

The Ingredients for Cooking Without “Fires”

By Rebecca Booker

Spring Lake Park-Blaine-Mounds View Fire Department

It's 5pm Sunday at a home in Stillwater. A family is cooking dinner. A fire starts. Four hours later and with the work of 60 firefighters, the fire was out. The house was destroyed by fire. Every unwanted fire has a common list of ingredients: initial heat source, an initial fuel source, and something to bring them together. That something nearly always has a human component. Fire also needs oxygen and a chemical reaction. Nevertheless, heat, fuel and human error are central to nearly all fires and can be used to prevent this recipe for disaster.

Cooking is the leading cause of fires and fire injuries in structures in the U. S. 80% of fire deaths occur in the home. This does not have to happen. FEMA lists the main ingredients in cooking fires:

Loss Estimates and Measures

In 2002, cooking-related fires caused an estimated 185,600 fires in structures, 80 deaths, 3,875 injuries, and \$481 million of reported fires.

Where the Fires Occur

Although cooking fires occur in many property types, the overwhelming majority of them take place in residential structures. Over 80% of cooking fires occur in one- and two-family dwellings or in multifamily buildings such as apartments.

When the Fire Occurs

Cooking fires follow no seasonal trend. They do follow a daily pattern. A noticeable peak in kitchen fires occurs at the 6pm. A secondary peak occurs at noon.

Material Ignited

Cooking materials, including food, were the material first ignited. Specifically, oil, fat, and grease were the leading types of material ignited in cooking fires. Oil and grease are highly flammable and can splatter or spill during cooking. Starches were the second most common material ignited, followed by plastics such as appliance casings or cooking utensils.

Factors Contributing to Ignition

Careless cooking activities are typically responsible for cooking fires. Unattended equipment, such as people leaving food in the oven or on the stove and forgetting about it, accounted for 30% of cooking fires. The other big factor is having things too close to the heat source (3-foot rule).

Equipment Involved in Ignition of Cooking Fires

The equipment involved in a cooking fire is the stove, oven and microwave.

Smoke Alarm Presence and Operation

In 45% of all structure cooking fires, a smoke alarm was present, operated, and alerted the occupants. In 48% of structure fires, no alarm was present. Having a working smoke alarm more than doubles one's chances of surviving a fire. Remember it is not enough to have smoke alarms. They must be in the right place and maintained to alert you in a fire situation.

A recipe for safe cooking includes:

- Having nothing that can burn within 3 feet of the stove or oven (paper, bills, calendars, food, potholders)
- Use cooking aids to limit grease splatter
- Keep a lid to the pan you are using nearby when cooking. Cover the pan if a fire occurs. If the fire/grease spills outside the pan, use an ABC extinguisher. Have a clear exit. Do not put water on the fire!
- Always wear short, tight-fitting sleeves when cooking
- Turn pot handles inward to avoid spills. Always use a potholder when reaching for handles
- Clean cooking surfaces regularly to prevent grease buildup, including the vent cover to the fan
- Always attend your cooking. Unattended cooking is the #1 cause of fires world-wide
- Check the kitchen before you go to bed or leave the house. Make sure all other appliances are turned off
- Make sure your smoke alarms are in good working order and are less than 10 years old. Change the batteries twice a year. Install them IN the bedroom, IN the hallways outside the bedroom, and ON every level of your home

No matter if you are just fixing a snack or making a 4-course meal, you have the recipe for safe cooking without "fires".