TABLE OF CONTENTS

I: Nutrition and Colorectal Cancer Spotlight ....................................................................................................... 2

II: How to Read a Nutrition Facts Label .............................................................................................................. 5

III: My Foods for Life – After a Diagnosis and Beyond ....................................................................................... 7

  Introduction ...................................................................................................................................................... 7

  General Healthy Eating Guidelines During Treatment .................................................................................... 7

  Goals of Nutrition During Cancer Treatment ................................................................................................... 8

  Common Nutrition-Related Side Effects of Treatment .................................................................................. 10

    Diarrhea ..................................................................................................................................................... 10

    Constipation ............................................................................................................................................... 13

    Weight Loss ............................................................................................................................................... 16

    Loss of Appetite ......................................................................................................................................... 19

    Nausea & Vomiting ................................................................................................................................... 22

    Following AICR Guidelines with Long-Term Side Effects ...................................................................... 24

IV: Questions About Our My Foods for Life Program? ..................................................................................... 27

Colorectal Pre-Surgery Nutrition Guidelines ........................................................................................................ 26
I: NUTRITION AND COLORECTAL CANCER SPOTLIGHT

This section will go through nutrition-related findings from the Continuous Update Project for Colorectal Cancer from the American Institute of Cancer Research. This will provide a better understanding of some of the AICR’s lifestyle recommendations and variables they have found to increase or decrease risk of colorectal cancer.

You can visit the AICR’s website for up-to-date information on diet, nutrition, physical activity and many types of cancer: https://www.aicr.org

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# Increases Risk of Colorectal Cancer

## Alcohol

As your alcohol intake increases, so does your risk for colorectal cancer. This starts at intakes of about two or more drinks per day. Some reasons for this association may be that:

- The body converts alcohol into acetaldehyde, a potent carcinogen.
- Alcohol may act as a solvent, making it easier for carcinogens to penetrate the cells lining the colon.
- Alcohol can adversely affect how efficiently the body repairs DNA damage and defends against free radicals.

## Red Meat

Diets high in beef, pork and lamb increase colorectal cancer risk, which is why AICR recommends limiting red meat to 18 ounces (cooked) per week. Some of the reasons for this association may be:

- Red meat contains heme iron, which has been linked to the kind of cellular damage that increases risk.
- Red meat stimulates the production of potentially carcinogenic N-nitroso compounds in the body.

## Processed Meats

Regular intake of even small amounts of cold cuts, bacon, sausage and hot dogs increases the risk of colorectal cancer. The reason for this may be:

- Nitrates are added to many processed meats; they contribute to the production of N-nitroso compounds, which can damage the lining of the gut.

## Weight

As you gain excess body fat, your risk for colorectal cancer increases. The reason for this may be that:

- Being overweight and obese increases blood levels of insulin and related hormones that can encourage the growth of cancer.
- Excess fat also creates a pro-inflammatory environment in the body that can contribute to the growth of cancer.
Healthful Eating Pattern

A plant-based diet with a variety of fruits, vegetables, beans and wholegrains can lower risk of colorectal cancer. This may be because:

- Foods containing fiber have been shown to lower risk for colorectal cancer, and plant foods such as oatmeal, kale and kidney beans are packed full of fiber.
- Plant foods contain a wide variety of substances — such as carotenoids, selenium and lycopene — that may protect against cancer in many ways.

Physical Activity

Regular physical activity protects against colorectal cancer.

The Canadian Physical Activity Guidelines recommend that adults aged 18 to 64 years aim for the following:

- Accumulate at least 150 minutes of moderate- to vigorous-intensity aerobic physical activity per week, in bouts of 10 minutes or more.
- Add muscle and bone strengthening activities using major muscle groups, at least two days per week.
- Don’t stop there! More physical activity provides greater health benefits.

What’s the difference between moderate and vigorous physical activity?

- Moderate-intensity physical activities will cause a little sweat and some heavier breathing. This includes activities like:
  - Brisk walking
  - Bike riding

- Vigorous-intensity physical activities will cause adults to sweat and be “out of breath.” This includes activities like:
  - Jogging
  - Cross-country skiing

Dairy Products

Regular intake of dairy products – including milk, cheese and overall dietary calcium intake – shows probable evidence for reducing colorectal cancer risk.
II: HOW TO READ A NUTRITION FACTS LABEL

The nutrition facts table on foods can be a great tool to:

- Learn about the calories and nutrients the item contains
- Make it easy to compare similar foods
- Look for foods that have a little or a lot of a certain nutrient
- Select foods for special diets

Step 1: Look at the serving size.

The serving size is located at the top of the nutrition facts table – all the information in the Nutrition Facts table is based on this amount of the food. You can compare this to the amount of food you actually eat to figure out how much nutrition you are getting.

For example, if the serving size listed is 1 cup but you ate 2 cups, you need to double all of the amounts listed on the Nutrition Facts table.

Step 2: Look at the calories.

The number of calories listed is based on the serving size. If you have more than 1 serving, your intake of calories will be higher than the number you see. If you eat less than the serving size, your intake will be lower.

For example, if you look at the nutrition facts table below the serving size is 1 cup, and this contains 110 calories. If you ate 3 cups of this food, you would be eating 330 calories.
Step 3: Look at the percent daily value (%DV).

The percent daily value (% DV) shows you if a food has a little or a lot of a nutrient. Generally:

- 5% DV or less is a little of a nutrient
- 15% DV or more is a lot of a nutrient

You can use this to compare the nutrient content of different foods.

- Try to get more fibre, vitamin A, vitamin C, iron and calcium.
- Try to get less saturated fat, trans fat, sodium and cholesterol.

The Ingredient List

The ingredient list includes all the ingredients that are in the product. They are listed in order by weight, with the heaviest ingredient listed first and the lightest ingredient listed last. The ingredient list is useful to see what the product is made of and in what proportions. It can be very helpful if you have a food allergy or intolerance and need to avoid certain foods.
III: MY FOODS FOR LIFE – *AFTER A DIAGNOSIS AND BEYOND*

**INTRODUCTION**

Eating a well-balanced diet before, during and after your cancer treatment can help you to maintain your weight, feel better, keep your strength and help with your healing. Being faced with a colorectal cancer diagnosis can be overwhelming, and it can be difficult to know where to start. Below you will find some nutrition tips to help optimize your diet during treatment. However, there may be times when you are too unwell to eat this way – and that is okay. Remember these are general guidelines, and everyone’s cancer journey is unique.

**GENERAL HEALTHY EATING GUIDELINES DURING TREATMENT**

When you’re feeling well, following a well-balanced diet is important for giving you enough nutrients to help fuel your body through treatment. If you’re having minimal side effects from treatment and you’re feeling well, we recommend following the [American Institute of Cancer Research’s](https://www.aicr.org) dietary guidelines below.

*Content from the American Institute for Cancer Research website is reproduced with their kind permission.*

1. Eat a diet rich in fruits, vegetables, whole grains and beans.
2. Limit consumption of “fast foods” and other processed foods that are high in fat, starches or sugars.
3. Limit consumption of red meat to 12 - 18oz per week, and limit or avoid processed meats altogether.
4. Limit consumption of sugar sweetened beverages.
5. Limit consumption of alcohol.
6. Do not use supplements for cancer prevention – aim to meet your nutritional needs through diet when possible.
GOALS OF NUTRITION DURING CANCER TREATMENT

Your goals of nutrition during cancer treatment are different than at other times in your life. The purpose of nutrition during treatment is to keep your body strong enough to heal and recover optimally during and after treatment.

Getting enough calories, protein and fluids can help you:

- Maintain your strength and energy
- Maintain your weight and muscle mass
- Lower your chance of infections
- Cope with side effects of treatment
- Lower your risk of admission to hospital
- Complete your treatment as prescribed
- Heal and recover faster
Goal 1: Maintain your current body weight (get enough calories)

Cancer and its treatments for colorectal cancer can cause you to lose weight without trying. It is important to try and maintain your weight during treatment to keep your strength and help with your healing. Poor nutrition can decrease your ability to fight infection, and in some cases can prevent or delay you from completing your treatment(s).

Goal 2: Get enough protein

Protein helps your body heal cells and tissues, maintain muscles and recover from illness. This is especially important when going through treatment. You can get enough protein by including a source of protein at all meals and snacks. Usually when you’re on treatment, you need 1.2-1.5 grams of protein per kilogram body weight (but be sure to check with your healthcare team that this is right for you). Good sources of protein include:

- Lean meats such as chicken, fish or turkey
- Eggs
- Dairy products such as milk, yogurt (especially Greek yogurt) and cheese
- Nuts and nut butters
- Beans and lentils
- Soy foods such as tofu and soymilk

Goal 3: Stay hydrated

Getting enough fluid is important for preventing dehydration – this is especially true when going through chemotherapy. Aim to drink 9 to 12 cups of fluid per day. The best way to tell if you are dehydrated is the colour of your urine. If your urine is light yellow or clear, it usually means you are getting enough fluids. If it is dark yellow and strong smelling, this is a sign of dehydration. The amount of fluid you need may increase if you are experiencing symptoms like diarrhea or vomiting.

Some sources of fluid include:

- Water – a good source of hydration if you’re maintaining your weight
- Fruit or vegetable juice
- Milk or fortified milk alternatives
- Broths and soups
- Sports drinks
- Jell-O and popsicles
COMMON NUTRITION-RELATED SIDE EFFECTS OF TREATMENT

Cancer and its treatments (such as chemotherapy, radiation and surgery) can cause side effects that affect how you eat. We call these nutrition-related side effects. Before you start your treatment, we do not know how they will affect you, and therefore do not know which of these side-effects you may have. However, it is likely you will experience one or more of these during your cancer journey.

If you are experiencing one or more of these symptoms, these strategies may help reduce or improve your symptoms. Please note these are general guidelines and do not replace the recommendations of a Registered Dietitian or other member of your health care team.

DIARRHEA

Diarrhea is considered loose, watery bowel movements (poo) three or more times daily. Patients undergoing radiation to their abdomen may experience diarrhea because the radiation affects both the cancer cells and healthy cells in your intestines. Some chemotherapy drugs also cause diarrhea as a side effect. In some cases, changes to your diet may help if you have diarrhea.

Tips to help when you have diarrhea

- Drink lots of non-carbonated, caffeine-free fluids to replace those lost from diarrhea, including water, broth and sports drinks.

- Eat foods and drink liquids that are high in sodium and potassium. When you have diarrhea, you may be losing more of these nutrients.
  - High potassium: bananas, potatoes, oranges, diluted sports drinks, diluted fruit juice
  - High sodium: broth, salted crackers, pretzels, diluted sports drinks

- Eat small meals and snacks throughout the day.
  - Try to eat something every 2 to 3 hours; skipping meals can make diarrhea worse.
- Avoid foods that may make diarrhea worse.
  - Greasy, fried, spicy or sugary foods
  - Insoluble fibre from wholegrain breads, bran, cereals, nuts, seeds and the skin on fruits and veggies
  - Caffeine from tea, coffee, chocolate and carbonated beverages
  - Alcohol
  - Sugarless gum and candies made with sugar alcohols like sorbitol, which act as laxatives
  - Limit milk and milk products if they make your diarrhea worse

- Eat foods that may help with diarrhea more often, such as:
  - Peeled apples, apple sauce and bananas
  - Tapioca, oats
  - White rice, mashed potatoes, white bread, pasta and noodles
  - Squash, pumpkin, carrots, potato, sweet potato, turnips and rutabaga
  - Egg whites, chicken, white fish, tofu & yogurt

Remember

- Only follow these tips if you have diarrhea – following these tips if you don’t have diarrhea can cause constipation.
- When your diarrhea goes away, slowly start to eat foods you have been restricting.
- Finding out which foods may affect a person is very individual. Some of these tips may work for some and may not work for others.
- Medication may be necessary to help control your diarrhea. If diarrhea does not go away, or it is impacting your daily living, speak with your doctor or pharmacist about medications that may reduce your diarrhea.
**Sample menu when you are experiencing diarrhea.**

<table>
<thead>
<tr>
<th>Meal</th>
<th>Example Menu</th>
<th>Other Foods to Try</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>1 cup oatmeal&lt;br&gt;1 tbsp peanut butter&lt;br&gt;½ cup 2% milk&lt;br&gt;1 apple (without skin)&lt;br&gt;1 cup decaffeinated coffee with 2&lt;br&gt;creamers and 1 tsp sugar</td>
<td>- Low-fibre cereal with milk&lt;br&gt;- Cream of wheat cooked in milk with a piece of fruit (i.e., banana)&lt;br&gt;- Egg with white toast&lt;br&gt;- Cheese omelet&lt;br&gt;- Congee with lean fish, tofu or ground chicken/pork</td>
</tr>
<tr>
<td>Morning snack</td>
<td>½ cup 2% Greek yogurt&lt;br&gt;1 banana</td>
<td>- Smooth peanut butter and jelly on white toast&lt;br&gt;- Smooth almond butter on rice cakes&lt;br&gt;- Peeled apple slices with cheese or peanut butter&lt;br&gt;- Canned tuna salad&lt;br&gt;- Yogurt drink</td>
</tr>
<tr>
<td>Lunch</td>
<td>1 cup chicken noodle soup&lt;br&gt;2 slices white bread&lt;br&gt;3 oz turkey breast&lt;br&gt;1 tbsp mayo&lt;br&gt;250ml orange juice (without pulp)</td>
<td>- Egg sandwich on white bread&lt;br&gt;- Miso soup with tofu and rice noodles&lt;br&gt;- Pierogis with sour cream&lt;br&gt;- Butternut squash soup</td>
</tr>
<tr>
<td>Afternoon snack</td>
<td>5 crackers (white)&lt;br&gt;1 oz cheddar cheese&lt;br&gt;½ cup apple sauce</td>
<td>- Hardboiled egg&lt;br&gt;- Applesauce&lt;br&gt;- Banana bread with no nuts</td>
</tr>
<tr>
<td>Dinner</td>
<td>3 oz chicken breast&lt;br&gt;½ cup white rice&lt;br&gt;1 cup cooked carrots&lt;br&gt;1 tsp butter&lt;br&gt;250ml 2% milk</td>
<td>- Chicken with white pasta and zucchini&lt;br&gt;- Tofu with white rice and bok choy&lt;br&gt;- Mushroom and cheese quiche</td>
</tr>
</tbody>
</table>
Constipation is when your bowels move less often and stools become harder to pass. Cancer itself or cancer treatments can cause you to experience constipation. Pain medications, changes in your eating habits and being less active can also increase constipation.

**Tips to help with constipation**

- Gradually add more fibre into your diet. Fibre helps draw water into the stool making it softer and also moves food more quickly through your intestines.
  - Aim to increase your fibre by 2-5 grams per day to a total of at least 30 grams daily.
    - If you add fibre too quickly, it may cause discomfort in your belly and gas.
  - See below for a list of high fibre foods to include in your diet.

- Try a natural laxative such as prunes, prune juice, rhubarb and papaya.
  - Try ½ cup of prune juice once a day to start.

- Add high fibre cereals and seeds to your yogurt or baking.
  - Try adding chia seed, ground flax seed, bran or bran buds.

- Increase your physical activity.
  - Even walking counts – start with 10 minutes a day and increase as tolerated.

- Drink plenty of fluids during the day.
  - Aim for at least 9 to 12 cups of liquid per day.
  - Your body needs fluids to help move fibre through your intestines.

- Try drinking warm liquids such as coffee, tea, water and milk to stimulate a bowel movement.
# High-Fibre Foods to Choose More Often

<table>
<thead>
<tr>
<th>Breads and cereals</th>
<th>Serving size</th>
<th>Dietary fiber (in grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bran cereals</td>
<td>½ cup</td>
<td>3-13</td>
</tr>
<tr>
<td>Whole-wheat pasta</td>
<td>¼ cup</td>
<td>6</td>
</tr>
<tr>
<td>Wheat bran, raw</td>
<td>¼ cup</td>
<td>6</td>
</tr>
<tr>
<td>Brown rice</td>
<td>½ cup</td>
<td>6</td>
</tr>
<tr>
<td>Popcorn</td>
<td>2 cups</td>
<td>5</td>
</tr>
<tr>
<td>Whole-wheat bread</td>
<td>1 slice</td>
<td>1-2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Legumes</th>
<th>Serving size</th>
<th>Dietary fiber (in grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beans (small white, yellow, cranberry, adzuki, black, pinto, kidney, navy, great northern, white, refried), cooked</td>
<td>¾ cup</td>
<td>8-14</td>
</tr>
<tr>
<td>Peas (black-eyed, pigeon), cooked</td>
<td>¾ cup</td>
<td>8</td>
</tr>
<tr>
<td>Lentils, cooked</td>
<td>¾ cup</td>
<td>6</td>
</tr>
<tr>
<td>Chickpeas</td>
<td>¾ cup</td>
<td>6</td>
</tr>
<tr>
<td>Nuts</td>
<td>1 ounce</td>
<td>1-3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vegetables</th>
<th>Serving size</th>
<th>Dietary fiber (in grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broccoli</td>
<td>½ cup</td>
<td>4</td>
</tr>
<tr>
<td>Edamame (soybeans)</td>
<td>½ cup</td>
<td>4</td>
</tr>
<tr>
<td>Sweet potato</td>
<td>1 medium</td>
<td>4</td>
</tr>
<tr>
<td>Brussel sprouts</td>
<td>½ cup</td>
<td>3</td>
</tr>
<tr>
<td>Vegetable</td>
<td>Serving size</td>
<td>Dietary fiber (in grams)</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Corn</td>
<td>½ cup</td>
<td>3</td>
</tr>
<tr>
<td>Green peas</td>
<td>½ cup</td>
<td>3</td>
</tr>
<tr>
<td>Potato with skin</td>
<td>1 medium</td>
<td>3</td>
</tr>
<tr>
<td>Spinach, cooked</td>
<td>½ cup</td>
<td>3</td>
</tr>
<tr>
<td>Squash</td>
<td>½ cup</td>
<td>2</td>
</tr>
<tr>
<td>Carrots</td>
<td>½ cup</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fruits</th>
<th>Serving size</th>
<th>Dietary fiber (in grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avocado</td>
<td>½ medium</td>
<td>7</td>
</tr>
<tr>
<td>Breadfruit</td>
<td>½ cup</td>
<td>6</td>
</tr>
<tr>
<td>Guava</td>
<td>1 fruit</td>
<td>5</td>
</tr>
<tr>
<td>Pear with skin</td>
<td>1 medium</td>
<td>5</td>
</tr>
<tr>
<td>Apple with peel</td>
<td>1 medium</td>
<td>4</td>
</tr>
<tr>
<td>Raspberries</td>
<td>½ cup</td>
<td>4</td>
</tr>
<tr>
<td>Prunes</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Orange</td>
<td>1 medium</td>
<td>3</td>
</tr>
<tr>
<td>Raisins</td>
<td>¼ cup</td>
<td>3</td>
</tr>
<tr>
<td>Strawberries</td>
<td>1 cup</td>
<td>3</td>
</tr>
<tr>
<td>Peach</td>
<td>1 medium</td>
<td>3</td>
</tr>
<tr>
<td>Banana</td>
<td>1 medium</td>
<td>2</td>
</tr>
<tr>
<td>Blueberries</td>
<td>½ cup</td>
<td>2</td>
</tr>
</tbody>
</table>
Weight loss can be a big issue for people undergoing treatment for cancer. During cancer treatment people often need more calories than normal to heal, and yet their symptoms make them eat less.

### Tips if you’re experiencing weight loss

- Eat small meals and snacks every 2 to 3 hours.
  - Don’t wait until you feel hungry to eat.
- Eat your favorite foods at any time of the day. For example, eat breakfast foods at dinner if they appeal to you.
- Keep foods and snacks where you can see them as a reminder to eat.
- Make your fluid count! Instead of water, drink beverages with calories like milk, smoothies and juice.
- Go for a walk before meals to increase your appetite.
- Eat your biggest meal when you feel most hungry, not when you typically would.
- Add extra fats to your food like olive oil and butter.
- Try to eat high-calorie, high-protein foods at each meal and snack. Make every bite count! Don’t fill up on foods with little calories and protein like water and leafy greens.
- Enjoy treats like ice cream more frequently.

Remember, changes to your eating don’t always need to be drastic. Small changes such as switching from low-fat to full fat dairy products can add up throughout the day. Below is an example of the approximate calorie content in different milks:

<table>
<thead>
<tr>
<th>Milk</th>
<th>Calories (per 1 cup)</th>
<th>Protein (per 1 cup)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% milk</td>
<td>102</td>
<td>8</td>
</tr>
<tr>
<td>2% milk</td>
<td>122</td>
<td>8</td>
</tr>
<tr>
<td>Whole milk</td>
<td>149</td>
<td>8</td>
</tr>
</tbody>
</table>

By switching from 1% to whole milk you can add almost 50 calories per cup. If you have a few glasses of milk a day or use milk as an ingredient in smoothies or mashed potatoes, this can really add up.
# Higher Calorie Food Choices

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Examples</th>
<th>Tips</th>
</tr>
</thead>
</table>
| **Milk Products**   | Examples: Full-fat milk, cheese, yogurt       | - Add grated cheese to potatoes, vegetables, salads, soups, noodles and meat.  
                      |                                                | - Use milk in place of water in hot cereals and soups.  
                      |                                                | - Add yogurt and milk to your smoothies.  
                      |                                                | - Drink milk instead of water. |
| **Meats and Alternatives** | Examples: Whole eggs, fatty fish (salmon, tuna, mackerel), red meats, beans and legumes | - Use boiled eggs as a snack.  
                      |                                                | - Add cooked meats to soups, casseroles, salads and omelets.  
                      |                                                | - Pan-fry your meats and eggs to add calories.  
                      |                                                | - Use hummus or bean dips with pita or crackers as a snack. |
| **Nuts and Seeds**  | Examples: Walnuts, almonds, peanuts, brazil nuts and nut butters | - Add nuts and seeds to desserts like ice cream, pudding and custard.  
                      |                                                | - Add nuts and seeds to your salads and yogurt.  
                      |                                                | - Add nut butter to your smoothies.  
                      |                                                | | 1 tablespoon of peanut butter adds ~100 calories! |
                      |                                                | - Enjoy nut butter with toast, fruit or veggies.  
                      |                                                | - Enjoy granola as an easy snack or on top of yogurt or smoothies.  
                      |                                                | - Trail mix is an easy on-the-go snack. |
| **Fruit**           | Examples: Avocado, dried fruit, coconut meat, banana | - Enjoy avocado on toast, in your smoothies or as a snack on their own.  
                      |                                                | - Bring dried fruit and nuts with you as a handy snack.  
                      |                                                | - Blend bananas and coconut meat into your smoothies.  
                      |                                                | - Enjoy a banana with some peanut butter as an easy snack. |
Vegetables tend to be low in calories; however, you can add things to make them have more calories.

- Add salad dressings to salads
- When making mashed vegetables like potato, squash and carrots add butter and milk
- Add vegetables into a casserole with other high calorie foods like meat
- Have dips with your veggies, such as hummus and bean dips
- Add sauces to your vegetables, like cheese sauce or gravy

Below is an example of how small changes can increase your calories and protein throughout the day.

<table>
<thead>
<tr>
<th>Usual Menu</th>
<th>High Calorie, High Protein Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breakfast</strong></td>
<td><strong>Breakfast</strong></td>
</tr>
<tr>
<td>1 cup oatmeal</td>
<td>1 cup oatmeal</td>
</tr>
<tr>
<td>1 apple</td>
<td>1 tsp brown sugar</td>
</tr>
<tr>
<td>1 cup 2% milk</td>
<td>1 tbsp walnuts</td>
</tr>
<tr>
<td>1 cup whole milk</td>
<td>1 cup whole milk</td>
</tr>
<tr>
<td>1 banana</td>
<td>1 banana</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Morning Snack</th>
<th>Morning Snack</th>
</tr>
</thead>
<tbody>
<tr>
<td>½ cup fat-free yogurt</td>
<td>½ cup full fat yogurt</td>
</tr>
<tr>
<td></td>
<td>1 oz almonds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lunch</th>
<th>Lunch</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 oz turkey breast</td>
<td>3 oz turkey breast</td>
</tr>
<tr>
<td>2 slices whole-wheat bread</td>
<td>2 slices whole-wheat bread</td>
</tr>
<tr>
<td>2 leafs romaine lettuce</td>
<td>2 leafs romaine lettuce</td>
</tr>
<tr>
<td>2 slices tomato</td>
<td>2 slices tomato</td>
</tr>
<tr>
<td>1 cup chicken noodle soup</td>
<td>1 tbsp mayonnaise</td>
</tr>
<tr>
<td></td>
<td>1 cup cream of mushroom soup</td>
</tr>
</tbody>
</table>
### Lunch

<table>
<thead>
<tr>
<th>Snack/Meal</th>
<th>Item 1</th>
<th>Item 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afternoon Snack</td>
<td>1 muffin</td>
<td>5 whole-wheat crackers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 oz cheddar cheese</td>
</tr>
<tr>
<td>Dinner</td>
<td>3 oz chicken breast</td>
<td>3 oz chicken breast</td>
</tr>
<tr>
<td></td>
<td>½ cup mashed potatoes (made with 2% milk and margarine)</td>
<td>½ cup mashed potatoes (made with whole milk and butter)</td>
</tr>
<tr>
<td></td>
<td>1 cup broccoli</td>
<td>1 cup broccoli with ¼ cup cheese sauce</td>
</tr>
<tr>
<td>Evening Snack</td>
<td>1 banana</td>
<td>1 apple</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 tbsp peanut butter</td>
</tr>
</tbody>
</table>

### Calories and Protein

- **Afternoon Snack**: 1534kcal, 85 grams protein
- **Dinner**: 2157kcal, 110 grams protein

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## LOSS OF APPETITE

There may be many reasons why you simply don’t feel like eating before, during or after your cancer treatment. However, this can lead to a dangerous amount of weight loss and interrupt your treatment or your healing. Sometimes thinking of *food as part of your treatment plan* helps patients with their intake. Eating enough calories and protein is an important part of your healing and will help you recover faster.

### Loss of Appetite Tips

- **Try not drinking liquids at meals or only take small sips as necessary**
  - This will help you not feel full early and be able to eat more food.
    - Drink most of your liquids between meals.
  - When drinking, focus on high calorie, high protein fluids rather than water or other low-nutrient fluids (like black coffee).
Make eating a routine

- Waiting to feel hungry may mean you don’t eat for hours during the day. Try setting up a routine where you eat, even just a few bites, every few hours. These extra nutrients add up throughout the day.

- Try setting reminders on your phone for meal and snack times or having a family member or friend remind you when it’s time to eat something.

- Write yourself an “eating schedule” to make it easy to follow and remember.

Be as physically active as you can

- Physical activity can help stimulate your appetite. Start off slow and increase your activity as tolerated.
  - Try going for a 10-minute walk before meals.

Manage any other nutrition-related side effects that may be preventing you from eating

- Nausea, vomiting, pain, diarrhea, dry mouth, swallowing difficulty, constipation and heartburn (and more) may make you want to eat less.

- Many side effects can be managed with dietary modifications and medications – speak with your healthcare team for advice.

Eat your biggest meal when your appetite is best

- This may mean having your biggest meal at breakfast or lunch rather than at dinner.

- Do not limit your food intake when your appetite is good!
Don’t worry too much about what you’re eating

- Some people find there are only a handful of foods they find appealing. If you are struggling with your intake, do not worry if you are eating the same foods a few times a day. What is important is that you’re eating something.
  - If you’re eating is limited for a period of time, you may need a multivitamin supplement – speak with your healthcare team.

Eat several times throughout the day rather than having 3 big meals

- Small meals and snacks add up by the end of the day. It’s important to not skip meals and snacks, as this can be hard to make up for when you don’t have an appetite.

- Keep foods around you as a reminder to eat.
  - Easy things to keep beside you include foods such as trail mix, granola, protein bars and nuts.

Add calories and protein

- Make the most of every bite you take! Check out our weight loss section for some ideas.
- Add calories and protein to the foods you are eating to give them a nutrient boost.

Try having a high calorie and protein smoothie rather than food

- Smoothies are easy to make and can have as many calories as a meal, depending on what you put in them. Some patients find liquid calories easier to handle when they have a poor appetite.
  - Try making yourself a smoothie and sipping on it.
Talk to your healthcare team about your emotional well-being

Our emotions are very closely related to our appetite and can affect how much you’re eating. Trained health professionals such as social workers and psychologists can assist in managing your emotions.

NAUSEA & VOMITING

There are many reasons you may feel nauseated during treatment. Chemotherapy is a common cause of nausea – you may feel nauseous the day you have chemo and for a few days afterwards. Radiation to your belly and pelvis can also trigger nausea.

If you are experiencing nausea, be sure to tell your healthcare team because there are medicines that can help. Here are some tips for handling your nausea:

- Take anti-nausea medications as they are prescribed by your healthcare provider.
  - It is very important to not wait until you feel nauseous to take your medication.
  - Taking your medication as prescribed will help keep the nausea away.
  - If your medication is not providing any relief, let your healthcare provider know. A different medication may be more helpful for you.
  - Medication is your best defense against nausea that won’t go away. It will allow you to eat consistently and feel better.

- Track your nausea to figure out what may be causing it.
  - Some nausea may be related to your chemotherapy or radiation, whereas others may be caused by strong smells or cooking.
  - Knowing what may cause nausea will help your healthcare team give you appropriate strategies to deal with it.
# Nausea Tips

## Eat several times throughout the day
Eating smaller meals or snacks 5-6 times per day helps keep the stomach from getting too empty or too full, which may make nausea worse.

## Not all foods are appealing to everyone
Find foods that are *tolerable for you* and stock up on those. Some foods people find sit better with nausea are:

- Plain protein foods such as baked meat, poultry or fish. Eggs, egg whites and low-fat dairy products (i.e., yogurt)
- White bread and crackers, cold cereal, plain noodles and white rice
- All plain fruits and vegetables (i.e., mashed potatoes, cooked carrots, banana, etc.)
- Popsicles, juice bars and sherbet
- Smoothies (with 2-3 ingredients)

## Keep odors to a minimum
Odors from food can make you feel nauseous or make your nausea worse.

- Choose foods with little to no smell; these tend to be cool and room-temperature foods like pudding.
- If you can, ask your friends and family to cook strong smelling items at their homes for you.
- Order take-out instead of eating in at restaurants or to avoid strong smells in your kitchen.
- For soups and smoothies, try drinking out of a container with a lid using a straw.

## Try foods or drinks with ginger
Ginger may help you feel better when you have nausea.

- Try ginger snaps, ginger ale (let it get flat), ginger gum or ginger tea to help manage your nausea.
Avoid foods that tend to trigger nausea

Some foods may trigger nausea in some people and not others. If you know a food makes you nauseous, avoid it.

- High fat foods may trigger nausea because they take longer to digest. Some examples are fried foods, chips, pastries and foods prepared with a lot of butter or oil
- Spicy foods usually irritate the stomach
- Caffeine and smoking can make nausea worse.

Wear comfortable clothing

Tight fitting clothing (especially around your belly) can trigger nausea.

If you’re vomiting…

Stay hydrated!

- Continue to drink liquids as tolerated, including water, sports drinks and juice.
  - Attempt to eat bland foods such as crackers and white toast when you’re not vomiting.
  - If vomiting is continuous and uncontrollable, contact your health care provider immediately.

FOLLOWING AICR GUIDELINES WITH LONG-TERM SIDE EFFECTS

Some patients may have long-term side effects from treatment that impact their ability to follow some of the AICR guidelines. This may also apply to patients with metastatic disease who are undergoing treatments long-term. The following are some suggestions to help.
AICR Recommendation

Tips to Help

**Eat a diet rich in fruits, vegetables, whole grains and beans**

Many colorectal cancer patients may have challenges with fibre, which is found in fruits, vegetables, whole grains and beans. If this is the case for you, here are some other ways to enjoy these foods:

- Enjoy vegetables, whole grains and beans as part of a soup.
  - Soup is diluted with broth, meaning overall the fibre content will be lower than eating these foods on their own.
  - Blend the soup to break down some of the fibres, making it even easier to digest.
    - If you can only tolerate small amounts of fibre, put the soup through a sieve after you’ve blended it.

- Add fruits and vegetables into a smoothie.
  - Like soup, smoothies are diluted by the liquid you add.
  - The blending action of the smoothie helps to break down some of the fibre, making these foods easier to digest.
  - If you have to avoid seeds, put the smoothie through a sieve before drinking (this can help you still enjoy fruits like raspberries).

- Try well-cooked root vegetables.
  - Root vegetables tend to be well tolerated – this includes foods such as turnip, potato, sweet potato, carrots, beets and rutabaga to name a few.

- If you can only tolerate a small amount of fibre, or none at all, try juicing your fruit and vegetables.
  - This can help you enjoy some of the nutrients from these foods without the fibre.

**Limit consumption of red meat**

Certain types of chemotherapy treatment may affect your blood counts.

For patients on treatment, red meat may be an important source of iron, vitamin B12, protein and zinc – all of which are important for building blood cells. Therefore, it may not be necessary to limit these foods while undergoing some of your treatments. They can also be a good source of calories if weight loss is an issue for you.
Limit consumption of sugar-sweetened beverages

Keep in mind that the reason it’s recommended to limit the consumption of sugar-sweetened beverages is that they can lead to weight gain over time due to their high calorie and low fibre content (excess weight has been linked to increased risk of many types of cancer). However, weight gain / maintenance may be exactly what we’re trying to achieve when you’re on treatment. If you have a low appetite on treatment or struggle to maintain your weight, sugar-sweetened beverages may actually be helpful to you.

Limit consumption of “fast foods” and other processed foods high in fat, starches or sugars

The recommendation to limit consumption of these foods comes from the fact that they tend to be high in calories, low in fibre and served in large portions – leading to weight gain over time (excess weight has been linked to increased risk of many types of cancer).

If you are struggling to maintain your weight, you have a low appetite and/or you’re struggling with fatigue, choosing some “fast foods” more often may be OK and even helpful for you.

**COLORECTAL PRE-SURGERY NUTRITION GUIDELINES**

Some people with colorectal cancer will have surgery as part of their treatment. Surgery is done for many different reasons, and there are many different types of surgery for colorectal cancer. Some common surgeries are:

- Local excision
- Bowel resection
- Lymph node dissection
- Surgery for metastases
- Colostomy or ileostomy

All types of surgery affect your nutrition needs because our bodies need extra calories and protein to heal from surgery. However, some surgeries will affect how and what you can eat more than others. Bowel resection and colostomy or ileostomy can affect your eating greatly- if you’ve had one of these surgeries you likely should connect with a Registered Dietitian.
Your surgeon will likely give you specific instructions for the days leading up to your surgery. It is very important you follow these instructions to minimize complications and help your surgeon do the best job possible.

The time before your surgery is a great time to make sure you are getting the best nutrition. Having good nutrition before surgery can have many benefits including:

- Faster recovery
- Less chance of infection
- Less time spent in hospital
- Less chance of complications from surgery

Here are three nutrition tips to optimize your nutrition before surgery:

1. **Get enough calories.** The best way to know whether you’re getting enough calories is by knowing if you’ve lost any weight. If you’re losing weight, you’re likely not getting the calories your body needs. It is very important you take the time before surgery to try and get enough nutrition and stabilize your weight if possible. This can help reduce complications and length of stay after surgery.

2. **Get enough protein.** Protein is important for helping your body heal. Getting enough protein before surgery will help your body recover faster afterwards. Include a source of protein at each meal and snack to make sure you’re getting enough. Check out our list of high protein foods for some ideas!

3. **Get enough hydration.** Fluid helps your body in many ways. Aim to get 9 to 12 cups of fluid per day to stay hydrated. If your urine is light yellow to clear you are probably getting enough fluid. If your urine is dark or strong smelling, you may need to drink more.

If you have been losing weight, please consider speaking with your health care team or a Registered Dietitian. Every patient is an individual and has unique eating habits. Meeting with someone can help you get recommendations that are specific to how you eat.
IV: QUESTIONS ABOUT OUR MY FOODS FOR LIFE PROGRAM?

Please connect with us by:
- Toll free: 1 833 79 CCRAN (22726)
- Email: info@ccran.org

This information was consolidated by:

Rachel Reed, Registered Dietitian (RD)
- Rachel specializes in Oncology nutrition
- She is a current member of CCRAN’s Medical & Scientific Advisory Board

Sources

American Institute for Cancer Research
https://www.aicr.org/cancer-prevention/

Canadian Physical Activity Guidelines

Statistics Canada
https://www150.statcan.gc.ca/n1/pub/82-003-x/2020004/article/00001-eng.htm