Adding this Simple Addition to Meat Helps Decrease Damage When you Cook It

Cooking meat with an antioxidant-rich spice mix could reduce compounds that have been linked to heart disease and cancer.

Food Navigator reports that:

“Using a spice mix similar to that used in the East Indian spice blend, researchers ... report that hamburgers were subsequently found to contain significantly lower levels of lipid-peroxidation products, claimed to produce off-flavors and linked to promotion of the processes of atherogenesis and carcinogenesis.”

The study that produced this result was funded by spices and seasonings company McCormick and Company, and involved 11 healthy volunteers.

The participants consumed either burgers seasoned with a spice blend or a plain burger. The amount of malondialdehyde (MDA) in the burger, as well as in the urine and blood of the participants, were used to measure lipid oxidation.

MDA was reduced by 71 percent in the spiced burger, resulting in a 49 percent reduction in urine levels of MDA.

Sources:
» Food Navigator April 14, 2010
» American Journal of Clinical Nutrition April 8, 2010
The conventional nutritional dogma in the United States says you should limit the amount of meat you eat, especially red meat, because of its potential to harm your health.

Well, one of the reasons why eating meat is linked to heart disease and cancer often has little to do with the meat itself, and everything to do with how it’s cooked.

Any time you cook meat at high temperatures, whether you’re grilling, frying, broiling, etc., some pretty nasty chemicals are created:

- **Heterocyclic Amines (HCAs):** These form when food is cooked at high temperatures, and they’re linked to cancer. In terms of HCA, the worst part of the meat is the blackened section, which is why you should always avoid charring your meat, and never eat blackened sections.

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

- **Advanced Glycation End Products (AGEs):** When food is cooked at high temperatures (including when it is pasteurized or sterilized), it increases the formation of AGEs in your food. When you eat the food, it transfers the AGEs into your body. AGEs build up in your body over time leading to oxidative stress, inflammation and an increased risk of heart disease, diabetes and kidney disease.

It’s a given that eating meat, or any food, that contains these chemicals is not healthy. But what researchers are now uncovering is that adding spices and marinades to your meat before cooking can drastically cut down on the level of harmful substances created.

**Before You Grill Another Burger or Cook Another Steak ...**

Get out your arsenal of spices and mix up a blend to use on beef, one for chicken and another for lamb or any other type of meat you cook on a regular basis.
In the latest study, adding a spice blend to burgers reduced the level of malondialdehyde, a chemical marker for oxidation, in the meat by 71 percent and levels in participants’ urine by 49 percent.

This benefit likely comes from spices’ potent antioxidant content. On a per gram fresh weight basis, oregano and other herbs rank even higher in antioxidant activity than fruits and vegetables, which are known to be high in antioxidants too. You can experiment with a range of spices, as each will have a unique set of health benefits to offer, but even the popular stand-bys will help to boost the medicinal value of your meal. For instance, for the above study researchers used a blend of:

- Cloves
- Cinnamon
- Oregano
- Rosemary
- Ginger
- Black pepper
- Paprika
- Garlic powder

You can use the spices as a dry rub or mix them up into a healthy marinade. Choose those that appeal most to you flavor-wise, or alternatively you can choose them according to their health benefits too.

**What Else Can Cut Down on Cooking Toxins?**

I would recommend, if you’re going to cook your meat, that you combine it with spices *every time* to help reduce the health-harming substances that will inevitably be created.
There are other tips, too, that keep cooked meat as healthy as possible, including:

- You can reduce the amount of PAHs when you grill by not cooking fatty meats, and by trimming the fat off before you grill.

- When grilling, cook your food with indirect heat, such as on a rack rather than directly on the coals. Cooking on a cedar plank is also helpful.

- Always avoid charring your meat (and don't eat the black or brown parts).

- Cook meat partially before putting it on the grill, or cook smaller pieces of meat, which take less time to cook, and therefore give HCAs less time to form.

- You can reduce the amount of AGEs in your food by using an acidic marinade that contains lemon juice or vinegar.

- Marinating meats before grilling or broiling them can reduce HCAs (according to some experts by 90 percent or more). However, only use natural ingredients for marinades, and keep the coating thin to avoid charring.

- Flip your burgers often, as this will help cut down on HCAs.

- Add blueberries or cherries to your burgers, as they can also help prevent the formation of HCAs.

And for those of you who want to kick the health quotient of your meal up even further, I’d recommend forgoing the cooking stage altogether.

**A Healthier Way to Eat Your Meat**

I realize that asking most Americans to give up hot dogs, hamburgers, barbequed chicken and even grilled fish is almost sacrilegious. And really I’d rather see more Americans staying home to cook their own meals, even if it is on a grill, than going out for fast food or eating processed convenience foods.
So the first level would be to add homemade spice rubs, herb-enhanced marinades or even fresh blueberries to your meat prior to cooking it. This will impart some health benefits and also cut down on the harmful substances formed.

The next level, then, would be to use the same spice rubs and marinades, but eat the meat only lightly cooked or raw. Cooking reduces spices’ antioxidant levels by 45-70 percent, so not only will this result in higher levels of antioxidants, but also lower levels of toxins.

Meat products from animals raised outside in the sun are also rich in biophotons, which contain bio-information that controls complex vital processes in your body. The biophotons have the power to elevate your physical body to a higher oscillation or order, and this is manifested as a feeling of vitality and well-being. Cooking your food destroys these important biophotons, while creating toxic substances.

**The Raw Option**

I believe that most of the negative health associations of eating meat is related to the fact that the meat is cooked. Just as cooked vegetables are not as healthy as uncooked ones, meat undergoes damage when heated. Even if it isn’t heated over a barbecue, when you heat it over 170 degrees you will cause damage to the proteins similar to that occurs when milk is pasteurized.

You can easily avoid all these problems by eating your meat uncooked. The problem with doing that in our current culture is that most meat is raised under factory farming conditions. The animals are very unhealthy and likely to harbor infections that can harm you.

However, if you can find humanely raised organic meat, then that risk is virtually eliminated.

Again, in order for meat to be its healthiest, it should be organic and grass-fed, and it should be eaten raw or cooked as little as possible. If you like, you can quickly sear the meat on both sides, leaving the inside mostly raw. This gives the illusion that you’re eating cooked meat, with many of the benefits of raw.
So I would strongly encourage you to experiment with integrating this into your lifestyle. Many people have no problems eating sushi or steak tartar, so it is not such a big leap as you might think.

**Spices are Great for All Your Meals**

You needn’t limit spices in your diet to just burgers. Herbs and spices are at the top of the list of high ORAC value foods on planet Earth. ORAC is a standardized method of measuring the antioxidant capacity of different foods and supplements. The higher the ORAC score, the more effective a food is at neutralizing free radicals. The less free radicals you have, the healthier you will be.

So be adventurous in adding spices to all your meals, and be generous in the amounts you use. It will be worth it for the flavor enhancement alone, and the boost it will give your health is the icing on the cake!