Guidelines for Safer Grilling

**By Dr. Alyssa Musgrove**

With warmer temperatures just around the corner, many of us will be opting to beat the heat and keep the kitchen cool by grilling outdoors.

Yet while barbeques and summer go hand in hand, it’s worth taking a moment to polish those grill skills before donning that apron and “firing up the Barbie.” When it comes to grilling, there is a correct way and an incorrect way to do it.

Research has shown that meats cooked at high, dry heat (like barbecuing, pan-frying and broiling as opposed to stewing, roasting or baking at lower temperatures) form heterocyclic amine (HCA). Researchers say HCAs are “reasonably anticipated to be a human carginogen” and eating them may increase your risk of certain cancers, such as colorectal, stomach, lung, pancreas, breast and prostate cancer.

HCAs aren’t found in the charred bits on the outside of your food, but develop inside the meat. The charred parts you see on the outside – burned by flames from your grill – contain polycyclic aromatic hydrocarbons (PAHs), another carcinogen that should be avoided. (Always discard or scrape off charred parts.)

So, does all this bad news mean you need to forego the grill this summer?

Not at all.

By making a few small changes to your strategy, you can enjoy grilled meals all summer long. Here are a few simple ways to reduce the formation of HCAs and PAHs, and lessen their impact on your health:

**Reach for lower fat options –** Flare-ups happen when fat drips onto the heat source and catches fire. This causes carcinogenic PAHs (polycyclic aromatic hydrocarbons) to form and accumulate on your food. To avoid this, select lean cuts of meat, trim excess fat and remove poultry skin. Also, resist the urge to press down on the meat as you grill. Pressing down causes the fat to drip onto the open flame, causing higher temperatures and additional smoke – exactly what you DON’T want to do.

**Cook “low and slow” –** Turn down the heat. It may take longer, but low heat is always the best way to cook animal foods – no matter the method – as it reduces the formation of HCAs and PAHs. Ideally, you should aim to keep the grill at 300 degrees Fahrenheit or less.

**Avoid well-done meat –** The more well done, the more HCAs the meat is likely to contain. In fact, one major study found well-done meat to contain up to 3.5 times the levels of HCAs as meats cooked to medium-rare.

**Flip frequently –** Flipping frequently helps avoid charring and reduces HCA production.

**Grill smaller pieces –** Smaller pieces take less time to cook, ideally giving HCAs less time to form.

**Marinate –** Notonly does marinating infuse your meat with flavor, it has also been shown to inhibit the formation HCAs. According to the American Institute for Cancer Research, marinating can reduce HCA formation by as much as 92 to 99 percent.

Try incorporating one of the following marinades into your summer meal plans:

 **Antioxidant Marinade**
*This basic marinade recipe is suitable for all types of meat and fish, and easy to switch up by incorporating different vinegars, spices, and seasonings such as miso, paprika, and chili peppers.*

1⁄2 cup avocado oil
4 Tbsp vinegar
4 Tbsp lemon juice
3 medium garlic cloves
3 Tbsp Dijon mustard
2 Tbsp fresh rosemary
1 tsp Himalayan sea salt

Mix all ingredients in a large bowl and coat meat or fish from all sides. Marinate for 10 to 30 minutes (or longer to intensify flavors), but 10 minutes is enough to protect from HCAs.

**Pomegranate Balsamic Steak Marinade**
*This recipe comes courtesy of Dr. Larry Jack, owner of Plantation Olive Oil in Greensboro. Plantation Olive Oil has a wide variety of oils and vinegars to create an endless list of tasty marinades.*

1/3 cup Pomegranate Balsamic
1/4 cup Organic Garlic Olive Oil
1 Tbs. good quality Dijon style mustard
2 teaspoons kosher or sea salt

Prepare the grill or broiler.  In a medium bowl, whisk the mustard with the salt, and balsamic until blended thoroughly.  Slowly drizzle in the olive oil whisking quickly and continuously.  The marinade should become thick and emulsified.   In a baking dish, place up to four rib-eye steaks and thoroughly coat with the marinade.  Refrigerate and marinate for 4-6 hours, turning the steaks at least once during the process.

Proceed with grilling or broiling the steaks.  After cooking, allow the steaks to rest, loosely covered at room temperature for 10 minutes before serving.

*Pathways to Healing specializes in holistic chiropractic care. Dr. Alyssa Musgrove draws on a variety of techniques, including chiropractic, kinesiology, nutrition, food allergy testing and lifestyle counseling to assist clients in achieving optimal health and wellness in one setting. In addition, the practice is committed to being a valuable source of information so that people can learn how to live a healthy lifestyle and prevent future illness. Pathways to Healing is located at 1022 Founders Row, Lake Oconee Village, Greensboro. The office can be reached at 706-454-2040.*