

Prostate Cancer: Frequently Asked Questions

This handout includes answers to commonly asked questions about foods, diets, supplements, nutrition and prostate cancer.

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Your Dietitian is available for more information.

1. Should I follow a special diet?

Men with prostate cancer are encouraged to have a diet based on heart healthy eating and cancer prevention recommendations. This includes eating a diet rich in whole grains, vegetables, fruits and plant-based protein foods daily.

There have been a number of studies and there continues to be ongoing research to understand how body weight and dietary factors may affect the growth and recurrence of prostate cancer. Researchers have looked at high vegetable diets, low fat diets, vegan diets, and specific vitamin, mineral and other supplements. At this time, no specific diet, foods, vitamins, minerals or aspects of diet have been shown to effectively slow or treat prostate cancer. Many dietary studies in prostate cancer have been short term or have only included small groups of men. It may be that very long studies are needed to see if changing diet will impact the growth of prostate cancer, which can be a slow progressing condition.

A number of special diets are promoted to fight cancer and are popular among cancer patients in general and are not specific to prostate cancer. While people hope diets such as these will improve survival or prevent recurrence, there is a lack of scientific support for any benefit. These diets vary widely in the foods that they include or exclude. Some diets limit specific fruits, vegetables, grains, or proteins and may not meet all of your nutritional needs. Possible nutritional concerns include nutrient deficiencies, loss of muscle, or unwanted weight loss. This can slow down healing and could affect treatment schedules and recovery after treatment.

If you have questions about a special diet speak with a dietitian. A dietitian can provide guidance on strategies to address nutrient concerns.

2. Are there any foods that I should eat or avoid to prevent prostate cancer growth or the chance of it returning?

There have been a number of studies to understand how dietary factors, such as specific foods, vitamins, minerals or specific diets affect the growth of prostate cancer or the chance of prostate cancer returning (recurrence). At this time, no specific aspect of diet has been proven to effectively slow or treat prostate cancer. Many dietary studies in prostate cancer have been short term or have only included small groups of men. Prostate cancer can be a slow progressing condition. It may be that very long studies that include larger groups of men are needed to see if changing diet will impact the growth of prostate cancer.

While it's not yet proven, research hints that including some foods and limiting others may slow the growth of prostate cancer. Many of these same foods are also heart-healthy or good for overall health. For this reason, men may choose to include these foods as part of an overall healthy eating style.

Foods to include:

- Lycopene rich foods - Tomato products such as tomato paste, sauce, juice and canned tomatoes.
- Cruciferous vegetables such as bok choy, broccoli, cabbage, cauliflower and kale.
- Healthy vegetable fats like avocados, seeds, nuts, and vegetable oils such as canola and olive oil.

Foods to limit:

- Animal fats like fatty meat, skin on poultry, high fat dairy (higher than 2% M.F.), and baked goods made with butter.
- Red meat.
- Processed meats, like deli meat, bacon and sausage.

There is not enough research to say if eating fish, soy foods, flaxseed, pomegranate, or drinking coffee and tea makes any difference to the growth of prostate cancer. Even so, they are healthy foods, and men may choose to include them as part of a varied plant-based diet.

There are many concerns about the safety of high dose vitamin and mineral supplements, specifically for selenium, vitamin E, and beta-carotene supplements. Food is the best source for vitamins, minerals and other food compounds. Food gives you a variety of vitamins, minerals and other beneficial compounds at levels that are safe and are in combinations that work together in special ways to support your best health. Taking supplements to treat or prevent prostate cancer is not recommended.

Talk to your Doctor, Pharmacist or Dietitian for more information about your individual needs before taking single nutrient supplements

3. Can I drink alcohol?

The effect of alcohol on prostate cancer risk and survival is not clear. More research is also needed to understand if alcohol affects the growth of prostate cancer.

Drinking alcohol increases the risk for several other types of cancers and is also linked to other health problems such as liver disease, heart disease, and high blood pressure.

For cancer prevention and after a cancer diagnosis, it is best not to drink alcohol.

If you choose to drink alcohol, have no more than 2 drinks a day.

One drink is equal to:

- 341 mL (12 oz.) bottle of 5% beer, cider or cooler.
- 142 mL (5 oz.) of 12% wine.
- 43 mL (1.5 oz.) 40% spirits, such as rye, vodka, whisky, rum and gin.

Alcohol can make diarrhea worse. If you have diarrhea you may want to avoid alcohol.

4. Should I drink coffee and tea?

There is not enough evidence to say men should start drinking coffee or tea, including green tea, to prevent prostate cancer growth. Coffee and tea are plant-based drinks, and provide cancer-fighting and other compounds that may give health benefits. Both coffee and tea are healthy drink options and can be part of a healthy diet if you enjoy them.

If you drink coffee or tea:

- Choose unsweetened coffee and tea.
- Limit to 24 oz. (750 mL) caffeinated coffee or 40 oz. (1250 mL) caffeinated tea a day to keep your caffeine intake below 400 mg a day.

Some people are sensitive to the caffeine in coffee and tea. It may worsen diarrhea or urinary incontinence. Coffee and tea drinks can also be a source of unwanted extra calories from added sugars and fats.

If you have **diarrhea** or **urinary incontinence** or are sensitive to caffeine your symptoms may be less if you reduce or avoid caffeine.

To limit caffeine:

- Replace caffeinated tea or coffee with decaffeinated coffee or tea.
- Drink naturally caffeine-free drinks such as water with lemon or herbal tea.
- Drink a blend of 1/2 caffeinated and 1/2 decaffeinated coffee or tea

To limit added fats and added sugars:

- Reduce the amount of cream added and replace with low-fat milk or an unsweetened plant-based drink.

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- Gradually add less sugar to your coffee.
- Order half-sweet coffee drinks.
- Drink your coffee and tea with the amount of added sugar and cream you enjoy, and have fewer cups in the day.

Do not take tea or coffee supplements to slow or prevent return of prostate cancer.

5. Should I eat flaxseeds or soy foods? Are foods with plant estrogens safe for men with prostate cancer?

Soy foods and flaxseed are sources of naturally occurring plant estrogens. They are similar to the body's hormone estrogen. Eating soy foods (such as soybeans, edamame, soy beverages and tofu) and flaxseeds (1-2 Tbsp. per day) as part of a healthy diet is safe.

There is not enough research to say if eating soy foods or flaxseed makes any difference to the growth of prostate cancer. Even so, they are healthy foods, and men may choose to include them as part of a varied plant-based diet.

6. Should I follow a vegetarian diet?

A healthy eating pattern includes plenty of plant-based foods such as vegetables and fruits, whole grain foods, and plant-based protein foods. Vegetarian diets include all these foods. Some people include dairy and eggs in their vegetarian diet. Vegan diets exclude all animal foods including meat, poultry, fish, dairy and eggs.

Plant-based diets lower in total fat have been studied in men with prostate cancer. Results varied between having "positive effects" and "no effects". However, plant-based diets have been shown to improve overall health. They have also been shown to help with heart disease, diabetes, for cancer prevention, and for having a healthy weight. Yet, removing all animal foods from the diet has not been shown to be more helpful than having a plant-based diet that includes small amounts of lean or low fat animal foods.

When well-planned, a vegan or vegetarian diet can meet your nutrient needs. 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 may find you need extra time for meal planning when starting a vegetarian or plant-based diet. You can speak with a Dietitian to help you get started.

7. Should I be juicing?

Juicing can help you have a greater variety of fruit and vegetables in your diet when need to eat less fibre, are unable to eat whole fruit or vegetables or if you won't eat fruits and vegetables prepared in other ways.

Eating whole fruits and vegetables is the best choice. Juice has less fibre than the whole fruits and vegetables. Fibre is healthy for our gut, the healthy bacteria that live in our colon and it helps prevent

constipation. Fruit juice is also high in sugar, but is not very filling. Juicing concentrates the sugar in fruit, so you can get too many calories when you drink fruit juice.

If you decide to juice, juice the amount of fruit or vegetable you would eat at one time. Drink the juice at the time you make it. Juice that is stored should be brought to a rolling boil to kill bacteria that could cause food poisoning. This is important for people with cancer. Some cancer treatments can weaken your immune system, so you can have an increased chance of getting food poisoning.

Blending fruits and vegetables is another way to get more vegetables and fruits while keeping the fibre. Blended drinks like smoothies or blended vegetable soups are a nice option for getting nutrition when it is difficult to chew, you have mouth sores, or the idea of sitting down to a meal isn't appealing.

8. I've heard that men who have had prostate cancer should avoid dairy products. Is this true?

Dairy products include cow's milk (whole or low-fat milk) and foods made from cow's milk like yogurt, cheese, buttermilk, and kefir.

We need more research to know for certain if drinking milk or eating dairy products increases the risk for prostate cancer, changes prostate cancer growth or the chance of prostate cancer returning after a prostate cancer diagnosis. Research findings to date have been mixed. Some research suggests that eating high amounts of calcium or dairy products may increase the risk for prostate cancer. These findings though are not strong. There is stronger evidence that calcium and dairy products protect against colon cancer. Research in men with prostate cancer suggests that men have worse health if they eat *high fat* dairy products. While other research suggests that eating *low fat* dairy products doesn't negatively affect the health of men with prostate cancer.

At this time, there is not enough data to provide specific recommendations about eating or drinking dairy products to control prostate cancer. Yet, for overall health there are other factors to consider when making decisions about eating dairy products.

First, milk and dairy products are good sources of calcium. Calcium is important for bone health. Bone loss is a concern for men with prostate cancer. This is especially true with long-term hormone therapy. Eating dairy products like milk, kefir and yogurt can help you get enough calcium. You can also get enough calcium by eating non-dairy foods, such as fortified soy or other plant-based beverages and other foods. Whether or not you eat dairy products it is important to get the recommended amount, of calcium for your age but also not too much.

Second, some dairy products are high in saturated fat. Making heart healthy food choices is important for men with prostate cancer. Choosing foods that have mostly healthy fats instead of foods high in saturated fat can help lower the risk of heart disease. If you eat dairy products choose low fat dairy products and limit high fat dairy products to limit saturated fat.

- Low fat dairy products include milk, yogurt, kefir or other dairy foods that are 2% milk fat (M.F.) or less.
- High fat dairy foods include whole milk, cheese, ice cream, butter and other dairy foods with higher than 2% M.F. Eat these foods less often and when you eat them keep portions small.

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You can see more on these handouts:

- *Prostate Cancer – Bone Health and Osteoporosis*
- *Prostate Cancer – Managing Treatment-Related Side Effects*
- *Prostate Cancer – Choosing Healthy Fats*

9. Does sugar cause cancer cells to grow?

Sugar is a source of energy for healthy cells (such as brain, muscle, heart cells) as well as cancer cells. Just like healthy cells, cancer cells require fuel to grow. The fuel for cells in the body is glucose. Glucose is the type of sugar found in your blood. Your body controls the glucose level in your blood. Cells take the glucose from your blood, but you can't control which cells take the glucose. Removing sugar from the diet hasn't been shown to control cancer growth in people.

Sugar is naturally in many healthy foods like fruit, some vegetables, and milk. Sugar is also added to many foods. Added sugars are not needed for health. Many foods high in added sugar are high in calories, but are not filling. Eating them often could result in weight gain. Often foods high in added sugars are also low in vitamins, minerals and other compounds that are healthy for you.

Limiting added sugars in your diet is recommended for overall health.

Sources of added sugars include:

- Sugar-sweetened drinks
- Sweeteners (white or brown table sugar, honey, syrup)
- Processed baked goods (cookies, cake, doughnuts)
- Sweetened cereals, candy, ice cream and other highly processed foods

Eat food sources of added sugars less often and keep portions small when you eat them.

Men are encouraged to eat a variety of plant-based foods including fruits, vegetables, whole grains and legumes (beans and lentils). Some of these foods are natural sources of sugar. They are also good sources of vitamins, minerals, phytonutrients and fibre.

10. I've heard that phytochemicals help. What are they?

Phytochemicals (or phytonutrients) are naturally occurring substances found in plants. (The prefix "phyto" comes from the Greek word phyton, meaning "plant"). Phytochemicals are often the compounds that give plants colour. Phytochemicals can have cancer fighting along with other protective health benefits.

Phytochemicals are found in plant-based foods including fruits, vegetables, whole grains, legumes (beans and lentils), and nuts and seeds as well as spices, herbs, coffee and tea. There are many different types of phytochemicals found in food. Some we know about and others are still being discovered. For example, lycopene (found in foods such as tomato products) and flavonoids (found in

fruits, vegetables and beverages like black tea and green tea). Eating a variety of colourful plant-based foods every day is the best way to get phytochemicals.

11. Should I take antioxidant supplements? Are they safe during treatment?

Antioxidants are compounds naturally found in food, and they protect cells from damage. Antioxidants can be vitamins, minerals, phytochemicals or other plant-based compounds. There are many different antioxidants in foods.

Some examples of antioxidants and a few of their food sources are:

- **Carotenoids** including beta carotene, lutein and lycopene found in tomatoes, dark leafy greens, sweet potato, and watermelon.
- **Vitamin C** found in citrus fruit, kiwi fruit, broccoli, strawberries and tomatoes.
- **Vitamin E** found in almonds, peanuts, avocado and sunflower seeds.
- **Selenium** found in Brazil nuts and other nuts and seeds, wheat germ and whole grains.

Food is the best source for antioxidants. Food gives you a variety of antioxidants and other beneficial compounds that work together in special ways to support your best health.

Taking high dose vitamin, mineral or other antioxidant supplements during cancer treatment or for cancer prevention is not recommended.

Taking antioxidant supplements can result in getting more antioxidants than you would get from eating a well-balanced diet. High doses of antioxidants from supplements may help cancer cells survive during treatment. High doses of some supplements, like vitamin E and selenium, have been shown to be harmful for some people.

Eat a balanced diet that includes a variety of plant-based foods to meet your vitamin, mineral and nutritional needs. Take supplements only to provide what your diet cannot.

Regular strength multiple vitamin and mineral supplements (“one-a-day”) are considered safe. They do not have high amounts of antioxidants. When choosing a multiple vitamin and mineral supplement, choose one for your age group.

Talk to your Doctor, Pharmacist or Dietitian for more information about your individual needs before taking single nutrient supplements.

12. What about growth hormones in food?

In Canada, growth hormones can only be used in cows that are raised for beef. Growth hormones are not allowed in dairy cows, poultry, pork, other meats or in beef that has the “Canada Organic” label.

The use of growth promoting hormones in animals raised for food has sparked debate. There is public concern about whether these compounds may be cancer-causing and if they could negatively affect human health.

Health Canada sets maximum safe levels of growth hormone that can be in food. Only food that meets these standards are allowed to enter the food supply. This means that the level of growth hormone in conventionally raised beef is considered safe. If you are concerned about growth hormones in food you can lower your exposure by eating less conventionally raised beef, replacing beef with plant-based proteins (beans and lentils), fish, pork, lamb or poultry or choosing organic beef instead.

Growth hormones may be used in the United States (US) and are banned in the European Union (EU). Growth hormones may be used in milk production in the US. Milk from the US can now be sold in Canada. If you wish to avoid added growth hormones, make sure your milk is labelled “100% Canadian milk ingredients”.

13. I’m concerned about pesticides in the food supply. Is buying organic food the answer?

Both organic and conventionally grown foods are healthy options.

In Canada, to be labelled organic, a farmer must be certified. Organic farmers are not allowed to use synthetic pesticides, but can use natural pesticides. Health Canada regulates which pesticides can be used. Only approved pesticides can be used in food production in Canada. Health Canada also sets Maximum Residue Limits (MRL) to ensure that the amount of pesticides left on food is safe. Pesticide residues on both organic and conventionally grown foods are tested to ensure that they are within safe limits. Foods coming into Canada are also tested. If you want to know more about testing practices, you can call the Health Protection Branch or Agriculture and Agri-Food Canada.

People choose to buy organic foods for different reasons. To date, research has not found that organic food is more nutritious, or that eating organic food offers more cancer protection than eating conventionally grown and raised foods. Organic foods may sometimes be more environmentally friendly than non-organic foods. Buying organic is an alternative if you have concerns about synthetic pesticides.

Whether you choose to buy organic or not, aim to eat plenty of vegetables and fruit. This is important to note, as organic foods are usually more expensive, meaning you may be able to buy less of them. The benefit of eating produce outweighs the risk of pesticides in Canada. You can follow these tips to reduce the risk of pesticides in conventional and organic foods.

- Wash all produce well, especially ones with edible skins
- Throw away the outer leaves of leafy greens
- Buy locally grown food
- Buy food in-season

If you do decide to buy organic food always look for the Canada Organic logo on food labels.

14. Can I cook food on the BBQ?

Cancer causing compounds can form when meats including beef, pork, chicken and fish are cooked at high temperatures like on the BBQ. The compounds are called polycyclic aromatic hydrocarbons (PAHs)

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and heterocyclic amines (HCAs). PAHs form when fat and juices from meat drips onto the fire or coals. This produces smoke. When the smoke rises the PAHs stick to the surface of the meat. HCAs form in the meat protein when it is cooked at high temperatures.

When grilling meat on the barbeque take the following steps to reduce the amount of HCAs and PAHs that form:

- Choose lean meat and trim away any visible fat — this helps reduce flare ups by minimizing fat dripping onto the open flame.
- Cook smaller meat portions, like kabobs, which will spend less time on the grill.
- Try precooking meat by microwaving, boiling or baking. Finish cooking on the barbeque to add flavour.
- Marinate the meat for at least 30 minutes before cooking.
- Avoid flare-ups by using tongs (which do not pierce the meat) instead of a fork for turning and by having a water bottle on hand to extinguish flare-ups if they do happen.
- Grill at lower temperatures and turn your meat often.
- Remove any charred or burned portions from meat before you eat.
- Barbeque vegetables instead of meat. HCA only form in protein from meat.

For more information:

For information and advice based on your specific food and nutrition needs and preferences, speak to your clinic dietitian or call HealthLink BC at 8-1-1 and ask to speak to a registered dietitian.

Call to register for the **Prostate Cancer Supportive Care (PCSC) Program's** Nutrition and Exercise modules (Modules 3N and 3E). To find a PCSC Program near you, please visit: www.pcscprogram.ca.



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