



Cooking animal flesh over a hot open flame triggers a series of chemical reactions that yield a meal loaded with carcinogens. Cancer-causing compounds known as heterocyclic amines (HCA's) can form, particularly when cooking animal flesh over high heat, which is common when barbecuing. These chemicals – the same chemicals that are found in cigarette smoke – have been shown to cause cancer.



Go Meatless: Heating any animal's flesh forms HCAs, but evidence suggests grilled vegetables do not make HCAs. Think of grilled corn, grilled asparagus, grilled mushrooms, etc. You'll be adding vegetables to your meal while reducing consumption of HCAs at the same time.



Turn down the heat/Turn the meat often: Temperature is the most significant determinant of HCA formation; the higher the temperature, the more HCAs. Frequent flipping prevents the meat from reaching a high temperature and lowers the amount of HCA's formed.



Try new ingredients: Cherries, prunes, apples, elderberries, pineapple, garlic, vitamin E and rosemary are some of the ingredients that significantly reduce HCAs in meat while cooking.



Marinate any meat before grilling: Marininating beef steaks overnight with a teriyaki or turmeric-garlic sauce cut HCA by 60 percent in one study. Avoid high sugar and especially fructose-sweetened marinades as they may triple HCA production. The simplest marinade: red wine.



Choose the right side dishes: It's not just beer that prevents HCAs from causing genetic damage. Choose side dishes that include any of these foods: green, black or red tea; red wine, blueberries, blackberries, red grapes, kiwi, watermelon, parsley and spinach greens.



Eat cruciferous vegetables: Broccoli, cauliflower, cabbage and other members of the cruciferous family contain a chemical called sulforaphane that appears to neutralize HCAs cancer-causing action.