

# Oncology Nutrition

## High Protein High Energy Food Choices



At times during treatment you may not feel like eating much or it may be difficult to eat. If you are losing weight, you may need to choose high protein, high energy foods. High protein foods help maintain and repair muscles and tissues that have been damaged during treatment. High energy foods provide the extra calories you need to help maintain your weight.

This booklet provides ideas on how to include high protein high energy foods when your appetite is low.

## Tips to Help with a Poor Appetite

- **Eat your biggest meal when your appetite is best.**  
This may be at breakfast time rather than at the evening meal.
- **Eat often through the day.**
  - Try to eat something every 1–2 hours.
  - Have small snacks between meals everyday. Snacks can give you extra energy. See page 6 for snack ideas.
  - Include a high protein food at each meal and snack. See page 3 for protein foods.
  - Carry snacks with you if you are planning to be away from home
  - Try a few mouthfuls even if you are not hungry.
- **Eat high energy and high protein foods most of the time.** Limit low fat, calorie reduced or diet foods. See page 3 for list of high protein and energy foods.
- **Drink liquids that give you energy** through the day such as milk, smoothies, commercial nutritional supplement drinks or juice. See pages 7-8 for suggestions. Limit low calorie fluids such as water, coffee and tea as they will fill you up and not allow you to eat much at mealtimes.
- **Eat foods that taste good to you.** It is okay to eat the same foods often if only a few foods appeal to you.

Examples of High Protein Foods	Examples of High Energy Foods
<ul style="list-style-type: none"><li>• All meat (eg. beef, pork, goat, lamb)</li><li>• Fish and shellfish</li><li>• All poultry (eg. chicken, turkey, duck)</li><li>• Eggs</li><li>• All dairy products (eg. milk, yogurt, cheese, kefir)</li><li>• Soy products (eg. soy beans/edamame, tofu, bean curd, soy milk, tempeh, soy cheese, soy yogurt)</li><li>• Beans/lentils (eg. chickpeas, kidney beans, split peas, baked beans)</li><li>• All nuts and nut butters (eg. peanut, almond, cashew, walnuts)</li><li>• All seeds and seed butters (eg. sunflower, pumpkin, chia, sesame, hemp hearts)</li><li>• Wheat germ</li><li>• Brewer's yeast</li><li>• Protein powders (eg. whey, soy, rice, pea, hemp)</li><li>• Commercial nutritional supplement drinks</li></ul>	<ul style="list-style-type: none"><li>• Whole milk (cow or goat)</li><li>• Higher fat yogurt (3% milk fat or more)</li><li>• Full fat cheese</li><li>• Whipping cream, sour cream, half and half</li><li>• Butter, margarine</li><li>• Avocado</li><li>• All nuts and nut butters (peanut, almond, cashew, walnuts)</li><li>• All seeds and seed butters (eg. sunflower, pumpkin, chia, sesame, hemp hearts)</li><li>• Coconut milk</li><li>• All vegetable oils (eg. canola, olive, peanut, coconut)</li></ul>

## Breakfast Ideas

### **Breads and cereals**

- French toast, pancakes or waffles with toppings such as butter and syrup, fruit sauce, ricotta cheese, canned fruit and/or yogurt, or whipped cream
- Hot cereal made with High Protein Milk\*, with extra butter, raisins, almonds, and brown sugar
- Granola with High Protein Milk\* or served on yogurt and fruit
- Toasted bagel/bread with almond butter and honey or fruit spread
- Croissant or scone with butter and jam
- Banana bread with peanut butter and canned fruit

### **Eggs**

- Omelet with cheese and vegetables
- Cooked egg on buttered toast with hollandaise sauce
- Poached egg on an English muffin
- Scrambled egg made with milk and extra cheese

### **Other ideas**

- Tofu and vegetables scrambled together and topped with grated soy cheese
- Smoothie

\* see recipe on page 7

## Lunch and Supper Ideas

### **Sandwich fillings**

- Egg, tuna, salmon, turkey, chicken, avocado & cheese, peanut butter, hummus
- Add extra mayonnaise to the filling and butter on the bread
- Eat the filling with crackers or by itself

### **Hot meals: homemade or store bought/frozen**

- Casseroles with meat, chicken or fish
- Pasta meals with meat, chicken or cheese
- Roast chicken
- Burgers (vegetarian, chicken, beef)
- Meat pies, sausage rolls
- Samosas with meat filling
- Vegetarian chili, lentil soup, or baked beans
- Stir-fry with diced chicken, meat or tofu
- Chili with extra beans and meat or sprinkled with grated cheese

### **Other ideas**

- Canned tuna or salmon on salad greens
- Tzatziki or hummus with pita bread
- Peanut butter and banana sandwich
- Soft taco made with any of the following: meat, beans, vegetables, guacamole and/or cheese
- Squash or lentil soup made with coconut milk
- Baked beans served on top of potatoes or toast
- Dhal (lentil soup) with naan, chapattis or roti

## Snack Ideas

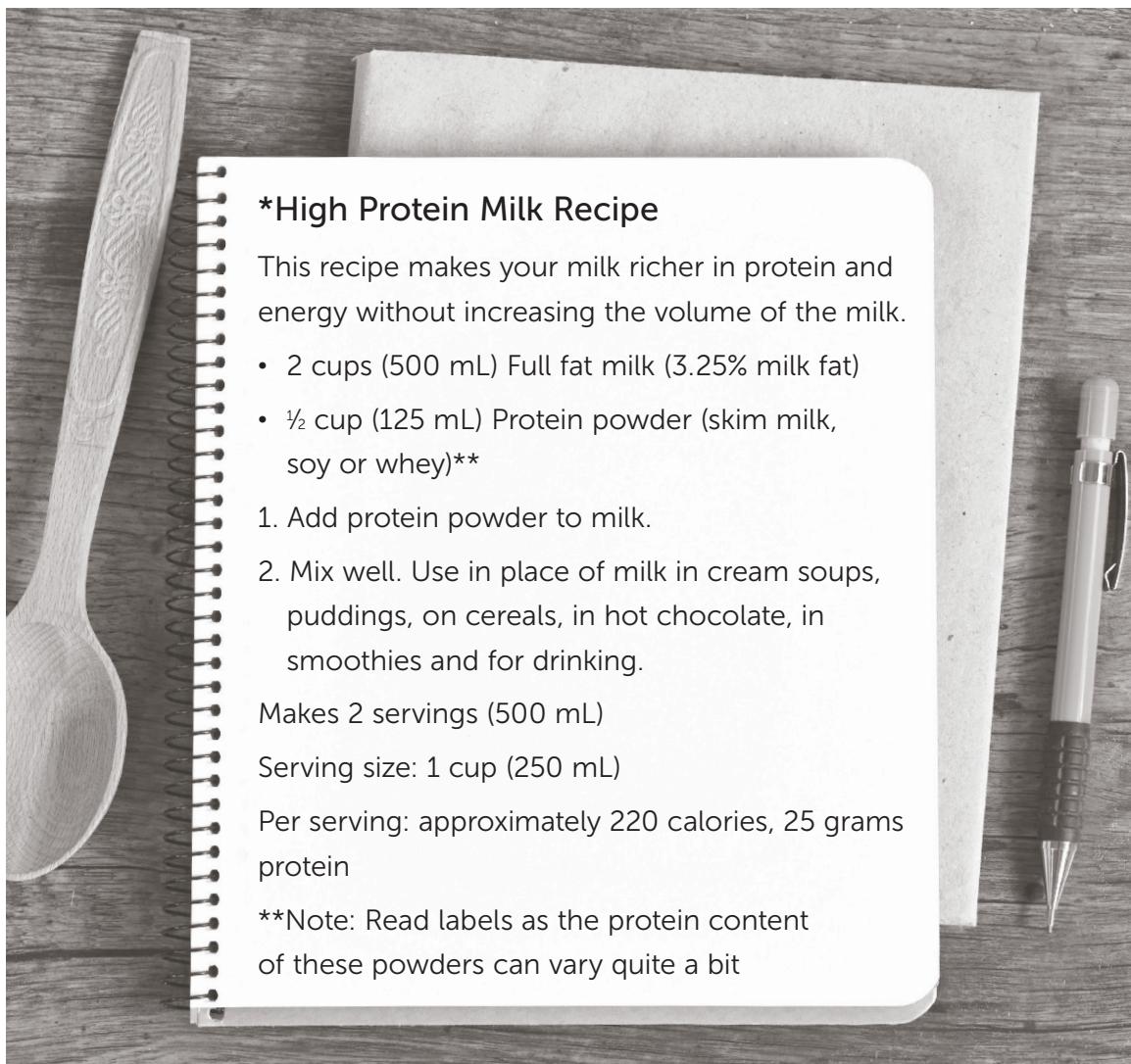
- Peanut butter with apple slices, celery sticks or crackers
- Protein bar or granola bar
- Muffin with butter, peanut butter or cheese
- Hard boiled or devilled eggs
- Dessert tofu with fruit cocktail
- Bean dip or guacamole with crackers or tortilla chips
- Trail mix with nuts, seeds, dried fruit
- Cheddar cheese melted on tortillas
- Buttered popcorn sprinkled with parmesan cheese
- Greek yogurt with fruit
- Flavoured yogurt (3% milk fat or higher) sprinkled with chia seeds, hemp hearts or wheat germ
- Cottage cheese with chopped apple and cinnamon
- Slice of cheese with a handful of grapes or other fruit
- Edamame (green soybeans) sprinkled with sea salt and sesame seed oil
- Pudding made with High Protein Milk\*
- Desserts made with eggs such as bread pudding, custard, soufflé, crepes
- Vegetables with dip
- Hummus with crackers

\* see recipe on page 7

## High Protein High Energy Beverages

Replace your water, tea and coffee with these suggestions:

- Homemade smoothies, see page 8 for suggestions
- Steamed High Protein Milk\* or soy milk with added honey
- Malted milk (Ovaltine, Horlicks) or hot chocolate made with whole milk and topped with whipped cream
- Commercial nutritional supplement drinks
- Coffee or tea latté made with whole milk
- Frappuccino or other creamy iced coffee drink
- Bubble tea made with milk

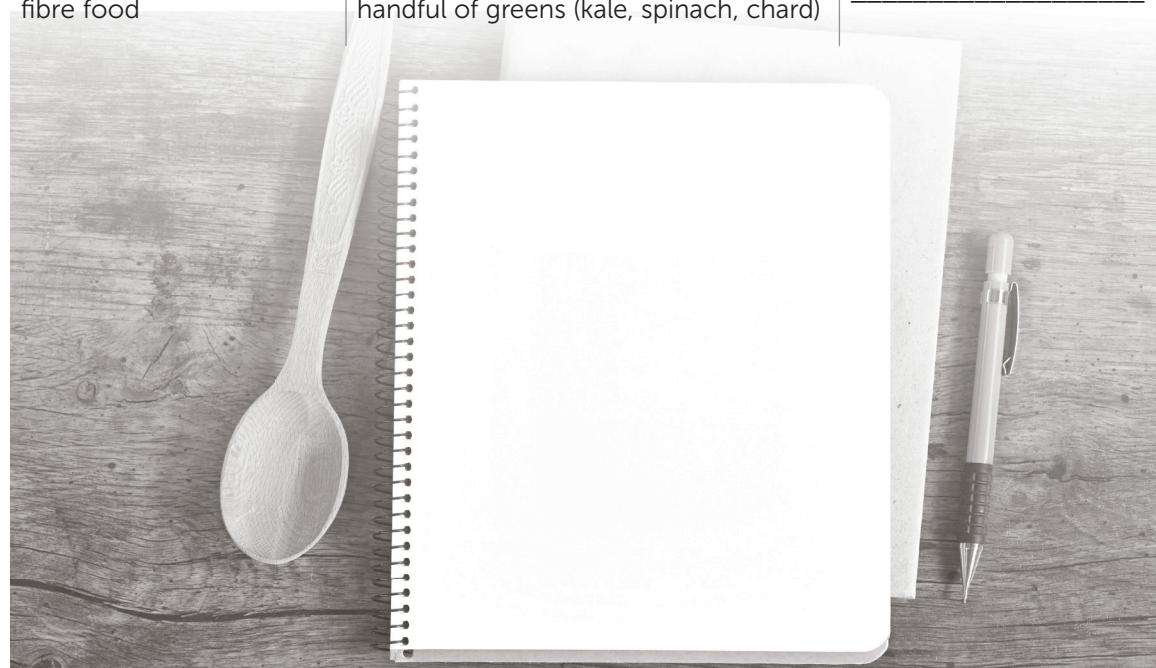


## Homemade Smoothie Instructions

If you do not feel like eating solid foods, try a nutritious smoothie instead.

Here is a simple way to make your own homemade smoothie:

Steps	Food source	Your choice
<b>1: Choose a liquid</b> Start with 1 cup of liquid	Milk, soy milk, chocolate milk, buttermilk, goat's milk, nutritional supplement drink, almond milk, rice milk, fruit and/or vegetable juice, water	_____ _____ _____
<b>2: Add protein</b> Add 2 tablespoons of high protein food	Skim milk powder, yogurt, soft tofu, nuts, protein powder, cottage cheese, almond butter, peanut butter, egg substitute <b>Do not use raw eggs</b>	_____ _____ _____
<b>3: Add calories</b> Add a high calorie food Start with 1 tablespoon and increase gradually to desired taste	Cream, sherbet, ice-cream, condensed milk, frozen yogurt, avocado, whipping cream, vegetable oil, cream cheese	_____ _____ _____
<b>4: Add flavour</b> Add $\frac{1}{4}$ – $\frac{1}{2}$ cup of a flavourful food	Fresh or frozen berries, banana, canned peaches, applesauce, crushed pineapple, mango	_____ _____ _____
<b>5: Optional</b> Add 1 tablespoon of a fibre food	Ground flax seeds, oat bran, wheat germ, chia seeds, hemp hearts, handful of greens (kale, spinach, chard)	_____ _____



## High Protein and Energy Ideas for You

These ideas show how you can make simple changes to your diet.

Time of day	Your current diet	Ways to increase your protein and energy

## Ways to Increase Your Protein and Energy

Continue to eat familiar foods but make small changes to recipes to increase protein and calories.

Foods	Suggestions to increase protein and energy
Pancakes & Waffles	<ul style="list-style-type: none"> <li>• Use High Protein Milk* (see page 7 for recipe) in the batter</li> <li>• Add extra eggs, nuts or seeds to batter</li> <li>• Top with butter, yogurt, maple syrup, fruit sauce</li> </ul>
Bread, Crackers	<ul style="list-style-type: none"> <li>• Spread with extra butter or nut butter</li> <li>• Add extra mayonnaise to sandwich fillings (egg, tuna, salmon)</li> </ul>
Hot Cereal	<ul style="list-style-type: none"> <li>• Cook in High Protein Milk* (see page 6 for recipe)</li> <li>• Add butter, nuts, seeds, nut butters or dried fruit</li> <li>• Top with cream or yogurt</li> </ul>
Pasta and Rice	<ul style="list-style-type: none"> <li>• Cook in extra oil or drizzle oil on top</li> <li>• Use pesto sauce or cream-based sauce in pasta</li> <li>• Add ground meat or chopped tofu</li> <li>• Top with grated cheese</li> </ul>
Eggs	<ul style="list-style-type: none"> <li>• Add cheese, whole milk or cream to scrambled eggs</li> </ul>
Soups and Stews	<ul style="list-style-type: none"> <li>• Add extra lentils/beans, seafood, chicken, beef or butter/oil when preparing</li> <li>• Swirl an egg or add diced tofu into hot soup</li> <li>• Top each serving with sour cream or grated cheese</li> </ul>
Meat dishes	<ul style="list-style-type: none"> <li>• Use regular ground beef</li> <li>• Add gravy</li> </ul>
Casseroles	<ul style="list-style-type: none"> <li>• Use extra cheese</li> <li>• Add diced tofu, beans, lentils, hard boiled eggs, chicken, or beef</li> </ul>
Congee	<ul style="list-style-type: none"> <li>• Add minced meat, fish, egg or lentils, beans/bean curd</li> </ul>
Potatoes	<ul style="list-style-type: none"> <li>• Add cheese, extra butter, whole milk and/or cream to mashed potatoes</li> <li>• Top with baked beans, chili, grated cheese and sour cream</li> </ul>
Tacos and Nachos	<ul style="list-style-type: none"> <li>• Add extra guacamole, sour cream, cheese</li> <li>• Add refried beans, seasoned ground beef</li> </ul>
Salads	<ul style="list-style-type: none"> <li>• Add nuts, cheese, dried fruit, avocado and extra dressing</li> <li>• Add chopped hard cooked eggs, chicken, tuna, salmon, beans, lentils</li> </ul>
Cooked Vegetables	<ul style="list-style-type: none"> <li>• Saute in oil</li> <li>• Add cheese, a cream sauce, butter or gravy</li> <li>• Sprinkle with nuts or seeds</li> </ul>
Fruit	<ul style="list-style-type: none"> <li>• Serve with a side of yogurt, ice cream or whipping cream</li> <li>• Sprinkle with slivered almonds</li> <li>• Choose canned fruit with syrup</li> <li>• Have fruit-based desserts (crumble, pie, cobbler)</li> </ul>

## Other suggestions to consider:

### If your energy is low:

- Try convenience foods. Keep your freezer, refrigerator and cupboards stocked with foods that are ready-to-eat or easily prepared.
- Use pre-washed, pre-cut fruits and vegetables.
- Dine out or order in. Order extra for leftovers or a second meal later on.
- Ask friends and family to help prepare meals. Prepare food in bulk, divide into single serving containers and freeze.
- Consider community meal programs or inquire with local restaurants or grocery stores about home delivery.
- Try soft, moist or blenderized foods as they may be easier to eat and require less effort to chew and swallow.

### If you are concerned about your heart health:

- Choose canola, sunflower and olive oil in cooking.
- Include avocado, flaxseeds and walnuts.
- Choose fish such as salmon, sardines, trout more often.
- Speak to your dietitian about your personalized diet plan.

### If you are eating very little solid foods:

- Have smoothies in between meals (see page 8 for tips for making home-made versions)
- Try commercial nutritional supplement drinks sold in retail stores. These drinks are convenient because they are ready to serve and have a long shelf life. If you are unable to eat or drink anything else, you may need 1–2 bottles per meal to obtain the nutrients you need.
- Consider taking a multivitamin and mineral supplement daily. Check with a Registered Dietitian to see if you require a supplement.

### If you have other concerns with eating, such as a sore mouth or throat, difficulty chewing or taste changes:

- Ask your dietitian for more information.

## How to Contact BC Cancer Oncology Nutrition

### **Abbotsford**

604.851.4733

Toll free in BC 1.877.547.3777

### **Kelowna**

250.712.3963

Toll free in BC 1.888.563.7773

### **Prince George**

250.645.7330

Toll free in BC 1.855.775.7300

### **Surrey**

604.930.4000

Toll free in BC 1.800.523.2885

### **Vancouver**

604.877.6000, ext. 672013

Toll free in BC 1.800.663.3333, ext. 672013

### **Victoria**

250.519.5770

Toll free in BC 1.800.670.3322, ext. 695770

## Additional Resources

**BC Cancer** [www.bccancer.bc.ca/copingwithcancer](http://www.bccancer.bc.ca/copingwithcancer) [www.bccancer.bc.ca](http://www.bccancer.bc.ca)

**BC Cancer Library/Cancer Information Centre:** 604.675.8003

You can also find many recipe books in the BC Cancer Library.

**HealthLink BC** [www.healthlink.bc.ca/healthyeating](http://www.healthlink.bc.ca/healthyeating)

Call 8-1-1 to speak with a registered dietitian for general questions about healthy eating, food or nutrition.