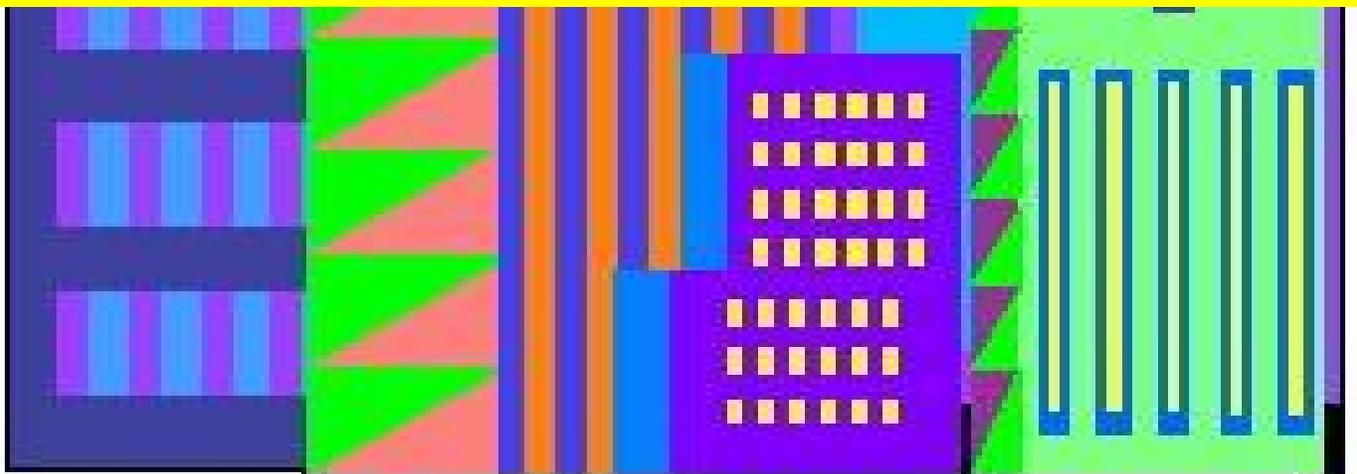




# **MULTI-STORY BUILDING FIRE SAFETY AND EVACUATION**



Dear residents and visitors of Miami Beach:

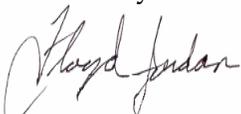
During 2001, across the United States, 396,500 fires occurred in residential properties, one every 80 seconds, resulting in 3,140 civilian fire deaths and \$5,643,000,000 in estimated property loss. Eighty-eight thousand of these fires occurred in apartment buildings resulting in 460 civilian deaths and an estimated \$864,000,000 in property loss. In Florida, 8,013 fires occurred in residential properties resulting in 136 civilian deaths and \$204,184,286 in property loss. One thousand nine hundred twenty-three of these fires occurred in apartment buildings with another 400 occurring in hotels and motels.

It is quite obvious by these statistics that residential fire disasters do happen and a significant number of these fires happen in multi-story structures. With over 35 years in the Fire Service, I know that highly-trained firefighters using state-of-the-art firefighting equipment may not be enough to prevent many fire deaths and injuries which frequently occur very early in a fire, before firefighters arrive on the scene. How people behave in the first two to three minutes of a fire will often dictate whether or not they will survive. We also know that behavioral issues are involved which start the majority of all fires. Therefore, the best way to fight rampant fire, and the devastating consequences, is to prevent it from happening in the first place. We accomplish this by approving engineered fire safety systems and devices into new and existing structures, enforcement of fire and building codes, and through comprehensive community education programs and services. Education is a major component involved in effectively changing behavior.

This brochure is provided to educate you on what you can do to help prevent fires from happening and what to do if fire should occur in your multi-story building. It contains valuable information that could very well save your life. We never know with certainty, if or when, a fire will strike. But, if we eliminate fire hazards and are prepared to escape from fire, the devastation and impact on our lives may be greatly reduced.

On behalf of the Fire Department, I hope this information serves you well and should you have any questions concerning fire safety and prevention, please contact the Fire Prevention Division at (305) 673-7123.

Sincerely,



Floyd Jordan,  
Fire Chief

Sonia Machen,  
Fire Marshal

# **THE ENEMY**

**I am more powerful than the combined armies of the world. I have destroyed more men, women and children than all the wars of all nations. I am more deadly than bullets, and I have wrecked more homes than the mightiest guns.**

**In the United States alone, I steal over 500 million dollars each year. I spare no one and I find my victims among the rich and the poor alike, the young and old, and the strong and the weak. Widows know me to their everlasting sorrow. I loom up in such proportions that I cast my shadow over every field of labor.**

**I lurk in unseen places and do most of my work silently. You are warned against me, yet you heed me not. I am relentless, merciless and cruel. I am everywhere, in the home, in the schools, in the factory, on land, in the air, and on the sea.**

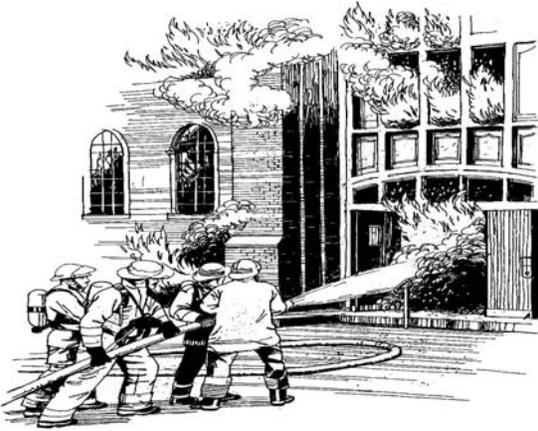
**I bring sickness, degradation and death, yet few seek me out to destroy me. I crush, I maim, I devastate – I will give you nothing and rob you of all you have.**

**I AM YOUR WORST ENEMY**

**I AM RAMPANT FIRE.**

**Unknown Author**

# CONSIDER THE FACTS:



Fire is the second leading cause of accidental death in the home.

Between 3,000 and 4,000 people in the United States die each year in home fires.

In 2001, Florida had 1,923 residential apartment fires and 560 fires in hotels, motels, rooming houses and dormitories.

In 2001, 86% of the total fire deaths in Florida were in residential properties.

## CAUSES OF RESIDENTIAL FIRES:

Multi-story residential structure fires result from the same causes as fires in other homes – cooking and heating equipment, smoking, children playing with matches/lighters, faulty electrical systems and Arson. The majority of fire deaths occur at night, while everyone is asleep. Without smoke alarms, senses are dulled by poisonous smoke so people are not even aware a fire has started and often die in their sleep. Many residential fires start in the kitchen. The causes are unattended cooking, improper operation of appliances, and leaving combustibles too close to a heat source. Fires also occur in sleeping areas, with misuse of smoking materials (smoking in bed) leading the list of causes.

## FIRE SAFETY TIPS:

### SMOKE ALARMS:

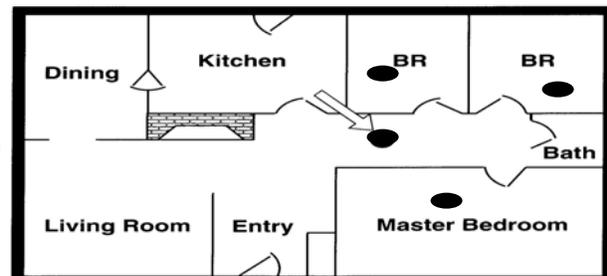
Smoke alarms are a necessity to provide sufficient early warning in the event of a fire. If you do not already have smoke alarms in your apartment, or they don't work, immediately contact your building management or the Fire Dept.

Maintain smoke alarms. Test them monthly by pressing the test button. If the smoke alarm is battery operated, change batteries every six months.

Install smoke alarms outside sleeping areas, inside bedrooms, and on every level of your home.

Replace smoke alarms every ten years.

Do not respond to “nuisance” alarms by disconnecting the battery. Either fan away the smoke and/or relocate the smoke alarm.



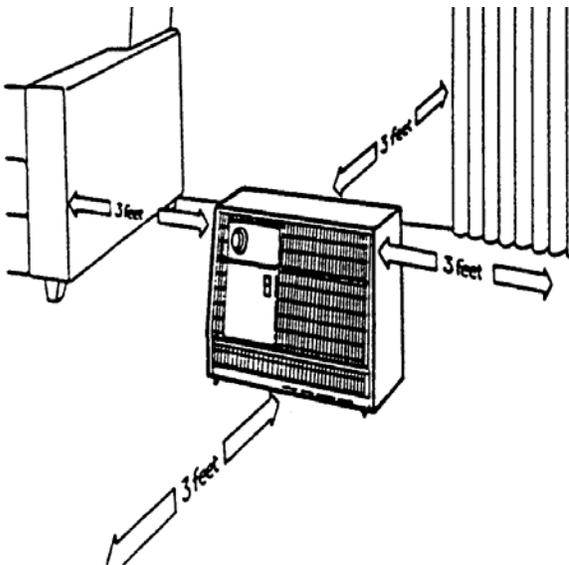
# **SMOKING: NUMBER ONE CAUSE OF FIRE DEATHS AMONG THE ELDERLY.**

**Do not smoke while drinking alcohol and/or taking medications that make you drowsy.**

**Do not smoke in bed or while resting on a sofa or chair. Falling asleep while smoking is dangerous and can start a fire. Check cushions before going to bed.**

**Do not leave cigarettes burning in ashtrays unattended or leave ashtrays on chair or sofa arms where they can spill.**

**Use deep-dish safety ashtrays with the holder in the middle and properly dispose of any smoking materials by dousing with water in the sink or flushing down the toilet.**



## **HOME HEATING SAFETY:**

**Read and follow heater manufacturer's instructions.**

**Operate space heaters on a hard, level surface - NOT DIRECTLY ON CARPET.**

**Always put a screen in front of the fireplace. Inspect and clean the chimney.**

**Keep space heaters at least 3 feet away from anything that burns. Turn off space heaters before going to bed or leaving your apartment.**

**Do not operate space heaters to dry clothes, in the bathroom or near water sources. Keep children away.**

**Flammable liquid fueled space heaters are very dangerous and are not recommended. If you choose to use one, use the correct fuel and refuel the heater outside.**

**Make sure portable heaters are properly ventilated.**

**Be sure your electric space heater has a tip-over shut-off switch.**



# **KITCHEN FIRE SAFETY:**

Never leave cooking food unattended.  
Turn off burners if called away from the kitchen. Take a potholder or spoon with you to remind you that you are not finished in the kitchen.

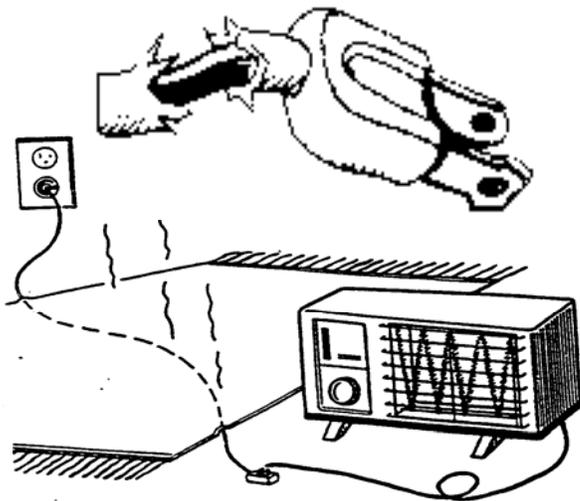
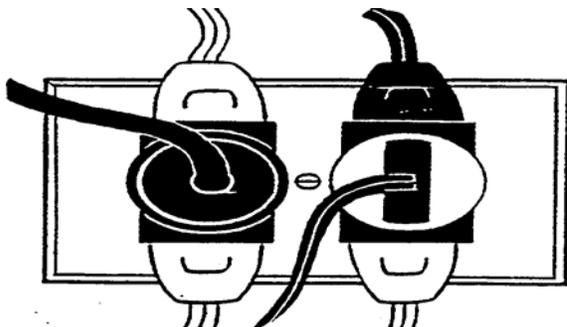
Something in the oven? Check every 15 minutes. **DON'T USE OVEN TO HEAT THE ROOM.**

Wear tight-fitting sleeves while cooking.

If food catches fire, slide a lid over pan to smother the fire and then turn off burner. **NEVER POUR WATER OR FLOUR ON A GREASE FIRE.** Use baking soda or an ABC fire extinguisher if you know how to use them.

Turn pot handles toward back of stove but not over another burner.

Double check kitchen before going to bed. Stove and oven off? Unplug all small appliances.



# **ELECTRICAL SAFETY:**

Use extension cords only as temporary wiring. ZIP CORDS are not recommended. Power Strips are a better alternative. Unplug after each use.

Unplug small appliances when not in use.

Don't overload electrical outlets with several appliances.

Repair or replace appliances that are old, worn or not working properly. Remove knots in cords.

Never run electric cords near heat sources, through doorways, across walkways or under rugs or carpets where they can get stepped on.

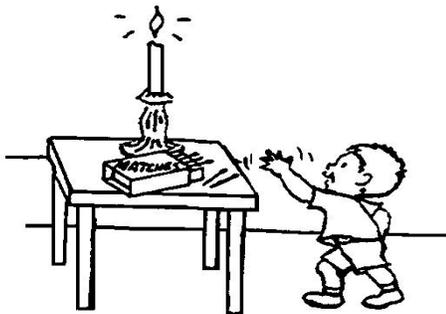
Never secure electric wires to walls or floors with nails, tacks or staples.

Replace electric cords that are frayed or damaged.

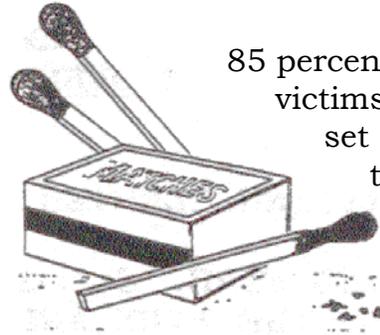
# JUVENILE FIRESETTING:

In the time it takes you to read this sentence, a child could dramatically change his/her life and the life of his/her family with the strike of just one match. Make fire safety a family matter. Learn everything you can about fire safety and make it part of your family's life.

Keep all matches and lighters out of sight and reach of children at all times. Children have a natural curiosity about fire and are tempted to play with matches and lighters left within their reach. Parents must supervise children at all times, especially around open flame (fireplaces, candles, heaters, Bar-B-Ques, etc).

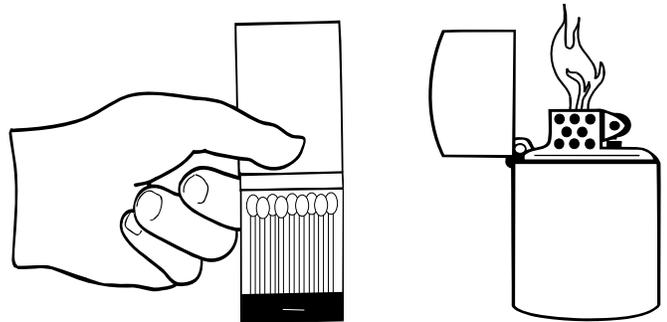


Teach children that matches and lighters are tools not toys. With adult supervision, demonstrate how you responsibly and cautiously use these tools. Never leave young children unattended, even for short periods of time. Hire only experienced, trained babysitters.



85 percent of the victims of child-set fires are the children themselves.

Teach children about fire when they first show interest. Discuss the proper use of fire and how destructive fire is if not used safely. Closely supervise and teach children how to safely strike a match or light a candle. Report any children using matches and/or lighters to their parents.



In many cases, children who start fires have a history of fire setting. If you suspect your child is setting fires, contact the Miami Beach Fire Rescue Department for educational counseling before the situation gets out of hand and you or your child gets hurt.



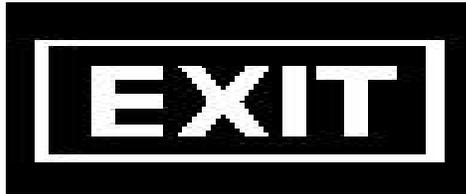
# ARSON:

Arson is a serious crime. Protect your building by clearing away potential fuel for fire, such as leaf piles, trash and combustibles in stairwells and storage locations. Secure from the outside, doors and first floor windows to eliminate easy access. Install ample outdoor lighting. Immediately report questionable activities to the proper authorities. Become familiar with the daily routine in your building so you will notice something or someone unusual.

# MULTI - STORY BUILDING SAFETY

Multi-story apartments and condominiums present special fire safety concerns. When strictly enforced, local fire and construction codes can ensure that these buildings are designed to minimize the likelihood of a major fire resulting in loss of life. But multi-story building fires do happen! To save lives and minimize property damage, the fire safety systems and devices of your building must be inspected and maintained. KNOW WHO IS RESPONSIBLE FOR MAINTAINING THE IMPORTANT LIFE-SAFETY SYSTEMS AND DEVICES IN YOUR BUILDING. These systems and devices include the following:

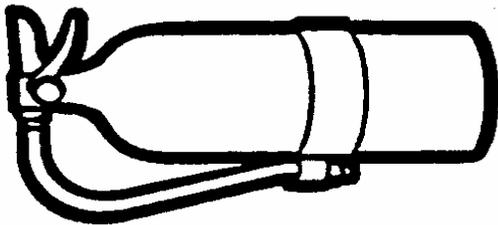
## FIRE AND SMOKE ALARMS



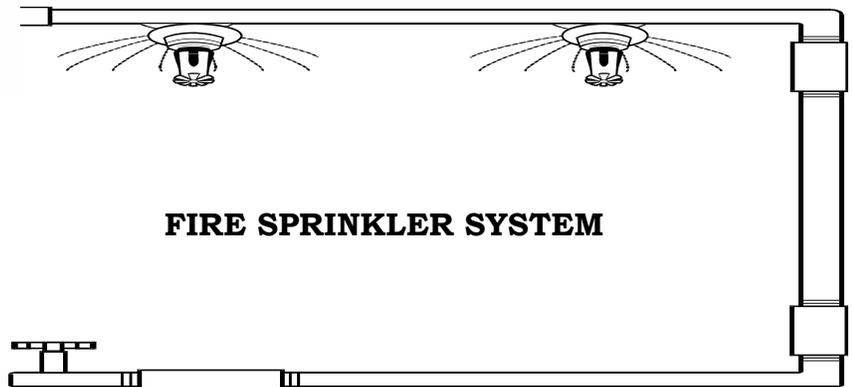
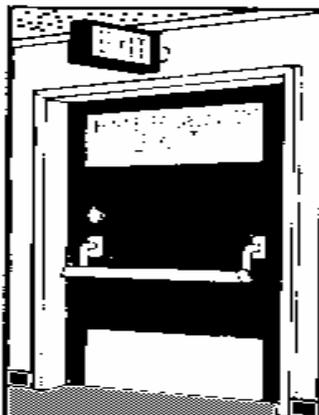
## EMERGENCY LIGHTING & EXIT SIGNS



## FIRE ALARM SYSTEM



## FIRE EXTINGUISHERS



## FIRE SPRINKLER SYSTEM

## FIRE AND SMOKE DOORS AUTOMATIC DOOR CLOSERS

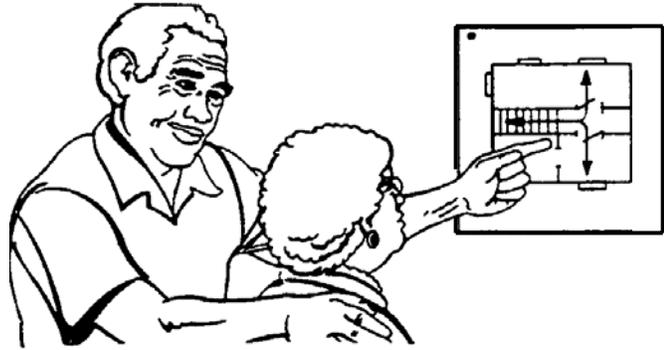
Make sure that nothing blocks or otherwise interferes with these systems and devices. Promptly report any sign of damage or malfunction to building management. Never lock fire exits or block doorways, halls or stairways. Fire and smoke doors not only provide a way out during a fire, they also slow the spread of fire and smoke. NEVER PROP FIRE OR SMOKE DOORS OPEN! NEVER DISABLE AUTOMATIC DOOR CLOSING DEVICES! SMOKE AND FIRE-RATED DOORS MUST SWING FREELY AND NOT GET HUNG UP ON THE FLOOR OR CARPET! THEY MUST COMPLETELY CLOSE AND LATCH IN AN EMERGENCY! Fire extinguishers must be inspected and tagged annually. Report any damaged, empty or missing fire extinguishers to building management. STORAGE OF ANY KIND IN OR UNDER EMERGENCY EXIT STAIRWELLS IS STRICTLY PROHIBITED!

# **BE PREPARED FOR A FIRE** **BEFORE IT HAPPENS!**

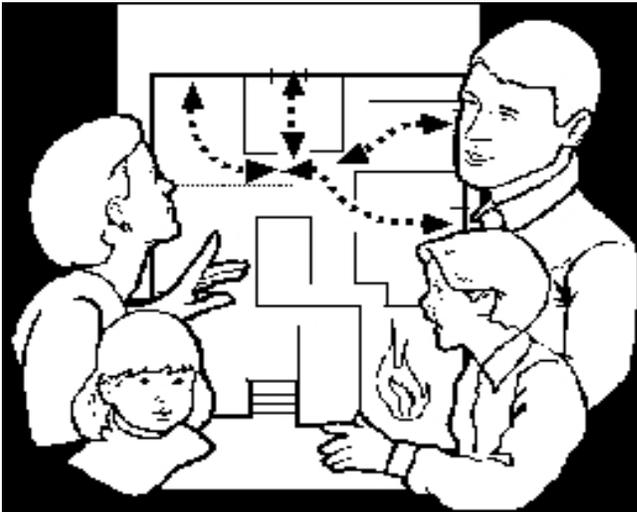
Fire is **HOT**, **FAST**, and the smoke is **BLACK** and **DEADLY!** When you are prepared and practice for an emergency, you are far more likely to do the right thing at the right time. You must react to a fire automatically and decisively.

## **LEARN YOUR BUILDING'S EVACUATION PLANS.**

Make sure everyone in your household knows where to go if the fire alarm sounds. **PRACTICE YOUR ESCAPE PLAN TOGETHER BY HOLDING PERIODIC FIRE DRILLS.** Be sure your building manager posts signs showing the nearest exits in high-traffic common areas, such as lobbies.



## **LEARN THE SOUND OF YOUR BUILDING'S FIRE ALARM!**



Know at least two escape routes from your apartment. Count the number of doors between your living unit and the two nearest exits. (In the event of fire, you may have to escape in the dark by feeling your way along the wall).

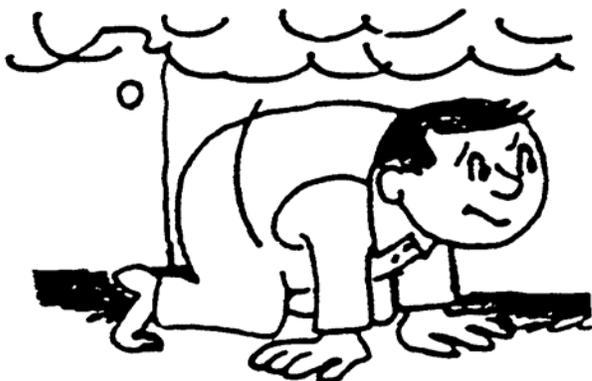
Know where to find your building's fire alarm pull stations and fire extinguishers. **LEARN HOW TO USE THEM!**

# **EVACUATION PROCEDURES**

Evacuation procedures are specific for each building. Escape to an area of safety is your main concern during a fire. Evacuation procedures for High/Low-Rise buildings are similar to those of other structures, but with large numbers of people evacuating at the same time – some from upper floors – cooperation, a willingness to help others and a willingness to listen and follow the directions of competent authority are all the more important. Learn your building's evacuation plan and procedures. If your building does not have a written evacuation plan, ask building management to contact the Miami Beach Fire Rescue Department for guidelines to preparing one. Since each fire and each building is unique, consider the following guidelines:

# ***IF YOU HEAR THE FIRE ALARM SOUND!***

**EVACUATE IMMEDIATELY! DON'T DELAY! TREAT EVERY FIRE ALARM AS IF IT IS A REAL FIRE! DON'T ASSUME IT IS JUST A FALSE ALARM! YOU COULD BE DEAD WRONG!**



Unless told otherwise by your building's evacuation plan or other competent authority, in an UNSPRINKLERED building, proceed quickly and calmly to an exit stairwell that is free of smoke and exit immediately DOWN to the ground floor and completely out of the building unless doing so puts you in danger. If you encounter smoke or flames, use an alternate escape route. CRAWL LOW THROUGH SMOKE!

In a SPRINKLERED building, immediate evacuation will usually begin in the "DANGER AREA" which is quite often the fire floor, one or two floors above and one or two floors below the fire floor. In many sprinklered buildings, the fire alarm will begin ringing only in the "DANGER AREA." Some plans may require you to go to a "SAFE AREA OF REFUGE" inside the building (usually the stairwell) and wait for the fire department to supervise evacuation. If you can hear instructions over the building's Public Address System, listen carefully and do as you are told. You might be told to stay where you are! IN AN UNSPRINKLERED BUILDING, THE ENTIRE BUILDING IS THE "DANGER AREA."



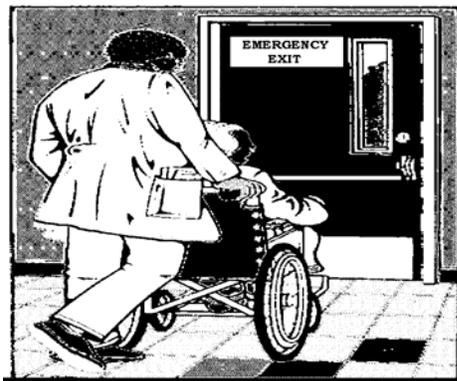
## **IF YOU DISCOVER FIRE:**

CLOSE THE DOOR TO THE FIRE ROOM AND LEAVE THE FIRE AREA QUICKLY, CLOSING ALL DOORS BEHIND YOU TO SLOW THE SPREAD OF FIRE AND SMOKE. Do not take anything with you except your apartment key and glasses which should always be kept near the door, easily accessible on your way out. Do not waste precious time or do anything that will cause a delay. GET OUT! SOUND THE ALARM by activating a manual pull station and proceed to a neighbor's to CALL THE FIRE DEPARTMENT (9-1-1)! Sound the alarm no matter how small the fire seems to be and don't assume someone else will call the fire department! THEN, EVACUATE TO A POINT OUTSIDE OF THE DANGER AREA!

Once you are out of the "danger area", stay out and stay out of the way of firefighters. Don't go back into the "danger area" for any reason until firefighters tell you it is safe to do so. Tell the fire department if you know of anyone trapped in the building.

# **NEVER USE AN ELEVATOR DURING A FIRE!**

Elevators in many High-Rise buildings are automatically called to the ground floor and held there when the alarm is activated. Standing in the hall waiting for the elevator to arrive will delay your evacuation, it may stop at the floor where the fire is or malfunction and trap you inside. Firefighters, in full protective gear, sometimes use the elevator to bring up equipment to fight the fire. Use your nearest emergency exits.



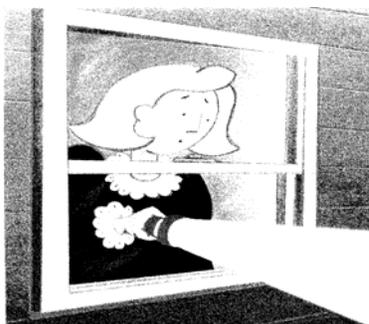
## **TEST DOORS BEFORE OPENING!**

If you should wake up at night to the sound of the alarm, roll out of bed onto the floor, and, if there is smoke, crawl low to the front door. Test the door for heat by kneeling or crouching and reach up as high as you can touching the door and knob with the back of your hand. If the door feels cool, open it carefully, but be ready to slam it shut if smoke or heat rush in. If no smoke or heat, proceed to the nearest exit, **CLOSING THE DOOR BEHIND YOU!**



## **IF THE DOOR IS WARM OR THE DOORKNOB IS HOT, DON'T OPEN IT! IF YOU BECOME TRAPPED - DON'T PANIC!**

There are many things you can do to protect yourself. Close as many doors as you can between you and the fire. Stuff the cracks under the door(s) with wet towels, rags or bedding and cover vents to keep smoke out of the room. If possible, go to a room with an outside window and a telephone. Call 911 and tell them exactly where you are. **DO THIS EVEN IF YOU CAN SEE FIRE TRUCKS ON THE STREET BELOW!**

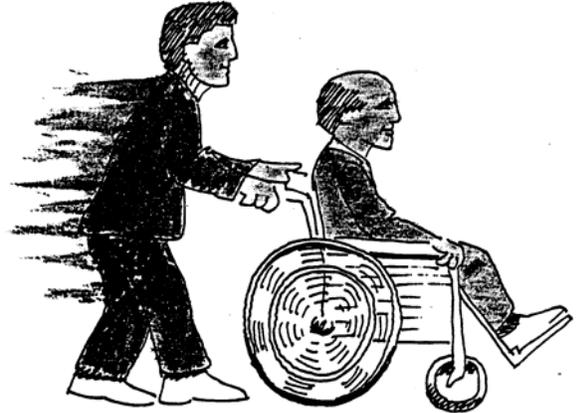


If possible, go to the window, open the window at the top and/or the bottom, but do not break the window unless you have to. Be ready to close the window quickly if smoke rushes in. Wait at the window and signal for help with a flashlight at night, or by waving a sheet or other light-colored cloth in daylight.

**BE PATIENT!** If smoke gets thick, wet a towel, place over your mouth and nose. Stay low to the floor by the window. Firefighters look for you there.

## **EVACUATION FOR THE MOBILITY IMPAIRED.**

Persons having any mobility impairment need to be considered prior to any need for evacuation. It is necessary for all mobility impaired tenants that may require special assistance in the event of an evacuation, notify the bldg. manager. A list must be maintained and updated as necessary. If possible, mobility impaired tenants should occupy first-floor living units and obtain a wheelchair, keep it handy and arrange for a friend, neighbor or other assistant to push them to the exit stairwell.



Tenants not requiring assistance and who are not going to assist others, will evacuate first. This avoids the possibility of persons in need of assistance being bumped and falling down, thus slowing evacuation and/or causing injury. If there is evidence of fire, persons having mobility impairment should be positioned near the fire exit stairs that are located farthest away from the fire. If fire conditions pose a personal threat, the person providing assistance, should enter into the exit stairwell with the mobility impaired and wait for special assistance from the fire department. Other available personnel may assist in evacuating the mobility impaired **DOWN** the stairs out of the "Danger Area" if danger is imminent and the fire department has not yet arrived.

Bedridden tenants that should be in a nursing home, may be in senior housing, using home health care assistance. These people are confined to their beds and completely dependent upon others for evacuation during an emergency. Elderly ambulatory residents using canes, walkers, handrails or crutches may not be capable of evacuating during a fire due to mental confusion from fear or smoke inhalation. Therefore, all such residents should be considered **IMMOBILE** and extra help for these individuals will be needed.

If you have impairments that might make it difficult for you to escape from fire, please submit your name and apartment/condo number to building management. A list of names will be given to fire department personnel upon arrival at the building. Evacuation assistance for mobility/other impaired tenants, who have not already evacuated, will then commence.

## **BUILDING FIRE EMERGENCY PLAN**

Every multi-story residential building should have a written Emergency Evacuation Plan. If you need help preparing one, contact the fire department's Public Education Section. The roof is not an approved exit discharge. When the F.D. arrives, the fire officer is in charge. The most critical areas for immediate evacuation in a high-rise are the fire floor, one or two floors above and one or two floors below the fire floor. Use elevators only when assisted by F.D. personnel. Only personnel previously trained with fire extinguishers should ever attempt to use this equipment. Fire protection & detection systems and equipment must be maintained and tested as required by Code. There must be at least one person at all times that a bldg. is occupied capable of directing the evacuation of the bldg. Fire drills should be conducted as required by Fire Code and coordinated with the fire dept's Public Educator.

# FIRE DRILLS ARE IMPORTANT

Tests the effectiveness of the Fire Emergency Plan.

Teaches what to do and where to go in an emergency.

Increases your chances of surviving a fire. Every second counts.

The purpose of a fire drill, is to ensure the efficient and safe use of the egress facilities available.

Speed in emptying buildings, while desirable, is not in itself a primary objective.

Orderly movement under control is the primary objective and prevents the panic that has been responsible for the majority of the loss of life in the major fire disasters of history.

## FIRE DRILL CHECKLIST

### ALARM SYSTEM

All alarm bells sounded.

Alarm & public address system heard in all occupied areas.

Master alarm control panel working properly

### ESTABLISHED EVACUATION ROUTES

Designated evacuation route followed.

Routes best adapted to available exits.

Exitways clear and unobstructed.

Occupant load divided equally according to exits available.

Fire doors to stairs kept closed when not in use.

### MANNER OF EVACUATION TO EXITS AND SAFE AREAS

Elevator operation ceased.

Proper formation of lines.

Doors shut to compartmentize rooms.

Orderly movement, no crowding.

Provisions for evacuation of disabled is adequate.

Restrooms and other isolated areas checked for personnel.

Groups moved to adequate safe area.

All persons accounted for (some kind of roll call)

Fire Department access to building is clear and unobstructed.

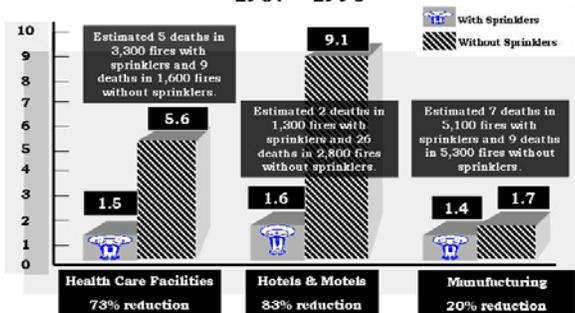
## FIRE SPRINKLER SYSTEMS

Sprinklers are designed so that the sprinkler directly above or nearest the fire activates (opens) and discharges water on the fire. The very simplicity of the fire sprinkler's operation ensures a high degree of reliability. When the heat of a fire raises the sprinkler temperature to its operating point (usually 135° to 155°F), a solder link will melt or a liquid-filled glass bulb will shatter to open that single sprinkler, releasing water directly over the source of the heat. This is similar to having a firefighter standing watch in every room, where a sprinkler head is present, every minute of every day, ready to apply water to a fire. Since most sprinkler systems act so early in the course of a fire (responding in as little as 35 seconds), everything a fire produces that threatens life is reduced. They operate automatically and only in the area of fire origin, preventing a fire from growing undetected to a dangerous size. Sprinklers keep fires small & prevent the fast developing fires of intense heat which are capable of trapping & killing building occupants. By eliminating flame & smoke, sprinklers greatly reduce the danger of burns & carbon monoxide poisoning, thus saving the lives of those who may be physically unable to escape.

According to a NFIRS and NFPA survey, between 1983 - 1992, the estimated reduction in average property damage loss per fire due to automatic suppression equipment in apartment buildings was 47%.

Sprinklers may be the most reliable fire protection system known. Fire sprinkler statistics in the U.S. includes a 96.2% success record reported by the NFPA for the years 1925 through 1969, a 98.4% success record for New York city high-rise buildings between 1969 and 1978, and a 98.2% success record for U.S. Department of Energy facilities between 1952 and 1980. Accidental release of water in a non-fire activation of a sprinkler appears to be less likely and much less damaging, than are mishaps involving standard home plumbing systems. A sprinkler head releases approx. 15 gal. of water per minute in contrast with a firefighter's hose using as much as 250 gal. of water per minute to extinguish a fire.

### SPRINKLER IMPACT ON LIFE SAFETY 1987 - 1996



Deaths Per Thousand Fires (Annual Average)

# **MIAMI BEACH FIRE RESCUE DEPARTMENT OFFERS FIRE & LIFE SAFETY EDUCATION PROGRAMS FREE OF CHARGE TO THE RESIDENTS AND VISITORS OF MIAMI BEACH.**

**Risk Watch® Pre-K – 8<sup>th</sup> Grade Comprehensive Injury Prevention Curriculum  
Remembering When® Fire & Fall Prevention Program for Seniors  
Cheat The Reaper™- Teen Anti-DUI Mock Vehicle Crash Program  
Juvenile Firesetter Intervention, Education & Referral Network  
Child Passenger Safety Seat Inspection/Installation Program  
Community Emergency Response Team Training (C.E.R.T.)  
Apartment/Condominium Fire Drill/Evacuation Planning  
High/Low-Rise Fire Safety & Evacuation Presentation  
Home Fire & Life Safety Hazard Inspection Program  
Hotel Employee Fire Safety & Evacuation Planning  
Fire Safety for Health Care Facilities Presentation  
Hurricane Preparation & Evacuation Presentation  
Fire Rescue Equipment Display/Demonstration  
Fire & Life Safety Festival & Fair Participation  
Fire Safety for Senior Citizens Presentation  
Pool & Open Water Safety Presentation  
Fire Service Career Day Presentation  
Preschool Fire Safety Presentation  
Fire Extinguisher Training  
Fire Station Tours**

**TO MAKE ARRANGEMENTS FOR A PROGRAM OR FOR MORE  
INFORMATION, PLEASE CONTACT:**

**David S. Mogen, Inspector,  
Public Education Officer**



**Fire Prevention Division  
Public Education Section  
1680 Meridian Avenue,  
Suite 201  
Miami Beach, Florida  
33139**

**Phone: (305) 673-7165**

**Fax: (305) 673-1085**

**E-Mail: [dmogen@miamibeachfl.gov](mailto:dmogen@miamibeachfl.gov)**