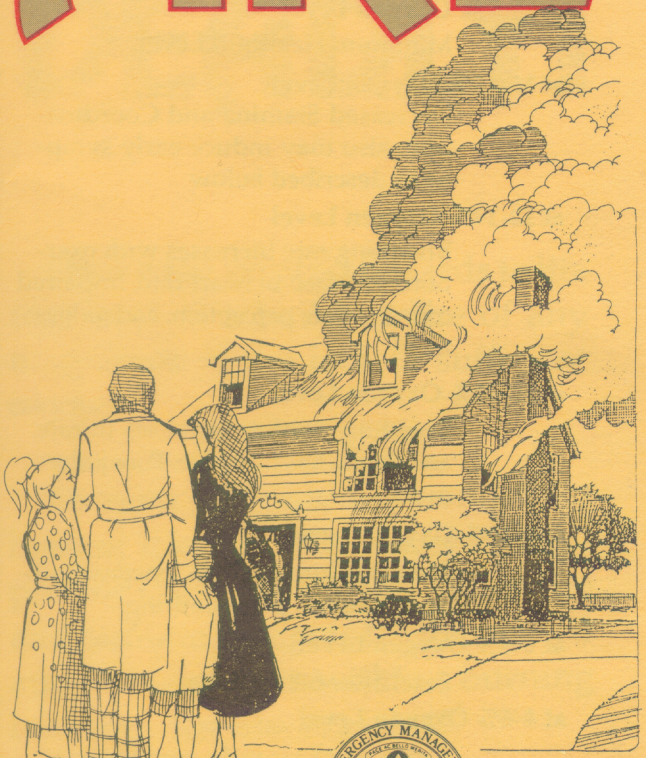
Escape from FIRE



FEDERAL EMERGENCY MANAGEMENT AGENCY

ONCE YOU'RE OUT STAY OUT!

IT IS IMPORTANT TO REALIZE:

Once you have made your way out of a burning building you may already be suffering the effects from lack of oxygen.

THESE EFFECTS INCLUDE:

at 21% Oxygen Level
Normal Atmospheric Level

at 19.5 % Oxygen Level
Minimum Healthful Level

at 15-19% Oxygen Level
Decreased Stamina and Coordination, also may induce early symptoms described below

at 12-14% Oxygen Level
Breathing rate increases with exertion, increase in heart rate. Impaired coordination, perception, and judgement

at 10-12% Oxygen Level
Breathing further increases in rate and depth, lips turn blue. Poor judgement.

at 8-10% Oxygen Level
Mental failure, fainting, unconsciousness, nausea, and vomiting.

at 6-8% Oxygen Level
Fatal after 6-8 minutes.

at 4-6% Oxygen Level
Coma in 40 seconds, convulsions, respiration ceases, and death.

One of the major effects of lack of oxygen is the impairment of judgement. You may not realize it, but the possible exposure of lack of oxygen on the way out may impair your ability to think clearly and rationally. Even if you are not affected, others who escaped with you may display this impairment of judgement. **IT IS IMPORTANT TO PREVENT OTHERS FROM RE-ENTERING!**

OTHER DANGERS

- Another hazard which exists in a burning building is the presence of toxic gases. Carbon Monoxide is a main by-product of fire. It is odorless, colorless, and tasteless. In high concentration it can immediately cause unconsciousness and subsequent death. Even in moderate amounts carbon monoxide can cause impairment of mental functions much similar to the lack of oxygen.

- Fire itself is a serious hazard in that it can cause fatal or debilitating burn injuries. A building fire can generate heat upwards of 1500°F. Keep in mind that water boils at 212ºF, and that most foods are cooked in temperatures of less than 500°F. There is the possible danger of flashover where a room is immediately engulfed in flames in an explosion-like reaction.

- Gas mains, propane tanks, and even small arms ammunition can explode causing serious injury.

- The structural integrity of the building can be affected during fire. Ceilings and walls can collapse on top of you, the floors can fall from underneath your feet, and other structures such as stairways and porches can collapse.

- Often electrical lines can become exposed inside the building and fall from outside connections to the ground on the exterior of the building. This can result in electrocution.

Finally. . .

Go to a safe place (preferably prearranged) far enough away from the building in case of collapse or explosion and perform a head count of those who were in the building with you (family members or co-workers).

- If someone is missing it is critically important that this be conveyed to arriving Firefighting Personnel. Tell them who and how many people are missing and where they were last seen.
  "DO NOT GO BACK IN AND TRY TO FIND THOSE MISSING"

Seek medical care if you or any others who escaped from the buring building are injured. Keep in mind that the symptoms of lack of oxygen and/ or exposure to toxic gases can closely resemble those of alcohol intoxication, Get these people immediate medical attention.

Seek shelter from the elements in a safe neighboring building, expecially in the cold, rain, and extreme heat.

Ask Firefighting Officials or a neighbor to notify insurance company, nearby relatives or the Red Cross to arrange lodging (if applicable).

If you are not going to remain in the building, make sure your property is secure. Ensure the police are aware of the building being unattended. Lock up or board up open windows and doors.

NEVER RE-ENTER! RESULTS COULD BE DEADLY!

One of the greatest hazards to life that exist in a building fire of any magnitude is the lack of sufficient oxygen.

Oxygen not only is essential for human life, but also is key to supporting the life of the fire. When fire and humans compete for the limited amount of oxygen within a burning building, fire always wins!

Most fire fatalities are caused because of this. It is often referred to as death from smoke inhalation but put in much simpler terms it is death by suffocation.

The dangers of oxygen displacement in a burning building as well as other hazards including the presence of toxic gases, the fire itself, the risk of explosion, building collapse, and electrocution make reentering a burning structure a dangerous, if not deadly proposition.

United States Fire Administration

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