

Nutrition Topics: Common Questions and Answers

This handout provides answers to some commonly asked questions about food, diet, supplements, nutrition and cancer. These topics may or may not be relevant to you and the answers provided are only a brief introduction to the topic.

1. Eating after diagnosis
2. Sugar and cancer
3. Ketogenic Diet
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5. Intermittent Fasting
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9. Red meat
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1. What do I eat after a cancer diagnosis?

Some people have difficulty eating due to side effects from their cancer or cancer treatment. If you have lost weight without trying or have difficulty eating please see our website resources for information or contact nutrition services at your local BC Cancer Centre and ask to speak to a registered dietitian.

If you do not have difficulty eating we recommend that you follow a balanced diet throughout your cancer journey including after diagnosis, during treatment and after treatment. This can help to reduce your risk of cancer, cancer recurrence and other diseases. We recommend that you:

- Fill half your plate with vegetables and fruits, one quarter with whole grains and one quarter with protein foods.
- Focus your diet on plant foods such as whole grains, vegetables, fruits and legumes (beans, peas, lentils).
- Limit 'fast foods' and other processed foods high in fat, sugar and salt.
- Limit red meat (beef, pork, lamb, and goat) to less than 3 portions per week and eat little or no processed meats (bacon, sausages, hot dogs, deli meats).
- Limit or reduce sugar-sweetened beverages (soft drinks, energy drinks, and other drinks with added sugar).
- Limit or reduce your alcohol consumption
- Aim to get all your nutrition from foods rather than supplements, if possible.
- Discuss all supplements with your physician, pharmacist or registered dietitian if you are receiving treatment.

For more information about diet and cancer, visit the following websites

- <https://www.aicr.org/reduce-your-cancer-risk/recommendations-for-cancer-prevention/>
- <https://www.healthlinkbc.ca/healthy-eating/your-condition/cancer>

2. Does sugar feed cancer?

It sounds like a simple question but the answer is not simple. Sugar does not directly cause cancer or cause cancer to grow faster. Glucose, a simple sugar, found in most carbohydrate foods (including added sugar, grains, cereals, beans, fruits, vegetables, and dairy) is the main energy source for all cells, including cancer cells. Just like healthy cells, cancer cells need a blood supply, oxygen and energy to grow. Limiting all sources of carbohydrate will not starve cancer cells and may negatively affect your healthy cells. Your body needs energy and may use your muscle and fat tissue for energy, which is not recommended.

Many healthy foods such as whole grains, cereals, beans, fruits, naturally contain sugar along with vitamins, minerals, fibre and other nutrients. These foods are important in cancer prevention and survivorship. Eat a variety of whole foods and limit added sugars such as table sugar (white or brown), soft drinks, sweet baked goods (cookies, cakes) and processed foods that contain large amounts of added sugar.

For more information, see the 'Sugar and Cancer' handout available from www.bccancer.bc.ca/nutritioninfo

3. Should I follow a ketogenic diet?

A ketogenic diet is a diet that is very low in carbohydrates (grains, cereals, starches, fruit, vegetables, legumes) and very high in fat (oils, butter, mayonnaise, heavy cream) which aims to change how our bodies metabolize nutrients. There are multiple ways to follow a ketogenic diet. At this time, we do not know if any type of ketogenic diet helps people with cancer. Currently, no major health organization, including BC Cancer, recommends the ketogenic diet for cancer patients.

Following a strict ketogenic diet can increase risk of vitamin and mineral deficiencies, kidney stones, high cholesterol and osteoporosis. If you are interested in trying a ketogenic diet, it is recommended you work with a registered dietitian who has experience in this area and physician to provide frequent medical monitoring.

For more information about this topic please visit <https://www.aicr.org/resources/blog/the-ketogenic-diet-and-cancer-treatment-what-patients-should-know/>.

4. Should I follow an alkaline diet?

Proponents of the 'alkaline diet' claim that cancer thrives in an acidic environment but cannot survive in an alkaline environment. Based on this claim some people will adjust their diet hoping to slow or stop cancer growth. On this diet, foods alleged to make the body more acidic will be avoided, and foods promoting alkalinity are favored. However, it is not possible to drastically alter the alkalinity of the body or blood outside of the normal range with diet.

An alkaline diet unnecessarily limits many protein food and whole grain options and can make it difficult for you to meet your nutrition needs. Choose foods for their nutritional content and taste and not how they claim to change the acid or alkaline level in your body.

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For more information, see the <https://www.aicr.org/resources/blog/breaking-down-the-association-between-alkaline-diet-and-cancer/>.

5. Should I do Intermittent Fasting?

Intermittent fasting refers to the practice of avoiding or limiting food and/or drink during a period of time. There are different methods of intermittent fasting such as significantly reducing how much someone eats for two days out of the week (also known as 5:2 method) or reducing the window of time when someone eats to only 8 hours per day (also known as 16:8 method).

Intermittent fasting is a new concept and there is limited research to show the impacts it may have on cancer when combined with medical therapy. There are a few studies in patients with breast cancer and prostate cancer that are generally positive, but more research is required. Intermittent fasting is not appropriate for everyone and may be unsafe for patients with complex medical histories, patients who are on medications that may lower their blood sugar levels, and patients over the age of 70 years old.

If you are interested in exploring intermittent fasting methods, it is recommended that you discuss this with a registered dietitian and your health care team to ensure it is safe for you.

6. Should I be eating only organic foods?

Organic refers to farming practices which limits the use of synthetic fertilizers and pesticides. Both organic and conventional food have to meet the same legal food safety requirements and pesticides require rigorous testing to ensure they do not pose an unacceptable risk to health. There have been concern that pesticide use may increase cancer risk, specifically to agricultural workers; however there is no evidence that supports this claim.

Buying organic food is an individual choice based on personal values, availability and cost. You may also reduce pesticide exposure by buying foods that are locally grown, in season and thoroughly washed or peeled. Currently there is no evidence that suggest pesticides increase risk of cancer but there is substantial evidence that consuming an overall healthy and varied diet can reduce risk. Therefore, whether you choose organic or not, it is important to eat a diet rich in fruits and vegetables. Use your plate as a guide: Fill half your plate with vegetables and fruits.

7. Should I take any vitamin, mineral or herbal supplements during cancer treatment?

Receiving a cancer diagnosis does not mean you need to take supplements. It is best to get your vitamins and minerals from food sources if you can. Large doses of vitamins and minerals have not been shown to boost the immune system or to be beneficial in well-nourished people, and could cause harm. A once-a-day multivitamin and mineral supplement may be needed if you are not able to eat a variety of foods or if your diet has

changed. If you have questions about taking single nutrient supplements (ex. calcium, iron, vitamin D), talk to your health care team.

It is not recommended to take large amounts of antioxidants, including Vitamin A, C, E and selenium, in supplement forms during cancer treatment. Many (but not all) chemotherapy drugs and radiation work by causing oxidative stress to kill cancer cells. Taking antioxidant supplements can counteract this. The amount of antioxidants found in foods, such as fruits and vegetables, as well as a once-a-day multivitamin and mineral supplement is safe during cancer treatment. If you decide to take large doses of antioxidants, or other vitamins or minerals during treatment, speak to your health care team.

Herbal products or natural health products include vitamins/minerals, herbs and other products that come in many forms such as teas, powders, tablets and liquid extracts. They are often misinterpreted to be safe because they are labeled as "natural". Even though plants are natural, they are not always safe and their effect is not always known. Many natural health products are not well regulate. They can increase the risk of drug interactions and may interfere with cancer treatment. If you would like to use herbal products during your cancer treatment, please discuss the safest way to do this with your health care team.

8. What about growth hormones in meat?

Growth hormones are not approved for use in Canada in chickens or pigs or added to their feed. However, hormones may be used in beef cattle. One of the growth hormones used is a form of estrogen that occurs naturally in animals and humans. All cattle treated with growth hormones undergo a withdrawal period. As a result, meat from treated animals has similar hormone levels to meat from untreated animals and these levels are regularly monitored. Residues are thought to be stored in fat – you can lower your intake of these residues by choosing leaner cuts of meat, trimming visible fat, or choosing other protein foods from Canada's Food Guide.

Available online at: <https://food-guide.canada.ca/en/>

9. Is it okay to eat red meat?

Yes, red meat in moderation can be part of a healthy diet. Examples of red meat includes beef, pork, goat, and lamb. These foods provide many nutrients including iron, protein, vitamin B12, and zinc. If you cut down on red meat ensure that your diet contains other protein foods such as poultry, fish, eggs, beans, lentils, dairy, nuts or seeds.

It is recommended to limit red meat in your diet to 3 servings (1 serving of cooked meat is equal to 6 ounces or 170g) or less per week. Frequently eating high quantities of processed meat and very high quantities of red meat may increase the risk of certain cancers.

Processed meat is often made from red meat, but poultry, or other meats that have been commercially preserved by smoking, curing, or with additives like nitrates are also considered processed meat. Examples of processed meats include ham, bacon, sausage, salami, hot dogs, pepperoni, many deli meats, and bologna. Products that are preserved

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with naturally-occurring nitrites such as celery extract are still considered processed meats and may also increase risk of cancer.

If you choose to eat processed meat, eat it in small amounts and less often.

10. Are there any foods I should avoid because I'm getting cancer treatment?

Receiving cancer treatment does not necessarily mean you need to avoid any foods. Foods to include or limit during cancer treatment is different for each person. It is based on your type of cancer, the treatment you are receiving, and any symptoms or side effects you have that may be making it hard to meet your nutrition needs.

In general, cancer treatments can lower your immune system's ability to protect itself from infection. At this time, it is important to practice good food safety guidelines. Most importantly, wash hands often with warm soapy water before and after preparing foods and before eating. Make sure that food is well-cooked and that you avoid raw and undercooked eggs, meat, fish, poultry and seafood. This will decrease your exposure to bacteria that could cause food borne illness.

It is also recommended that you limit your intake of red meat, do not eat processed meats, limit salty foods, and do not drink alcohol. See question 7: "Is it ok to eat red meat?" for more information about red meat and processed meats.

For more information:

- About food safety for people with weakened immune system see: <https://www.canada.ca/en/health-canada/services/food-safety-vulnerable-populations/food-safety-people-with-weakened-immune-system.html>

11. Are there any cancer 'super foods' I should eat?

You may have heard about particular foods such as plant-based foods (fruits, vegetables, whole-grains and legumes such as beans, peas, lentils) as "foods that fight cancer". This is largely based on evidence for diet recommendations to prevent cancer. The research on foods to prevent cancer growth and recurrence is less clear.

If your weight is stable and you don't have any problems with eating, it is suggested you follow Canada's Food Guide.

Available online at: <https://food-guide.canada.ca/en/>

If you are underweight, have unintentional weight loss and/or have problems eating enough, you may need to choose foods that are higher in calories and protein. Depending on symptoms from your cancer or its treatment you may need to eat softer foods or foods lower in fiber.

Ask your health care team about your individual nutritional needs.

12. I'm thinking of eating a vegetarian diet. How can I make sure I'm getting all the nutrients I need? What about protein?

A healthy eating pattern includes plenty of plant-based foods including vegetables and fruits, whole grain foods and plant-based protein foods. Vegetarian diets include all these foods and may also include dairy and eggs. Vegan diets exclude all animal foods including dairy and eggs. A well-planned vegan or vegetarian diet can meet your nutrient needs. Use your plate as a guide: Fill half your plate with vegetables and fruits, one quarter with whole grains and one quarter with protein foods. Plant-based protein foods include legumes (beans, peas, and lentils), soy foods (tofu, soy beverage, tempeh), nuts, and seeds. Eating a variety of different foods each day will help you meet your nutrition needs. See Canada's Food Guide for more information on a balanced diet.

Available online at: <https://food-guide.canada.ca/en/>

It may take extra planning to get enough omega-3 fats, calcium, vitamin D, iron, zinc and vitamin B12 if you are eating a vegetarian diet. You can read more about these nutrients and find out how to make sure you are getting enough at HealthLinkBC. For more information see the vegetarian and vegan diet information available from [UnlockFood.ca](https://www.unlockfood.ca).

If you are having problems eating or problems with your bowels after a diagnosis, during treatment, or after treatment it may be more challenging to plan a vegetarian diet. Contact a registered dietitian for food choices that meet your needs.

For further information and individual advice please call 8-1-1 to speak to an oncology registered dietitian at Health Link BC.