

High Energy and High Protein Foods

This handout offers information on foods and drinks high in energy and protein. Eating well during cancer treatments will help you recover from treatment. You may not always feel like eating. It may be hard to keep your weight the same or to gain weight. Drinking and eating high energy and high protein foods may help.

High Energy Food Choices	
Food and drink choices	How to use them
Avocado	<ul style="list-style-type: none"> • Add to dips • Use in sandwiches, salads, pasta and rice • Add to smoothies
Butter or margarine	<ul style="list-style-type: none"> • Spread on toast, pancakes, waffles, muffins • Add to hot cereal, cooked vegetables, rice or pasta
Cheese, cottage cheese, ricotta cheese, feta cheese, cream cheese	<ul style="list-style-type: none"> • Grate and add to sauces, sandwich fillings and soup • Melt onto sandwiches, pizzas and baked potatoes • Sprinkle on vegetables • Spread cream cheese on bagels, crackers or bread • In stuffed pastas • Add cream cheese to pancake batter • Eat with fruit
Cream (whipping/table)	<ul style="list-style-type: none"> • In mashed potatoes • On top of fruit or desserts • In milkshakes • Add to hot or cold cereal
Frozen desserts (ice cream, sherbet, frozen yogurt)	<ul style="list-style-type: none"> • In milkshakes • Eat as a snack • Add to fruit or dessert
Granola and dried fruit	<ul style="list-style-type: none"> • Add to yogurt and other cereals • Eat as a snack • Add when baking muffins, cookies and loaves
Jams, jellies, syrups, honey and sweetened condensed milk	<ul style="list-style-type: none"> • Add to fruit or yogurt • Spread on toast, bagels, pancakes, waffles and muffins • Add to pudding, ice cream or custard • Add to milkshakes
Mayonnaise	<ul style="list-style-type: none"> • In sandwiches and fillings • In salads and dips • Spread on meat, fish or chicken
Nut and seed butters (peanut butter, Nutella, almond butter)	<ul style="list-style-type: none"> • As a spread on bread, crackers and muffins • In baking • In milkshakes

High Energy Food Choices	
Food and drink choices	How to use them
Nuts and seeds (walnuts, almonds, peanuts, pumpkin seeds, sunflower seeds)	<ul style="list-style-type: none"> • Eat as a snack • Use in trail mix • Add when baking, muffins, cookies, loaves, scones • Add to your bowl of cereal • Add to yogurt
Pesto sauce	<ul style="list-style-type: none"> • Use in pasta or pizza • Spread on fish or chicken • Add to potatoes
Vegetable oils (canola, olive, sunflower)	<ul style="list-style-type: none"> • In salads • In soups • As dips for bread • In pastas and sauce • Pour over vegetables
Whole milk	<ul style="list-style-type: none"> • Drink instead of water • In hot drinks such as hot chocolate • Cook hot cereal in milk • In cream soups • Use in milkshakes
Yogurt (full fat) or sour cream	<ul style="list-style-type: none"> • In dips and salad dressings • As toppings for perogies, potatoes (mashed or baked) and fruit

High Protein Food Choices	
Foods or drinks to use	How to use them
Beans and legumes (edamame beans, lentils, chickpeas, kidney beans, black beans, lima beans)	<ul style="list-style-type: none"> • Use in soups, stews, pastas and main courses • Have as hummus or bean dip • Add to rice side dishes
Cheese, cottage cheese and ricotta cheese	<ul style="list-style-type: none"> • Grate and add to sauces, sandwich fillings and soup • Melt onto sandwiches, pizzas and baked potatoes • Sprinkle on vegetables • Add cottage cheese to pancake batter or to eggs when making an omelet • Eat with fruit

High Protein Food Choices	
Food and drink choices	How to use them
Eggs (do not eat raw eggs) or pasteurized liquid eggs (sold in cartons) consumed raw or cooked	<ul style="list-style-type: none"> • Eat as a meal or snack with toast • Stir into hot soups or hot cereal • Use in sandwiches and salads • Use in custard
Meat, fish and poultry (do not eat raw fish)	<ul style="list-style-type: none"> • Use in sandwiches and fillings • Add to prepared soups or salads • Use when making soups, stews and main courses
Nut and seed butters (peanut butter, Nutella®, almond butter)	<ul style="list-style-type: none"> • As a spread on bread, crackers and muffins • In baking • In milkshakes
Nuts and Seeds (hemp, chia seeds, sunflower seeds, pumpkin seeds, walnuts, almonds, peanuts, cashews)	<ul style="list-style-type: none"> • Eat as a snack • Use in trail mix • Add when baking, muffins, cookies, loaves, scones • Add to your bowl of cereal • Add to yogurt
Protein powders (whey, skim milk, soy powders)	<ul style="list-style-type: none"> • Add to milkshakes, cream soups, cream sauces, hot cereal, milk, coffee or hot chocolate • Use when making waffles, pancakes puddings and Muffins • Use in mashed potatoes • Add to yogurt
Tofu (regular and dessert), textured vegetable protein (TVP), tempeh	<ul style="list-style-type: none"> • Cube or crumble and add to soups, stews or stir-fry • Eat as a snack or add to fruit • Use in milkshakes/smoothies
Milk (cow, goat, soy), kefir and buttermilk, chocolate milk, ultra-filtered high protein milk (examples: Fairlife®, Joyya®, Natrel® plus, Lactancia Ultrapur)	<ul style="list-style-type: none"> • Drink instead of water • In hot drinks such as hot chocolate • Cook hot cereal in milk • In cream soups • Use in milkshakes
Yogurt (full fat greek, Skyr®) or full fat sour cream	<ul style="list-style-type: none"> • In dips and salad dressings • As toppings for perogies, potatoes, pancakes and fruit • In mashed potatoes
Grains (quinoa, brown rice, granola, whole grain bread, bulgur, farro, wheat germ)	<ul style="list-style-type: none"> • Add to soups and salads • Eat as a side dish with your meal

Quick and easy meal ideas

Breakfast choices

- Cheese or fruit scone with butter and jam
- Cottage cheese and fruit with syrup of choice
- French toast, pancakes or waffles with butter and syrup
- Hot cereal made with high protein milk (recipe below), butter, fruit and brown sugar or honey
- Muffin with butter and jam
- Omelets with cheese and vegetables
- Toasted bagel/bread with cream cheese or nut butters

Lunch and supper choices

- Baked beans (use on top of potatoes or toast)
- Barbequed chicken
- Canned tuna or salmon
- Chili
- Cream soup made with high protein milk (recipe below)
- Deli foods such as meat pies, sausage rolls, samosas
- Frozen burgers (vegetarian, beef, or chicken)
- Frozen entrées such as lasagna or shepherd's pie
- Grilled cheese sandwich
- Instant soups which contain beans or lentils
- Pasta dishes with cream sauces, macaroni and cheese
- Perogies with added sour cream, cheese, bacon bits and fried onion
- Pizza
- Potato, pasta, bean or grain salad
- Prepared casseroles with meat, fish or chicken
- Prepared quiche
- Sandwiches with your favorite fillings with extra butter and mayonnaise
- Soft taco with sour cream, cheese, meat, refried beans and vegetables

High protein/high energy snacks choices

- Add cream and/or nuts to cereal
- Baked custard (recipe below)
- Buttered popcorn
- Cereal, granola or protein bars
- Cheese or peanut butter with apples, celery or crackers
- Laughing Cow wedges, Babybel cheese or goat cheese with crackers
- Cookies - oatmeal, peanut butter, fig or date bars
- Cottage cheese with fruit
- Croissants, English muffins or crumpets with butter and jam
- Dried fruit or trail mix
- Fruit crisps, cobblers, pie or cheesecake

- Hard boiled or devilled eggs
- Hummus and crackers or pita or chips
- Guacamole with crackers or pita or chips
- Ice cream or frozen yogurt- in sundaes or floats
- Muffins or scones with butter, peanut butter, jam or cheese
- Nuts and seeds
- Peanut butter or nut spread on crackers or bread
- Potato chips, pita bread, or tortilla chips with dip
- Pudding – rice, tapioca, milk or soy based
- Sweetened dessert tofu with fruit cocktail
- Toast or bagels with peanut butter, jam or cheese
- Tuna, salmon or egg salad in sandwich, wrap or pita or on crackers
- Vegetables with cheese or dip
- Yogurt

Drink choices

- Eggnog or milkshakes (buy ones already made)
- Fruit smoothies made with yogurt or tofu (recipe below)
- Instant breakfast powder made with high protein milk (recipe below)
- Malted milk or hot chocolate
- Milkshakes made with high protein milk (recipe below)
- Meal replacement drinks (examples: Boost®, Ensure®)
- Steamed high protein milk (recipe below) or soy milk with honey

Frequently asked questions

1. What can I do if I do not have an appetite?

You may not feel like eating because:

- You are nauseated (have an upset stomach).
- Of medication you are taking.
- Of the smell or sight of food.
- You are feeling worried or upset.

You can manage this by:

- Choosing high energy or high protein foods.
- Eating more often. Eat a few mouthfuls even if you are not hungry. Eat smaller amounts of food at least every 2 hours.
- Eating what you feel like eating. It is okay to eat the same foods often.
- Taking snacks with you when you are away from home.
- Eating your biggest meal when you feel like eating. This may be at breakfast time.

2. Does “high energy and high protein” also mean “high fat”?

Adding extra fat to food increases the calories without you having to eat more. This can also help you have more energy during your treatments. Ask to talk to a dietitian if you have questions or concerns about adding fat to your diet.

3. I understand fruits and vegetables can help fight cancer. How can I eat these when I do not feel like eating?

Eating fruits and vegetables can lessen your risk of getting some types of cancer. It is important you eat fruits and vegetables during cancer treatment. Fruits and vegetables are low in calories and can make you feel full quickly. Add calories to these foods by using cheese sauce or extra butter on vegetables, having creamy vegetable soup or fruit in a milkshake or smoothie.

4. Do I need to take vitamin supplements?

A multivitamin and mineral supplement may help if you cannot eat a variety of foods or are eating less than what is normal for you. Large doses of some vitamins and minerals can be harmful and may affect your treatment. Ask to talk to a dietitian about this.

5. Do I need to use meal replacement drinks?

Meal replacement drinks are high energy and high protein drinks with vitamin and minerals added. You can buy them in most pharmacies and grocery stores. These drinks can be stored at room temperature and are ready to drink at any time. If you are unable to eat or drink anything else, you may need six or more of these meal replacement drinks in a day to get the nutrients you need. You can also use instant breakfast powders, milkshakes, eggnogs, yogurt smoothies and tofu shakes.

6. What can I do if I am too tired to cook or eat?

- Buy ready-to-eat meals.
- Ask friends and family members to make meals for you.
- Make food in larger amounts and freeze in single serving containers.
- Find out if your community has a meal program (example: ‘meals on wheels’).
- Eat out at a restaurant.
- Eat soft, moist or blenderized foods as they require less effort to chew and swallow.

Recipes

High protein milk

1 cup (250 ml) of skim milk powder

4 cups (1 Litre) of whole milk

Mix the skim milk powder and whole milk together. Use this in cream soups, puddings, on cereals, in hot chocolate and for drinking (to replace the milk).

Makes 4 cups (1 L)

Serving size: 1 cup (250 mL)

Per serving: 210 calories, 14 grams of protein

High protein milkshake

1 cup (250 ml) of whole milk

½ cup (125 ml) of ice cream

¼ cup (60 ml) of skim milk powder

Put together in a blender and blend until smooth. Optional: Blend in ½ cup of fruit (examples: bananas, berries, peaches) or other flavouring.

Makes 1 serving

Per serving: 345 calories, 22 grams protein

Super pudding

1 package (4 ½ oz/130g) of instant pudding mix

2 cups (500 ml) of whole milk

2 Tbsp (30 ml) oil (examples: corn, sunflower or safflower oil)

¾ cup (200 ml) of skim milk powder

Mix ingredients together. Put in the refrigerator until set.

Makes 4 servings, per serving: 300 calories, 9 grams of protein

Yogurt smoothie

1 cup (250 ml) of fruit (example: strawberries, bananas, pineapple)

1/3 cup (75 ml) of plain or fruit yogurt

1 tablespoon (15 ml) of honey

1 cup (250 ml) of high protein milk

2 ice cubes

Put all of the ingredients in a blender. Blend until smooth.

Makes 2 servings, per serving: 220 calories, 10 grams of protein

High calorie, high protein baked custard

2 cups (500 ml) of whole milk

1 cup (250 ml) of half-and-half

5 eggs

¾ cup (150 ml) of white sugar

¼ teaspoon (1.25 ml) of salt

1 teaspoon (5 ml) of vanilla

1. Preheat oven to 350 degrees F.
2. Mix milk and cream in saucepan. Heat until mixture steams but does not boil. Remove from heat and cool.
3. Place eggs, sugar, and salt in a bowl and mix well.
4. Pour cooled milk slowly into the mixture and mix well.
5. Fill 4 single-serving baking dishes ¾ full. Set dishes in a baking pan and put in the oven.
6. Pour hot water into the baking pan (do not add water to the custard dishes). The water level should be even with the custard. This helps the custard bake evenly and have a smooth texture.

7. Bake about 50 minutes or until a knife put into the custard comes out clean.
8. Keep the baked custard in the fridge until you are ready to eat it.

Makes 4 servings, per serving: 380 calories, 14 g protein

Go to this website for more recipe ideas: pressbooks.openeducationalberta.ca

- Select “browse our catalogue”
- Search for the title “The High Protein Cookbook for Muscle Health During Cancer Treatment.”

Ask to talk to a cancer centre dietitian if you have any questions about the information in this handout.

We wish to thank the BC Cancer Agency for sharing the contents of this booklet for our use. We made minor changes to make the content appropriate for the Durham Regional Cancer Centre/Central East Regional Cancer Program.

Last reviewed: May 2025