

# Nutrition Guidelines for Carcinoid Cancers

## Carcinoid Syndrome

Individuals with carcinoid or neuroendocrine cancers have special dietary needs because the carcinoid tumor can cause an increased production of the hormone *serotonin*. This may lead to *carcinoid syndrome* with symptoms of diarrhea, flushing, sweating and abdominal pain. Certain foods can make the symptoms worse or more frequent because they cause the body to make more serotonin. Please note that the serotonin content of the food does NOT increase tumor growth.

The **most common food and beverage triggers for carcinoid syndrome** are

- large meals (choose small, frequent meals and snacks instead)
- high fat foods or deep fried, greasy foods
- alcohol
- spicy foods
- excessive amounts of caffeine
- foods with a high amine content

## Food and Beverage Tips

- **Avoid foods high in amines/tyramine, such as**
  - aged cheeses (such as cheddar, Camembert, Stilton)
  - alcohol
  - smoked, dried, fermented, and aged meats and fish (such as salami, corned beef, sausage, bologna, pickled herring)
  - fermented foods such as sauerkraut, tofu, and miso
  - overripe or spoiled fruits especially bananas, raspberries, and avocados
  - brewer's yeast, yeast extracts, sourdough and homemade yeast-leavened breads
  - soy products including soy sauce
  - fava or broad beans
  - peanuts, Brazil nuts, coconut
- **Avoid chocolate, especially dark chocolate, and caffeine in large amounts from coffee, cola, tea, and cocoa.**

- **Drink plenty of fluids, especially if you are having diarrhea.** Drink at least 8 cups of fluid a day. Water and sports drinks with electrolytes are helpful to replace fluid losses.
- **Choose low fat, non-greasy foods.**
- **Include lean proteins** such as lean cuts of meat, fish, poultry without skin, egg whites, and fat-free or low-fat dairy foods such as milk, yogurt, and cottage cheese.
- **Avoid carbonated beverages and alcoholic beverages.**
- **Include a variety of fruits and vegetables.** You may need to choose more water-soluble fiber than insoluble fiber if you are having diarrhea and bloating. Water-soluble fibers dissolve in liquid and are easily digested and better tolerated. Examples of these foods are oats, barley, rice, carrots, and peeled apples. Insoluble fibers, which do not dissolve in liquid, should be avoided if they cause you discomfort. Insoluble fiber foods include bran, whole grains, and fruits and vegetable with skins.
- **Niacin is a B vitamin that is important to include in your diet.** Foods rich in niacin are meat, poultry, low-fiber grains, and cooked vegetables. Your doctor may advise you to take a niacin supplement.
- **Avoid hot spices** such as cayenne pepper and mustard. Try mild spices like cinnamon and parsley.

**Ask your doctor to refer you to a registered dietitian if you are having symptoms that make it difficult for you to tolerate food, or if you are losing weight without trying.**

**It may be helpful to keep a food journal to track foods and symptoms to help identify what foods work best for you. Not everyone has symptoms from the same foods.**