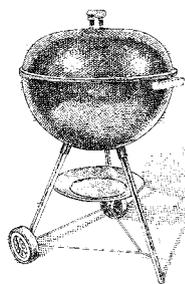


# Grilling 101

A little know-how and some practice are all that's required to meet the challenges of grilling. BY REBECCA HAYS

The problem with (and the fun of) grilling is that it is unpredictable: flare-ups, a gust of wind, and a fire that is too cool or too hot are just a few of the occurrences that call for adjustments from the outdoor cook. To improve your chances of success, keep the following tips and techniques handy the next time you fire up the grill.

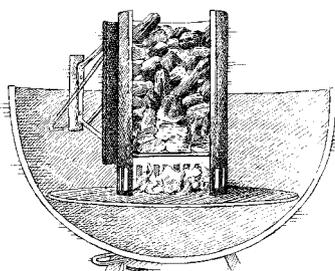
## GRILLING EQUIPMENT



CHARCOAL GRILL



GAS GRILL



**Chimney Starter** Look for a large chimney starter capable of holding 6 quarts of charcoal. Fill the bottom of the starter with crumpled newspaper, set the starter on the bottom rack of a kettle grill, fill the main compartment with as much charcoal as directed in a given recipe, and light the newspaper. When the coals are well lit and covered with a layer of gray ash, dump them onto the rack, using long-handled tongs to move the briquettes into place, if necessary.

**Charcoal Grills** Grilling over charcoal provides exceptional browning and searing that a gas grill simply can't replicate. That's because a charcoal fire, built with plenty of charcoal, gets hotter than a gas fire. Besides searing, charcoal adds another distinct advantage—smoke flavor. The one disadvantage to grilling over charcoal is that it can be unpredictable—rain, wind, and snow can lower the temperature of the grill or even cause the fire to die out completely. As for grill size, larger is better. We grill on a 22-inch Weber kettle grill.

**Gas Grills** In terms of convenience and dependability, a gas grill can't be beat. A gas grill is consistent, delivering the same results day in and day out. Gas grills are roughly three times more expensive than charcoal grills, so it pays to shop carefully. Make sure to buy a gas grill with at least two burners to facilitate cooking over indirect heat. In past *Cook's* tests, gas grills made by Weber have come out on top.

## GRILLING TECHNIQUES

**Grilling:** Quickly cooking relatively thin cuts of food (steaks, chops, fish, and chicken parts) directly over a hot or medium-hot fire (around 500 degrees Fahrenheit, and in some cases even hotter). Charcoal grilling is always done with the lid off. When cooking with gas, the lid must be kept down to contain the heat.

**Grill-Roasting:** An alternative to oven-roasting that involves indirect cooking over moderate heat (300 to 400 degrees) with the lid on. Whole chickens and turkeys and tender cuts such as beef tenderloin and pork loin are grill-roasted.

**Barbecuing:** Slowly smoking tough, thick cuts (ribs, brisket, or pork shoulder rubbed with dry spices) over a low fire (250 to 300 degrees). This method tenderizes the meat and adds authentic smoky barbecue flavor.



**Charcoal** To test the assertion that charcoal type influences flavor, we grilled steaks and zucchini over three fires built with the following: hardwood charcoal, regular charcoal briquettes, and Match Light, a Kingsford product infused with lighter fluid to guarantee rapid ignition. The flavor differences in the steaks were nearly imperceptible, but the delicate zucchini was a different story, with the zucchini grilled over Match Light tasting oddly bitter. In separate tests with delicate foods—chicken, fish, and vegetables—grilled over fires started with lighter fluid, tasters also detected harsh, acrid flavors. Consequently, we like to steer clear of both Match Light and lighter fluid. Hardwood charcoal is the best choice for grilling because it burns hot and fast, while slower burning briquettes are optimal for grill-roasting and barbecuing.

## THREE TYPES OF FIRES



### Single-Level Fire

Delivers direct, moderate heat. Used with fairly thin foods that cook quickly.

**USE FOR:** Fruits, vegetables, fish and shellfish, hamburgers, and kebabs.

**TO BUILD:** Arrange lit charcoal evenly in the grill.

**GAS-GRILL EQUIVALENT:** Adjust all burners to high for a very hot fire, or turn the burners to medium after preheating.



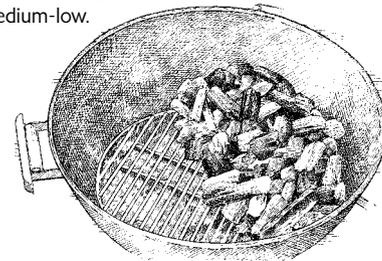
### Two-Level Fire

Allows the cook to sear foods over a very hot section of the grill and to finish the cooking over a medium-hot section so that the exterior doesn't char.

**USE FOR:** Chops (pork, lamb, and veal), steaks, turkey burgers, bone-in chicken legs and thighs, and thick fish steaks (mahi-mahi and swordfish).

**TO BUILD:** Arrange some lit coals in a single layer on half of the grill. Leave the remaining coals in a pile.

**GAS-GRILL EQUIVALENT:** Leave one burner on high or medium-high and turn the other(s) to medium or medium-low.



### Modified Two-Level Fire

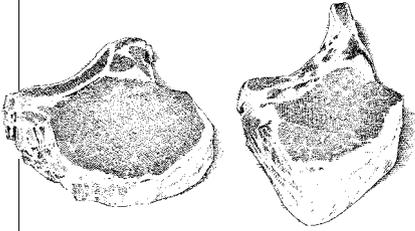
Ideal for foods that are susceptible to burning but require a long cooking time. Can also be used to create an especially hot fire when grilling small, thin cuts of meat.

**USE FOR:** Bone-in chicken breasts, boneless chicken breasts and thighs, sausages, flank steak, pork tenderloin, rack of lamb, and butterflied leg of lamb.

**TO BUILD:** Pile all of the lit coals onto one side of the grill, leaving the other side empty. We often cover foods on the cool part of the grill with a disposable aluminum pan to trap the heat and create an ovenlike cooking environment.

**GAS-GRILL EQUIVALENT:** Leave one burner on high and turn the other burner(s) to medium-low.

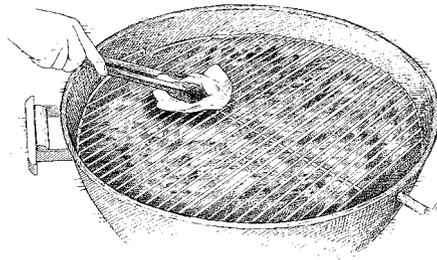
## COMMON GRILLING PROBLEMS AND HOW TO SOLVE THEM



**PROBLEM: Grilled foods are dry.**

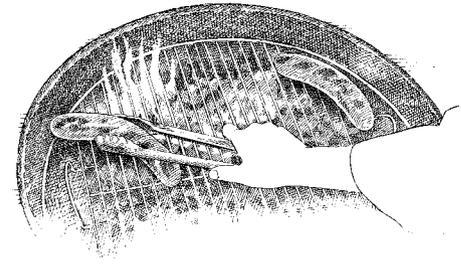
Charcoal smoke adds great flavor, but it also tends to dehydrate food.

**SOLUTION:** Generally speaking, thicker foods are easier to grill than thinner ones, so shop for moderately thick chops, fish fillets, and steaks. It's often beneficial to brine foods (especially lean poultry, pork, and shrimp) that will be cooked over charcoal.



**PROBLEM: Burgers and fish stick to the grill.**

**SOLUTION:** It is essential to heat the grill and then scrape it clean with a grill brush before each use. Grilling on a grill grate clogged with burnt, stuck-on food from last night's dinner is akin to cooking in a dirty pan. In addition, we recommend oiling the grill grate to keep foods from sticking. We've found that the easiest method is to dip a wad of paper towels in vegetable oil, grasp the oiled towels with tongs, and rub the oil over the hot cooking grate.

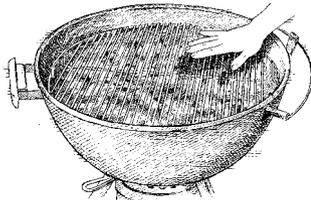


**PROBLEM: The food chars before it cooks through.**

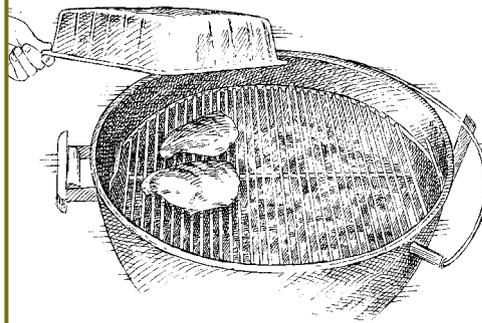
**SOLUTION:** Build a fire that has hot and cool spots so that you can sear food over the hotter area and then cook it through without scorching on the cooler area. Flare-ups are common when grilling high-fat foods like sausages and skin-on chicken. At the first sign of flames, move foods to a cooler part of the grill. Also, don't apply barbecue or other sticky sauces until the last minutes of cooking (or pass sauces at the table).

### How to Judge the Temperature of a Fire

You can get a good idea of just how hot a fire is by holding your hand 5 inches above the grill grate and counting the number of seconds you can comfortably leave it there.

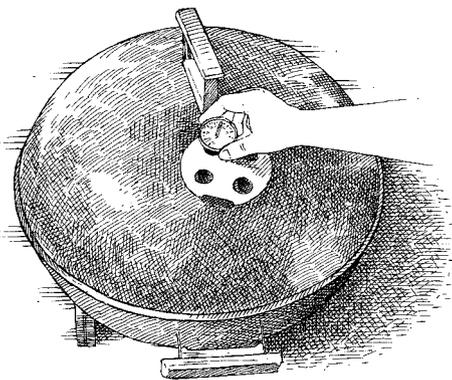


INTENSITY OF FIRE	TIME	USE FOR
Hot	2 seconds	Flank steak, shrimp, scallops
Medium-hot	3-4 seconds	Steaks, burgers, chops, fish, vegetables, fruit
Medium	5-6 seconds	Grill-roasting
Medium-low	7 seconds	Barbecuing



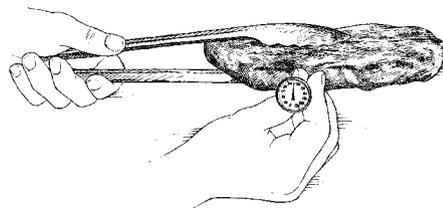
**PROBLEM: Charcoal-grilled food has an off, stale smoke flavor.**

**SOLUTION:** Don't use the grill cover every time you grill. It may have a buildup of soot and resinous compounds that can impart unwelcome flavors. When grilling steaks, chops, or chicken parts, for instance, build a fire that's big enough to cook the food through quickly, covering food with a disposable aluminum pan if you need to trap heat to cook food through. When you want to barbecue or grill-roast for a prolonged period of time, the lid must be used. (The smoky flavor from wood chips or chunks generally masks any off flavor that the lid may impart.)



**PROBLEM: It's difficult to monitor the temperature when grill-roasting and barbecuing.**

**SOLUTION:** A grill thermometer can be inserted through the lid vents of a charcoal grill. To measure the temperature of the spot where the food is being cooked, rotate the lid so that the thermometer is close to the food and away from the fire. Do not let the thermometer stem touch the food.



**PROBLEM: It's difficult to gauge doneness.**

**SOLUTION:** Grilling is an inexact cooking technique, and it is sometimes necessary to adjust timing to account for cool or windy conditions. Taking the temperature of food with an instant-read thermometer is the best way to tell if it's done. Pick up a steak or chop with a pair of tongs and insert the tip of a thermometer through the side of the meat until most of the shaft is embedded in the meat and not touching any bone. Because most grills have hot spots, you can't assume that every burger, steak, or piece of chicken will be done at the same time—check each one.

### When Is It Done?

The temperatures in this chart reflect our opinion with regard to palatability. Meat should come off the grill when it is 5 to 10 degrees shy of the desired final internal temperature listed below, as the temperature will continue to rise for several minutes (see page 3 for more information). Note that the U.S. Department of Agriculture recommends cooking ground meat to 160 degrees; roasts, steaks, and chops to 145 degrees; and poultry to 180 degrees to eliminate potential food-borne pathogens.

	RARE	MEDIUM-RARE	MEDIUM	WELL-DONE
Red Meat (BEEF, LAMB, VEAL)	125°	130°	140°	160°
Pork	*	*	145°	160°
Chicken (WHITE MEAT)	*	*	*	160°
Chicken (DARK MEAT)	*	*	*	165°

**Fish** (Check for doneness by nicking the flesh with a paring knife; most fish should be opaque at the center. Tuna and salmon can be cooked until just translucent at the center.)

\*Not recommended