extinguishers found and the ones which will be most familiar to you. They are in all passageways and all laboratories at Einstein. CO₂ Extinguishers are generally found in equipment rooms, machinery areas, and electrical closets, while Ansul Extinguishers are found in Einstein cafeteria kitchen areas. Familiarize yourself with the type in your area and be aware of how it functions.

Typical Identification Labels

Pressure Water

Dry Chemical

<p>A WOOD TRASH PAPER B LIQUIDS GREASE C ELECTRICAL EQUIPMENT</p>  <p>INSTRUCTIONS</p>	<p>A WOOD TRASH PAPER B LIQUIDS GREASE C ELECTRICAL EQUIPMENT</p>  <p>INSTRUCTIONS</p>
<p>① HOLD UPRIGHT – PULL RING PIN.</p>  <p>② START BACK 8 TO 10 FEET. AIM AT BASE OF FIRE.</p>  <p>③ SQUEEZE LEVER. SWEEP SIDE TO SIDE.</p> 	<p>① HOLD UPRIGHT – PULL RING PIN.</p>  <p>② START BACK 8 TO 10 FEET. AIM AT BASE OF FIRE.</p>  <p>③ SQUEEZE LEVER. SWEEP SIDE TO SIDE.</p> 

III.B. In Case of Fire

Potential fire situations are divided into two categories, both of which must be reported immediately.

Odor of Smoke

The smell of smoke may be a sign of a developing fire.

What to do:

1. Ask other people, "Do you smell smoke?"
2. Have others help you to locate the source of the odor.
3. Immediately call ext. 4111; report that you smell smoke and give the location. Safety Officers, Security, and Engineering Personnel will be dispatched to investigate.

Many times, the odor of smoke is nothing more than a hot appliance or something that can be easily corrected without a fire department response.

Visible Smoke or Fire

In the event your search results in the discovery of visible smoke or fire.

What to do:

1. Call ext. 4111, give your name and exact location of Smoke or Fire.
2. Activate a Fire Alarm Pull Station.
3. Alert your coworkers and assist any persons who may be in direct danger.
4. If the fire is small enough (no bigger than a waste basket), attempt to confine and extinguish it with one of the extinguishers. If you feel the fire is beyond your control, DO NOT attempt to extinguish.
5. Evacuate floor via the stairs, closing doors behind you to contain the fire.

IN THE EVENT OF A FIRE, DO NOT USE ELEVATORS.

III.B.1. If You Hear a Fire Alarm

IN ALL EINSTEIN BUILDINGS, EXCEPT THE FORCHHEIMER BUILDING, YOU MUST EVACUATE WHEN YOU HEAR THE ALARMS.

In the Forchheimer building, the fire alarm bells ring in a coded sequence that identifies the location of the device that has been activated. The bells ring in groups of two or three numbers. Location bells will be separated by short pauses. There will be longer pauses to identify that the entire code is repeating. The location sequence will repeat four times.

When this sequence starts with a count of seven bells, that indicates an alarm in the Forchheimer Building and you must evacuate. If the sequence starts with any other number besides seven you do not have to evacuate.

In general, it is best to listen to the location code sequence at least two or three times. At the outset of an alarm, it is common for one to be caught off guard and miscount the bells. Begin counting after the first coded transmission is complete. This will ensure a proper count.

Alarm Signal 4 – 4 – 4 Non-Fire Evacuation

This is the coded sequence for complete evacuation of the building. Evacuation requires that occupants move in an orderly fashion to the closest fire exit. Supervisors and Alternates shall direct occupants to the stairwells. It is imperative that Supervisors/Alternates insist that no one use the elevators. Elevator shafts ventilate to the roof and act very much like chimneys, drawing the smoke in. The elevator car may get stuck because of loss of power due to the fire, or the car doors may open on the fire floor.

III.B.2. Fire Suppression Systems

Throughout the Einstein Campus you will find various fire suppression systems integrated into the building design. These systems include automatic sprinklers, standpipe systems, and clean agent systems. Clean agent systems will normally be found in environmentally controlled areas such as computer rooms, and in kitchen areas. Standpipe systems are found mostly in stairwells, although there are some located in the passageways. The standpipe systems at Einstein are strictly for Fire Department use only. NYC Code requires that these systems be equipped with a shutoff wheel, 125 feet of hose, and a nozzle. The amount of firefighting ability required to use this system effectively is substantial and not recommended for non-Fire Department use. If an extinguisher is not adequate for the job, activate a fire alarm and leave the area.

Automatic sprinkler systems can be found in some areas of almost all Einstein Buildings. Some are found in laboratories, in assembly areas, mechanical rooms, and in office spaces. Price, Golding, and the Gruss Buildings are fully sprinklered. Sprinklers provide us with the greatest degree of fire protection. In the event of a fire in an area with a sprinkler, the heat generated by the fire will activate a sprinkler head, which will distribute water. The automatic sprinkler is statistically the most effective system for suppressing, containing, and preventing the spread of fire.

III.B.3. Supervisors and Alternates

The fire safety plans for each building at Einstein utilizes a Supervisor/Alternates List for emergency procedures. The supervisors and/or alternates on each floor are responsible for providing fire safety information for that floor.

Supervisors and alternates should be aware of any conditions that could be of concern in a fire or emergency, keeping areas of egress clear and notifying the proper personnel when a condition exists. They should periodically check that the extinguishers in their area are in place and are being properly maintained and call EH&S at ext. 2031 if any discrepancies are found.

In the event of a fire alarm, supervisors and alternates shall ascertain the location of the fire and direct the evacuation of their floor. They shall ensure that all occupants are notified of the fire and proceed immediately to execute the fire safety plan. They will direct occupants to use stairwells for evacuation and quickly search the floor, including the bathrooms, so no one is left behind.

Supervisors and Alternates will take a head count and move people to a safe area. They must report any information or particulars about conditions on the floor to the Fire Command Station. This will be the Lobby Security Post unless conditions dictate otherwise.

Occupants must keep in mind that some areas in a few of our buildings are occupied by patients. Some may be elderly and in need of assistance. They could be partially dressed or unable to understand English. Pediatric patients may be too young to evacuate the building alone and unsupervised. Staff personnel from the treatment areas need to ensure that all patients in need are assisted and that they have accounted for everyone.

III.C. Fire Drills

Fire Drills are conducted periodically in all Einstein Buildings. Signs are posted to notify occupants well in advance of the drill. During the fire drill, employees will not be required to leave the building unless an evacuation notice is posted. Fire Safety in any building will only be effective if you are aware of the fire alarm procedures and the evacuation routes set forth. During an emergency it is easier to assist those who know what to do than to try to instruct people while instituting the Fire Safety Plan.

Know Where You Are

In any emergency, it is a good idea to Know Where You Are. Knowing your location with relation to your means of evacuation such as a stairway, fire tower, or fire escape, will be invaluable during an emergency. Take a few minutes to study the “You Are Here” map posted at the elevator lobby on your floor and locate the exit closest to you. Determine where the exit will bring you for safe evacuation. Be aware of where the fire extinguishers are and be familiar with how to use them.

III.D. Fire Safety Awareness

Follow these simple rules:

1. No Smoking. Smoking is prohibited in all Einstein Buildings.
2. In case of Fire, Do Not Use Elevators!
3. Never lock or obstruct an exit.
4. Do not chock open fire doors.
5. Do not use corridors for storage.
6. Know where your exits are.
7. Know where your fire extinguisher is.
8. Know where your fire alarm pull station is.
9. Know Where You Are.

III.E. Laboratory Fire Safety

III.E.1. Laboratory Fire Safety Equipment

Each laboratory is equipped with a dry chemical fire extinguisher, a fire blanket, and a hand-held or overhead safety shower. The safety showers are in the laboratories or in the corridors, within 25 feet of

the laboratory entrance. As an Einstein employee, you should familiarize yourself with the location and use of the fire safety equipment available to you.

III.E.2. Laboratory Fire Prevention

To renew operating permits and to ensure compliance with the Rules of the City of New York, Title 3, section 10-01, "Storage of Chemicals, Acids and Gases in College, University, Hospital, Research and Commercial Laboratories," each laboratory is inspected annually by the New York City Fire Department, Lab Safety Unit. Copies of RCNY 10-01 are available in the Safety Office, X2031.

With over 500 laboratories in and around the Einstein Campus, minor violations of RCNY 10-01 occur from time to time and Violation Orders are issued by the inspector against the laboratory involved. Below is a partial list of the most common violations cited:

1. Excessive storage of flammable chemicals. Most laboratories at Einstein are rated for a maximum of 20 gallons of flammables.
2. Flammable chemicals, mainly alcohols, stored in non-explosion-proof refrigerators.
3. Flammables and Acids not segregated in storage cabinets. Acids not stored on corrosive-resistant trays.
4. Chemicals stored on floors. Glass bottles stored on floors.
5. Laboratory gas cylinders not properly secured.
6. No date of opening noted for certain peroxide forming chemicals. If you need a list of peroxide forming-chemicals, visit the EH&S website at <http://www.einsteinmed.edu/ehs> or call X2031.
7. No person with a Certificate of Fitness for Laboratory Supervisor (C-14) issued by the Fire Department.

Procedures for obtaining a Certificate of Fitness are available by contacting EH&S at ext. 2031. All laboratory personnel are encouraged to apply for (C-14) Certification.

III.F. Fire Safety in the Workplace

We can reduce the incidents of fire in the workplace by following a few basic rules of safety. Fires can be caused by molten metals during torch cutting or brazing/soldering operations, also sparks and slag caused by welding or heat and sparks caused by grinding. These various ignition sources can come in contact with combustible materials in the area of operation and create a hazard. When cutting or welding in an area where a fire could develop, precautions need to be taken.

Portable fire extinguishers must be readily available. Whenever it is possible, operate with a helper as a fireguard. Take special care to prevent sparks or hot slag from reaching combustibles. Move the work or move the materials from the contact area. Cover combustibles that cannot be moved with a flameproof barrier.

If it is necessary to do "hot work" close to wood construction or near combustible materials that cannot be moved such as wood floors, station a fire guard with a portable fire extinguisher nearby to ensure that sparks do not lodge in floor cracks or pass through floor or wall openings. After work is completed, continue to monitor the worksite to ensure that a smoldering fire has not been started.

III.F.1. Personal Protection

The use of personal protective equipment during hot work operations is necessary. Arcs and gas flames used during hot work produce ultraviolet and infrared rays, which will harm the eyes and skin.

Ultraviolet light can burn the surface of the eyes and cause flash eye, which is painful and debilitating. Exposed skin may be severely “sunburned.” Infrared rays, if intense enough, can cause thermal burns to the skin as well.

Any process that heats metal above the melting point will produce fumes. Gases are generated from hot flux and reactions with the air. Dusts are produced from grinding or machining of metals and particles can become airborne through torch cutting. Personal protective equipment such as gloves, eye shields, dust masks, respirators, earplugs, and hard hats are made available to all Einstein employees wherever they are needed. More elaborate PPE is also available. Make sure you have the right protection for the job.

III.F.2. Other Considerations

When using a torch in a confined space, keep gas cylinders outside. Never use oxygen to clear or ventilate an area; use compressed air. Keep welding cables and gas hoses away from or bridged when exposed in passageways, stairways, and ladders. When working on scaffolds or platforms use safeguards such as tethers, safety belts, and lifelines. Make sure all rails are in place and equipment is secure.

III.G. Policies

III.G.1. No Smoking

Smoking is not permitted in any Einstein Building; this includes the stairwells and outdoor stair landings. To smoke, you must leave the building. Please be considerate of others and discard cigarette butts properly.

III.G.2. Corridor Storage

Storage of any combustible materials in corridors and passageways is prohibited. In instances where temporary storage is necessary, contact EH&S for approval. There are certain considerations made for non-combustible lockers in educational institutions. Anyone interested in utilizing these provisions must contact the Safety Office at ext. 2031 prior to any action. These provisions are made to keep hallways unobstructed in the event of an emergency.

III.G.3. Fire Alarms

Upon the discovery of smoke or fire, the fire alarm is to be pulled. Because of the potential for one to underestimate the seriousness of a fire condition, you are encouraged to activate an alarm.

When an alarm is heard, everyone is expected to respond. There is no way of determining if an alarm signifies a drill or a fire. Every alarm is to be treated as a potential fire emergency.

III.G.4. Fire Drills

Fire drills are conducted regularly in all Einstein Buildings. Advanced notice of dates and times will be given. All personnel are required to participate during drills to ensure an orderly evacuation in an emergency.

IV. Definitions

None.

V. Effective Date

Effective as of: 9 April 2018

VI. Manual Management and Responsibilities

Einstein's Department of Environmental Health and Safety is the Responsible Office under this Manual. Einstein's Associate Dean for Finance and Administration is the Responsible Executive. Einstein's Senior Director of Environmental Health and Safety is the Responsible Officer for the management of this Manual.

Appendix: Campus Map

ALBERT EINSTEIN COLLEGE OF MEDICINE Jack and Pearl Resnick Campus

CAMPUS ADDRESS:

1300 MORRIS PARK AVENUE, BRONX, NY 10461

NORTH CAMPUS

- PR** Price Center for Genetic and Translational Medicine/ Block Research Pavilion (1301 Morris Park Ave.)
- VE** Van Etten Building (1225 Morris Park Ave.)
- KE** Rose F. Kennedy Center
- RH** Rhinelander Residence Hall (1579 Rhinelander Ave.)
- EA** Eastchester Rd. Residence Complex (1925/1935; 1945 Eastchester Rd.)
- P** Parking Garage (1975 Eastchester Rd.)
- FA** Falk Recreation Center
- LE** North Campus Lawn East
- LW** North Campus Lawn West

SOUTH CAMPUS

- UL** Ullmann Research Center for Health Sciences
- FO** Forchheimer Medical Science Building, Gottesman Library, Max and Sadie Friedman Lounge
- BE** Belfer Educational Center for Health Sciences
- GO** Golding Building
- CH** Chanin Institute for Cancer Research
- RO** Robbins Auditorium
- MR** Gruss Magnetic Resonance Research Center
- CC** Central Courtyard
- LU** Lubin Dining Hall, Singer Faculty Club
- BL** Harold and Muriel Block Building
- H** Weiler Hospital (1825 Eastchester Rd.)
- BG** BODY Community Garden (1193 Pierce Ave.)



Rose F. Kennedy Center is located north of Van Etten, amid Jacobi Medical Center Buildings



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