



*Nutrition Guide
for Men
with Prostate Cancer*





NUTRITION GUIDE FOR MEN WITH PROSTATE CANCER

Prostate Cancer Canada hopes that this resource helps prostate cancer survivors and their partners, caregivers and family members to better manage their cancer journey.

Note: The information in this guide does not replace any medical advice given by your healthcare team. For medical advice, talk to your healthcare provider.

Table of Contents

NUTRITION GUIDE FOR MEN WITH PROSTATE CANCER

Introduction	2
Eating Well with Canada's Food Guide	3
Nutrition Advice for Managing Side Effects of Treatment	4
Bone Loss and Osteoporosis	4
Muscle Loss and Weight Gain	8
Diarrhea	11
Hot Flashes	11
Frequently Asked Nutrition Questions (FAQs)	12
Complementary Therapies	20
Natural Health Products (NHPs)	20
Choosing Complementary Therapies	21
How to Find a Registered Dietitian	23
Additional Resources	24
Key References	25

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Prostate Cancer Canada gratefully acknowledges the contributions of the registered dietitians who were instrumental in the writing and reviewing of this resource, in particular Cheri Van Patten for her work in developing this Nutrition Guide.

Nutrition Guide

for Men with Prostate Cancer

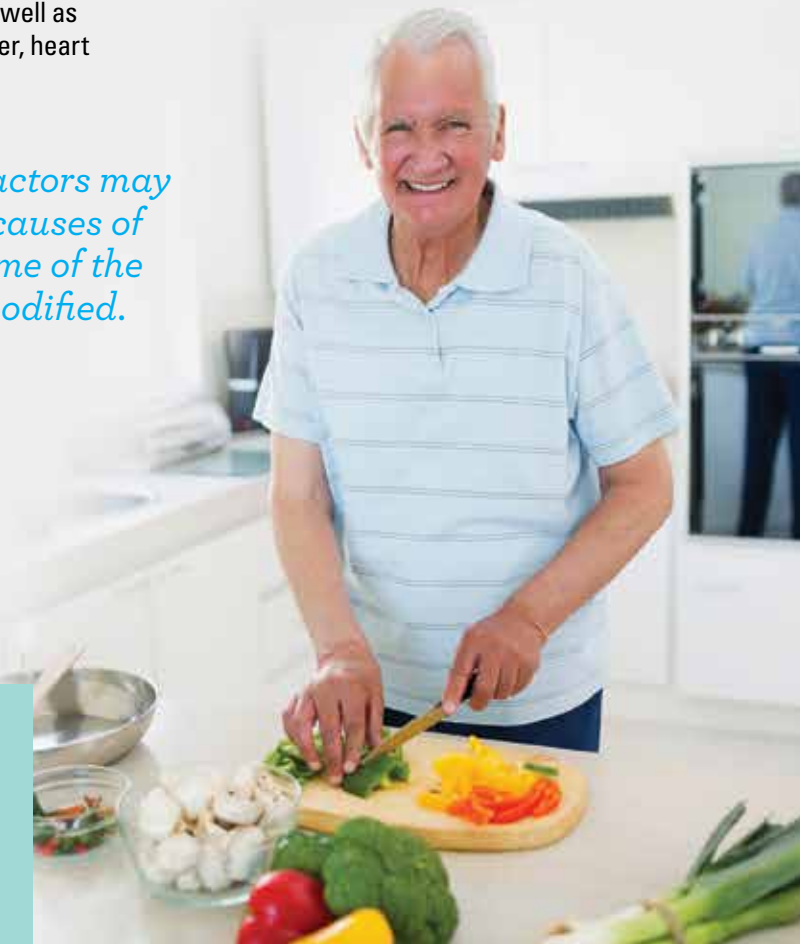
INTRODUCTION

A diagnosis of prostate cancer can raise many questions and concerns. Some men may ask why they developed prostate cancer or if it can be prevented in other family members. Prostate cancer is a complex disease, and doctors don't know exactly what causes some men to develop it. But there are several known risk factors for prostate cancer, including age, race and family history. Diet and other lifestyle factors may be one of many possible causes of prostate cancer – and some of the few causes that can be modified. A healthy lifestyle may help men reduce the risk of prostate cancer, as well as reduce the risk of other forms of cancer, heart disease and Type 2 diabetes.

Diet and other lifestyle factors may be one of many possible causes of prostate cancer – and some of the few causes that can be modified.

This guidebook gives men with prostate cancer information about eating well, managing treatment side-effects with food and physical activity, frequently asked questions about nutrition and prostate cancer, and complementary therapies.

If you still have questions after reading this guidebook or you have questions about nutrition-related side effects of prostate cancer or its treatment, talk to your dietitian or your doctor. See *How to Find a Registered Dietitian* (page 25).



Eating Well

with Canada's Food Guide

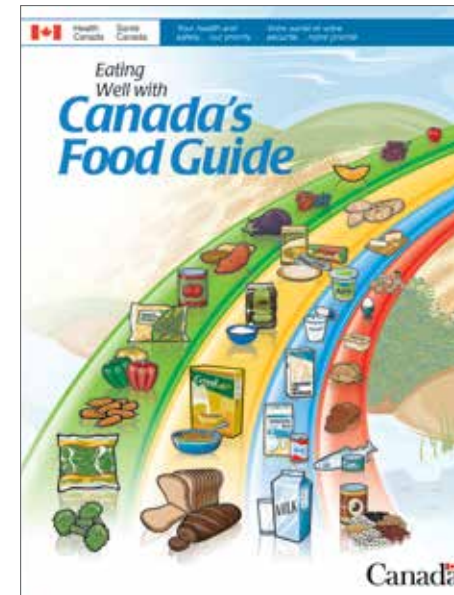
Men with prostate cancer are advised to follow *Eating Well with Canada's Food Guide*. It gives the number of servings Canadians should eat from each of the four groups, based on age and sex. This plan is flexible and offers different choices in each of the food groups.

Following the tips in *Eating Well with Canada's Food Guide* and eating the suggested amount and type of food will help you:

- Get the vitamins, minerals and other nutrients you need
- Reduce your risk of obesity, Type 2 diabetes, heart disease, certain types of cancer and osteoporosis
- Contribute to your overall health and well-being

Eating Well with Canada's Food Guide gives advice for overall health and advice for men of different ages.

For a copy of *Eating Well with Canada's Food Guide*, contact Publications, Health Canada at 1-800-926-9105 or visit their website: www.healthcanada.gc.ca/foodguide



Nutrition Advice

for Managing Side Effects of Treatment

Men undergoing prostate cancer treatment may have some of the side effects listed below. However, not all men experience the same side effects in the same way. The following information may help you cope with these side effects. If you have problems eating because of side effects of your treatment or you have unwanted weight loss, talk to your dietitian or healthcare team.

BONE LOSS AND OSTEOPOROSIS

Men on long-term hormone therapy may have bone loss. Over time, this could develop into osteoporosis. The following guidelines can help you reduce the risk of bone loss during treatment. If your bone density at the start of treatment shows that you are at increased risk of osteoporosis, you may be advised to use medications, in addition to following the guidelines below.

Calcium and Vitamin D

Calcium and vitamin D are needed for strong bones. Men up to 50 years old with prostate cancer are advised to get 1000 mg of calcium daily. Men over 50 need 1200 mg. This includes calcium found in different regular and fortified foods in your diet and from supplements. Calcium intake from all sources – food and supplements – should not be more than 2000 mg per day for men over 51 years old and not more than 2500 mg per day for men 19–50 years old. A daily supplement of vitamin D with 400–1000 IU is recommended for healthy bones. Vitamin D from all sources should not be more than 4000 IU per day.



Calcium and vitamin D are needed for strong bones

Food Sources of Calcium

Food	Portion Size	Calcium (mg)
Cheese, parmesan, grated	50 g (1½ oz)	555
Cheese, Swiss	50 g (1½ oz)	480
Cheese, mozzarella	50 g (1½ oz)	480
Cheese, cheddar	50 g (1½ oz)	360
Sesame seeds	60 mL (¼ cup)	350
Sardines, with edible bones	85 g (3 oz)	300
Milk (skim, 1% MF [milk fat], 2% MF or whole)	250 mL (1 cup)	300
Buttermilk	250 mL (1 cup)	300
Eggnog	250 mL (1 cup)	300
Chocolate milk	250 mL (1 cup)	300
Rice beverage, fortified	250 mL (1 cup)	300
Soy beverage, fortified	250 mL (1 cup)	300
Tofu, firm, prepared with calcium	150 g (¾ cup)	300
Yogurt, plain	175 mL (¾ cup)	200–300
Milk powder, instant, dry	60 mL (¼ cup)	280
Cheese, feta	50 g (1½ oz)	250
Salmon, canned with edible bones	80 g (3 oz)	180
Beans, white, canned	175 mL (¾ cup)	145
Spinach, frozen, boiled	125 mL (½ cup)	145
Cottage cheese, 2% MF	125 mL (½ cup)	100
Almonds	60 mL (¼ cup)	95
Figs, dried	3	95
Orange, raw	1 medium size	50
Chickpeas, canned	175 mL (¾ cup)	50

USDA National Nutrient Database for Standard Reference, Release 26. US Department of Agriculture (2014).

Food Sources of Vitamin D

Food	Portion Size	Vitamin D (IU)
Salmon, sockeye, cooked	85 g (3 oz)	700
Trout, rainbow, cooked	85 g (3 oz)	645
Tuna, light, canned in oil	85 g (3 oz)	225
Halibut, cooked	85 g (3 oz)	200
Sardines, canned in oil	85 g (3 oz)	150
Soy beverage, fortified	250 mL (1 cup)	100
Almond beverage, fortified	250 mL (1 cup)	100
Rice beverage, fortified	250 mL (1 cup)	100
Orange juice, fortified	250 mL (1 cup)	100
Milk (skim, 1% MF, 2% MF and whole)	250 mL (1 cup)	100
Buttermilk	250 mL (1 cup)	100
Eggnog	250 mL (1 cup)	100
Chocolate milk	250 mL (1 cup)	100
Milk powder, instant, dry	60 mL (¼ cup)	75
Mushroom, morel	125 mL (½ cup)	70
Egg, cooked	1 large	40

USDA National Nutrient Database for Standard Reference, Release 26. US Department of Agriculture (2014)

Vitamin and Mineral Supplements

If you cannot get enough calcium and vitamin D with food alone, consider taking a supplement. Calcium carbonate is the least expensive calcium supplement. Most people have no problems taking it with food. Calcium from supplements is absorbed best by your body at doses of 500 mg or less. Some calcium supplements also include vitamin D (check the label for the exact amount). A standard multiple vitamin and mineral supplement gives approximately 175 mg of calcium and 400 IU of vitamin D, as well as other nutrients.



A healthy lifestyle may help men reduce the risk of prostate cancer, as well as reduce the risk of other forms of cancer.

Protein

Protein is needed for healthy bones. Try including meat, fish, poultry, beans, lentils, nuts, eggs, milk, yogurt or cheese in your meals. To get the the right amount of protein each day, eat the recommended number of daily servings from the Meat and Alternatives food group in Canada’s Food Guide.

Caffeine and Salt

Too much caffeine and salt can have detrimental effects on bone health. Caffeine is found in coffee, tea, chocolate (cocoa) and some soft drinks. For healthy bones, limit coffee to 4 cups each day (or the equivalent).

Processed foods such as canned soups, snack foods, crackers, packaged pastas, condiments and sauces are typically high in sodium (salt). Read the Nutrition Facts Table on processed foods, and limit sodium to less than 2300 mg each day.

Physical Activity

Being physically active keeps your bones healthy and reduces the risk of bone fracture by improving your bone mass and increasing muscular strength, coordination and balance. This can reduce falls. Physical activity that is weight bearing is best, like walking, dancing, stair climbing, aerobics, skating and weight lifting. Consult with your doctor before starting new physical activities.

Smoking

Smoking is related to poor bone health and poor health in general. If you smoke, ask your doctor for help to quit smoking.





MUSCLE LOSS AND WEIGHT GAIN

Men with prostate cancer treated with hormone therapy can have a loss of muscle and strength. Weight gain, particularly extra fat around the waistline, is also common. The side effects of hormone therapy and how serious the side effects are may vary between men. The effects can also depend on how long the hormones are used. Men on long-term hormone therapy (more than 1 year) are most likely to have muscle loss and weight gain.

Physical activity is an important part of a healthy lifestyle and has many benefits for men with prostate cancerⁱ. Physical activity can help you keep a healthy body weight, strengthen muscles, prevent bone loss and reduce fatigue. Physical activity is also important for well-being and quality of lifeⁱⁱ. Men are encouraged to do weight training and aerobic exercises (for example, brisk walking, swimming, cycling). Consult with your doctor before starting new physical activities. If weight gain is a

concern for you, you may need to combine physical activity with a reduced calorie diet to lose weight. Early evidence suggests that weight training can help reduce loss of strength from prostate cancer treatments and can help maintain muscle mass.

Body Weight

A healthy body weight is important in men with prostate cancer. Over the past two decades, more Canadians have become overweight and obese. This includes men with prostate cancer. Weight gain is common with aging and often occurs with hormone therapy. Studies show that men with prostate cancer who gain weight, and those who are overweight or obese, have a higher risk of recurrence after a prostatectomy or radiation therapy^{iii iv v vi} and an increased risk of mortality^{vii}.

Physical activity can help you keep a healthy body weight, strengthen muscles, prevent bone loss and reduce fatigue.

What is a Healthy Weight?

A healthy weight for people between 18 and 64 years old is a Body Mass Index (BMI) in the range of 18.5–24.9. For people 65 years and older, the “normal” range may start slightly above 18.5 and extend into the “overweight” range.

You can use the chart to find your height and weight to determine your BMI (page 12). For example, if you are 5 feet 10 inches tall (178 cm) and weigh 160 lbs (73 kg), your BMI is 23 and is within the recommended range.

BMI category (kg/m ²)	Classification	Risk of developing health problems
<18.5	Underweight	Increased
18.5–24.9	Normal weight	Low
25.0–29.9	Overweight	Increased
>30.0	Obese	High

Adapted from: Canadian Guidelines for Body Weight Classification in Adults – Quick Refer Tool for Professionals, Health Canada (2003).

Men who are overweight or obese have a higher risk for different health problems including some types of cancer, diabetes, heart disease, high blood cholesterol and other fats, insulin resistance, gall bladder disease, high blood pressure and osteoarthritis.

Weight loss is advised for men with a BMI of 25 or more. Extra weight at the waistline also increases health risk for the development of heart disease and diabetes. Men are encouraged to maintain a waist measurement of less than 102 cm (40 inches) in addition to a BMI in the healthy range. If you have not been physically active, talk to your doctor before starting an exercise program. Eating fewer calories by reducing portions, eating fewer high-fat

foods (fried foods, desserts, butter, cream sauces or dressings) and drinking less alcohol will help you keep a healthy body weight. Weight loss is safe and healthy if it occurs gradually, with no more than 0.5–1 kg (1–2 lbs) per week. A healthy weight is likely to have health benefits beyond the benefits of reducing side effects of cancer treatment.



Calculating your Body Mass Index (BMI)

Weight lbs / kg	Height ft in / cm												
	5' 5" 165	5' 6" 168	5' 7" 170	5' 8" 173	5' 9" 175	5' 10" 178	5' 11" 180	6' 0" 183	6' 1" 185	6' 2" 188	6' 3" 191	6' 4" 193	6' 5" 196
260 117.9	43	42	41	40	38	37	36	35	34	33	32	32	31
255 115.7	42	41	40	39	38	37	36	35	34	33	32	31	30
250 113.4	42	40	39	38	37	36	35	34	33	32	31	30	30
245 111.1	41	40	38	37	36	35	34	33	32	31	31	30	29
240 108.9	40	39	38	36	35	34	33	33	32	31	30	29	28
235 106.6	39	38	37	36	35	34	33	32	31	30	29	29	28
230 104.3	38	37	36	35	34	33	32	31	30	30	29	28	27
225 102.1	37	36	35	34	33	32	31	31	30	29	28	27	27
220 99.8	37	36	34	33	32	32	31	30	29	28	27	27	26
215 97.5	36	35	34	33	32	31	30	29	28	28	27	26	25
210 95.3	35	34	33	32	31	30	29	28	28	27	26	26	25
205 93.0	34	33	32	31	30	29	29	28	27	26	26	25	24
200 90.7	33	32	31	30	30	29	28	27	26	26	25	24	24
195 88.5	32	31	31	30	29	28	27	26	26	25	24	24	23
190 86.2	32	31	30	29	28	27	26	26	25	24	24	23	23
185 83.9	31	30	29	28	27	27	26	25	24	24	23	23	22
180 81.6	30	29	28	27	27	26	25	24	24	23	22	22	21
175 79.4	29	28	27	27	26	25	24	24	23	22	22	21	21
170 77.1	28	27	27	26	25	24	24	23	22	22	21	21	20
165 74.8	27	27	26	25	24	24	23	22	22	21	21	20	20
160 72.6	27	26	25	24	24	23	22	22	21	21	20	19	19
155 70.3	26	25	24	24	23	22	22	21	20	20	19	19	18
150 68.0	25	24	23	23	22	22	21	20	20	19	19	18	18
145 65.8	24	23	23	22	21	21	20	20	19	19	18	18	17
140 63.5	23	23	22	21	21	20	20	19	18	18	17	17	17
135 61.2	22	22	21	21	20	19	19	18	18	17	17	16	16
130 59.0	22	21	20	20	19	19	18	18	17	17	16	16	15
125 56.7	21	20	20	19	18	18	17	17	16	16	16	15	15
120 54.4	20	19	19	18	18	17	17	16	16	15	15	15	14

 Normal (18.5–24.9)	 Obese (>30)
 Underweight (< 18.5)	 Overweight (25–29.9)

BMI values are rounded to the nearest whole number.



DIARRHEA

Radiation therapy affects the healthy cells in the bowel and bladder (near the prostate gland). As a result, most men who are treated with radiation therapy experience a change in bowel habits and an increase in urinary symptoms during pelvic radiation therapy. After about 10 treatments (or about 2 weeks of treatment), common side effects include:

- An increase in bowel movements each day
- Smaller stools that can be either hard or loose (or both)
- Abdominal gas and bloating
- Rectal pain and discomfort
- An increase in bowel urgency

Mild symptoms such as an increase in bowel movements each day may not need to be treated. But moderate or severe symptoms such as abdominal cramping, frequent, loose or watery stools, or an increase in urgency may need to be controlled by decreasing certain foods in your diet and using medications.

Try the following tips for managing diarrhea and cramps:

- Eat more often. Try eating 4-6 small meals per day.
- Drink plenty of fluids. Diarrhea can cause dehydration, so it's important to drink often. Choose water, soup broth, diluted 100% fruit juice or diluted sports drinks.
- Avoid drinks such as alcohol, coffee, strong tea, cola beverages and prune juice – they may make your diarrhea worse.
- Avoid high-fibre foods. Limit whole grain breads and high-fibre cereals. Remove skins and seeds from fruit and vegetables. Also limit nuts, bran, corn, broccoli, beans, peas, berries and dried fruit.
- Avoid greasy fried foods.
- Avoid strong spices (for example, chili peppers, cayenne pepper, curry).
- Avoid extremely hot or cold foods and fluids.

If drinking milk makes diarrhea worse it may be helpful to reduce dairy products for a short time. Most men can continue to eat yogurt and cheese during treatment. Other choices include lactose free milk or soy beverages (fortified with calcium and vitamin D).

Your doctor may suggest an over-the-counter anti-diarrhea medication to help reduce diarrhea during radiation therapy. Use these medications as directed. If you are following a low-fibre diet and you're using anti-diarrhea medication regularly, you may develop constipation.

Continue with a low-fibre diet and avoid foods that irritate your bowels for 3–4 weeks after your radiation therapy treatment is done. After about 1 month, gradually add high-fibre foods back into your diet over several weeks. If you continue to have bowel symptoms, talk to your doctor or dietitian. Once bowel function has returned to normal, a diet of high-fibre foods is recommended. In particular, men who have had hemorrhoids should follow a high-fibre diet.

HOT FLUSHES

Men who've been treated with hormone therapy can have hot flushes (or hot flashes) – you may suddenly feel hot and start sweating. While this side effect is different for everyone, some men may notice that some foods cause hot flushes. These include hot foods or drinks, spicy foods, caffeine and alcohol, including red wine. There has been some research into natural remedies, such as plant estrogens, to help men with prostate cancer with hot flushes. But research doesn't yet show that natural remedies reduce hot flushes. There are prescription medications available that can reduce the frequency and severity of hot flushes. Talk to your doctor or pharmacist about these options.

Frequently Asked Nutrition Questions (FAQs)

Q. I heard that I should be eating a lower fat diet. How can I reduce my fat intake?

A. A lower fat diet has many health benefits. Eating less fat reduces your risk of developing heart disease. As well, it will help you if you need to lose weight. A varied diet, lower in fat and high in vegetables, fruits and whole grains is a healthy choice for almost everyone in your family.

- Choose foods naturally low in fat including fruits, vegetables, legumes (beans) and whole grains.
- Prepare foods in ways that use less fat. Use steaming, poaching, baking or broiling instead of frying.
- Choose smaller portions of higher fat foods.
- Limit the amount of fat that you put on food.
- Choose 1% MF (milk fat) or skim milk dairy products.
- Choose lower fat cheeses (less than 20% MF).
- Choose lean meats and cut off the visible fat.
- Remove the skin from chicken and cut off the visible fat.
- Limit processed foods that have added fat. For example, fish sticks have added fat, but fish fillets do not. Also french fries and potato chips have added fat, but boiled and baked potatoes are naturally low in fat.



Choosing lower fat options

Instead of . . .	Try . . .
Butter on a baked potato	Light sour cream or plain yogurt
Butter on cooked vegetables	Lemon, garlic or herbs
Cream in coffee or tea	Skim or low-fat milk
Creamy salad dressing	Lower fat or vinaigrette dressing
Cream sauce for pasta	Tomato-vegetable sauce



All types of fat have the same number of calories, but there are important differences in the quality and how it affects your health.

Q. Are some fats “good” and others “bad”?

A. Fats provide us with energy, help us absorb vitamins from food and are needed for brain and nerve function. All types of fat have the same number of calories, but there are some important differences in the quality and how it affects your health. How much fat you eat, how often and where it comes from is important. The main types of fats are:

- Monounsaturated fats
- Polyunsaturated fats
- Saturated fats
- Trans fats

You may be used to reading these words – they are on many food labels.

Doctors suggest that you reduce the saturated fats and trans fats in your diet. These may be replaced with monounsaturated or polyunsaturated fats. Monounsaturated and polyunsaturated fats are called unsaturated fats and mainly come from plant foods.

Monounsaturated fats are highest in:

- Vegetable oils, especially canola and olive oils
- Avocados
- Olives
- Nuts, especially almonds, hazelnuts and macadamia nuts

Health experts consider these fats to be good for your health.

Polyunsaturated fats are found in:

- Vegetable oils such as corn and sunflower – but not coconut and palm oils
- Seeds and nuts
- Fatty fish such as salmon, trout, mackerel, herring and sardines

Omega-3 and omega-6 fatty acids are types of polyunsaturated fatty acids. Most Canadians get enough omega-6 fatty acids, but not enough omega-3 fatty acids. Your nutritional need for omega-3 fatty acids is small – only a few grams daily. You should get enough if you eat foods high in omega-3 fatty acids every day.



Frequently Asked Nutrition Questions (FAQs)



Omega-3 fatty acids are highest in:

- Flaxseed and canola oils
- Some brands of eggs (check product labels)
- Omega-3 enriched foods, for example, yogurt and soy beverages
- Flaxseeds (ground) and walnuts
- Fatty fish such as salmon, trout, mackerel, herring and sardines
- Wheat germ

Omega-6 fatty acids are highest in:

- Safflower, corn, sunflower and soybean oils
- Sunflower, sesame, poppy and pumpkin seeds
- Wheat germ

Saturated fats are found in:

- Processed vegetable fats like shortening and hard margarine
- Animal fats like lard, the fat in meat and gravy made from meat
- Dairy fats like butter, cream, ice cream, sour cream and cheeses
- Tropical fats like coconut oil, palm oil and cocoa butter

You can usually recognize saturated fats easily because they are solid at room temperature. Studies show that eating less saturated fat is best. It is also beneficial to replace saturated fats with unsaturated fats. It is not clear if saturated fats have different long-term effects on health depending on the food sources (for example, coconut versus animal fats). More research is needed.

Trans fats or trans fatty acids are found in:

- Processed vegetable fats like shortening and hard margarine
- Commercially prepared foods such as cookies, chips, cakes and packaged mixes
- Packaged or processed food products with “hydrogenated vegetable oil” or “vegetable shortening” as an ingredient on the food label

A small amount of trans fatty acids are found naturally, mostly in animal foods. Trans fatty acids are formed when vegetable oils are processed to make shortening and hard margarine. Eating a diet that is high in trans fatty acids may raise blood cholesterol and risk of heart disease.



You can usually recognize saturated fats and trans fats easily because they are solid at room temperature. Studies show that eating less saturated and trans fat is best.

Q. What kind of fat should I use for cooking?

A. Vegetable oils are a better choice than shortening, lard or butter. Even in baking, oil is a better choice.

Q. Which oil is best?

A. Olive oil and canola oil are the best choices. Olive oil can have a good flavour, especially the oil that is extracted first from the olives – the “extra-virgin” oil. Use olive oil as a dressing for salads or in marinades or for dipping bread instead of butter or margarine. Canola oil is less expensive than olive oil. It has a milder flavour, so it may be used in baking.

Flaxseed oil and walnut oil are also good choices and are now available in some specialty stores. Because of their flavour, they are good in salads and other similar meals. If you use one of these oils, buy a small quantity and keep it in the refrigerator. It should keep well for up to 2 months.

Q. What do food labels tell me about fat?

A. Labels list the ingredients in a food. This list tells you if fat has been added to food during processing and what kind of fat. You can use this information to compare products. For example, peanut butter, which is naturally rich in fat, may or may not have added vegetable oil (or sugars).

Food labels list the amount of fat in 1 serving. You can use this information to compare similar products and choose the one that is lower in fat.

Q. I recently heard that butter is better for us than margarine. This surprised me. Which is better?

A. Small amounts of either butter or soft margarine do not cause health problems. Both butter and margarine have the same amount of fat – 4 grams of fat in 5 mL (1 tsp). Whether you use butter or margarine keep the total amount small.

There is an important difference in quality between hard and soft margarines. Hard margarines (the kind sold in hard blocks) have trans fatty acids. Whereas, soft margarines (the kind sold in a tub) are made mainly from vegetable oils and have little or no trans fatty acids (especially if label states “non-hydrogenated”).





Diets focusing on plant foods typically are rich in nutrients and fibre and can be lower in fat. Increasing the amount of fruits, vegetables, whole grains, legumes and lentils you eat is a good choice.

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

A. Phytochemicals (or phytonutrients) are naturally occurring substances found in plants. Phytochemicals may help prevent cancer and possibly slow cancer progression, but more research is needed. Scientists are currently studying these substances.

Phytochemicals are found in many fruits, vegetables and legumes – for example: tomatoes, broccoli, brussels sprouts, garlic, onions, citrus fruits and soybeans. Eating a diet with lots of plant foods will give you a variety of phytochemicals.

Q. Should I follow a vegetarian diet?

A. A well-planned vegetarian diet can be healthy and enjoyable. Diets focusing on plant foods typically have lots of nutrients and fibre and can be lower in fat. Increasing the amount of fruits, vegetables,

whole grains, legumes (beans) and lentils you eat is a good choice – whether or not you choose to follow a vegetarian diet. Following a vegetarian diet is a personal choice. If you decide to try a vegetarian diet, a dietitian can help you get started.

Q. What about growth hormones in meat?

A. Growth hormones are approved for limited use in beef cattle, but not in pork, chicken, other poultry or in organic beef in Canada. Some people are concerned about the use of growth hormones because of how they may affect our health, in particular, if they cause cancer.

Because of the limited use and current practices in Canada, the health risk linked with growth hormones seems to be small. Growth hormones may be used in dairy cattle in the United States but are not approved for use in Canada and therefore pose no health risk.

Q. I'm concerned about pesticides in the food supply. Is buying organic food better?

A. There is evidence both for and against a link between pesticides and the risk of developing cancer. Canadian standards for levels of pesticide residues in foods are among the strictest in the world. This testing includes foods coming into Canada, which are tested before they can be sold. For more information about the standards used in testing foods for pesticides, visit www.hc-sc.gc.ca and search "Pesticides and Food".

Canadian farmers today use fewer chemicals than 20 years ago. Some studies have found that organic foods have lower levels of pesticides from synthetic sources, compared to conventionally grown foods. But current evidence does not show that eating organic foods protects against cancer. The evidence is clear however that eating a plant-based diet including a wide variety of plant foods offers protection against many cancers – whether or not they are organic.

Many stores carry organically grown foods, but they may be more expensive than conventionally grown foods. Some people can or prefer to buy organic for a variety of reasons, and is a personal choice. Eating a plant-based diet is most important, regardless of whether the produce is organic or not. Rinsing produce with water is a simple and effective means of reducing pesticide residues, if there are any.



Q. Does sugar cause cancer cells to grow?

A. All cells, including healthy cells such as your brain, muscle or heart, use sugar as a source of energy. Just like healthy cells, cancer cells require blood supply, oxygen and energy to grow. Current evidence does not show that limiting foods that provide sugar slows cancer growth in humans, however limiting the amount of *added sugars* you eat is recommended for overall health.

Healthy foods like fruits and vegetables, whole grains, beans, lentils and dairy products provide a source of sugar for cells. In addition to providing energy, these foods have vitamins, minerals, phytochemicals, protein and fiber that keep you healthy. Foods with “added sugars” are those that have table sugar (white or brown), honey, corn syrup, molasses, or other sugars added. For example, soft drinks, candy, baked goods, and many processed foods have excess added sugars. Foods that contain a lot of added sugar provide energy (calories), often in high amounts, but are low in the other nutrients we need to stay healthy.

Small amounts of added sugar, or foods containing them, along with healthy foods can be enjoyed as part of a healthy diet. It is best however to limit foods that provide an excess of added sugars. It’s your overall diet that is most important for your health.



Several foods naturally have sugar. These include fruits and vegetables, which are also a good source of vitamins, minerals and fibre needed for good health.



Q. Are foods with plant estrogens safe for men with prostate cancer?

A. Soy foods and flaxseed have a natural plant estrogen. Estrogen found in foods has not been shown to have any negative effects and is considered safe to consume. Men are advised to choose soy foods (such as soybeans, soy beverages and tofu) and ground flaxseed and foods with ground flaxseed as part of a healthy diet.

Q. I’ve heard that men who have had prostate cancer should avoid milk products. Is this true?

A. Some studies have linked a high intake of dairy product and diets with too much calcium with an increased risk of developing prostate cancer. While more research is needed to understand this relationship it is clear that men with prostate cancer may have higher risk of bone loss, especially if they have had long-term hormone therapy. Therefore getting the nutrients to have healthy bones is important. Milk and other dairy products such as yogurt and cheese provide a good source of calcium and other nutrients to keep bones healthy.

Whether or not you drink or eat milk products, it is important to get the recommended amount of calcium, vitamin D and other nutrients to keep bones healthy. Eliminating milk products, without replacing the calcium, may increase the risk of osteoporosis. See *Bone Loss and Osteoporosis* (page 4).

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

A. The term “antioxidant” refers to certain vitamins, minerals and other compounds that protect the cells in our bodies from damage. Some examples of antioxidants are beta-carotene, vitamin C, vitamin E and selenium. Research is unclear on the effects of antioxidant supplements during cancer treatment. One theory is that these antioxidants are beneficial and may protect healthy cells from damage, improve recovery from cancer treatment or possibly make cancer treatment more effective. Another theory is that antioxidants may interfere with radiation therapy or chemotherapy, making cancer treatments less effective. Currently there is no clear evidence to support any of these possible effects.

The amounts of antioxidants that are naturally found in food as well as those in multiple vitamin and mineral supplements are considered to be safe. But large doses of antioxidant supplements are not recommended during cancer treatment.

Overall, it is better to get vitamins and minerals from food sources rather than supplements. But a multiple vitamin and mineral supplement (“once-a-day”) may be needed for men who can’t eat the foods recommended in *Eating Well with Canada’s Food Guide*. Talk to your doctor or dietitian for more information.

Complementary Therapies

Complementary therapies include a range of different therapies that may be used together with conventional cancer treatment. The purpose of a complementary therapy is not to treat the cancer itself. Complementary therapies may help a person cope with cancer, its treatment or side effects and to feel better. Complementary therapies may include massage, acupuncture, meditation, various diets and natural health products such as herbal remedies, dietary supplements, and vitamin or mineral supplements.

The effect of complementary therapies on prostate cancer is not well known. This makes it hard to know the possible benefits and risks. If you're thinking about trying a complementary therapy during or after treatment, talk to your doctor.

NATURAL HEALTH PRODUCTS (NHPs)

Some complementary therapies make use of natural health products (NHPs).

Natural health products include:

- Vitamins and minerals
- Herbs
- Homeopathic medicines
- Traditional medicines, such as traditional Chinese medicines
- Probiotics (healthy bacteria)
- Products like amino acids and essential fatty acids

These products come in many forms, including teas, liquid extracts, capsules, powders and tablets.

The purpose of a complementary therapy is not to treat the cancer itself. Complementary therapies may help a person cope with cancer, its treatment or side effects and to feel better.

There are many supplements available for sale. Health Canada has rules that govern NHPs, but these rules do not cover NHPs bought in other countries or over the Internet. The Canadian regulations help make sure that NHPs are well prepared, safe to use, helpful and come with instructions on how they should be used. When buying an NHP, look for either an NPN (Natural Product Number) or DIN-HM (Drug Identification Number – Homeopathic Medicine).



POTENTIAL HARMFUL EFFECTS

Some people assume that because a health product is labeled “natural”, it’s safe. NHPs, like drugs, may have side effects that can be serious.

The use of NHPs, including large doses of antioxidants, while you’re being treated with conventional treatment is generally not recommended because of the risk of drug interactions. The effect of taking NHPs during your cancer treatment can’t always be predicted. They could lower the effectiveness or

interact with your cancer treatment and affect test results used to track your disease. In addition, men with prostate cancer should not take any NHPs that contain male hormones or androgens – these may increase cancer growth.

Talk to your doctor or nurse and dietitian and pharmacist if you’re considering using any herb or other preparation, either during or after your cancer treatments.

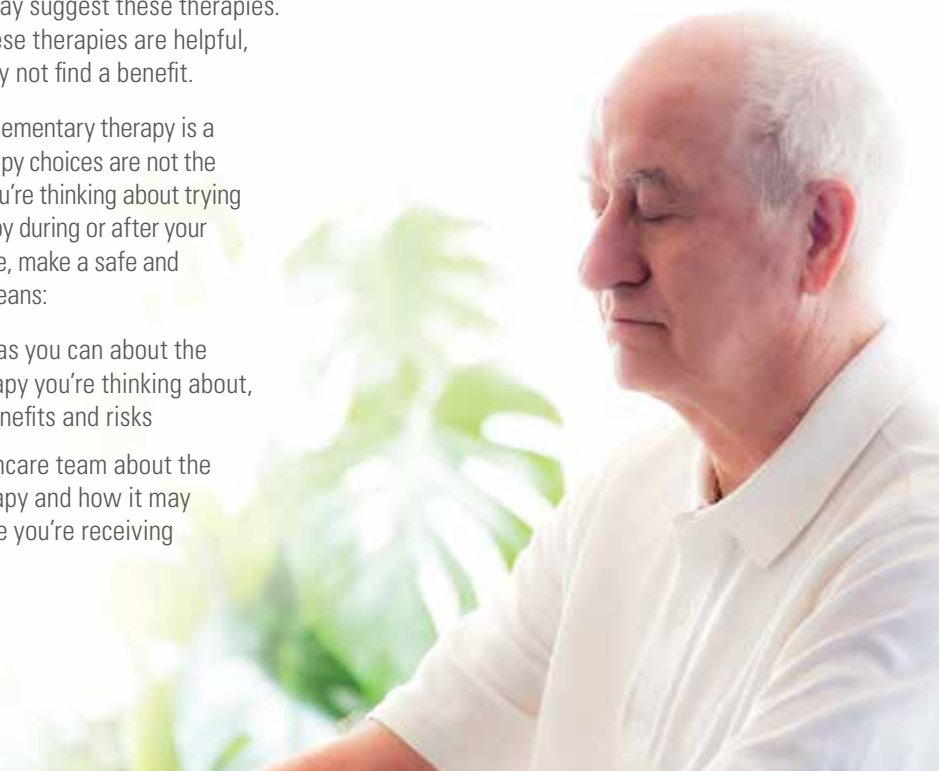
Some people assume that because a health product is labeled “natural”, it’s safe. NHPs, like drugs, may have side effects that can be serious.

CHOOSING COMPLEMENTARY THERAPIES

Many men think about using complementary therapies after a diagnosis of prostate cancer. Or friends and family may suggest these therapies. Some men feel that these therapies are helpful, whereas other men may not find a benefit.

Choosing to use a complementary therapy is a personal decision. Therapy choices are not the same for everyone. If you’re thinking about trying a complementary therapy during or after your conventional cancer care, make a safe and informed choice. This means:

- Finding out as much as you can about the complementary therapy you’re thinking about, including possible benefits and risks
- Talking to your healthcare team about the complementary therapy and how it may interact with the care you’re receiving



There are many things to think about as you decide whether to use complementary therapies. When you're trying to decide, first ask yourself some basic questions: *Why do I want to use this complementary therapy? What are my goals and expectations? Are they realistic?* The following questions can help you evaluate complementary nutritional therapies.

Does the therapy recommend that you avoid certain foods?

Learn all about the therapy. If it does not include one or more of the four food groups in the Canada's Food Guide (page 3), you will miss important nutrients.

Does the therapy include vitamin or mineral supplements? If so, are the suggested levels safe?

If you're considering using vitamin or mineral supplements, it's important to know that large amounts of supplements can have drug-like effects on the body or can interact with your cancer treatment. Even if you plan to take amounts that are considered safe, talk to your doctor before taking supplements. Your doctor may suggest you avoid certain supplements or use them for only a short time.

Are there any possible side effects from the therapy?

Some people may lose weight from using special diets. Undesired weight loss can slow down healing and recovery from treatment. Also, you may have side effects from some products, just as you can with high doses of vitamins.

“When you're trying to decide whether to use complementary therapies first ask yourself some questions.”



How expensive is the therapy?

Special diets may be more expensive than a regular diet. As well, therapies using vitamin and mineral supplements or herbal preparations can become costly over time. These therapies are not covered by health plans. If you decide to use one of them, check the price at several stores because prices can vary widely.

Does the therapy mean giving up things that are important to you, for example, family dinners?

Some therapies may be hard to follow for a long time. The therapy you choose should not stop you from doing the things you really enjoy.

Have other men been helped by the therapy?

Ask to speak to men who have used the therapy. Also, ask for written information about results with the therapy. There should be enough information for you and your healthcare team to decide if the therapy is right for you.

Finding information on the Internet can be a quick way to learn about different health issues. The Internet has lots of information about therapies for cancer. But it isn't perfect. There are no regulations for postings on websites. It's hard to know if the information is accurate, complete or relevant to your situation. The websites included on page 24 can give you reliable information on different complementary therapies.

How to Find a Registered Dietitian

A Registered Dietitian (RD) is a licensed health professional with a university degree in nutrition, additional clinical training and a key member of your healthcare team.

If your treatment centre does not have a registered dietitian:

- Ask your healthcare team or ask your family doctor to refer you to the local hospital dietitian
- Contact Prostate Cancer Information Service at 1-855-PCC-INFO (1-855-722-4636) or email support@prostatecancer.ca
- Contact Dietitians of Canada at 1-416-596-0857 or visit their website: www.dietitians.ca



Additional Resources

COMPLEMENTARY THERAPIES

BC Cancer Agency

www.bccancer.bc.ca (Search for “Complementary and Alternative Therapies”)

Information on specific complementary therapies, tips and questions to ask about complementary therapies.

Health Canada

Natural Health Products

www.hc-sc.gc.ca (Select “Drug and Health Products”, then “Natural Health Products”)

Information on Canadian natural and non-prescription health products regulations.

PHYSICAL ACTIVITY

Public Health Agency of Canada

www.phac-aspc.gc.ca

(Search “Healthy Living, Physical Activity”)

Information on the benefits of physical activity, physical activity guidelines for Canadians and tips for adults and older adults about getting active.

NUTRITION

Health Canada

Canada’s Food Guide

www.hc-sc.gc.ca

(Click on the “Canada’s Food Guide” icon)

Practical tips to help follow *Canada’s Food Guide* as well as interactive tools and resources.

Dietitian’s of Canada

www.dietitians.ca

(Click on “Your Health”)

PROSTATE CANCER CANADA

Prostate Cancer Canada provides up-to-date information, support services and educational resources. Website: www.prostatecancer.ca

Information Service

The Prostate Cancer Information Service (PCIS) is a free, confidential helpline with information specialists on the line who will provide support and answer your prostate cancer questions through phone or email.

Phone: 1-855-722-4636

Email: support@prostatecancer.ca or soutien@prostatecancer.ca

Expert Angle Webinar Series

Prostate Cancer Canada offers a number of webinars which are delivered by experts in the field. Please visit our website for recordings of previous webinars and for details of upcoming webinars: www.prostatecancer.ca/Support/Expert-Angle

Support Groups

The Prostate Cancer Canada Support Groups provide a forum for men with prostate cancer to share information and provide practical and emotional support to one another throughout the cancer journey. Many of the groups are also open to family members and friends. Support groups provide an opportunity to be with individuals who know what it is like to have this diagnosis and live with prostate cancer. To find a support group in your area, please visit www.prostatecancer.ca/Support/PCCN



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