

EASTERN CONNECTICUT
HEMATOLOGY & ONCOLOGY

# Dietary Guidelines & Side Effects

Let Food Be Thy Medicine, & Medicine Be Thy Food. Hippocrates

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# **Proper Eating During your Cancer Treatment**

This information will help you get the nutrients you need during your cancer treatment. It explains important food safety guidelines and ways to add calories and protein to your diet. It also explains how different cancer treatments may affect your eating and what you can do to help manage common side effects.

Once you start treatment, it may become hard to follow your usual diet. You may need to liberalize your diet (add different types of foods and drinks) to get the nutrition you need. There currently isn't enough research to know that restrictive diets (diets that avoid certain foods or nutrients) are safe for people who have cancer.

The most important thing is to make sure you get the calories and protein you need to keep your body strong during your treatment. Because of that, some of the information in this resource may seem very different from diet guidelines you usually follow.

# 1. About Your Nutrition During Treatment

It's important to follow a well-balanced diet so you get enough nutrition during your treatment. This will help keep your weight stable and maintain your muscles and strength.

Starting Weight	<sub>.</sub> kg
You need	_ <b>calories</b> per day. (20-35 kcal/kg)
You need	grams of <b>protein</b> per day. (1-1.5 g/kg)
You need	ounces of <b>fluid</b> per day.

# 2. Staying hydrated

It's very important to stay hydrated (get enough liquids in any form) during your cancer treatment. You can hydrate with liquids other than water. Examples are listed in the table below.

#### Type of Liquid Examples

- Bouillon
- Consommé
- Broth (Bone)

#### **Drinks**

- Water
- Seltzer (sparkling water)
- Fruit and vegetable juices (V8)
- Fruit nectars (made from fruit juice or pulp, water, and sugar)
- Electrolyte drinks (Pedialyte, Liquid IV)
- Tea
- Milk or milkshakes

#### Type of Liquid Examples

Nutrition supplement drinks (Premier Protein, Ensure, Boost)

#### **Sweets**

- Gelatin (such as Jell-O®)
- Ice pops (such as Popsicles®)
- Italian ices, ice cream, frozen yogurt, and sorbets

# 3. Getting Calories and Protein

During your treatment, your clinical nutritionist may recommend certain foods to help you get more calories, get more protein, or eat more comfortably. Some of these foods may seem like less healthy choices. It's important to remember that you will only be eating this way for a short time. Once your side effects go away and your appetite goes back to normal, you can stop eating foods you feel are unhealthy. Your clinical nutritionist can help you find an eating plan that works best for you.

# Tips for eating and drinking enough.

During treatment, you may have good days and bad days when it comes to eating. Large meals can seem overwhelming or unappealing. This can happen when you have a decreased appetite (want to eat less than usual) or early satiety (feel full shortly after you start eating).

The suggestions below can help you get the most from your meals.

- Eat small, frequent meals. For example, have 6 to 8 meals a day instead of 3 main meals.
- Eat every few hours. Don't wait until you feel hungry.
- Serve smaller food portions on salad plates instead of dinner plates.
- Drink hot chocolate, fruit juices, and nectars that are high in calories.
- Avoid low-calorie drinks (such as water, coffee, tea, and diet drinks). Make Double Milk and milkshakes using the recipes in the "Recipes" section.
- Have your favorite snack foods available at home, on the go, and at work.
- Eat your favorite foods at any time of the day. For example, eat breakfast foods (such as pancakes or omelets) for lunch or dinner.
- Include different colors and textures of foods in your meals to make them more appealing.
- Make dining a good experience by eating your meals in a pleasant, relaxing setting with family or friends.
- Make food that smells good (such as baking bread or frying bacon).

# Tips for adding more protein to your diet.

Your body needs a balance of calories and protein to work best. Your doctor or clinical dietitian nutritionist may tell you to temporarily increase the amount of protein in your diet. If you recently had surgery or have wounds, eating more protein will help you heal. The suggestions below will help you increase the amount of protein in your diet.

- Eat foods rich in protein (such as chicken, fish, pork, beef, lamb, eggs, milk, cheese, beans, nuts or nut butters, and soy foods).
- Drink Double Milk and use it in recipes that call for milk or water (such as instant pudding, cocoa, omelets, and pancake mixes). To make Double Milk, mix 1 envelope (about 1 cup) of non-fat dry milk powder and 1 quart of whole milk in a blender. Store it in the refrigerator.
- Use Double Milk or ready-to-drink nutritional supplements (such as Ensure®) in hot or cold cereals.
- Add cheese and diced, cooked meats to your omelets or quiches.
- Add unflavored protein powder to creamy soups, mashed potatoes, shakes, and casseroles.
- Snack on cheese or nut butters (such as peanut butter, cashew butter, and almond butter) with crackers.
- Spread nut butters on apples, bananas, or celery.
- Try apple slices with cheese wedges and honey drizzled on top.
- Blend a nut butter into your shakes or smoothies.
- Snack on nuts, sunflower, or pumpkin seeds.
- Add nuts and seeds to breads, muffins, pancakes, cookies, and waffles.
- Try hummus with pita bread. Use hummus as a spread on sandwiches or add a spoonful to your salad.
- Add cooked meats to soups, casseroles, and salads.
- Add wheat germ, ground nuts, chia seeds, or ground flax seeds to cereals, casseroles, and yogurt.
- Choose Greek style yogurts over regular yogurt.
- Eat desserts made with eggs (such as pound cake, puddings, custards, and cheesecakes).
- Add extra eggs or egg whites to custards, puddings, quiches, pancake batter, French toast egg wash, scrambled eggs, or omelets.
- Add grated cheese to sauces, vegetables, and soups. You can also add it to baked or mashed potatoes, casseroles, and salads.
- Add cottage cheese or ricotta cheese to casseroles, pasta dishes, or egg dishes.
- Melt cheese on hamburgers and breaded cutlets.
- Add chickpeas, kidney beans, tofu, hard-boiled eggs, nuts, seeds, and cooked meats or fish to your salads.
- Use pasteurized bone broth for soups and stews.

# Tips for adding more calories to your diet.

The suggestions below can help you eat more calories. They may seem to go against what you already know about healthy eating. But during your treatment and while you're healing, the most important thing is that you get enough calories and protein.

- Avoid food and drink labels that say "low-fat," "non-fat," or "diet." For example, use whole milk instead of skim.
- Snack on dried fruits, nuts, or dried seeds. Add them to hot cereals, ice cream, or salads.
- Drink fruit nectars or fruit shakes.
- Add butter, ghee, or oils to potatoes, rice, and pasta. Also add them to cooked vegetables, sandwiches, toast, and hot cereals.
- Add cream cheese or nut butters to toast or bagels or use it as a spread on vegetables.
- Spread cream cheese, jam, and peanut butter on crackers.
- Add jelly or honey to breads and crackers.
- Mix jam with diced fruit and use it as a topping over ice cream or cake.
- Snack on tortilla chips with guacamole or sour cream dips.
- Use high-calorie dressings on salads, baked potatoes, and vegetables (such as green beans or asparagus).
- Add sour cream, coconut milk, half and half, or heavy cream to mashed potatoes, cake, and cookie recipes. You can also add it to pancake batter, sauces, gravies, soups, and casseroles.
- Top baked potatoes with cheese or sour cream.
- Top cakes, waffles, French toast, fruits, puddings, and hot chocolate with whipped cream.
- Make vegetables or pasta with cream sauces or drizzle olive oil over these foods before eating.
- Use mayonnaise, creamy salad dressing, or aioli sauce in salads, sandwiches, and vegetable dips.
- Mix granola with yogurt or put it on top of ice cream or fruits. Use granola in cookie, muffin, and bread batters.
- Top your ice cream or unfrosted cakes with sweetened condensed milk. Combine the condensed milk with peanut butter to add more calories and flavor.
- Add croutons to your salads.
- Include stuffing as a side dish with your meals.
- Drink homemade shakes. Try the shake recipes in the "Recipes" section. You can also drink high-calorie, high-protein drinks (such as Carnation® Breakfast Essentials or Ensure®). See the next section for a list of nutritional supplements you can buy.
- Add avocado to smoothies, soups, salads, omelets, and as a spread on toast.
- Add mayonnaise or sour cream to salads (such as tuna or egg salad) or use it as a spread on sandwiches.

# 4. Nutritional Supplements

If you can't make your own shakes, there are many nutritional supplements you can buy. Some are high-calorie, ready-made drinks that have vitamins and minerals added to them. Others are powders that you can mix into other foods or drinks. Most are also lactose-free, which means you can have them even if you're lactose intolerant (have trouble digesting milk products).

Always refrigerate ready-made drinks after you open them. Refrigerate powders after mixing them with a liquid.

# Bland, unflavored drinks

These drinks are useful for people who like mild sweetness. They can be used as a base for mildly sweetened milkshakes. These drinks are:

- Lactose-free
- Gluten-free
- Kosher

Nutritional Supplement (Manufacturer)	Nutritional Content
Osmolite® 1 Cal (Abbott)	Per 8-ounce serving:
	• 250 calories
	<ul> <li>10.5 grams of protein</li> </ul>
Isosource® HN (Nestlé)	Per 8-ounce serving:
	• 300 calories
	13.5 grams of protein
Glytrol <sup>®</sup> unflavored (Nestlé)	Per 8-ounce serving:
	• 250 calories
	<ul> <li>11.3 grams of protein</li> </ul>

# Flavored, sweetened drinks

These drinks are available in vanilla, chocolate, strawberry, and other flavors, depending on the brand. These drinks are:

- Lactose-free
- Gluten-free
- Kosher

Nutritional Supplement (Manufacturer)	Nutritional Content
Ensure Original (Abbott)	Per 8-ounce serving:
	• 255 calories
	<ul> <li>9 grams of protein</li> </ul>
Boost® Original (Nestlé)	Per 8-ounce serving:
	• 240 calories
	<ul> <li>10 grams of protein</li> </ul>
Ensure Plus (Abbott)	Per 8-ounce serving:
	• 350 calories
	<ul> <li>13 grams of protein</li> </ul>
Boost Plus (Nestlé)	Per 8-ounce serving:
	• 360 calories
	<ul> <li>14 grams of protein</li> </ul>
Boost Very High Calorie (Nestlé)	Per 8-ounce serving:
	• 530 calories
	<ul> <li>22 grams of protein</li> </ul>
Ensure High Protein (Abbott)	Per 8-ounce serving:
	160 calories
	16 grams of protein
Boost High Protein (Nestlé)	Per 8-ounce serving:
	• 240 calories
	20 grams of protein
Ensure Compact (Abbott)	Per 4-ounce serving:
	220 calories
	<ul> <li>9 grams of protein</li> </ul>
Boost Compact (Nestlé)	Per 4-ounce serving:
	• 240 calories
	<ul> <li>10 grams of protein</li> </ul>

# Low-sugar drinks (for people with diabetes)

These drinks are available in vanilla, chocolate, and other flavors, depending on the brand. These drinks are:

- Lactose-free
- Gluten-free
- Kosher

Nutritional Supplement (Manufacturer)	Nutritional Content	
Glucerna® Shake (Abbott)	Per 8-ounce serving:	
	• 180 calories	
	<ul> <li>10 grams of protein</li> </ul>	
Boost Glucose Control (Nestlé)	Per 8-ounce serving:	
	• 250 calories	
	<ul> <li>14 grams of protein</li> </ul>	
Glytrol Vanilla (Nestlé)	Per 8-ounce serving:	
	• 250 calories	
	<ul> <li>11.3 grams of protein</li> </ul>	

# **Fruity drinks**

These drinks are available in peach, orange, wild berry, iced tea, apple, blueberry pomegranate, and other flavors, depending on the brand. These drinks are:

- Fat-free
- Lactose-free
- Gluten-free
- Kosher

Nutritional Supplement (Manufacturer)	Nutritional Content
Ensure Clear (Abbott)	Per 8-ounce serving:
	• 250 calories
	<ul> <li>9 grams of protein</li> </ul>
Boost Breeze (Nestlé)	Per 8-ounce serving:

#### **Nutritional Supplement (Manufacturer)**

#### **Nutritional Content**

- 250 calories
- 9 grams of protein

Resource<sup>®</sup> Diabetishield (Nestlé)

Per 8-ounce serving:

Note: This drink is intended for people with diabetes

- 150 calories
- 7 grams of protein
- 30 grams of carbohydrates

# Milk-based, flavored, sweetened powders

These powders can be mixed with milk or water, depending on the brand. They're available in vanilla, chocolate, and strawberry.

- Most of these products contain lactose.
- The amount of fat per serving depends on the brand and whether mixed with whole milk, low-fat milk, or water.

#### **Nutritional Supplement (Manufacturer)**

#### **Nutritional Content**

Carnation Breakfast Essentials<sup>™</sup> (Carnation)

Per 8-ounce serving with whole milk:

Note: This drink is available in premixed cans. Some flavors are available in sugar-free versions.

- 280 calories
- 12 grams of protein

Sugar-free (artificially sweetened) Carnation Breakfast Essentials (Carnation)

Per 8-ounce serving with whole milk:

- 210 calories
- 14 grams of protein

Scandishake® (Aptalis)

Per 11-ounce serving with whole milk:

- Note: This drink is available in a lactose-free version.
- 600 calories
- 12 grams of protein

# **Unflavored supplements**

These supplements can be mixed into drinks or moist foods (such as pancakes, muffins, and puddings) for added calories, protein, or both.

These supplements aren't meant to be used as your only source of nutrition. Talk with your clinical dietitian nutritionist for help including them in your diet.

Nutritional Supplement (Manufacturer)	Nutritional Content
Scandical® (powder) (Aptalis)	Per tablespoon of powder:
	35 calories
Benecalorie® (liquid) (Nestlé)	Per 1.5 ounces of liquid:
	• 330 calories
	7 grams of protein
Unjury <sup>®</sup> Medical Quality Protein <sup>™</sup> (powder) (Unjury)	Per 24-gram scoop of powder:
	• 90 calories
	<ul> <li>21 grams of protein</li> </ul>

# Nutritional supplements for people who need to limit their intake of potassium, phosphorus, or both.

These drinks are available in vanilla, butter pecan, and berry. They are:

- Lactose-free
- Gluten-free
- Kosher

Nutritional Content	
Per 8-ounce serving:	
• 425 calories	
<ul> <li>19 grams of protein</li> </ul>	
Per 8-ounce serving:	
• 425 calories	
11 grams of protein	
Per 8-ounce serving:	
• 475 calories	
<ul> <li>21.6 grams of protein</li> </ul>	
Per 8.45-ounce serving:	
• 500 calories	
<ul> <li>8.5 grams of protein</li> </ul>	

# High-calorie, high-protein puddings

These pudding supplements are available in vanilla, chocolate, and butterscotch flavors. They are:

- Lactose-free
- Gluten-free
- Kosher

Nutritional Supplement (Manufacturer)	Nutritional Content
Boost Nutritional <sup>®</sup> pudding (Nestlé)	Per 4-ounce serving:

- 250 calories
- 9 grams of protein

Ensure pudding (Abbott)	Per 4-ounce serving:

- 250 calories
- 9 grams of protein

# Snack bars for people with diabetes

They are:

Kosher

# Nutritional Supplement (Manufacturer) Nutritional Content

Glucerna Snack Bar (Abbott)

Per bar:

- 150 to 160 calories
- 10 to 11 grams of protein

Note: Calories and protein depend on flavor.

# **Organic nutritional shakes**

These shakes are available in sweet vanilla bean, creamy chocolate fudge, iced café mocha, and strawberries & cream flavors. They are:

- Gluten-free
- Soy-free
- 99.3% Lactose-free

Kosher

#### Nutritional Supplement (Manufacturer) Nutritional Content

Orgain<sup>™</sup> (Nutricia) Per 11-ounce serving:

255 calories

• 16 grams of protein

Kate Farms Per 11-ounce serving:

255 calories

16 grams of protein

# High-protein, low-sugar shakes

These supplements are available in pre-made shakes in a variety of flavors or in powder form. They are:

- Gluten-free
- Soy-free
- Low sugar

Nutritional Supplement (Manufacturer)	<b>Nutritional Content</b>
---------------------------------------	----------------------------

Premier Protein Shakes (Premier Protein) Per 11-ounce serving:

• 160 calories

• 30 grams of protein

1 gram of sugar

Premier Protein Powder (Premier Protein) Per 47-gram scoop:

180 calories

30 grams of protein

3 grams of sugar

# 5. Managing Symptoms and Side Effects Through Nutrition

This section describes some tips you can use to help you with:

- Appetite loss
- Constipation (having fewer bowel movements than usual)
- Diarrhea (having loose or watery bowel movements)
- Dry mouth
- Sore mouth or throat
- Taste changes
- Early satiety
- Nausea
- Fatique

Tell your doctor or nurse if you're having any of the things above before following these tips. Diet changes can help, but you may need medication to best manage your side effects. If you're prescribed medications, be sure to take them as instructed by your medical team.

# **5.1 Appetite loss**

Appetite loss is a decrease in your appetite or desire to eat. It's a very common side effect of cancer treatment.

There may be certain times of the day where your appetite is best and you're able to eat more. If this is the case, take advantage of those times and try to eat as much as you can. Review the "Getting Calories and Protein" section of this resource for ideas on ways to make sure you're getting the most from your meals and snacks.

Sometimes, you may not feel hungry at all. If this is the case, try following a meal schedule. For example, eat every 2 hours or so rather than waiting to feel hungry. Setting an alarm for yourself can be a helpful reminder.

# **5.2 Constipation**

Constipation is a common problem that makes it hard to have bowel movements. If you're constipated, your bowel movements might be:

- Too hard
- Too small
- Hard to get out
- Happening less often than usual

Constipation can be caused by many things, including your diet, activity, and lifestyle. Some chemotherapy and pain medications can also cause constipation.

Below are ways to manage constipation through your diet.

#### 5.2.1. Eat more high fiber foods

Fiber is important because it increases the bulk in your stool. This helps your body move the stool out of your body. Add fiber to your diet one food at a time. Be sure to drink enough liquids to prevent gas and bloating. Examples of high-fiber foods are:

- Fruits
- Vegetables
- Bran muffins
- Whole grains (such as whole-grain cereals, pastas, breads, and brown rice)
- Nuts and seeds

#### 5.2.2. Drink plenty of liquids

Try to drink at least 8 to 10 (8-ounce) glasses of liquids per day. Drink water, fruit and vegetable juices, milk, and other liquids. This will help keep your stool soft. Read the "Staying hydrated" section for ideas of liquids to drink.

#### 5.2.3. Eat at consistent times

Try to eat your meals at the same time each day. If you make changes to your diet, do it slowly.

#### 5.2.4. Move around

Physical movement can also help with constipation. Do light physical activity (such as walking or slowly climbing stairs) to help food move through your digestive system. Check with your doctor before starting any new physical activity.

#### 5.3 Diarrhea

Diarrhea is frequent, loose, watery bowel movements. It causes food to pass quickly through your intestines. When this happens, water and nutrients aren't absorbed well by your body. Diarrhea can be caused by:

- Chemotherapy
- Radiation therapy
- Surgery of your stomach or intestines
- Medications
- Difficulty digesting milk and milk products
- Having too many sugar alcohols (such as sorbitol or mannitol, which are found in sugarfree candy)

Other food sensitivities

Check with your doctor before you use the suggestions below to manage your diarrhea.

#### 5.3.1. Drink plenty of liquids

Drink at least 8 to 10 (8-ounce glasses) of liquid daily. This will help replace the water and nutrients you lose when you have diarrhea. Try drinking:

- Fruit juices and nectars mixed with water
- Unflavored Pedialyte®
- Coconut water
- Electrolyte tablets that you add to water (such as Nuun®)
- Electrolyte powders that you mix with water (such as DripDrop®)
- Water with added electrolytes (such as Propel®)
- Caffeine-free soda. Let the soda sit out uncovered for a few minutes before drinking to reduce the fizz.

For more examples, read the section "Staying hydrated."

#### Follow the dietary guidelines below

Avoid very hot or cold, high-sugar, high-fat, and spicy foods. These are hard on your digestive system and may make your diarrhea worse. Follow the eating and drinking guidelines below if you're having diarrhea.

#### 5.3.2. Fruits and vegetables

#### **Foods to Try**

- Well-cooked, peeled and puréed, or canned fruits and vegetables
- Bananas
- Peeled apples or applesauce
- Juices or nectars mixed with water
- Smooth peanut butter

Most of these items have potassium and liquid to help replace what your body loses from diarrhea. They also have soluble fiber, which may decrease diarrhea.

#### **Foods to Avoid**

- Raw fruits and vegetables, whole nuts, and seeds (except those in the "Foods to try" column)
- Vegetables that can cause gas (such as broccoli, cauliflower, cabbage, beans, and onions)

#### 5.3.3. Starches and carbohydrates

#### **Foods to Try**

- Refined white breads, cereals, rice, pasta, and farina
- Boiled or mashed potatoes (without the skins)
- Crackers, pretzels, and graham crackers

Some of these foods contain salt to help replace what your body loses from diarrhea.

#### **Foods to Avoid**

- Breads, pastas, cereals, and brown rice with 3 or more grams of fiber
- Bread products with nuts or seeds
- Fatty breads and pastries (such as croissants and doughnuts)
- Fried potatoes

#### 5.3.4 Meat and meat alternatives

#### **Foods to Try**

- Lean meats (such as chicken or turkey breast) without skin
- Hard-boiled eggs
- Tofu

These are bland, low-fat, and low-fiber foods. They're easier on your digestive system.

#### **Foods to Avoid**

- Fatty meats (such as salami, pepperoni, or sausage)
- Fried meats and fried tofu
- Meats with skin

These foods are hard on your digestive system. They can cause discomfort and make your diarrhea worse.

#### **5.3.5.** Dairy

#### Foods to Try

Low-fat milk or yogurt

If you have problems digesting milk and milk products, try lactose-free milk (such as Lactaid® milk) or dairy-free milk (such as soy, almond, oat, coconut, or rice milk).

#### **Foods to Avoid**

- Whole milk
- Premium or high-fat ice cream
- High-fat cheeses
- Sour cream

#### 5.3.6. Condiments

#### **Foods to Try**

- Salt (unless you must avoid it for other reasons)
- Fat-free gravies and salad dressings

#### **Foods to Avoid**

- Large amounts of sugar and spices
- Rich gravies and salad dressings
- Foods or drinks with caffeine (such as chocolate, tea, or soda)

These foods are hard on your digestive system. This can cause discomfort and make your diarrhea worse.

# 5.4 Dry mouth

A dry mouth can be caused by:

- Chemotherapy
- Radiation therapy
- Medications
- Surgery on the head and neck
- Infections
- Other health problems

A dry mouth may also cause cavities. This is because you're making less saliva, which protects your teeth against decay. Oral hygiene (taking good care of your mouth) is very important if your mouth is dry. Avoid alcohol-based mouthwashes. Instead, make your own mouthwash by mixing 1 teaspoon of baking soda and 1 teaspoon of salt in 1 quart (4 cups) of warm water. Rinse your mouth with this mouthwash every 2 hours.

When your mouth is dry, eating can be hard. Some foods may be hard to chew and swallow. The types of foods you eat can make a difference. Choose foods that have a moist, soft texture and are easy to swallow. Avoid foods that are dry or rough.

Drink plenty of fluids throughout the day. Sipping fluids between bites at meals can make it easier to chew and swallow foods.

Follow the eating and drinking guidelines below if your mouth is dry.

#### **Foods to Try**

#### Soft and puréed foods, such as:

- Casseroles, bean dishes, macaroni and cheese, and scrambled eggs
- Tender cooked chicken and fish
- Stews and creamed soups
- Cooked cereal
- Baby food
- Sauces, gravies, juices, clear broths, margarine, and sour cream added to foods.
- Breads, crackers, and other baked goods dipped in milk or tea.
- Fresh pineapple or papaya

#### Cold foods, such as:

- Milkshakes, smoothies, yogurts, gelatin, cottage cheese, and nutritional supplements (see the section "Nutritional Supplements")
- Puréed fruits and vegetables

Sugarless hard candies and chewing gum may also help. Try citrus, cinnamon, or mint flavors.

#### 5.5 Sore mouth or throat

Mouth and throat sores can be caused by certain chemotherapy treatments as well as radiation to your head or neck.

A sore mouth or throat can make eating difficult. The way you eat can make a difference. The following are some tips to avoid irritating your mouth:

- Cook your foods until they're soft and tender. Use a blender to purée foods.
- Cut your foods into small pieces that are easy for you to chew.
- Rinse your mouth often. Try using a mouth rinse of 1 teaspoon salt, 1 teaspoon baking soda, and 1 quart (4 cups) of warm water. If this does not help, ask your doctor for other mouth rinse recommendations.
- Use a straw to drink. This keeps liquids from touching your sore mouth.

#### **Foods to Avoid**

Rough or dry foods, such as:

- Dry meats without sauce
- Dry, coarse breads, crackers, pretzels, and cereals
- Coarse, raw fruits and vegetables

- Brush your teeth and tongue if your doctor or dentist says it's OK.
- Drink more liquids to help to keep your mouth clean.

If you have a sore mouth or throat, trying softer, bland, lukewarm, or cool foods can be helpful. Avoid foods that may increase pain, such as dry foods and foods that are spicy, salty, sour, or acidic.

#### Follow the eating and drinking guidelines below if your mouth or throat is sore.

#### **Foods to Try**

Bland, soft, puréed foods, such as:

- Plain casseroles, mashed potatoes, macaroni and cheese, and scrambled eggs
- Soft-cooked or puréed chicken and fish
- Creamed soups
- Cooked cereals
- Baby food (tapioca and plain flavors)
- Butter, sour cream, oils, and mild sauces (as tolerated) added to foods.
- Breads, crackers, and other baked goods dipped in milk or tea.

Cold foods, such as:

 Milkshakes, smoothies, yogurts, gelatin, custards, pudding, cottage cheese, and nutritional supplements like Ensure

#### **Foods to Avoid**

Rough or dry foods, such as:

- Dry meats
- Dry breads, crackers, and pretzels
- Coarse, raw fruits and vegetables

Spicy, salty, and acidic foods, such as:

- Foods made with large amounts of spices, such as pepper or chili powder.
- Foods high in salt or made with vinegar.
- Citrus fruit products (such as orange juice and lemonade)
- Tomato products (such as pasta sauce, tomato juice, or tomato soup)

# 5.6 Taste changes

Your sense of taste can be affected by chemotherapy, radiation therapy, and some medications.

Your sense of taste is made up of 5 main sensations: salty, sweet, savory, bitter, and sour. Taste changes are different from person to person. The most common changes are having bitter and metallic tastes in your mouth. Sometimes, food may not taste like anything. These changes usually go away after your treatment ends.

Maintaining good oral hygiene (taking good care of your mouth) is very important to help with taste changes. You can do this by brushing your teeth and tongue (if your doctor or dentist says it's okay) and drinking more liquids. Your care team may also recommend using an alcohol-free mouthwash (such as Biotene®). You can also make your own mouthwash by mixing 1 teaspoon of baking soda and 1 teaspoon of salt in 1 quart (4 cups) or warm water. Use the mouthwash frequently (before and after eating) throughout the day.

#### 5.6.1. If Your Food Seems Tasteless

- Change the texture of your foods. For example, you may like mashed potatoes more than baked potatoes.
- Change the temperature of your foods. Some foods may taste better cold or at room temperature.
- Choose and make foods that look and smell good to you.
- Use more spices and flavorings, if they don't cause discomfort. For example:
  - Add sauces and condiments (such as soy sauce or ketchup) to your food.
  - Marinate your meats or meat substitutes in salad dressings, fruit juices, or other sauces.
  - Use onion or garlic to flavor your vegetables or meats.
  - o Add herbs (such as rosemary, basil, oregano, and mint) to your food.
  - Blend fruit into your milkshakes or yogurt. You can also try mint or coffee-flavored milkshakes.
- Try sour and tart foods. These may help stimulate your taste.
- Try alternating bites of different-tasting foods within a meal. For example, try:
  - Cottage cheese and pineapple.
  - Canned fruit and plain yogurt.
  - Grilled cheese and tomato juice.

#### 5.6.2. If There's a Bitter or Metallic Taste in Your Mouth

- Rinse your mouth with water before meals.
- If meats taste bitter, try marinating them in sauces or fruit juices or squeeze lemon juice on them. Only do this if your mouth isn't sore.
- Include meat substitutes (such as dairy products and beans) for protein.
- Use plastic utensils.
- Try sugar-free mints or gum.
- Avoid canned food items (such as sauces and soups). Choose items in a glass or plastic
  jar or a box instead.

#### 5.6.3. If Foods Taste Too Sweet

- Add some salt to the food.
- Dilute sweet drinks with water.

If everything tastes sweet, try more acidic foods (such as foods with lemon).

#### 5.6.4. If Foods Taste or Smell Different Than Usual

- Avoid foods with strong odors (smells). Because beef and fish have the strongest odors, try eating poultry, eggs, and dairy products.
- When cooking, open lids of pots and pans away from you so that the smell moves away from you, not towards you.
- Open windows while cooking if the smell of foods cooking bothers you.
- Choose foods that can be eaten cold or at room temperature. Let foods cool down before eating. Room-temperature or cold foods have less smell than warm foods.
- Experiment with different seasonings and food combinations, such as:
  - Adding sauces to foods.
  - Changing the temperature and texture of foods.
- If your mouth isn't sore, try tart foods (such as lemon wedges or citrus fruits) to stimulate taste.
- Rinse your mouth out before and after you eat.
- Drink small sips of liquid throughout your meals to rinse out the taste of the food.

#### **5.7 Early satiety**

Early satiety is when you feel full more quickly than usual when you eat. For example, you may feel like you can't eat any more when you're only halfway through your meal. Early satiety can be caused by surgery on your stomach, constipation, some medications, and other things.

If you feel full too quickly, try to:

- Eat small, frequent meals.
- Drink most of your liquids before or after meals. Drinking during your meals can make you feel full more quickly.
- Add foods that are rich in calories and protein (for example, nonfat dry milk, wheat germ, nut butters, avocado, oils, butter) to your meals.
- Engage in light physical activity (such as walking) after you eat. This helps encourage food to move through your digestive system.

#### 5.8 Nausea and vomiting

Nausea is a feeling of stomach upset or queasiness. Nausea can be caused by radiation therapy, chemotherapy, and surgery. It can also be caused by pain, medication, and infection.

If you have nausea, you may also have vomiting (throwing up). If you're vomiting, try your best to follow the suggestions in this section. Be sure to keep yourself well hydrated with electrolyterich beverages. Read the "Staying hydrated" section earlier in this resource for examples.

Below are suggestions for managing your nausea through nutrition. Ask your doctor or nurse if you need an antiemetic (medication to prevent or treat nausea and vomiting).

#### **Foods To Try**

Starchy, low-fat, bland foods, such as:

- Dry toast, crackers, and bagels
- Angel food cake and vanilla wafers
- Sherbet, low-fat ice cream, or frozen yogurt
- Gelatin
- Canned, unsweetened fruit.

#### Cold foods, such as:

- Cold proteins (such as skinless chicken, cheeses, and yogurts)
- Light pasta salads
- Popsicles
- Chilled clear liquids (such as nutritional supplements (Ensure Clear) and juices diluted with water)

#### **Foods To Avoid**

- High-fat, overly spicy, or overly sweet foods
- Fatty meats
- Fried foods (such as eggs and French fries)
- Soups with heavy cream
- Creamed vegetables
- High-fat, high-sugar pastries, doughnuts, and cookies
- Foods made with heavy spices (such as pepper or chili pepper, onion, hot sauce, or salad dressing)

High-fat foods may stay in your stomach longer and are harder to digest. Many of these foods have strong odors or flavors that can cause nausea or make it worse.

# 5.8.1. General Tips

- Pay attention to the amount of food you eat. Eating too much can stress your stomach.
- Try ready-made foods (such as take-out foods or frozen dinners) to prevent nausea while you cook or make foods. If you need to, ask others to cook for you.
- If food odors, make you nauseated:
  - Try cold foods (such as a sandwich or salad). These foods don't smell as strong as hot foods.
  - Leave the area while hot foods are cooking if you can.
  - Have someone else plate your food for you.
  - Let your food cool down for a few minutes before eating.
  - Avoid places with strong odors.
- Eat small, frequent meals. This can stop you from getting too full and help you take in more food throughout the day.

- Drink most liquids between your meals. This will help you keep from feeling full too fast or feeling bloated.
- Eat slowly and chew your foods well. Avoid activity right after meals. These things help with digestion.
- Eat your meals in a pleasant setting. For example:
  - Choose a relaxing place that has a comfortable temperature.
  - o Eat with friends or family. This may help distract you from your nausea.
  - Wear loose-fitting clothing to stay comfortable.
- If you have nausea in the morning, keep crackers or dry toast next to your bed. Eat them before getting out of bed.
- Avoid eating your favorite foods right before or after treatments. If you're often nauseous during or after treatments, you may start to dislike these foods.

If nausea is a lasting problem for you, it may be useful to keep a food diary. A food diary is a record of the foods you eat, the time you ate them, and the setting in which you ate them. Record any situations when you became nauseated. Discuss this with your doctor, nurse, or clinical dietitian nutritionist.

#### 5.9 Fatigue

Fatigue is the most common side effect of cancer and cancer treatments. It may keep you from doing your usual daily activities. It may also impact your quality of life and make it harder for you to tolerate your treatment.

Fatigue can be caused by many other symptoms, such as:

- Poor appetite
- Depression
- Nausea and vomiting
- Diarrhea or constipation

Managing these symptoms can also help with fatigue. If you have any of the above things, tell your healthcare provider.

Another way to manage fatigue is to save your energy. You can do this by:

- Making larger portions of foods for yourself if there are days you have more energy.
   Freeze individual meal portions for an easy frozen meal on a day you aren't feeling up for cooking.
- Asking family and friends for help with shopping and making your meals.
- Buying ready-made foods when your energy is low.
- Keeping ingredients and utensils that you use often close at hand.

- Sitting instead of standing when cooking.
- Eating small, frequent, high-calorie meals or snacks. If you do this, your body may not need as much energy to digest your food.

If you live alone and can't shop for food or make meals, you may be eligible for food programs. There may be age or income requirements for some programs. Our social worker can assess if you meet criteria for nutritional program. For more information you can contact Heather Kwasnick, LMSW 860-886-8362 ext. 237 or email her at HKwasnick@echoct.com

For some people, doing physical activity may increase your energy levels. Talk with our doctor about doing light-to-moderate intensity activities (such as walking or gardening). Research shows that some physical activity can make it easier to do your usual daily activities, boost your energy level, increase your appetite, and improve your mood. We can provide outpatient or in home service depending on your condition. ReVital has a specific cancer related physical therapy which we can refer you.

# Resources

#### **Academy of Nutrition and Dietetics (AND)**

www.eatright.org/public

AND is a professional organization for registered dietitians. The website has information about the latest nutrition guidelines and research and can help you find a dietitian in your area. The academy also publishes *The Complete Food and Nutrition Guide*, which has over 600 pages of food, nutrition, and health information.

#### American Institute for Cancer Research

www.aicr.org 800-843-8114

Has information on diet and cancer prevention research and education as well as recipes.

#### **Cook For Your Life**

www.cookforyourlife.org

Many recipe ideas for patients with cancer. Recipes can be filtered by diet type or treatment side effect.

#### **FDA Center for Food Safety and Applied Nutrition**

www.fda.gov/AboutFDA/CentersOffices/OfficeofFoods/CFSAN/default.htm Has helpful information on food safety.

#### **MSK Nutrition Website**

www.mskcc.org/nutrition

Use our diet plans and recipes to help with healthy eating habits during and after cancer treatment

#### National Institutes of Health Office of Dietary Supplements

http://ods.od.nih.gov 301-435-2920

Has up-to-date information on dietary supplements.