

Science at the heart of medicine

Albert Einstein College of Medicine Fire Safety Training

Environmental Health and Safety
Forchheimer 800



Albert Einstein College of Medicine

Introduction

Fire emergencies can be a very real threat to our students, faculty, staff and visitors. Fire is the third leading cause of accidental death in the United States.

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.. Einstein buildings are constructed to applicable standards, but they are only as safe as the behavior of its occupants.



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Environmental Health & Safety

Environmental Health and Safety (EHS) at Einstein is responsible for fire safety on our campus. The primary objective in fire safety is fire prevention. To accomplish this objective, fire safety information is compiled in this training as well as the Fire Safety Manual and they are 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.



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Fire Prevention

Fire prevention measures are meant 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 aware of the appropriate actions to follow during an actual fire. This training will provide the practical information you will need to initiate fire safety procedures.



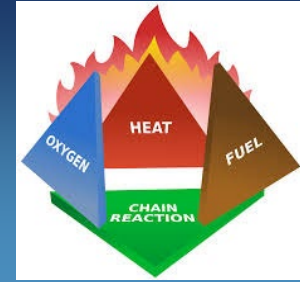
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FIRE CLASSIFICATION



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How Fire Starts













Fire is a chemical reaction involving the rapid oxidation or burning of a fuel. The process needs three components to occur and sustain it. These components 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 liquefied petroleum gas (LPG).
- **Oxygen** – The air that we breathe is approximately 21% oxygen. Fire only needs an atmosphere with approximately 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 the above 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 occurring together.

How Fire is 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 – Restricted to fires in cooking appliances, involving combustible cooking media such as vegetable or animal oils and fats.

		<p>Ordinary Combustibles</p>	<p>Wood, Paper, Cloth, Etc.</p>
		<p>Flammable Liquids</p>	<p>Grease, Oil, Paint, Solvents</p>
		<p>Live Electrical Equipment</p>	<p>Electrical Panel, Motor, Wiring, Etc.</p>
		<p>Combustible Metal</p>	<p>Magnesium, Aluminum, Etc.</p>
		<p>Commercial Cooking Equipment</p>	<p>Cooking Oils, Animal Fats, Vegetable Oils</p>

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FIRE EXTINGUISHERS



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Extinguisher Locations



- Make sure you are aware of the location and type of fire extinguisher closest to your work place.
- Fire extinguishers are located throughout the Einstein Campus and can be found mounted on walls or in wall cabinets.
- Each laboratory is equipped with a dry powder extinguisher. Additional extinguishers are in the passageways of all Einstein buildings.
- If you require additional fire extinguishers due to the nature of your work, please contact the Fire Safety Officer at ext. 3529.

Locate Your Fire Extinguisher

- Please take the time to locate the fire extinguisher closest to your work area and identify and read these instructions prior to a fire situation occurring.
- There is at least one fire extinguisher in each laboratory and no more than 75 feet apart in corridors.



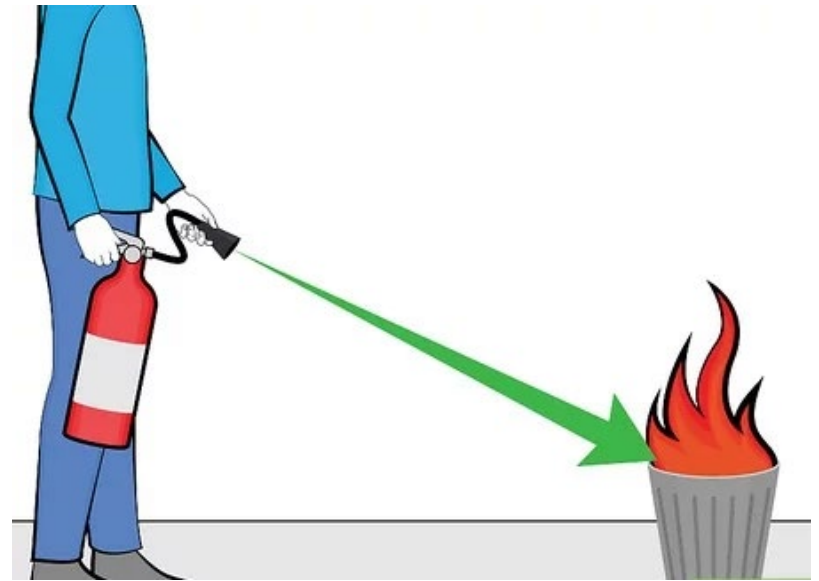
Fire Extinguisher Instructions

- Each extinguisher has a label identifying the class of fire on which the extinguisher will be most effective.
- These labels will also have a brief description on the proper use of the extinguisher.



Before Using a Fire Extinguisher

- In deciding to fight a fire, you need to determine a few things. Is there a fire extinguisher with the proper fire rating and classification available?
- How big is the fire? (anything more than a wastebasket is probably too large).
- What is the amount of firefighting ability needed to address the situation?
- If you are not completely confident; close the door to the fire area, activate the nearest fire alarm and evacuate.



How to Use a Fire Extinguisher

Remember the Acronym PASS

- **P**ull the pin.
- **A**im the extinguisher nozzle at the base of the fire.
- **S**queeze the handle while holding the extinguisher upright.
- **S**weep from side to side covering the fire with extinguishing agent.



Types of Fire 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
 - Carbon Dioxide (CO₂) - found in equipment rooms, machinery areas, and electrical closets.
 - Class K - found in the Einstein kitchen area every 30 feet.
- These fire extinguishers are located in areas where the type is most appropriate.
- Pressurized Water and Dry Chemical are the most common extinguishers. They are located in all passageways and all laboratories at Einstein.
- Familiarize yourself with the type of fire extinguisher in your area and how to properly operate it.

Types of fire extinguisher and their uses

WATER

Used on paper, wood, coal, cardboard and other solid fuel fires.



Solid Red

Can be used on:
Class A

FOAM

Used on solid fuel fires as well as flammable liquids.



Cream

Can be used on:
Class A
Class B

POWDER

Used on any kind of fire except for Class F cooking oils.



Blue

Can be used on:
Class A
Class B
Class C
Class D
Electrical

CO2

Used on flammable liquids and electrical fires.



Black

Can be used on:
Class B
Electrical

WET CHEMICAL

Used on cooking oil fires as well as combustible solid materials.



Yellow

Can be used on:
Class A
Class F



Class A

Combustible materials. These include paper, textiles, wood and similar materials.



Class B

Flammable liquids. These include petrol, oil and paint.



Class C

Flammable gases. These include butane and methane.



Class D

Flammable metals. These include potassium and uranium.



Electrical

Electrical goods. These include appliances in kitchens as well as computers, phones etc.



Class F

Cooking oils. These include chip pan fires and deep fat fryers.

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IN CASE OF FIRE



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When Attempting to Extinguish a Fire

- Activate the nearest pull station.
- Utilize the nearest fire extinguisher.
- Approach the fire with your back to an exit to ensure a safe way out.

NOTE: EH&S inspects all fire extinguisher on a monthly basis.



When Attempting to Extinguish a Fire (Continue)

- Leave the area immediately:
 - If your path of escape is being threatened.
 - If the extinguisher runs out of agent (do not get a second extinguisher).
 - If the fire extinguisher proves to be ineffective and you can no longer safely fight the fire.



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SMOKE



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Odor of Smoke

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.
 - Have others help you to locate the source of the odor.
- Immediately call x4111 (Security) and x4150 (EH&S); report that you smell smoke and give the location. EH&S, Security, and Engineering personnel will be dispatched to investigate.
- Commonly, the odor of smoke is a hot appliance or something that can be easily corrected without a response from the fire department.

Visible Smoke or Fire

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

- Call x4111 and x4150, give your name and exact location of smoke or fire.
- Activate a fire alarm pull station, located by the stairwell.
- Alert your coworkers and assist any persons, who may be disabled, to the stairwell.
- If the fire is small enough (no bigger than a waste basket) and comfortable to do so, attempt to confine and extinguish the fire with a fire extinguisher.
- If you feel the fire is beyond your control, **DO NOT** attempt to extinguish.
- Evacuate floor via the stairs, closing doors behind you to contain the fire.

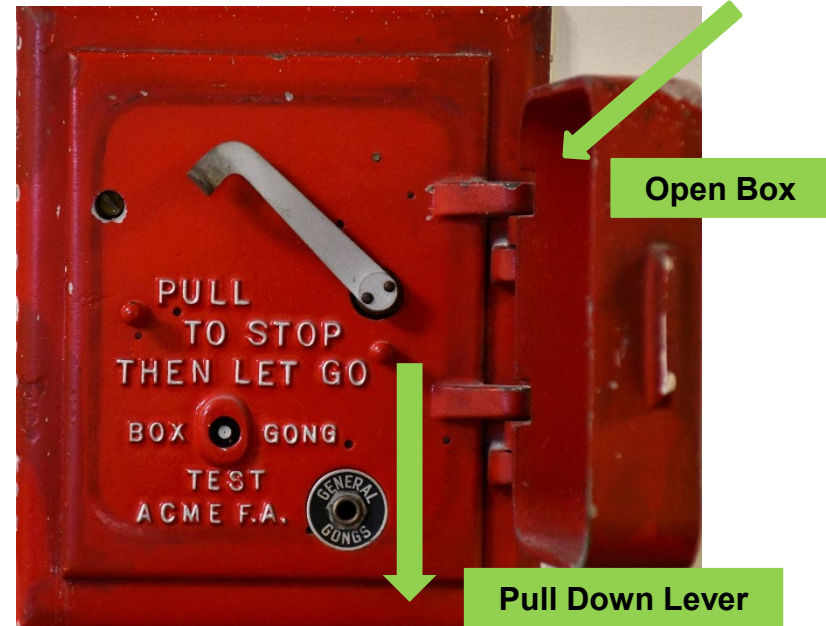
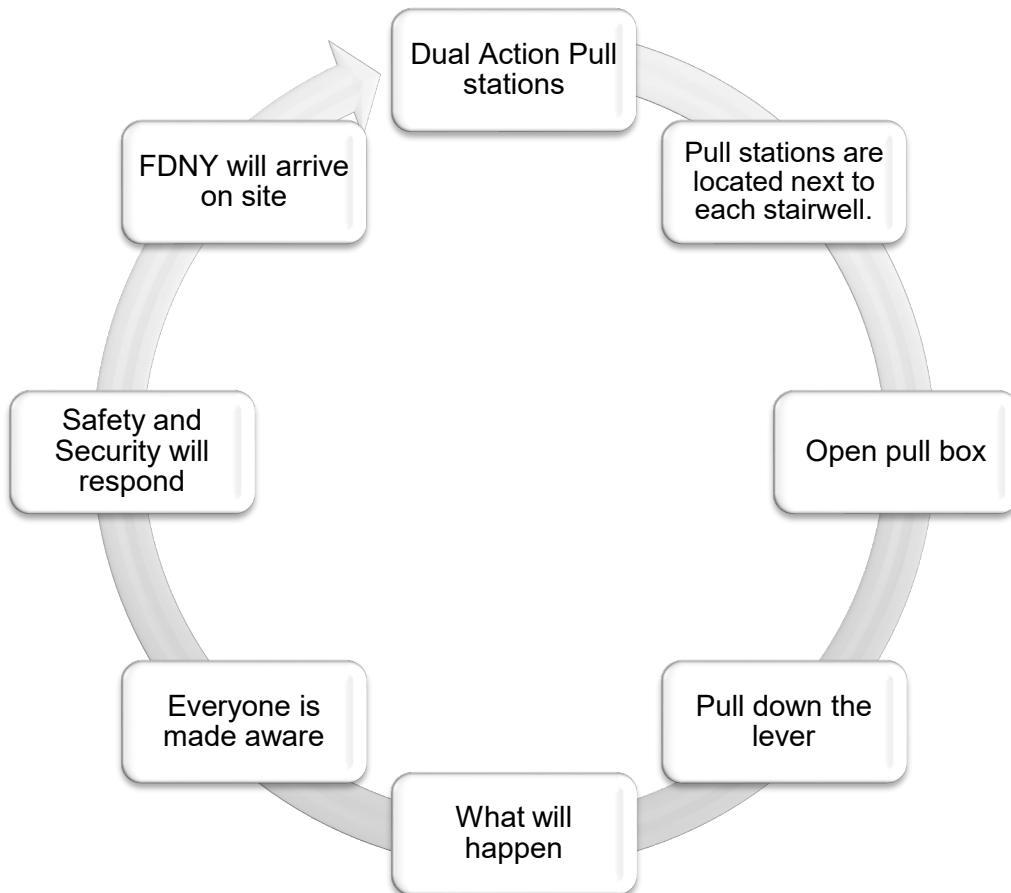
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FIRE ALARM



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Activating the Fire Alarm



If You Hear a Fire Alarm in Forchheimer Building

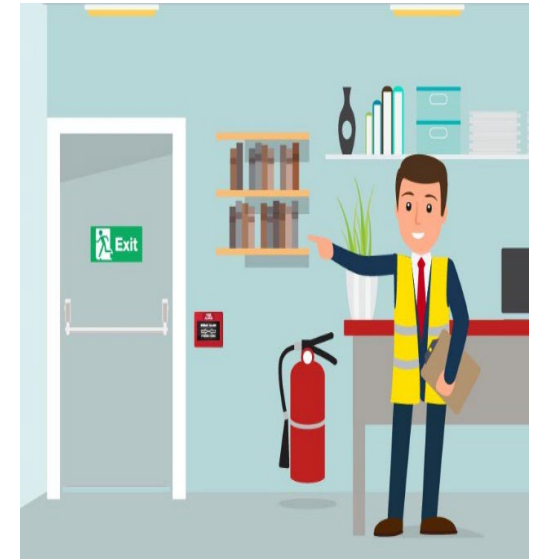
- The fire alarm bells will ring in Forchheimer for any activation in the Forchheimer, Ullmann, Chanin, Golding or Belfer buildings.
 - The alarm bells will ring in a coded sequence that identifies the location of the device that has been activated.
 - To locate the building/area of the alarm, count the bells.
 - The bells ring in groups of two or three numbers separated by short pauses.
 - There will be a longer pause to identify that the entire code is repeating.
 - The sequence will repeat four times.
- The count of seven bells at the beginning of the cycle indicates an alarm in the Forchheimer Building and Forchheimer personnel must evacuate.



Mandatory Evacuation Alarm Signal: 4 – 4 – 4



- The alarm code 4-4-4 is the sequence for complete evacuation of the building.
- Evacuation requires that occupants move in an orderly fashion to the closest exit.
- If Fire Emergency Wardens are available, they will direct occupants to the stairwells.
- **DO NOT USE Elevators:**
 - The elevator shafts ventilate to the roof and act like chimneys, drawing in smoke.
 - The elevator may lose power due to the fire.
 - The elevator doors may open on the fire floor.



In Case of Fire: Remember R. A. C. E.



Evacuating



Immediately Evacuate Your Area



Close Doors



Use Stairwell



Do not use the elevators.



If smoke or fire prevents you from using one means of escape, use another.

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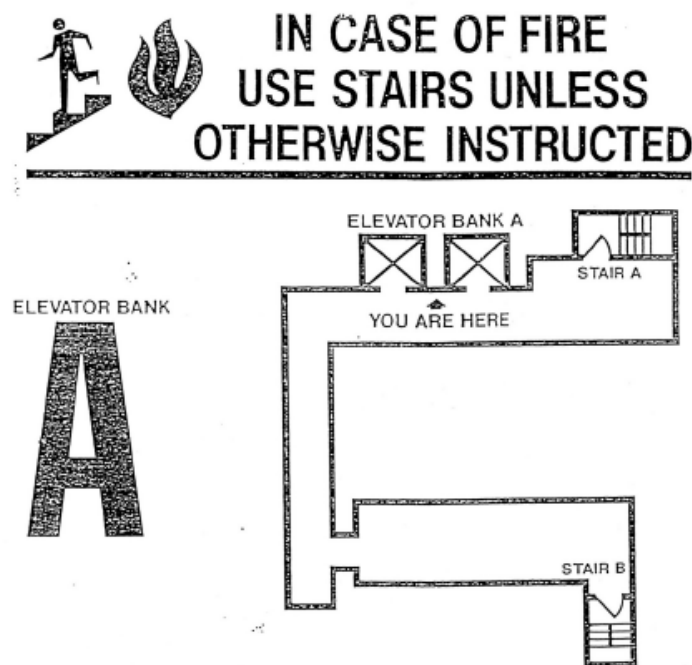
PLAN AHEAD



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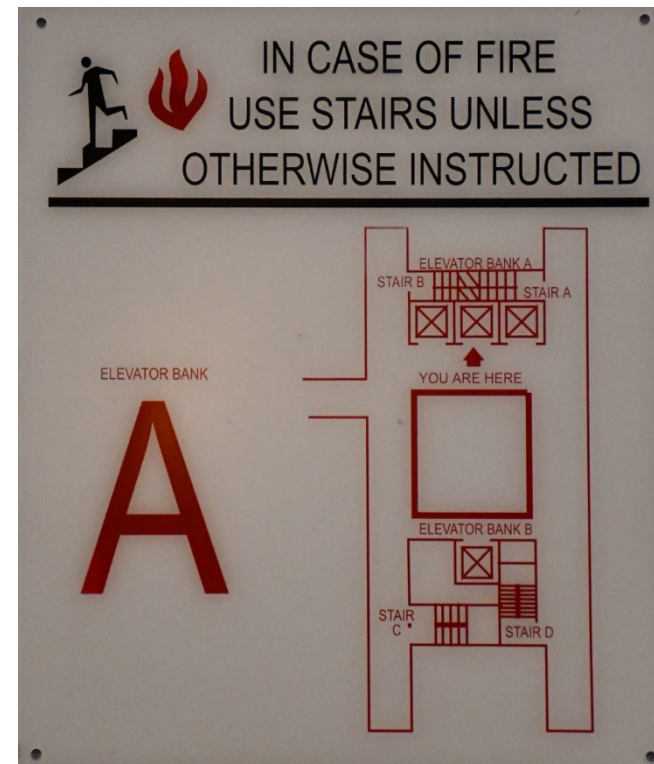
Planning Ahead

- Be familiar with all the various layouts of assigned floors, the emergency plan, and the location and operation of any available fire alarm system, fire protection equipment, and coded door locks.
 - Know the locations of fire extinguishers and fire pull stations
- **Note:** Pull stations are located by the stairwells



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 area.



EXIT SIGNS



Know the location of
your exits

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FIRE SUPPRESSION



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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
 - clean agent systems
- Clean agent systems will normally be found in environmentally controlled areas such as computer rooms and kitchen areas. Clean agent fire suppression use an electrically non-conductive, volatile, or gaseous fire extinguishing agent that does not leave a residue upon evaporation, most of these agents are environmentally friendly.



Fire Suppression Systems

- NYC Code requires that these systems be equipped with a shutoff wheel, 125 feet of hose, and a nozzle.
- Standpipe systems are found mostly in stairwells, although there are some located in passageways.
- The standpipe systems at Einstein are strictly for Fire Department use only. The amount of firefighting ability and training required to use this system is substantial.
- Standby systems should never be used by Einstein personnel. If an extinguisher is not adequate for the job, activate a fire alarm and leave the area.



Fire Suppression Systems

- Automatic sprinklers provide the greatest degree of fire protection and is statistically the most effective system for suppressing, containing, and preventing the spread of fire.
- Einstein has partial automatic sprinkler systems in Forchheimer, Chanin, Kennedy and Ullmann while Price, Golding, Block and Gruss (MRRC) Buildings are fully sprinklered.
- Automatic sprinklers can be found in laboratories, in assembly areas, mechanical rooms, and in office spaces.
- 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.



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FIRE EMERGENCY WARDENS



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Fire Emergency Wardens (FEWs)



- The fire safety plans for each building at Einstein utilizes a Fire Emergency Warden list of volunteers for emergency procedures. The Wardens and Deputy Wardens on each floor are responsible for providing fire safety information for their department.
- Fire Emergency Wardens should be aware of any conditions that could be of concern in a fire or emergency, keeping areas of egress clear, notifying the proper personnel when a fire condition exists and notify the Fire Safety Officer at x3529 if any discrepancies are found.



The Roll of a FEW

- In the event of a fire alarm, Wardens and Deputy Wardens shall determine and identify 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.
- If you would like to be a Fire Warden or Deputy Warden, please contact EH&S x4150.



The Roll of a FEW Continued

- Wardens and Deputy Wardens will inform fire responders if someone stayed behind or needs assistance. They may also report information regarding conditions on their floor.
- Conditions can also be reported to the Lobby Security Post unless conditions dictate otherwise.
- The Fire Emergency Warden or Deputy Fire Emergency Warden will help move people to a safe area.

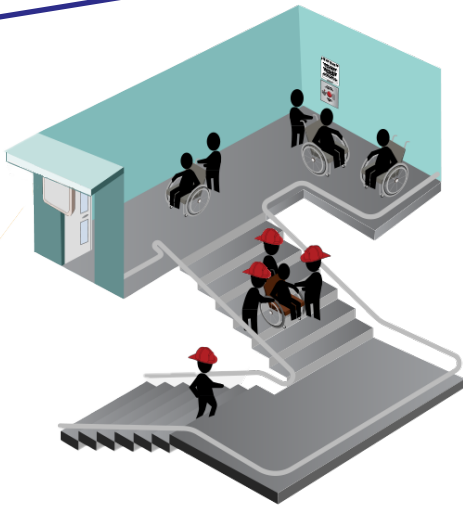


Assisting People with Special Needs

Assist person to the stairwell.

Inform a First Responder about the person and their location.

Assist individuals to evacuate only if it does not encumber people leaving the building or First Responders entering the building.



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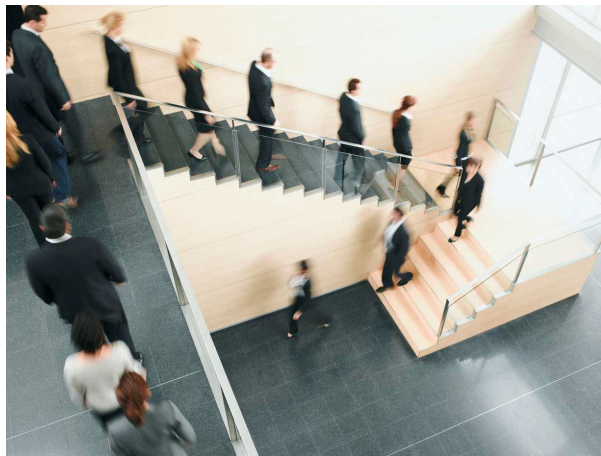
FIRE DRILLS



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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.



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SAFETY AWARENESS



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Fire Safety Awareness

Follow these simple rules:

- No Smoking. Smoking is prohibited in all Einstein Buildings.
- In case of Fire, **Do Not Use Elevators!**
- Never lock or obstruct an exit.
- Do Not chock open fire doors.
- Do Not use corridors for storage.
- Know the locations of your exits.
- Know the locations of the fire extinguishers.
- Know the locations of the fire alarm pull stations.
- Know Where You Are.



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.

All corridors must have a 44" wide clearance for proper egress.

These provisions are made to keep hallways unobstructed in the event of an emergency.

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LABORATORIES



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Laboratory Fire Safety

Laboratory Fire Safety Equipment

- Each laboratory is equipped with a dry chemical fire extinguisher 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.

DO NOT BLOCK ANY SAFETY EQUIPMENT.



Other Fire Safety Equipment

FIRE BLANKETS



- Some laboratories have fire blankets
 - They are not required in laboratories
- These are used to extinguish clothing on fire
- They should not be placed over a flaming beaker or liquids
- Blankets are NOT fire proof only fire resistant
- The material is fire retardant and designed to extinguish incipient fires.

Laboratory Fire Prevention

- To ensure compliance with the Rules of the City of New York (RCNY), 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.
- To renew operating permits for our laboratories, Einstein personnel must comply with the RCNY 10-01.
- Minor violations of RCNY 10-01 occur from time to time and Violation Orders are issued by the FDNY Inspector against the laboratory involved. Below is a partial list of the most common violations cited:
 - Excessive storage of flammable chemicals. Most laboratories at Einstein are rated for a maximum of 15 gallons of flammables.
 - Flammable chemicals, mainly alcohols, stored in non-explosion-proof refrigerators.
 - Flammables and Acids not segregated in storage cabinets. Acids not stored on corrosive-resistant trays.
 - Chemicals stored on floors. Glass bottles stored on floors.
 - Laboratory gas cylinders not properly secured.
 - 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 ext. 3529.
 - No Certificate of Fitness for Laboratory Supervisor (FDNY C-14) holder present while the lab is in operation.



EXTENSION CORDS, SURGE PROTECTORS & POWER STRIPS in LABORATORIES

- Power strips/surge protectors are an acceptable substitute for extension cords if they are used correctly.
 - Computers
 - Printers
 - Small electric fans
- DO NOT use extension cords, surge protectors or power strips for:
 - Refrigerators or Freezers
 - Incubators
 - Microwaves



SPACE HEATERS

SPACE HEATER OF ANY TYPE ARE PROHIBITED IN LABORATORIES.

- If there are concerns about the temperature in your work area, contact Operations at X3000.



FDNY Certification of Fitness

What is the FDNY C14 Certificate of Fitness?

- This C14 Certificate of Fitness is a Laboratory Supervisor through the New York City Fire Department.
- The regulation requiring Certificate of Fitness for laboratories in New York City is under provisions outlined in "The Fire Department Rules", Section 4827-01(g)(I) and NFPA 45 of 2004.
- The New York City Fire Department is currently allowing Einstein to establish a self-certification program for issuing Certificates of Fitness for Chemical Laboratory Supervisor we follow the requirements sent by the FDNY.



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FDNY C14 Certificate of Fitness

- Procedures for obtaining a Certificate of Fitness can be found at: [FDNY C14 CoF Procedures](#)
- All laboratory personnel are encouraged to apply for (C-14) Certification.

CERTIFICATE ISSUED BY NYC FIRE DEPT

CERT.# **22222222** N
ISSUED **09/26/2016** EXPIRES **03/03/2018**

NAME PLATE **DIAMOND**
HOME **9 METROTECH CENTER**
ADDR. **BROOKLYN, NY 12120**

**NOT
FDNY
EMPLOYEE**

FEE \$ **5.00** CAT. **F89** TYPE **Fitness**
DESC. **FIRE AND LIFE SAFETY DIRECTOR**

EMPLOYER **FDNY**
WORK **9 METROTECH CENTER**
LOCATION **BROOKLYN, NY 11201**



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FIRE SAFETY at EINSTEIN



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Guidelines for Selecting and Maintaining Power Strips/Surge Protectors

- The power strip/surge protector should have a ground fault circuit interrupter (GFCI). This is a reset button to prevent power overloads.



- The power strip/surge protector must be Underwriters Listed (UL) or ETL Listed

- Multi-outlet assemblies with built in surge protection are the preferred strips for computer usage.



- It is easy to exceed the capacity of the power strip and the circuitry, so use caution when plugging in multiple items.

- Periodically inspect the condition of the power strip/ surge protector, including the cord and plug.

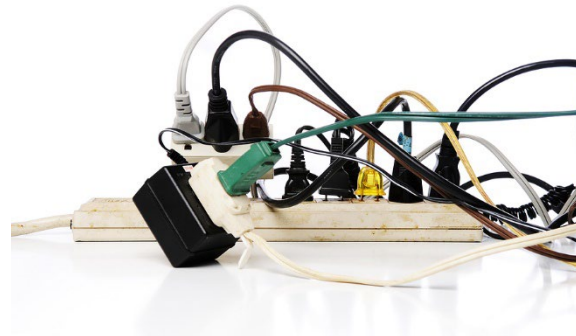


- Test the rest button and make sure all plugs are firmly inserted into the outlets.
- If the power strip/surge protector feels hot, or if a defect is found, discard, and replace with a new one.

Power Strips/Surge Protectors, Extension Cord Safety

DO NOT...

- Use adapters or extension cords between the strip and outlet.
- Plug one power strip into another power strip/surge protector into another.
- Overload power strips/surge protectors



OFFICES & SPACE HEATERS

Environmental Health and Safety does not recommend the use of space heaters in the workplace; however, if they are being used, please adhere to the below requirements. If there are concerns about the temperature in your work area, contact Operations at X3000.

- Plug space heaters directly into a wall outlet. DO NOT use an extension cord or power strip. Extension cords and power strips can overheat and will result in a fire.
- DO NOT plug any other electrical devices into the same outlet as the space heater.
- Before using any space heater, read and follow the manufacturer's instructions and warning labels carefully.
- Inspect space heaters for damaged plugs or loose connections before each use. If frayed, worn or damaged, do not use the space heater.
- NEVER leave a space heater unattended. Turn it off when you're leaving the room.
- Proper placement of space heaters is critical. Space heaters must be kept at least 3 feet away from all combustible materials, e.g., file cabinets, desks, trash bins, and paper boxes.
- Locate space heaters out of high traffic areas and doorways where they may pose a trip hazard.
- Place space heaters on level, flat surfaces. Never place heaters on cabinets, desks or tables.
- NEVER place anything on top the space heater.
- Keep space heaters away from water sources.
- Always unplug and safely store the heater when it is not in use





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OFFICES & SPACE HEATERS

Continued

If you must purchase a heater for your office space, please adhere to the following:

- Must be Underwriters List  or ETL Listed 
- Must have a tip-over automatic shutdown feature
- Must have overheat protection



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Staff and Student Housing



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Staff & Student Housing

You should practice fire safety at all times, even in Staff Housing. Please remember the following in Staff and Student Housing:

Using Warming Plates/Hot Plates/Warming Trays

- Warming Trays, Host Plates and Warming Plates must be UL or ETL Rated.
- They must have an automatic shut off
- Maximum Temp of 212 degrees
- Must be have a GFCI (Ground Fault Circuit Interrupter) plug or plugged into GFCI outlet
- Never leave turned-on appliances unattended.
- Always unplug unused appliances.
- Never have any combustible or flammable material touching or near the warmer

Candle Safety

- Use sturdy candleholders with flame-protective non-combustible (glass or metal) shades or globes.
- Place candles at least four feet away from curtains, draperies, blinds, kitchen cabinets and bedding.
- Place candles out of reach of small children and pets.
- Never leave burning candles unattended.
- Secure hair and clothing, such as sleeves or aprons, from the flame when handling candles.
- Keep candles, matches and lighters, including lit memorial containers and Chanukah menorahs, out of reach of children.



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Using Multi-Outlet Power Strips and Surge Protectors in Staff and Student Housing

Using Multi-outlet Power Strips/Surge Protectors

Power strips/surge protectors are an acceptable substitute for extension cords if they are used correctly. The following guidelines will help you make the best and safest choice for your use. Normally, the outlet strips will come with hardware or heavy duty double faced mounting tape. If assistance is needed in mounting the power strip, submit a work order to Engineering. According to the OSHA Electrical Safety Code, it is a violation to incorrectly use power strips/surge protectors.

Appropriate use of Power strips and surge protectors:

- Computers
- Printers
- Computer Peripherals
- Fax machines
- Televisions, DVD players
- Overhead projectors
- Small electric fans
- Radios
- Gaming systems

DO NOT use power strips or surge protectors for:

- Coffee pots or mug warmers
- Hot pots, crock pots or hot plates
- Refrigerator or freezers
- Microwaves, toasters or toaster ovens
- Ice machines
- Space heaters
- Hand tools



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Smoke-Free Workplace



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Einstein's Smoke-Free Workplace Policy

It is the policy of Albert Einstein College of Medicine to prohibit smoking, whether tobacco, marijuana or other cannabinoids, including the use of cigarettes, cigars, electronic cigarettes, e-cigs, vapor cigarettes and vape pens, in all Einstein owned or leased buildings, facilities, and property.

Inquiries, complaints or disputes about smoking in the workplace should be directed to Einstein's Chief of Security at (718) 430-2180 or the Human Resources Department at (718) 430-3771.

All complaints or reports of violations will be investigated promptly and addressed accordingly.

