

Safe Summer Grilling



For some people, summer means firing up the grill. But can grilling foods be hazardous to your health? While grilling can be a fun summer treat, there is evidence to show that it may pose a cancer risk. Fortunately, by following a few simple steps, we can minimize these risks.

What happens when meat is grilled?

High-heat grilling can convert proteins in red meat, pork, poultry, and fish into heterocyclic amines (HCAs). HCAs are chemicals that have been linked to a number of cancers including breast, colon, stomach and prostate cancers.

When fat and juices from meat products drip down to the heat surface on a grill, smoke is produced. This smoke contains potential cancer-causing chemicals called polycyclic aromatic hydrocarbons (PAHs). As smoke rises up past the food, the carcinogens can be deposited on the surface of the meat.

What can be done to make grilling safer?

Reducing the amounts of harmful chemicals (HCAs and PAHs) generated when grilling may help reduce cancer risk. Below are some tips that can help to reduce the amounts of harmful chemicals formed when grilling.

Choose Wisely

- Choose lean cuts of meat such as lean chicken, fish, and (at least 93% lean) beef, instead of high-fat varieties such as ribs and sausage. With poultry, choose light meat instead of dark meat. Lean and light meats create less dripping and less smoke.
- Choose unprocessed meats (such as lean chicken, fish, and beef) over processed meats (such as kielbasa, sausage, and hot dogs). Processed meats contain different kinds of carcinogens that may be even more harmful.

Prep the Meat

- Trim all excess fat and remove skin.
- Marinating chicken, fish and meat has been shown to reduce levels of cancer-causing compounds formed when grilling. When using marinades, thinner is better. Choose marinades that contain vinegar and/or lemon. Thicker marinades with honey or sugar can tend to “char,” possibly increasing exposure to carcinogenic compounds.



Limit Time – Limit Exposure

- Pre-cook meat and fish in the microwave for 60-90 seconds on high and discard any juices before grilling. This will cause less smoke flare-ups, limiting exposure to cancer-causing agents.



- Choose smaller cuts of meat, like kebabs, as they take less time to cook.
- Always thaw frozen meat in the refrigerator or microwave before grilling.

Grilling Techniques

- Flip burgers often: Once every minute is best.
- Keep food at least six inches from heat source.
- Avoid charring or overcooking meats.
- Use aluminum foil with holes punched or cedar planks to prevent juices from dripping and producing harmful smoke.

Other Ideas

- Cut away charred parts of meats before eating.
- Skewer fruit (pineapple, papaya and/or mango) or veggies and grill
- Try grilling your favorite vegetables or tofu. They contain very little protein of a different type and thus do not form harmful HCAs.
- Toss large pieces of cut up veggies with olive oil, garlic and shallots and grill them in a grilling basket.

Put risk in perspective. Grilling foods, especially if you follow the recommended tips, can be safe if done in moderation. It is also important to remember that a diet rich in plant-based foods (such as vegetables and fruits) has a protective effect. Aim for vegetables to make up at least 50% of your plate and enjoy grilled foods in moderation.

<u>Basic Marinade</u>	<u>Oriental Marinade</u>
¼ cup olive oil ¼ cup vinegar ¼ lemon juice ½ teaspoon salt ½ teaspoon dried whole thyme or your favorite fresh herb ½ teaspoon pepper	¾ cup soy sauce 2/3 cup canola oil ½ cup lemon juice ¼ cup Worcesters sauce ¼ cup prepared mustard 2 cloves garlic, minced
Combine all ingredients, stirring well. Marinade beef, pork, poultry, or tofu before grilling. Baste while cooking.	Combine all ingredients, stirring well. Good for beef, fish, poultry, pork, and tofu.



*Recipes adapted from ESPN

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