eat right boston

SUMMER 2015

Does Barbecuing Increase Your Cancer Risk?

By now, the grill cover is off and the propane tanks are filled. It's always less messy to cook on a grill but is it as healthy as cooking your food in an oven?

Over the past few years, there has been a lot of talk about whether heterocyclic amines (HCAs) and polycyclic aromatic hydrocarbons (PAHs) are linked to cancer. These are chemicals formed when the proteins found in muscle meat, including beef, pork, fish, and poultry, is cooked using high-temperature methods (over 350° F), such as pan frying or grilling over an open flame.

Exposure to high levels of HCAs and PAHs can cause cancer in animals; however, whether such exposure causes cancer in humans is unclear. It seems that the longer a food is being cooked, the more vulnerable it is to the formation of these chemicals. Grilling vegetables and fruits produces no HCAs, and plant-based foods continue to be associated with a lower cancer risk.

The American Cancer Institute suggests the following BBQ tips:

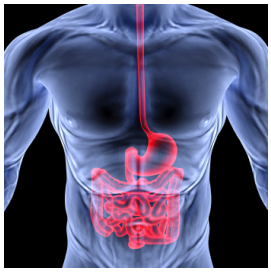
- Cut pieces of meat into smaller pieces so they cook faster.
- Use leaner cuts of meats or trim fatty meats as the dripping fats onto the briquettes can lead to smoky, flare-ups that deposit carcinogens on the meat.
- Marinating red meat in beer or wine for two hours significantly reduced HCA formation by up to 96%.
- Flip your meats frequently while grilling.
- Cook at lower temperatures; the higher the temperature, the more HCAs are formed.
- The longer a food is on the grill, the more HCAs are formed. Pre-cook foods in a microwave and then finish off on the grill.
- Remove charred portions of meat before eating.

Ongoing research studies continue to determine the risk of consuming foods exposed to HCAs and PAHs. More information can be found at: http://www.cancer.gov/cancertopics/causes-prevention/risk/diet/cooked-meats-fact-sheet

Staying Informed about Colon Cancer

According to the American Cancer Society, “Colorectal cancer is the third most common cancer in both men and women and when men and women are combined, the second most common cause of US cancer deaths.”

Let’s take a look at the anatomy of the large intestine, more commonly called the “colon.” The colon’s job is to reabsorb water and salt, and to store stool until it is released from the body. It is approximately 6 feet long and begins at the cecum, where it attaches to the small intestine. It connects via a tubular structure called the ileo-cecal valve. This juncture is designed to keep whatever is in the colon IN the colon, and not go backwards into the small intestines. Next is the ascending colon, (it goes up the right side), the transverse colon (it goes across), the descending colon (it goes down the left side), and then the sigmoid (S-shaped) with the rectum at the very end. This is where stool waits to be expelled by the body through the anus.



How does colon cancer start?

Most colorectal cancers develop slowly over several years. Before a cancer develops, a growth of tissue or tumor usually begins as a non-cancerous *polyp* on the inner lining of the colon or rectum. Cancer can form within the polyp and begin to infiltrate the body’s circulatory and lymphatic systems over time. When this occurs, the cancer is known as a metastatic disease.

What are some risk factors?

- Gender: no difference. The same risk for men and women.
- Age: More than 90% of colorectal cancers are diagnosed in people 50 and older.
- High fat diet: A diet that is high in red meats (such as beef, pork, lamb, or liver) and processed meats (hot dogs and some luncheon meats).
- Weight: Obesity raises the risk of colon cancer in both men and women, but the link seems to be stronger in men.
- Long-term smokers are more likely than non-smokers to develop and die from colorectal cancer.
- Inflammatory bowel disease (IBD), which includes ulcerative colitis and Crohn's disease.
- Heavy alcohol use
- Family History-about 5% to 10% of people who develop colorectal cancer have inherited gene defects.
- Racial/Ethnic background: African Americans have the highest rates of colorectal cancer of all racial and ethnic groups in the United States. Jews of Eastern European descent (Ashkenazi Jews) also have a higher rate of colon cancer.
- Type 2 diabetes
- Physical Inactivity

Testing for Colorectal Cancer:

Screening tests are the best way to detect colorectal cancer disease early. Both men and women, at *average risk* for developing colorectal cancer, should have exams performed at age 50. Check in with your primary physician.

Feta-Dill Dip

Ingredients:

1 cup plain, low fat Greek yogurt
¼ cup crumbled feta cheese
1 clove of garlic; minced
1 Tablespoon of fresh or dried dill
1 Tablespoon of lemon or ½ teaspoon lemon zest

Directions:

Mix in a food processor (or mix by hand with a fork) and chill for an hour before serving. Serve with toasted pita chips.

Swapping Out the American Diet

There have been lots of studies about the effects of a high fiber diet on the incidence of colon cancer throughout the years. Diets high in vegetables, fruits, and whole grains have been linked with a decreased risk of colorectal cancer. Taking fiber supplements do not seem to protect against cancer risk.

Studies have also shown that it takes just one generation for people who emigrate from non-Western countries to assume the cancer risk of Americans. Most recently, Dr. Stephen O'Keefe, a professor at the University of Pittsburgh School of Medicine, released his findings (with the help of a team of international researchers) of a study where South Africans and African-Americans switched their respective diets for a two-week period.

Twenty (U.S.) African Americans were fed a high-fiber, low-fat African-style diet (high in legumes and hi-maize meals); and 20 rural Africans were fed a high-fat, low-fiber, western-style diet (meat-heavy, fried foods). Both groups were under close supervision, and all of the volunteers were between the ages of 50 and 65.

They found that in only two weeks, there was a change in the intestinal gut bacteria (microbiota). The African-American group had an increase in butyrate production, which is linked to reduced colon cancer risk. Conversely, the rural African's butyrate's levels decreased.

According to O'Keefe, "These findings are really very good news. In just two weeks, a change in diet from a Westernized composition to a traditional African high-fiber, low-fat diet reduced these biomarkers of cancer risk, indicating that it is likely never too late to modify the risk of colon cancer."

The authors contend that the changes they evidenced in microbiota will continue to influence our health in many ways, from metabolic health to mental health. Microbiome research is at the forefront of treating medical conditions in the future. I'll be attending a 2-day symposium on microbiome at Harvard University in July.

Stay tuned!

Well, this past winter was certainly a test of a New Englander's true stock! Thank heavens that's all behind us (for now) and it's time to get outdoors and enjoy the summer months. Have a fun and safe one and enjoy the newsletter!

Sophie Kamveris, MS, RD, LD

CONTACT INFO:

Sophia Kamveris
22 Mill St- Suite 105
(P): 617-515-8984
skamveris@aol.com
www.eatrightboston.com