

**Health and Wellness:**  
**Healthy Cooking Tips**

**By Laura Jimenez, M.S.W.**

This column is specifically designed to educate you on topics not generally seen in the public eye. When food is cooked at high temperatures such as grilling, frying and broiling, three harmful chemicals are created:

1) Heterocyclic Amines (HCAs) are found in higher quantities when food is well-done or burned. Experts recommend limiting one's intake of grilled food and avoiding the burnt parts altogether. It is also recommended to marinate and precook foods in a microwave or other means before grilling. When grilling burgers, flip them often to reduce HCAs. Even better, add blueberries or cherries to your burgers to prevent HCA formation. Keep in mind that grilled vegetables and fruits are safe and good for you. Carmelization, the browning of sugars caused by heat, works well with natural sweeteners in fruits and vegetables. Not surprisingly but unfortunately, HCAs are linked to cancer. To limit your exposure as much as possible, avoid eating any charred sections and never eat blackened areas.

2) Polycyclic Aromatic Hydrocarbons (PAHs) occur when fat drips onto the heat source, causing excess smoke. When this smoke surrounds your food, it can transfer cancer-causing PAHs to the meat.

3) Advanced Glycation End Products (AGEs) take place when food is cooked at high temperatures (including when it is pasteurized or sterilized). AGEs form in your food and then transfer into your body when you eat that food. As AGEs build up in your body over time, oxidative stress and inflammation occur as well as an increased risk of heart disease, diabetes and kidney disease. Use an acidic marinade that contains lemon juice or vinegar to significantly reduce the amount of AGEs in your food.

Here are a few additional cooking tips to reduce toxins, boost your antioxidant level and fight radicals:

a) Experiment with spices on your own or use as many of the following herbs liberally by either dry rubbing or adding to a healthy marinade: black pepper, cinnamon, cloves, garlic powder, ginger, oregano, paprika and rosemary;

b) Avoid fatty meats completely and trim off any excess fat before cooking;

c) Partially cook meat before putting it on the grill, or cut smaller pieces of meat, which take less time to cook, and therefore give HCAs less time to form; and

d) As obvious as it sounds, don't even think about using an outdoor grill inside.

Here are a few places to begin reading more on this topic:

I. <http://www.cancer.gov/cancertopics/factsheet/Risk/heterocyclic-amines>.

II. <http://articles.mercola.com/sites/articles/archive/2010/05/08/adding-spices-to-meat-helps-decrease-damage-when-you-cook-it.aspx>

III. <http://news.curiouscook.com/>

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