

Nutrition and Carcinoid Syndrome

Carcinoid syndrome is caused when certain types of neuroendocrine tumours release too much serotonin and other substances into the body.

People with carcinoid syndrome may have some or all of these symptoms:

- flushing (redness of the skin)
- difficulty breathing
- fast heartbeat
- bloating
- diarrhea
- abdominal pain

Not all patients with neuroendocrine tumours have symptoms of carcinoid syndrome. If you do have symptoms, they may change throughout your treatment.

Food and Carcinoid Syndrome

Certain foods and eating habits may trigger symptoms or make them worse. The foods or eating habits that trigger symptoms are different for each person.

If you are having symptoms: Avoid the foods that bother you. Talk to a dietitian about how to meet your nutrition needs while avoiding those foods.

If you are not having symptoms: Eat a healthy diet with adequate protein including a variety of healthy foods from Canada's Food Guide.

The following tips may be helpful both when you are having symptoms and when you are not having symptoms.

Eat a variety of foods from Canada's Food Guide

This includes vegetables and fruits, grain foods, and protein foods.



Include protein foods at each meal and snack

- fish, chicken, turkey, and lean cuts of beef or pork
- legumes (beans, lentils, split peas)
- eggs, nuts, and seeds
- lower fat milk, yogurt, and cheese

Eat foods with Niacin

Patients with tumours that produce serotonin are at risk of niacin deficiency. Niacin deficiency can cause scaly skin (dermatitis), diarrhea, nervousness, and depression.

These foods are a good source of niacin:

- Protein foods such as chicken, turkey, fish, beef, pork, pumpkins seeds, peanut butter, beans, and lentils
- Grain foods such as bread, pasta, and cereal

Ask your healthcare team if you need to take a niacin supplement.

Keep a food and symptom diary

Write down all of the foods you eat and drink, and your symptoms (such as flushing, pain, bloating, gas, and diarrhea). This may help you find out which foods or eating habits bother you.



See the next page for a list of common foods and eating habits that commonly cause symptoms and ideas that may help. **You only need to avoid the foods or eating habits that bother you.**

If you have made the changes suggested in this handout and still have diarrhea, let your healthcare team know. They can help you find other ways to manage your diarrhea.

Common causes of symptoms and ideas that may help

Large meals	Eat small meals and snacks throughout the day. Try eating 3 smaller meals and 2 snacks instead of 3 large meals.
Caffeine	Limit caffeine. Caffeine is found in coffee, tea, and cola.
Alcohol	Limit or avoid alcohol.
Higher fat foods	Limit higher fat foods (such as fried foods). Choose lower fat foods and use lower fat cooking methods. Too much fat in a meal or snack may make your symptoms worse.
Spicy foods	Limit spicy foods such as hot sauce or foods made with chili peppers.
Raw tomatoes and other raw vegetables	Choose cooked vegetables instead of raw, especially tomatoes.
Foods high in amines	<p>Limit or avoid foods higher in amines:</p> <ul style="list-style-type: none"> • Aged cheeses - blue cheese, camembert, cheddar, etc. • Chocolate - cocoa powder, dark chocolate, milk chocolate • Cured, smoked or processed meats – corned beef, pepperoni, etc. • Fermented foods - fish sauce, miso, sauerkraut, shrimp paste, soy sauce, etc. • Pickled or smoked fish - pickled herring, smoked salmon, etc. • Some beans - broad beans (fava beans) • Some fruits - avocado, banana, raspberries • Some nuts - Brazil nuts, coconut, peanuts • Spoiled or overripe foods • Tempeh or tofu • Yeast extracts - brewer’s yeast, marmite, nutritional yeast, vegemite

For more information

[Canadian Cancer Society](#): Search for [Supportive care for neuroendocrine tumours \(NETs\)](#)

[Carcinoid-NeuroEndocrine Tumor Society Canada](#)

[Carcinoid Cancer Foundation](#): Search for [Nutrition](#)

[CancerCare Alberta](#): Search for [Managing Side Effects](#)