FOOD AND ENTERTAINING » BARBECUE

# **How to Avoid Grilling Dangers**

Explore this Article ■ Practicing Safe Grilling Techniques ■ Preparing To Grill ■ Keeping Foods Safe When Grilling ■ Tips and Warnings ■ References

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When the weather gets warm out, many people start to clean off their grills and barbecue foods outside. Grilling out is a fun and tasty cooking method. You can enjoy the outdoors while cooking up a great meal. Plus, the high heat of the grill sears foods and infuses a great charred flavor; however, grilling, like all cooking methods, needs to be done appropriately and safely. Since grills can produce a lot of heat (and even some flames), it's important to practice appropriate safety techniques to keep you and your family and friends safe while you grill out.



# Part 1 of 3: Practicing Safe Grilling Techniques



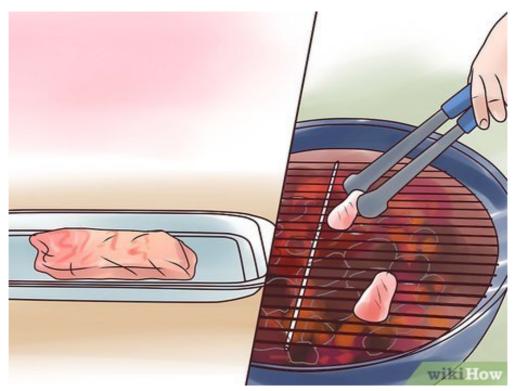
- Heat and start the grill safely. One of the first things you'll do when you begin to cook is actually turn on your grill. Regardless of what type of grill you have, you'll need to let the grill get nice and hot in order to start cooking.
  - Start by following the manufacturer's instructions for heating. It'll tell you exactly how to turn on the grill and how long to let it preheat before you place food on the grates.[1]
  - For gas grills, turn on the gas followed by the burner. Once the burner is lit, you're good to start preheating. If the flame doesn't come on, turn off the burner and try again. Do not leave the gas going with an unlit burner.
  - If you need to use lighter fluid to get the grill going, only using charcoal starter fluid; however, it may be easier to use an electric charcoal starter which may be easier and safer for you.
  - Never use lighter fluid on coals that are already lit. This can cause dangerous flare ups of high flames.



- **2** Wear the appropriate clothing. If you're grilling, wear appropriate clothing and protective gear. Certain types of clothing or cooking gear can cause safety hazards as you cook.
  - Avoid wearing loose or baggy clothing as you grill. A baggy shirt can catch flame if it touches the grill grates as you lean over to reach foods towards the back of the grill.[2]
  - The same goes for cooking attire. If you're wearing an apron, tie it snugly around your body so that no loose ends are dangling over grill grates as you cook. It should be tied behind you, at your back, and not around your waist with the knot or bow at the front.
  - The best clothes are a fitted long-sleeve shirt with an apron tied around you with the
    ends tucked in or at your back. The long sleeves can protect your forearms from
    splatters or splashes as you cook.



- **3** Use the appropriate grilling utensils. If you own a grill, you probably have some speciality cooking utensils to use. Use the appropriate items that are designed specifically for grilling.[3]
  - All grilling utensils forks, spatulas, tongs, etc. should have very long handles.
     This allows you to reach foods towards the back of the grill without having to reach your entire arm over hot food and grates.
  - Also choose grilling utensils that are grill-safe and can withstand high heat. Some plastic and wooden items will burn or melt over the high heat of a grill.
  - Lastly, choose items that do not conduct heat well at the handle. You want to be able to hold onto a set of tongs without them getting so hot you cannot touch them.



**A** Never leave a grill unattended. As you would with any type of indoor cooking, never leave a grill unattended. Even if there is no food on the grill currently, you shouldn't leave a heated grill alone.[4]

- Once you have turned on your grill, plan to stick around. If you forgot an ingredient, need to make a phone call or finish up some cooking inside the house, ask if someone else can "man the grill" for you.
- Keep children and pets stay far away from the grill. There are hot grates, hot food and hot utensils that could seriously injure a small child or a pet.
- Ask someone that's with you to watch children and pets and keep them away from the grill and occupied elsewhere.



- **5** Watch for safety red flags. Keep an eye on your grill as you're cooking to make sure everything stays safe. Be mindful of odd smells (like gas), watch for flare ups and mind the temperature.
  - Keep a nose out for odd smells. If you smell gas during cooking, turn off the gas tank and the grill immediately.<sup>[5]</sup> If the smell continues, call the fire department and do not touch the grill.
  - While you're cooking, some fat may fall down onto the hot coals and cause a big flare up. These usually contain themselves and do not spread, but keep an eye out for them and have everyone else steer clear.

## Part 2 of 3: Preparing To Grill



- **1** Check over the grill. Before you even begin grilling, a very important part of grilling safety is to check over the grill before starting it up. You'll need to check over the gas tank, burners, coals, etc to make sure everything is in working condition. [6]
  - If you have a gas grill, check the connections between the gas tank hose and where that hose connects to the grill itself or the burners. Make sure all the connections are tight and there are no leaks.
  - If you have a charcoal grill, you'll need to get the charcoals ready and lit prior to grilling. Have the right items to get your coals lit safely. Use paper and matches, charcoal lighter fluid or an electric charcoal starter.



- **2 Get set up.** After you do a once-over on the grill, get everything else set up and ready to go to grill. Have all your dishes, foods and utensils ready before you actually begin grilling.
  - To start, place a fireproof pan underneath the grill to catch any grease or ashes. This helps prevent flare ups and extra mess.
  - Have your food ready. It should stay refrigerated until you're ready to grill.
  - Have a set of utensils and plates for raw foods and another set for cooked foods. You do not want to cross contaminate raw items, especially meat.
  - Have a fire extinguisher ready. Just in case, it's a good idea to have a fire extinguisher ready or nearby in case of emergency.



- **Clean your grill.** Although you do clean your grill after you've finished using it, clean off the grill before you begin cooking as well. This helps give the food good flavor and prevent flare ups.
  - Contrary to what you might think, you want to wait until the grill is hot to clean off those grates. The heat helps burn up any remaining food particles on the grates and allows them to be brushed off more easily.[7]
  - Use a stainless steel brush to clean off the grates. With mild pressure, scrub the brush up and down all of the grates until all food particles have been removed.
  - Once the grates have been cleaned properly, you can begin cooking your foods.



4 Heat up the grill in a safe place. One very important part of safe grilling is making sure that you heat up your grill and cook on your grill in a safe place. If your grill gets too close to certain items (like a house or fence), you can cause damage to these items.<sup>[8]</sup>

- Your grill needs to be well away from the side of your house, fences, the railings of your deck, from outdoor furniture and out from underneath low hanging tree branches.
- Move your grill away from an area that is highly populated by traffic. It shouldn't be right next to a door or an area where people are constantly coming close by especially children.
- Clean dried leaves, mulch or other plants away from the base of the grill as well. Dried leaves can catch fire quickly.

## Part 3 of 3: Keeping Foods Safe When Grilling



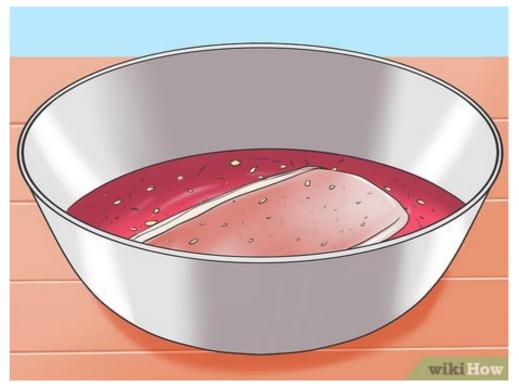
- Remove or drain off excess fat. When you're grilling, you may choose to do a lot of different meats or vegetables that you've marinated; however, the fat on meats or from oil can cause flare ups, so you need to be mindful of the excess fat.
  - Fat, when it drips onto hot coals or burners, causes a flare up. This is when a big and very hot flame comes up through the grates.[9]
  - Flare ups can be a little scary and cause a baggy shirt or apron string to catch fire. If your bare arm is over the grill when there's a flare up, you can also get seriously burned
  - Trim excess fat from meat and thoroughly drain meat or vegetables from their marinades. The fat from either can cause a big flare up on your grill.



- **2** Keep all foods cold until ready to grill. It's not only the grill itself that can be dangerous when you're barbecuing foods outside. Practice safe food handling techniques as well.
  - Bacteria commonly found in foods thrive at certain temperatures this is called the danger zone. Foods between 40 to 140°F (4.4 to 60°C) are in range of the danger zone where harmful bacteria can grow rapidly.[10] Refrigeration slows bacterial growth.
  - When you're grilling foods, do not pull out your foods until you're ready to put them on the grill immediately. You'll need to do your grill check, preheating and cleaning way before you take your foods out of the refrigerator to be cooked.
  - You have a two hour window to work with foods at room temperature. This gives you
    time to cut, chop, prep or do whatever steps are called for. After two hours, you need
    to cook the food, or put it back in the refrigerator until you are ready to cook it.
  - Fresh, whole fruits and vegetables do not need to be kept in the refrigerator. Only cut produce, meat, seafood and dairy need to be kept cold.



- Check all foods with a thermometer. Keep a grilling thermometer handy while you cook your foods. Not only is it good for safety, but you can customize how well done certain items are for your guests.[11]
  - Choose a thermometer designed for the grill. It should have a long handle so that you don't have to leave your arm over the hot grill grates while you wait for the temperature reading.
  - Any type of ground meat needs to be cooked until it reaches an internal temperature of 160°F (71.1°C) at a minimum.
  - Any type of poultry, leftovers or casseroles need to be heated until they reach a temperature of 165°F (73.9°C).
  - Whole cuts of meat, like steaks, need to be cooked until they are 145°F (62.8°C).
     People may want them cooked to a lower temperature, but to ensure they're safe to eat, cook foods longer.



**Do not reuse marinades or dishes.** Remember to not recontaminate foods that have been cooked to a safe temperature. Pay attention to what fork or dish you use for cooked and raw foods.

- Set aside one set of utensils for raw foods and one for cooked foods. Once you put the foods on the grill, go ahead and swap out the tools and utensils used on the raw food for fresh tools and utensils.
- Also get out a new set of plates or platters to serve your cooked foods. Do not place them on platters that have been used to hold raw foods.
- The same goes for marinades. Dump marinades down the drain that are leftover from being used on raw foods. If you want to keep some of your marinade, separate it before you put the meat in it.



#### Tips

- Grilling can be a fun and tasty way to prepare foods; however, practice all safety techniques to keep you and your family safe while you cook.
- Doing a lot of preparation before grilling can make practicing basic food safety techniques much easier.



#### Warnings

• Chemicals are formed when meat is cooked at high temperatures that can increase the risk of cancer. Heterocyclic amines (HCAs) are formed when meat is cooked at a high temperature. Polycyclic aromatic hydrocarbons (PAHs) are formed when the fat and juices from meat cooked on a grill drip onto the fire, and cause flames. The flames contain PAH. There are no formal dietary guidelines for foods containing HCAs and PAHs; however, you can reduce your exposure in several ways. Avoid long cooking times. Cook your meat part way in the microwave, and then finish it off on the grill. Turn your meat often, or cook on a spit. Don't eat the parts that are blackened and charred.[12]

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#### **About This Article**



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