Fire Won't Wait: Close Your Door

Today's house fires burn hotter and faster than ever before. People used to have around fifteen minutes to escape a house fire. We now build and furnish our homes with a lot of synthetic materials that burn so fast that you may have less than two minutes to get out after a fire starts. It's vital that we all ensure that we'll be made immediately aware of a fire (Have you changed your smoke detector batteries in the last six months? Have you replaced your smoke detectors in the last ten years? If not, that should be at the top of your to-do list!) and that we're prepared to escape our homes quickly at the first sign of a fire.

The National Fire Protection Association has a lot of good information here: https://www.nfpa.org/Events/Events/Fire-Prevention-Week/About, including a Family Action Plan (also available by clicking right here) for discussing and practicing how to get out in the event of a fire. Please, go there today and begin planning for how to protect yourself and your family members.

In addition to the information from the NFPA, I want to share some information and a safety tip from another source: https://closeyourdoor.org). What I'm talking about is a simple fire safety step you can take to give yourself and your family a little more time to get out (and when we're talking an escape window as short as two minutes, even a tiny amount of additional time can be vital). It's so simple, in fact, that it can be said in three words: Close the door.

Of course, I'm going to take more than three words to explain....

Part One: Close interior doors

A fire needs three things to exist and spread: heat, fuel, and oxygen. If any one of these elements is removed, the growth and direction of the fire can be altered, slowed, or even eliminated.

Also, most of the time, the flames are not the most lethal part of a fire. People are more likely to be killed by the overwhelming heat, by inhaling dangerous and superheated gasses, or by the fire using up most of the available oxygen, than by the flames themselves. Smoke is made up of many dangerous chemicals, from carbon monoxide (CO) to phosgene gas and even hydrogen cyanide.

The most immediately lethal part of a structure fire is the production of CO and other toxic gasses coupled with the depletion of oxygen, as the fire pulls all the available oxygen from the area to sustain itself. Research has shown that oxygen drops to dangerous levels or is completely depleted in most areas of a burning structure except in rooms with closed doors. A closed door not only inhibits the progression of fire into that room, but helps protect the air quality inside, giving those inside more time to escape through a window.

See the following pictures for a graphic example of this. Picture 1 shows the living room of an apartment that was completely engulfed in flames. This space could not support life. Picture 2 shows the inside of a bedroom that was directly connected to the living room from the first picture. This room's door was shut during the fire.

Picture 1

Picture 2

Notice the door to the bedroom -- its condition shows that it was in direct contact with high heat, but as you can see, the smoke and fire damage inside the room is almost nonexistent. There's a very high chance that this room's oxygen levels would have remained high enough to support life, at least for long enough for the occupants to escape. Research suggests that during the fire, the temperature in this room would have been up to 900 degrees cooler than in the other room, with CO levels 9,000ppm lower.

What's the take-away? Closing your interior doors before you go to sleep could make all the difference to your ability to safely escape a fire in your house. Closing all interior doors when you will be away from your house could make the difference between the loss to fire of a single room and the loss of the whole house.

Part Two: Close exterior doors

Fires need oxygen to burn, and today's fires, which burn very fast due to the synthetic materials they consume, require a massive amount of oxygen to sustain them.

So, when escaping a burning structure -- close the door behind you. Closing the exterior door cuts off a major source of oxygen to the fire. This may slow down the fire significantly, as it can't burn efficiently in the presence of more fuel than oxygen. Slowing the fire down gives the fire department more time to arrive and begin fighting it before the house becomes completely involved. In fact, firefighters are now trained to survey the entire building upon arrival without opening any of the doors -- this give us the opportunity to locate the area of highest fire intensity and plan our attack before creating any openings in the exterior wall that will feed oxygen to the fire and increase its intensity. Note: fires often vent themselves (breaking windows or burning through the roof), making it impossible to limit their access to oxygen, so closing the door is far from a guaranteed solution. However, it's something that may help. Even more important note: DO NOT REOPEN THAT DOOR -- If you've made it out, closing the doors behind you, under no circumstances open any door or window for any reason at all. This may create a backdraft, in which the fire's sudden access to oxygen causes an explosion that could harm even people well away from the house.

So remember, for your safety and the safety of your family, and to slow the spread of a fire: Close the door.