

Fire Safety & Prevention in our Community

What every family needs to know...



Windsor Fire & Rescue Services

“It won’t happen to me!”



1 in 10 Canadians will experience a fire in their home



48% of Canadians believe they have almost no chance of having a fire

NATIONAL STUDY
Commissioned by Duracell & Canadian Assoc.
of Fire Chiefs

Windsor Fire & Rescue Services www.windsorfire.com



What's Our Fire Risk?

Where are we at greatest risk from fire?

- 84% of fire fatalities in Ontario occur in the **home**
- Approx. **460 people are injured** in home fires each year in Ontario
- Approx. **100 people die** in fires each year in Ontario
- **Everyone** has a stake in fire safety



No Time To Spare



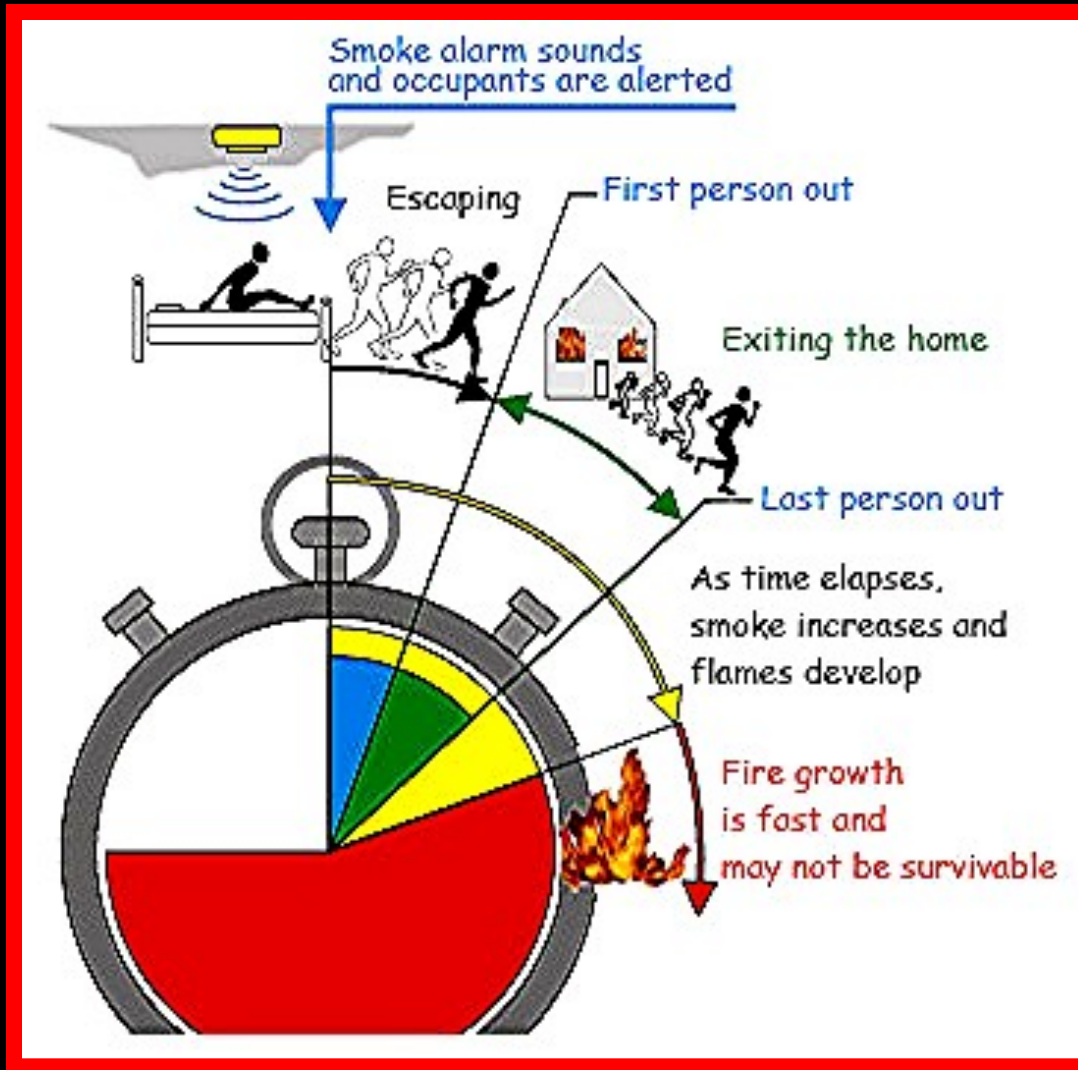
(PHOTO CREDIT: Scott Stilborn)



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Every Second Counts!



What causes fires in our homes?

Leading causes of home fires in Ontario:

1. **Cooking**
2. Heating / Cooling
3. Electrical
4. Cigarettes
5. Appliances

PREVENTION!



What are the most deadly fires?

Leading causes of **fatal home fires** in Ontario:

1. **Cigarettes** – 30% of fatal fires
2. **Arson** – 20% of fatal fires
3. **Cooking** – 18% of fatal fires
4. **Matches / Lighters** – 12% of fatal fires
5. **Candles / Electrical Wiring** – 5 % of fatal fires

***95% of fatal structure fires
occur in the home!***



Cooking-related fires

- ✓ 1 in 4 preventable home fires
- ✓ Leading cause of fire injuries
- ✓ Second leading cause of fatal fires
- ✓ Cost Ontarians an estimated \$54 million/year in injuries, deaths and property loss



Cooking-related fires in Windsor

- ✓ 171 cooking-related fires in 2008
- ✓ \$436,700 losses in 2008
- ✓ Leading cause of cooking-related fires in Windsor – **unattended cooking**
- ✓ 1 in 10 reported



Cooking-related fires in Windsor

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Cooking-related fires



- ✓ unattended cooking → 69% of fires
- ✓ “distraction/forgot” → leading behaviour when fire started
- ✓ oil and grease → objects first ignited in half of the fires
- ✓ higher incidence of injuries when the occupant attempted to extinguish the fire



Do you know what to do....?

- ✓ Clothing catching fire
- ✓ Pot on the stove fire
- ✓ Fire in the oven
- ✓ Fire in the microwave
- ✓ Safe cooking practices



*If in doubt...**JUST GET OUT!***



Chemistry of Fire

Heat + Fuel + Oxygen =

FIRE

Break the chemical chain = ***FIRE OUT!***



Remember to...
STOP, DROP & ROLL
if your clothing catches fire

OR

smother the fire with a towel or
blanket...

Cool a ***burn*** with ***cool water***



Pot on the Stove Fire

- ✓ Never leave oil or grease unattended
- ✓ Never put water on a grease or oil fire

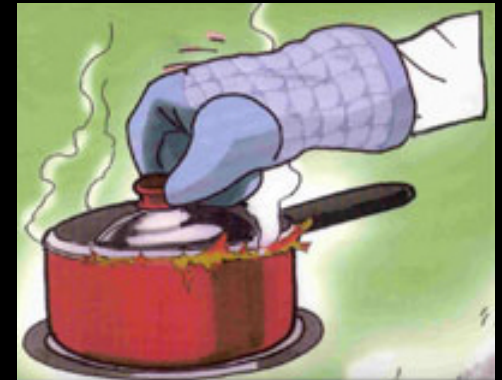
*** PUT A LID ON IT ***

TURN OFF THE HEAT

DO NOT MOVE THE PAN OR REMOVE THE LID UNTIL COMPLETELY COOLED

- ✓ Never move a burning pot to the sink or outside

**** Wear oven mitts ****



If in doubt...JUST GET OUT!

Watch What You Heat!

Never put water on a grease fire



Fire in the Oven

- ✓ Keep the oven door closed
- ✓ Turn off the heat
- ✓ Don't open the door until the fire is completely out
- ✓ Call 911, if necessary
- ✓ Have the oven checked and/or serviced before being used again



*If in doubt...**JUST GET OUT!***



Fire in the Oven



Fire in the Microwave

- ✓ Keep the microwave oven door closed
- ✓ Turn off the microwave immediately
- ✓ Unplug it, if safe to do so
- ✓ Never open the door until the fire is completely out
- ✓ Call 911, if necessary
- ✓ Have the oven checked and/or serviced before being used again



*If in doubt...**JUST GET OUT!***



Watch What You Heat!

If you are **frying**, **grilling** or **broiling** food
(fast cooking – high heat):

- ✓ Stay in the **kitchen**
- ✓ If you have to leave the kitchen, even for a short period of time – turn off the stove



Watch What You Heat!

If you are **simmering, baking, roasting** or **boiling** food (slow cooking – low heat):

- ✓ Stay in the **home**
- ✓ Use a timer to remind you that you're cooking



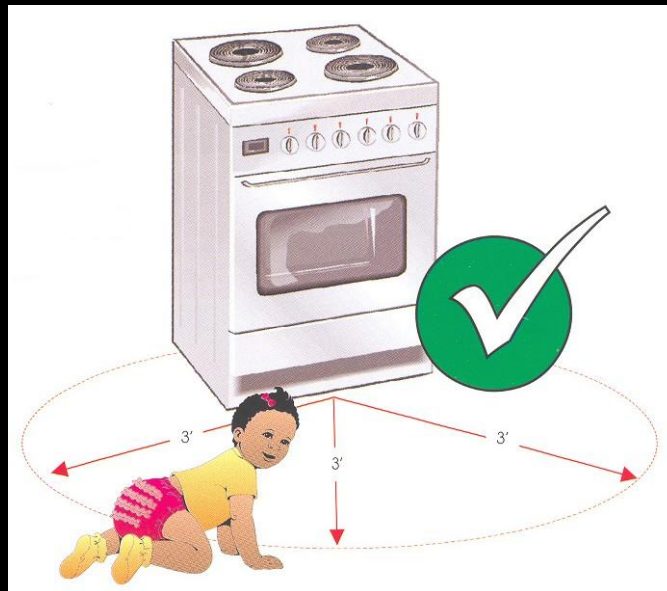
Safe Cooking Practices

- ✓ Stay alert – don't cook when drowsy or impaired
- ✓ Keep stovetop, burners and oven clean
- ✓ Wear short, close-fitting or tightly rolled sleeves when cooking
- ✓ Keep anything that can catch fire away from the stovetop – 1 metre safety zone



Safe Cooking Practices

- ✓ Keep pets off cooking surfaces and nearby countertops
- ✓ Keep young children away from the cooking area – enforce a 1 metre “**kid free zone**”
- ✓ Eliminate tripping hazards
- ✓ Use the stove’s back burners whenever possible



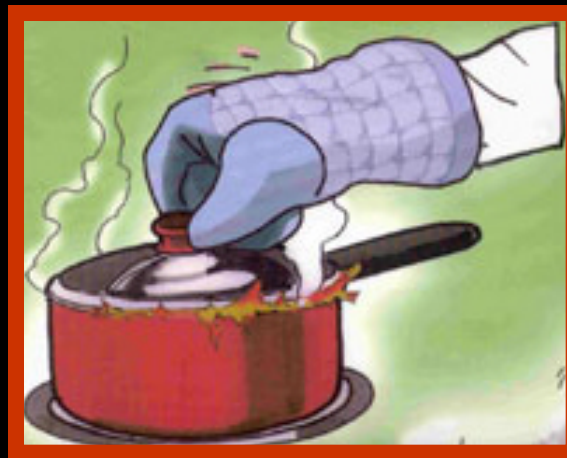
Safe Cooking Practices

- ✓ Turn pot handles inward – ensure pot handles do not stick out from the front of the stove
- ✓ Never use dishcloths or tea towels in place of proper fitting oven mitts
- ✓ Never use wet oven mitts or potholders as they can cause scalding burns
- ✓ Never use the oven or range to heat your home



Safe Cooking Practices

- ✓ Don't store children's treats, candies or cookies above the stove
- ✓ Have an appropriate sized pot lid and oven mitts readily on hand
- ✓ Keep all appliance cords coiled up and away from counter edges
- ✓ Unplug small appliances when not in use



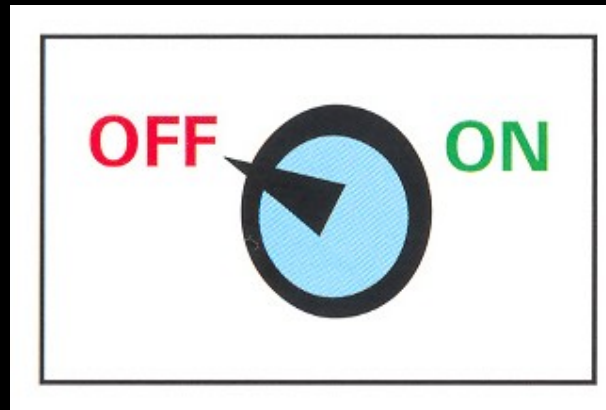
Safe Cooking Practices

- ✓ Check appliance cords for breaks, splits or cracked insulation and replace if necessary
- ✓ Don't overload electrical outlets or use extension cords – use a power bar if necessary
- ✓ Never hold a child while cooking or when drinking or carrying hot foods or liquids



Safe Cooking Practices

- ✓ **Never store items in the oven**
- ✓ **Always check to ensure oven is empty before turning on the heat**
- ✓ **Turn off all cooking appliances during electrical power outages**
- ✓ **Double-check the kitchen before going to bed or leaving home**



*If You Do Try to Fight the **FIRE!***

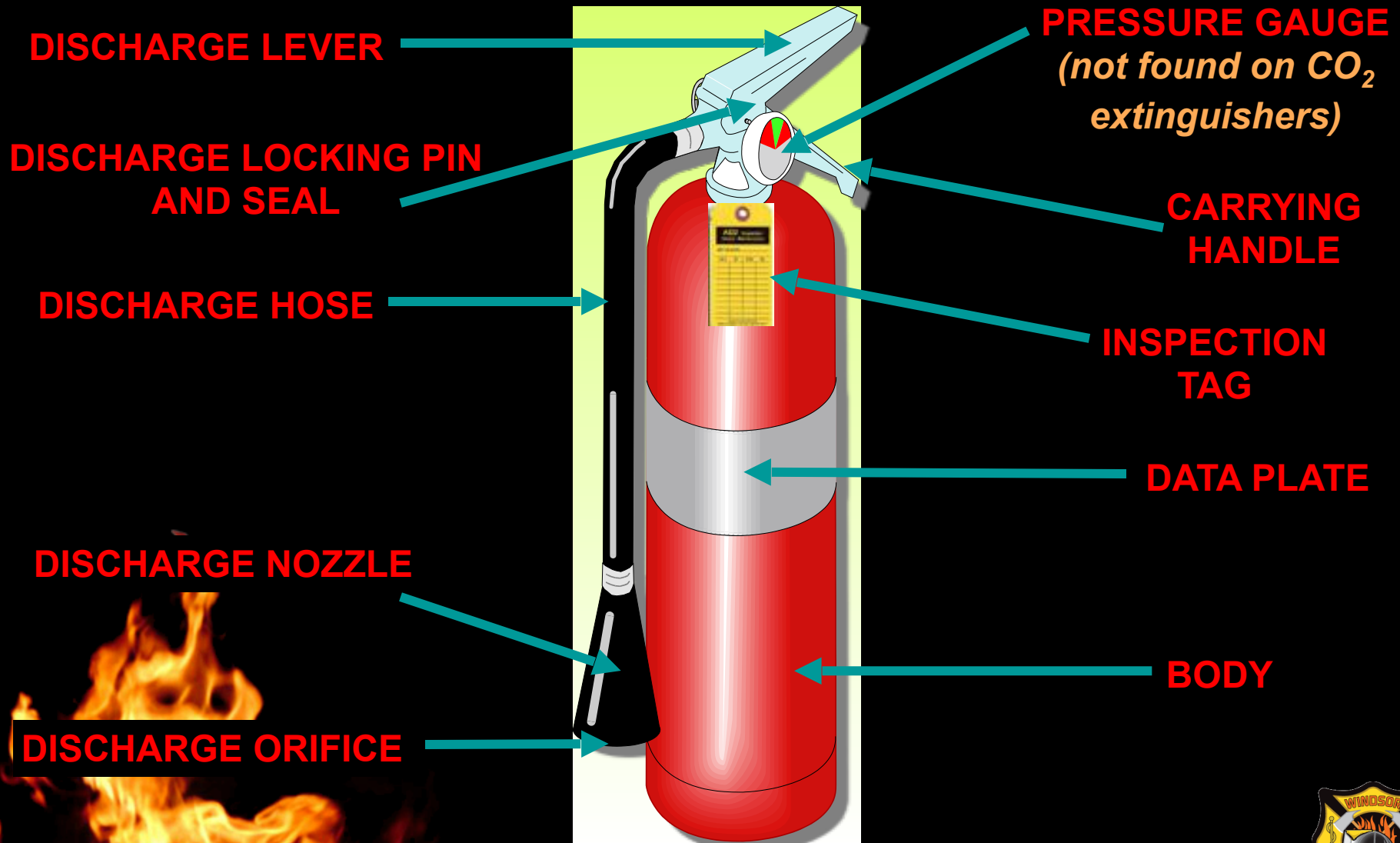
- ✓ Ensure others are getting out
- ✓ Ensure you have a clear path to the exit
- ✓ Instruct someone to call 911
- ✓ Ensure you know how to use your fire extinguisher – ***before a fire occurs***



*If in doubt...**JUST GET OUT!***



Anatomy of a Fire Extinguisher



*If in doubt...**JUST GET OUT!***

When you leave:

- Close doors behind you to contain the fire
- Call 911 from a safe place after you leave



Fire Extinguisher – Classification

A



Class A – Ordinary Combustibles

wood, paper, cloth

B



Class B – Flammable Liquids & Gases

oils, grease, gasoline

C



Class C – “Energized” Electrical

TV, radio, computer, house wiring



Fire Extinguisher – Classification



Multi-Purpose Dry Chemical Fire Extinguisher

(most common 5 lb. – 2A:10BC rating)

Class **A**, **B** and **C** Fires



Fire Extinguishers – Locations

LOCATIONS FOR FIRE EXTINGUISHERS

Near an exit

Visible location

High on a wall

Away from heat sources

No more than 23 metres (75 feet) away from a Class A (ordinary combustibles) hazard

No more than 15 metres (50 feet) away from a Class B (flammable liquids) hazard



Fire Extinguishers – Monthly Inspection

FIRE EXTINGUISHER MONTHLY INSPECTION

Nothing blocking access to extinguisher

Pressure gauge shows fully charged

Hose / Nozzle is free of cracks, tears or obstructions

Pin and tamper seal are intact

Handle / Lever is undamaged

No dents, leaks, rust, chemical deposits and/or other signs of abuse or wear

Dry powder chemical is moving freely inside cylinder

Inspection tag is attached and updated



Fire Extinguishers – Servicing

FIRE EXTINGUISHER **PROFESSIONAL SERVICING REQUIREMENTS**

ANNUALLY – SERVICED AND TAGGED

EVERY 6 YEARS – TAKEN APART AND RECHARGED

EVERY 12 YEARS – TAKEN APART AND PRESSURE TESTED



Fire Extinguisher – R.A.C.E.

R – **Rescue** persons in immediate danger

A – **Alarm**; alert others to the fire; evacuate

C – **Contain** the fire by closing doors

E – **Extinguish** fire if small and safe to do so



Fire Extinguisher – P.A.S.S.

To operate an extinguisher: *(Check your own extinguisher's label for detailed instructions.)*

Pull

Aim

Squeeze

Sweep

① **P**ULL the pin

② **A**IM
nozzle
at base
of fire

③ **S**QUEEZE
the handle

④ **S**WEEP nozzle
side to side

FACT: Smoke alarm operation 1997 to 2006



48%

of deadly home
fires in Ontario –
*no smoke alarm
warned the
family!*



Working Smoke Alarms Save Lives

It's The Law!



- ✓ On every storey of your home (including basement) and outside all sleeping areas
- ✓ Test smoke alarms monthly
- ✓ Clean them twice a year
- ✓ Replace batteries annually
- ✓ Replace smoke alarms when they are 10 years old (battery & hard-wired)
- ✓ Install smoke alarms with a HUSH-SILENCE feature
- ✓ **NEVER DISABLE A SMOKE ALARM**



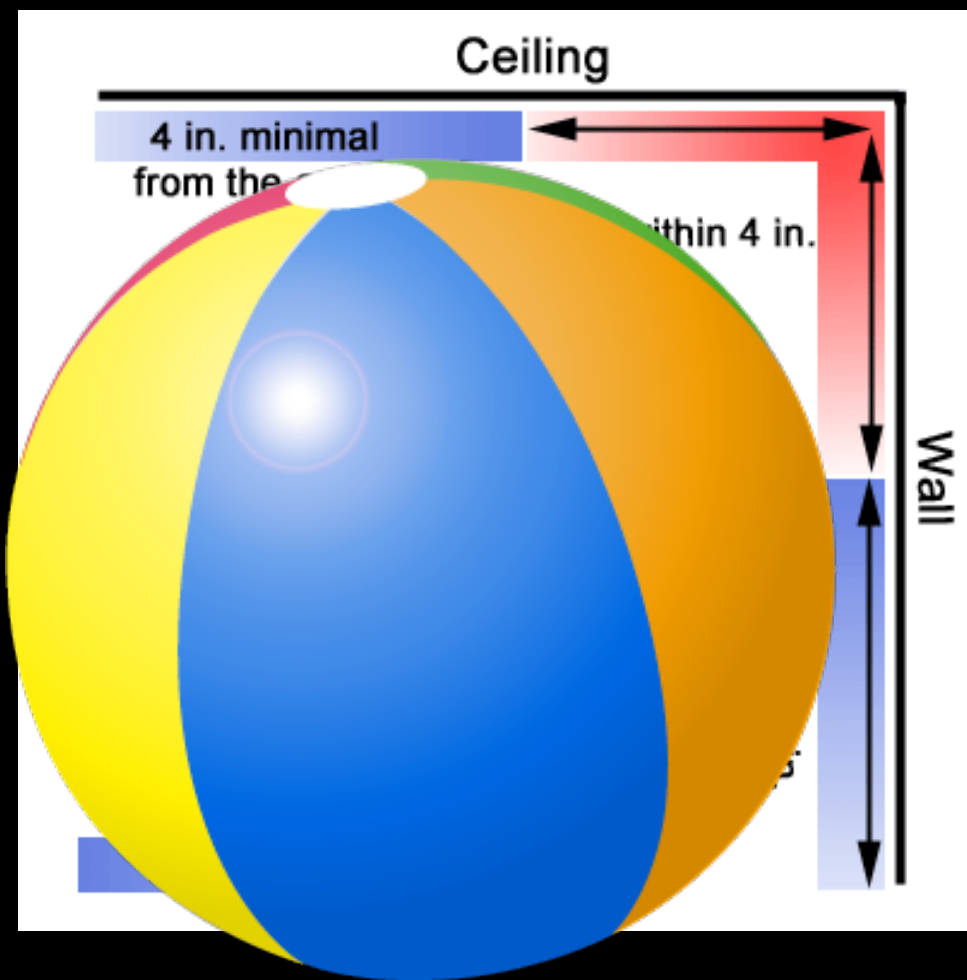
Smoke Alarm Placement



- ✓ Ceiling optimal
- ✓ Wall – 4 & 12 rule
- ✓ Beach ball rule
- ✓ Unheated walls or ceiling – interior walls
- ✓ Within 15' (5 metres) of any bedroom
- ✓ Inside bedrooms – optimal protection
- ✓ Bottom of closed stairways
- ✓ 3' (1 metre) from kitchen, bath, forced air ducts, ceiling fans, a/c units
- ✓ 1' (30cm) away from fluorescent lighting

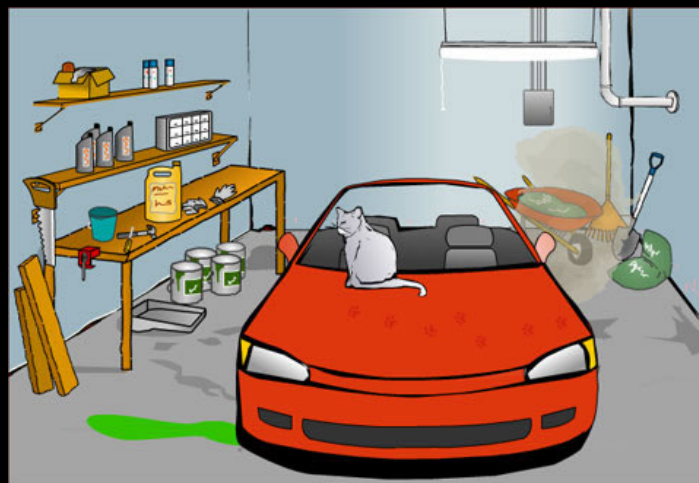
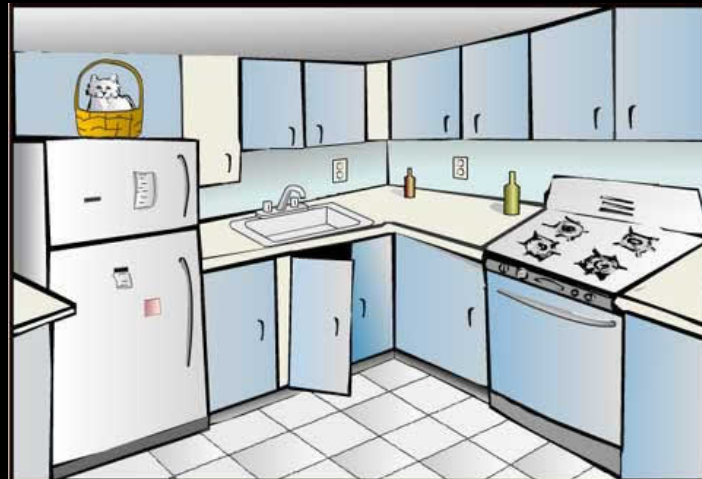


Installation



Smoke Alarm Installation

Not recommended to be installed in kitchens,
attics or garages



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WINDSOR FIRE & RESCUE SERVICES – SMOKE ALARM INSTALLATION GUIDELINES

- Read and familiarize yourself with the manufacturer's instruction manual. Always follow the manufacturer's instructions for installing, testing, and maintaining smoke alarms.
- Smoke, heat and combustion products rise to the ceiling and spread horizontally. In order for the smoke alarm to properly sense the presence of smoke, the ideal location is on the ceiling in the centre of the room. Ceiling mounting is preferred in ordinary residential construction.
- When installing the smoke alarm on the ceiling, ensure it is a minimum of 10cm (4 inches) from any wall.
- If wall mounting is necessary, use an inside wall, ensuring it is a minimum of 10cm (4 inches) below the ceiling, but no lower than 30.5cm (12 inches) below the ceiling.
- If the hallway serving the bedrooms is more than 9 metres (30 feet) long, install smoke alarms within 5 metres (15 feet) of any bedroom.
- Install smoke alarms at both ends of a room if it is more than 9 metres (30 feet) long.
- In stairways with no doors at the top or bottom, install smoke alarms anywhere in the path of smoke moving up the stairs. **However, always install smoke alarms at the bottom of closed stairways**, such as those leading to the basement. Dead air trapped near the closed door at the top of the stairway could prevent smoke from reaching the smoke alarm if installed at the top of the stairway.

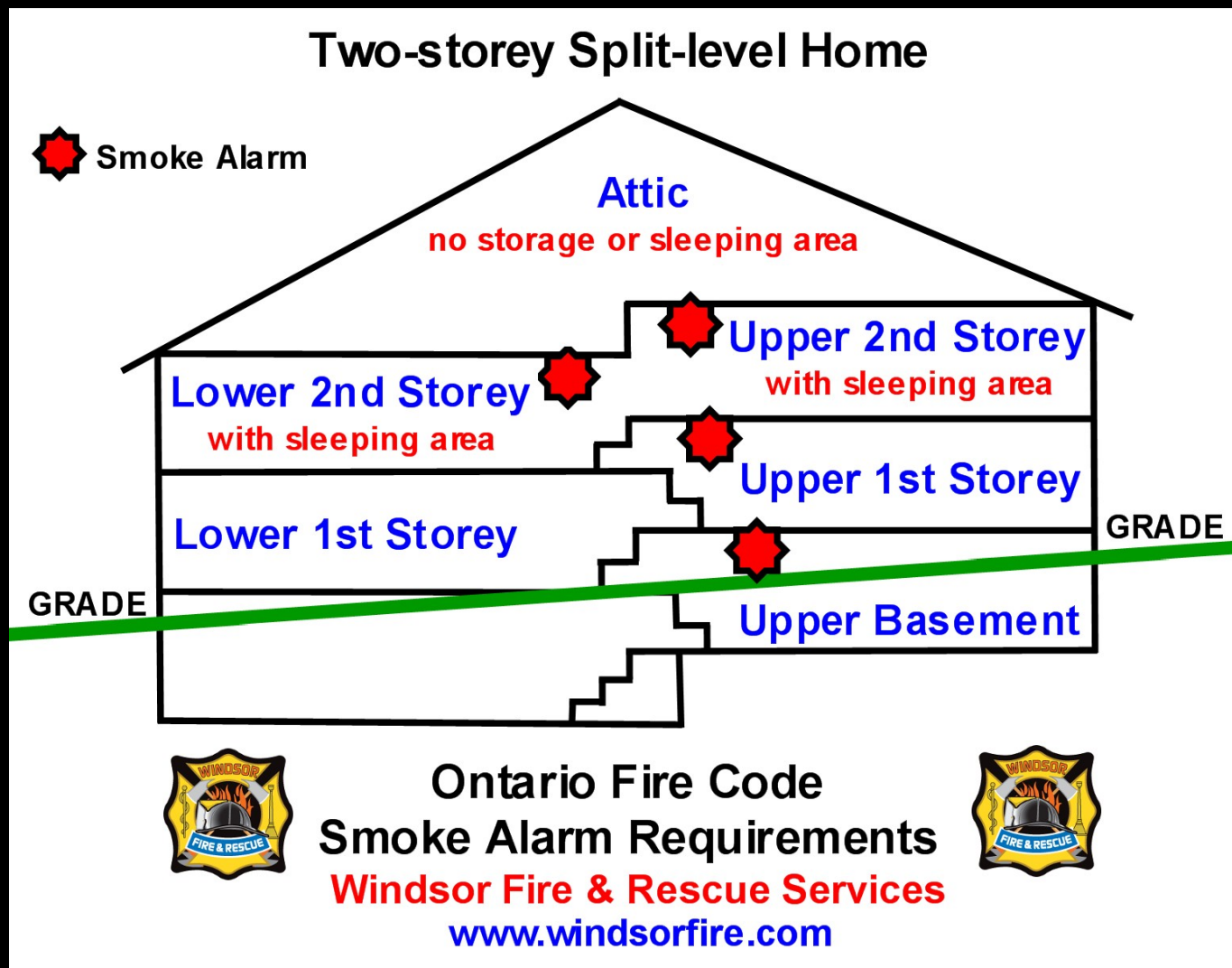
Locations To Avoid:

- Do not install smoke alarms in "dead air pockets", for example within 10cm (100mm - 4 inches) of where a ceiling meets a wall or a corner of a room.
- Do not install a smoke alarm within 1 metre (3 feet) of a doorway to a kitchen or bathroom, forced air ducts used for heating or cooling, ceiling or ventilation fans, air conditioner units or other high airflow areas.
- Avoid installing smoke alarms in or near kitchens and bathrooms where steam or cooking are present.
- Do not install the smoke alarm where drapes or other objects may block the sensor.
- Do not install in the peaks of vaulted ceilings, "A" frame ceilings or gabled roofs. For "A" frame type ceilings, install the smoke alarm 10cm (4 inches) below the peak.
- When installing a smoke alarm in a room with a sloped ceiling, position it 90cm (36 inches) horizontally from the highest point since dead air at the peak may prevent smoke from reaching the unit.
- Electronic "noise" may cause nuisance alarms. Install smoke alarms at least 30 cm (12 inches) away from fluorescent lighting.
- Avoid excessively dusty, dirty, greasy or insect-infested areas. Dust particles and insects may cause nuisance alarms or failure to alarm.
- Do not install in areas where the temperature is colder than 4.4°C (40°F) or hotter than 37.8°C (100°F). Extreme temperatures may adversely affect the sensitivity of the alarm, as well as diminish the lifespan of the battery, if so equipped.
- Do not install in areas where the relative humidity is greater than 85% or within 3 metres (10 feet) of showers, saunas, dishwashers or any other steam-producing appliance. Very humid areas along with steam can cause unwanted nuisance alarms and adversely affect the battery, if so equipped.
- Do not install smoke alarms in your garage. Combustion particles produced when you start your automobile will cause unwanted nuisance alarms.
- **NEVER DISABLE A SMOKE ALARM BY REMOVING THE BATTERY OR SHUTTING OFF THE ELECTRICAL SUPPLY!** Install smoke alarms with a "HUSH" feature or use a towel or newspaper to dissipate the smoke or steam.



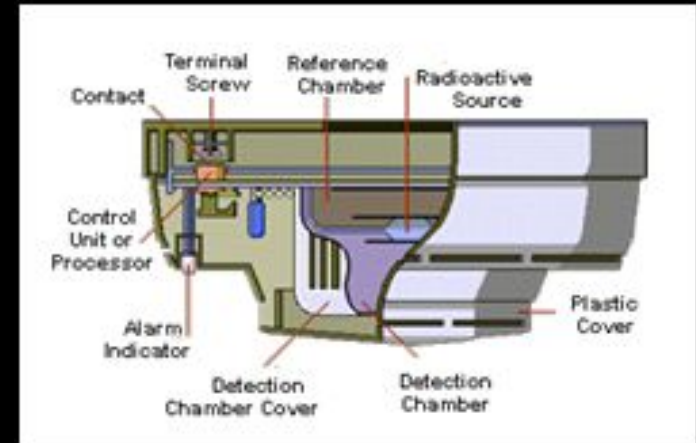
NOTE:

Both the upper and lower levels of the 2nd storey require smoke alarm installation due to separate sleeping areas contained on both levels. However, only one smoke alarm is required to service both the upper and lower levels of the 1st storey since neither level contains a sleeping area. Also note that since smoke rises, the smoke alarm serving the 1st storey is installed in the upper level of the 1st storey.

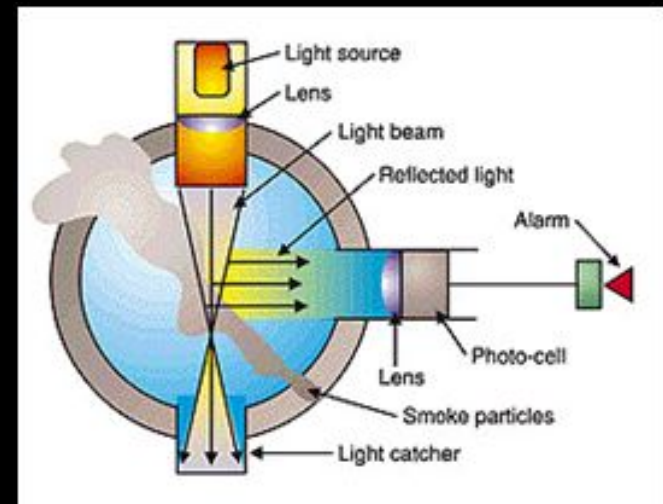


Smoke Alarm Sensing Technologies

Ionization
fast flaming



Photoelectric
slow smouldering



Smoke Alarm Options

SAMPLES



- ✓ Ionization / Photoelectric
- ✓ Dual Sensor
- ✓ Battery
- ✓ Hard wired – Battery Backup
- ✓ Front Loading
- ✓ Hush / Silence
- ✓ Interconnected
- ✓ 10 Year Sealed Unit
- ✓ Strobe / Pillow Shaker



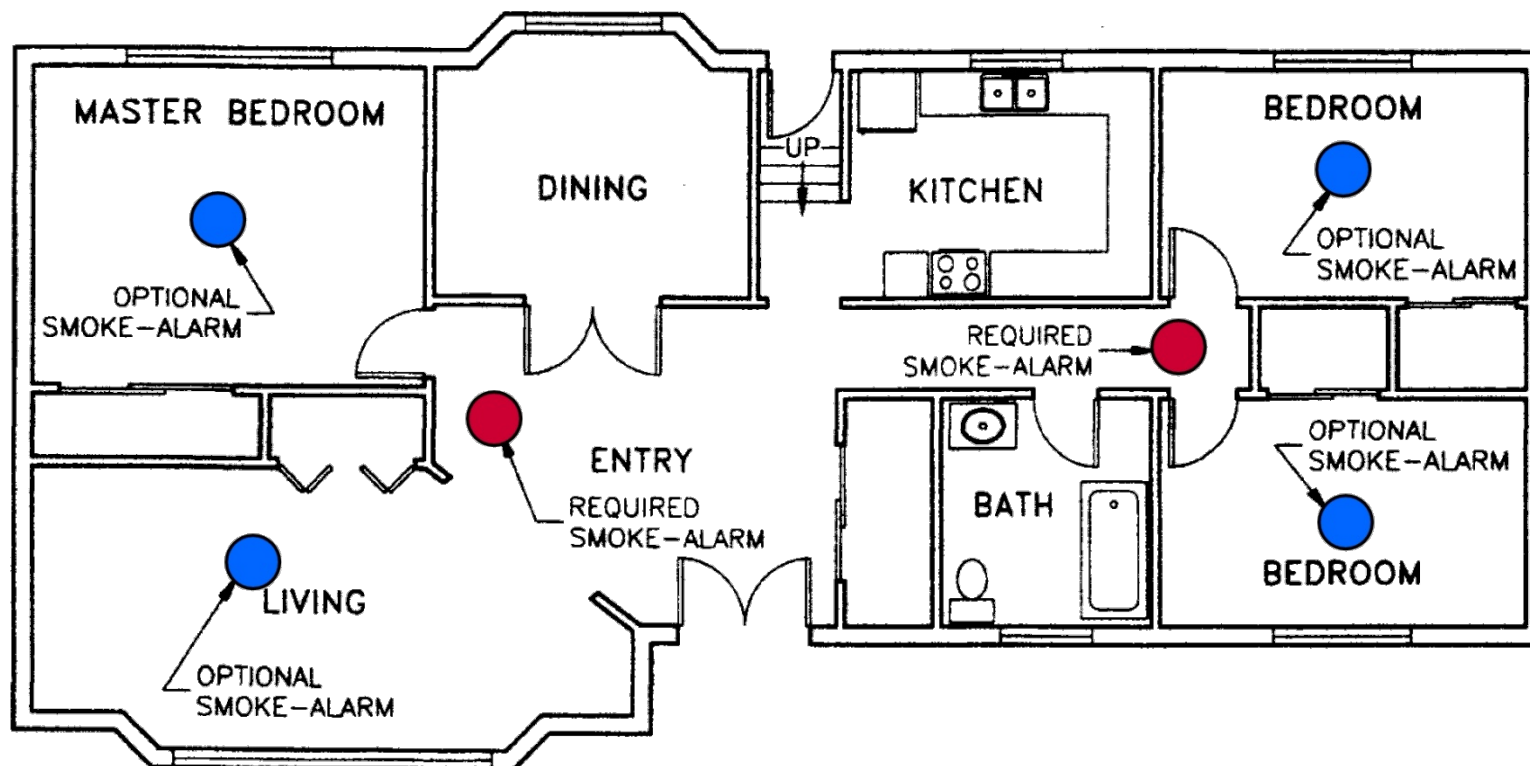
Interconnected Smoke Alarm

- ✓ Interconnected allows highest degree of occupant safety
- ✓ Improved warning when bedroom doors closed
- ✓ Battery-operated wireless interconnected eliminates wiring costs for older homes



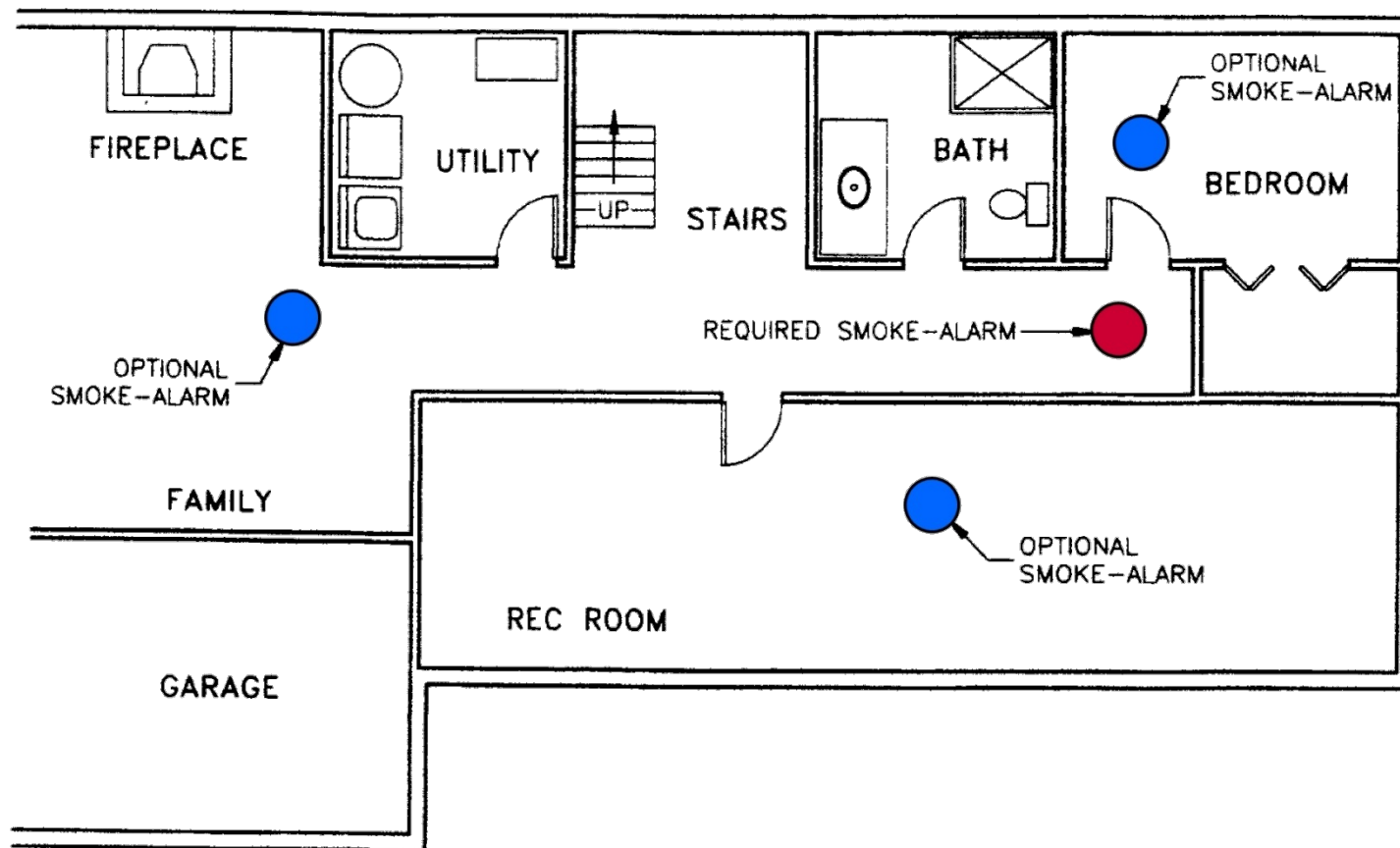
RECOMMENDED SMOKE-ALARM INSTALLATION FOR SEPARATED SLEEPING AREAS

(Reference: Clauses A1.6.1, A1.8.1, A1.11.1)



RECOMMENDED SMOKE-ALARM INSTALLATION FOR BASEMENTS

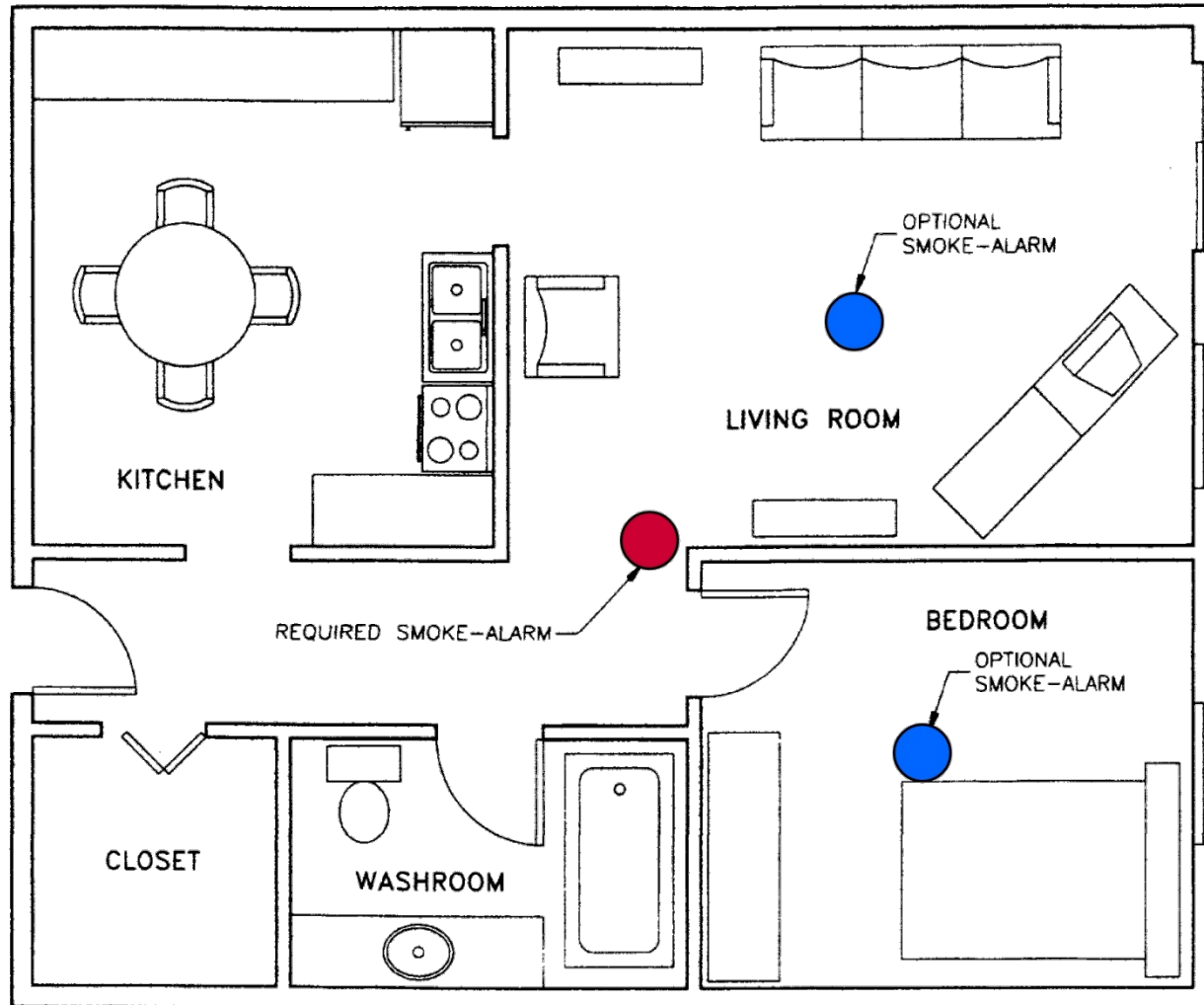
(Reference: Clauses A1.6.1, A1.8.1, A1.11.1)



Note: *Smoke-alarms* should be located in vicinity of sleeping areas. For separated sleeping areas, multiple station type devices should be used.

RECOMMENDED SMOKE-ALARM INSTALLATION FOR TYPICAL APARTMENTS

(Reference: Clauses A1.6.1, A1.8.1, A1.11.1)



Early Detection and Escape

Working
smoke alarms



Knowing how to
react



Can save your life !

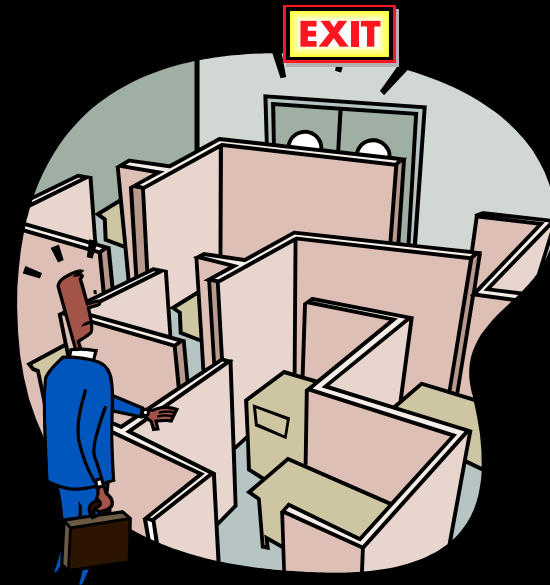
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Do you know your **EXIT** s ?

Home Escape Planning & Practice is **essential** in a fire emergency!

- ✓ Have a plan & **practice** it
- ✓ Know **2** ways out
- ✓ Keep **EXIT** s clear
- ✓ Have a meeting place
- ✓ 2 minutes or less
- ✓ Babysitting – know the escape plan



Keep your **EXIT** s clear!

MAN'S ESCAPE FROM FIRE BLOCKED BY BEER CANS

September 5, 2007

FRANKLIN TOWNSHIP, Ohio – An Ohio man who died in a house fire early Wednesday morning may have survived if his escape had not been blocked by a large pile of beer cans.

Crews working inside the home found McCarty's body shortly after 10 a.m., and investigators said his exit was blocked by a 5-foot tall stack of beer cans.

A caller to 911 said he couldn't get the door open.



NBC Newschannel

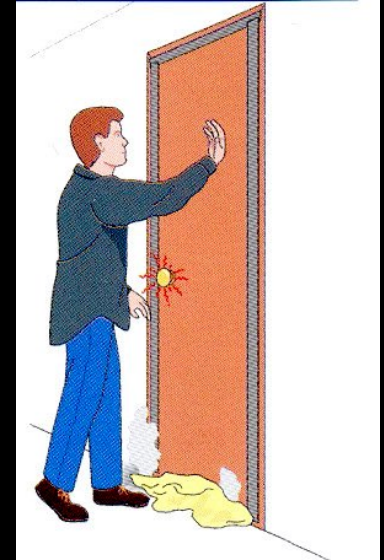
Windsor Fire & Rescue Services www.windsorfire.com



Do you know how to escape safely?



- ✓ Don't PANIC
- ✓ Get low & go
- ✓ Bedroom escape
- ✓ Feel doors for heat
- ✓ Check for smoke
- ✓ Close doors & windows as you escape – don't break windows
- ✓ Get out & stay out
- ✓ Call for help from a safe place



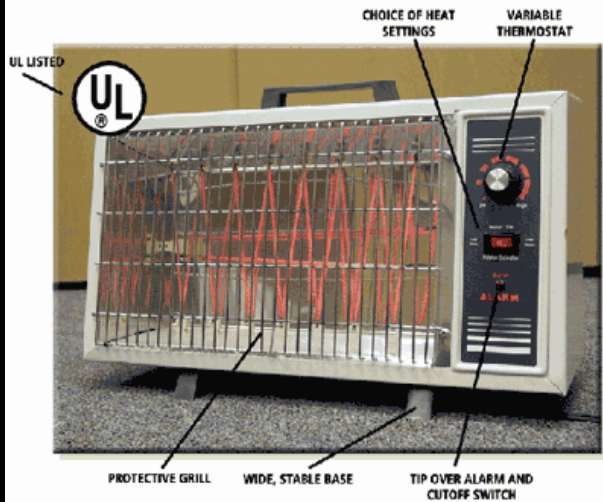
Stay Safe & Warm



- ✓ Have your heating equipment and fireplace serviced annually by a professional
- ✓ Give space heaters some space – at least 1 metre away from anything that can burn
- ✓ Only use CSA or ULC approved space heaters

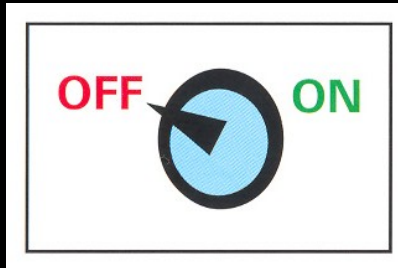


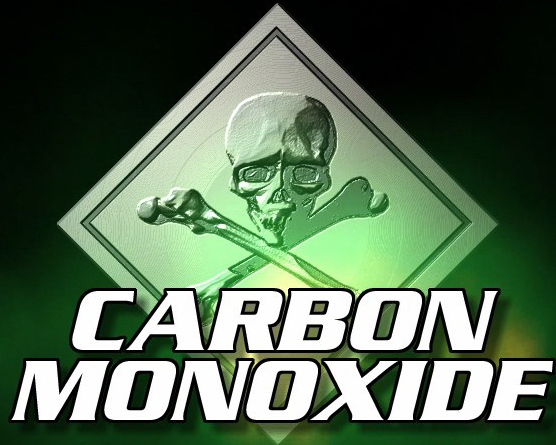
Anatomy of a Space Heater



Stay Safe & Warm

- ✓ Never leave an operating space heater unattended
- ✓ Never use an electrical space heater in a wet area like a bathroom
- ✓ Turn off space heaters when you leave the room or go to bed – better yet, unplug them





Carbon Monoxide (CO)

...the silent killer

- ✓ Install carbon monoxide (CO) alarms outside any sleeping areas
- ✓ Read and follow the manufacturer's instructions for operation and maintenance
- ✓ Replace carbon monoxide alarms every 10 years



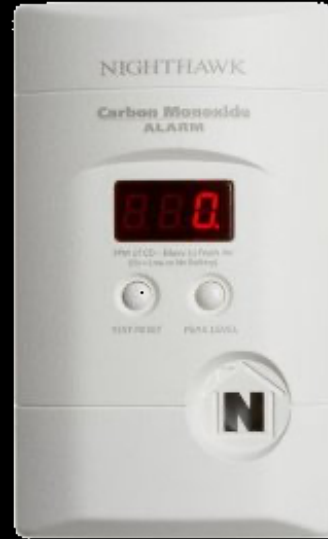


Carbon Monoxide (CO) *...the silent killer*

- ✓ CSA / ULC approved
- ✓ Battery back-up
- ✓ LCD displays
- ✓ 70ppm over 4 hr. period
- ✓ Poisoning victims may complain of headache, fatigue, or nausea



Carbon Monoxide – CO – Alarm



Keeping Ontarians Safe from Carbon Monoxide

CO Alarms Now Mandatory in All Homes

Ontario is taking another step to keep families and homes in Ontario safe by making carbon monoxide alarms mandatory in all residential homes.

The new regulation, which came into effect October 15, 2014 updates Ontario's Fire Code.

Carbon monoxide detectors will now be required near all sleeping areas in residential homes, and adjacent sleeping areas in multi-residential units. Carbon monoxide alarms can be hardwired, battery-operated or plugged into the wall.



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Carbon Monoxide Safety



Carbon monoxide (CO) is a gas. It has no odor. CO gas is poisonous. It can make a person feel sick and can be deadly. In the home, heating and cooking devices that burn fuel can be sources of carbon monoxide.

CO ALARMS

- CO alarms should be installed outside each sleeping area. Install alarms on every level of the home. It is best to use interconnected alarms. When one sounds, all CO alarms in the home sound.
- Follow the instructions on the package to properly install the CO alarm.
- Test CO alarms at least once a month.
- Replace CO alarms according to the instructions on the package.
- Know the sounds the CO alarm makes. It will sound if CO is detected. It will make a different sound if the battery is low or if it is time to get a new CO alarm.
- If the battery is low, replace it.
- If the CO alarm sounds, you must get fresh air. Move outdoors, by an open window or near an open door. Make sure everyone in the home gets to fresh air. Call the fire department from a fresh air location. Stay there until help arrives.

PREVENT CO POISONING

- When warming a vehicle, move it out of the garage. Do not run a fueled engine indoors, even if garage doors are open. Make sure the exhaust pipe of a running vehicle is not blocked. Clear snow away.
- During and after a snowstorm, make sure vents for the dryer, furnace, stove and fireplace are clear of snow build-up.
- Clear all debris from dryer, furnace, stove, and fireplace vents.
- A generator should be used outdoors. Use in a well-ventilated location away from windows, doors, and vent openings.
- Gas or charcoal grills can produce CO. Only use them outside.
- Have heating equipment and chimneys inspected by a professional every year before cold weather sets in.
- Open the damper when using a fireplace for adequate ventilation.
- Never use your oven or stove to heat your home.

FACT!

CO is called the silent killer because the gas cannot be seen or smelled. Take action to stay safe from CO poisoning.



Your Source for SAFETY Information

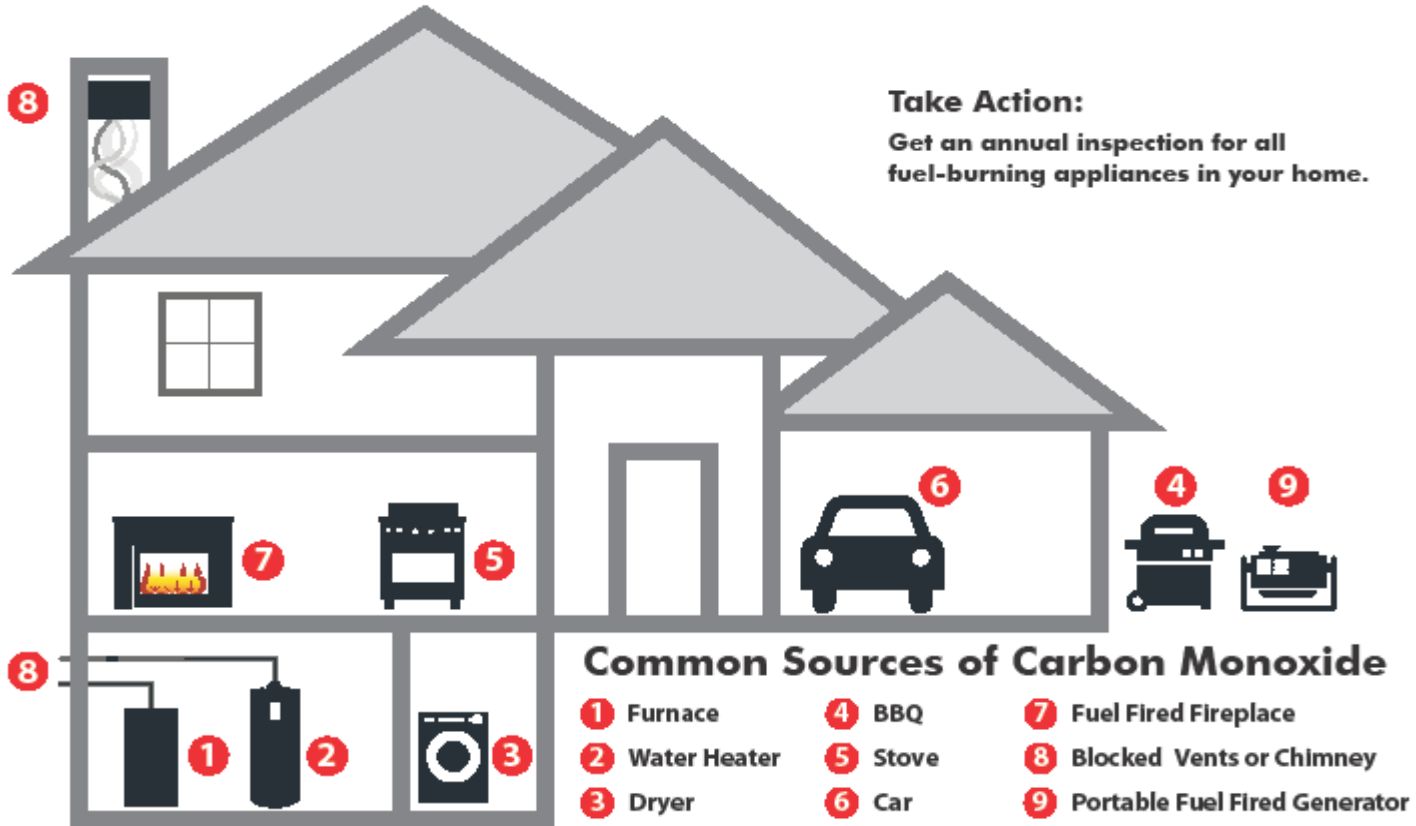
NFPA Public Education Division • 1 Batterymarch Park, Quincy, MA 02169

www.nfpa.org/education



Beat the Silent Killer

Carbon Monoxide Prevention



COSafety.ca
@TSSAOntario
ontario.ca/firemarshal
@ontfiremarshal



In Ontario, over 80% of all injuries and deaths due to carbon monoxide occur in homes.

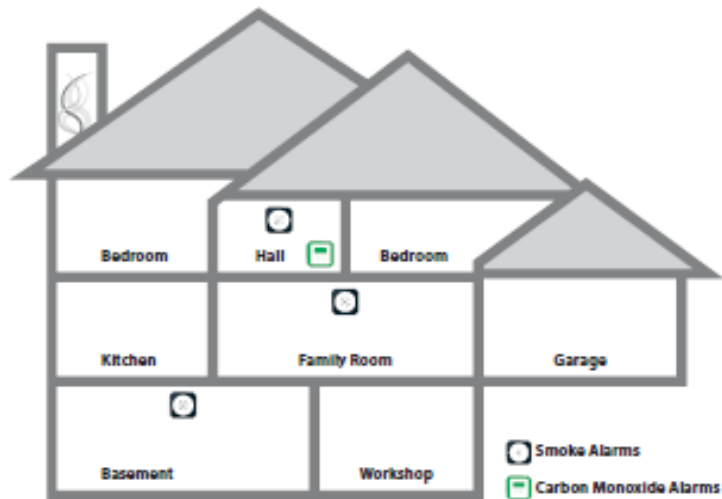
If your home has a fuel-burning appliance or an attached garage, install a carbon monoxide alarm adjacent to each sleeping area.

For added protection, install a carbon monoxide alarm on every storey of the home according to manufacturer's instructions.

Alarm Locations

Take Action:

1. Install and regularly test carbon monoxide and smoke alarms.



COsafety.ca
@TSSAOntario
ontario.ca/firemarshal
@ontfiremarshal

Make sure YOUR household is safe from carbon monoxide poisoning.

Homeowners and landlords are responsible for ensuring their properties have working carbon monoxide (CO) alarms. This includes:

Testing:

- It is recommended that carbon monoxide alarms be tested monthly or in accordance with the manufacturer's instructions.

Batteries:

- Replace batteries in carbon monoxide alarms once a year or whenever the low-battery warning sounds.
- Know the difference between a low-battery warning and an emergency alarm – consult the CO alarm manufacturer's instructions.

Replace CO alarms:

- In accordance with the manufacturer's instructions.
- Know what the "end-of-life" warning sounds like – consult the CO alarm manufacturer's instructions.

Landlords:

- Landlords are responsible to ensure working carbon monoxide alarms are installed and maintained in their rental properties.
- The law requires landlords to test CO alarms in rental units annually and when the battery is replaced, changes are made to the electric circuit or a change in tenancy occurs. CO alarms must be tested by pressing the test button.
- The law requires landlords to provide CO alarm manufacturer's maintenance instructions to tenants.

Tenants:

- The law requires tenants to notify the landlord if the CO alarm is inoperable.
- It is against the law for tenants to remove the batteries or tamper with the alarm in any way.

Exposure to CO can cause flu-like symptoms.

If your CO alarm sounds, and you or other occupants suffer from symptoms of CO poisoning, get everyone out of the home immediately. Then call 9-1-1 or your local emergency services number from outside the building.

If your CO alarm sounds, and no one is suffering from symptoms of CO poisoning, check to see if the battery needs replacing, or the alarm has reached its "end-of-life" before calling 9-1-1.

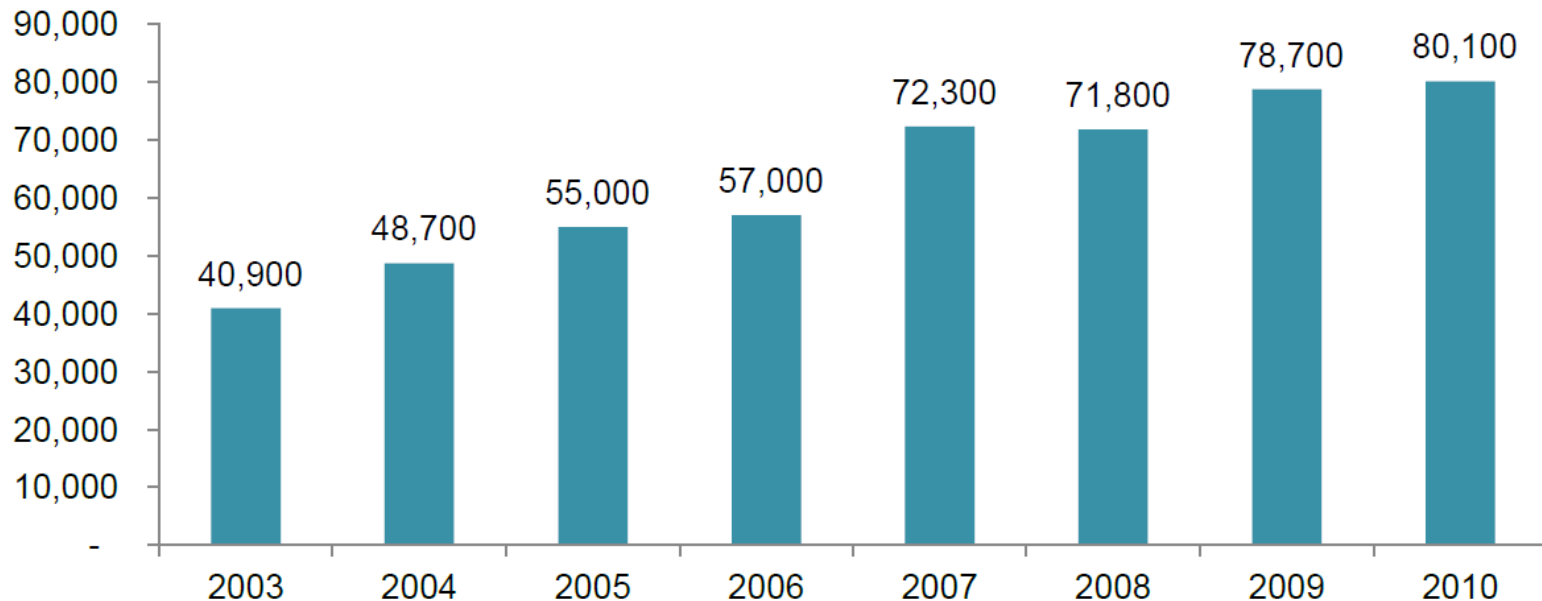


Carbon Monoxide. The Silent Killer

Non-Fire Carbon Monoxide Incidents Fact Sheet


During 2006-2010, an estimated 72,000 non-fire carbon monoxide incidents were reported to U.S. fire departments each year: These incidents have been increasing over time.

Non-Fire Carbon Monoxide Incidents by Year 2003-2010



Know the symptoms of CO

Symptoms of CO poisoning vary, depending on the amount of CO in the bloodstream. The higher the concentration, the greater the danger.



**CARBON
MONOXIDE**

Know the symptoms of CO

Mild Exposure:

- ✓ Slight headache
- ✓ Nausea
- ✓ Vomiting
- ✓ Fatigue
- ✓ Flu-like symptoms



Know the symptoms of CO

Medium Exposure:

- ✓ Severe headache
- ✓ Drowsiness
- ✓ Confusion
- ✓ Rapid heart rate



Know the symptoms of CO

Severe Exposure:

- ✓ Unconsciousness
- ✓ Convulsions
- ✓ Cardiac / respiratory failure
- ✓ Death





Beat the Silent Killer

Stay safe from carbon monoxide.

Ensure all fuel-burning appliances
in your home are inspected annually.

Install and regularly test
carbon monoxide alarms.

COSafety.ca
@TSSAOntario

ontario.ca/firemarshal
@ontfiremarshal



Windsor Fire & Rescue Services www.windsorfire.com



Striking Out With Matches & Lighters



**Keep matches & lighters out
of children's hands!**

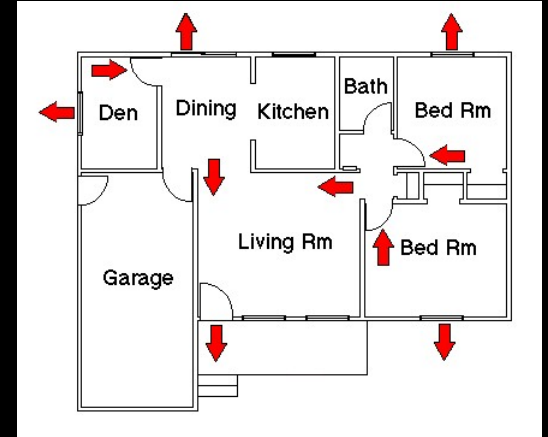
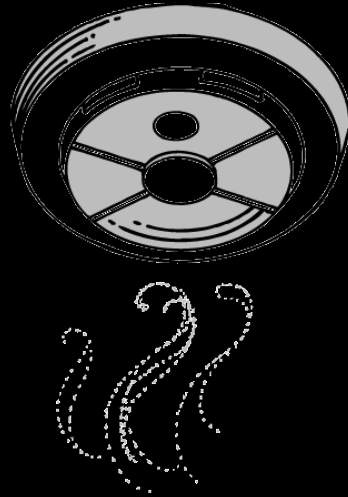
Lives could depend upon it!



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Prevention – Detection – Escape



Your fire safety begins with **you!**

Thank You...

