

# Esophagectomy Diet Guidelines

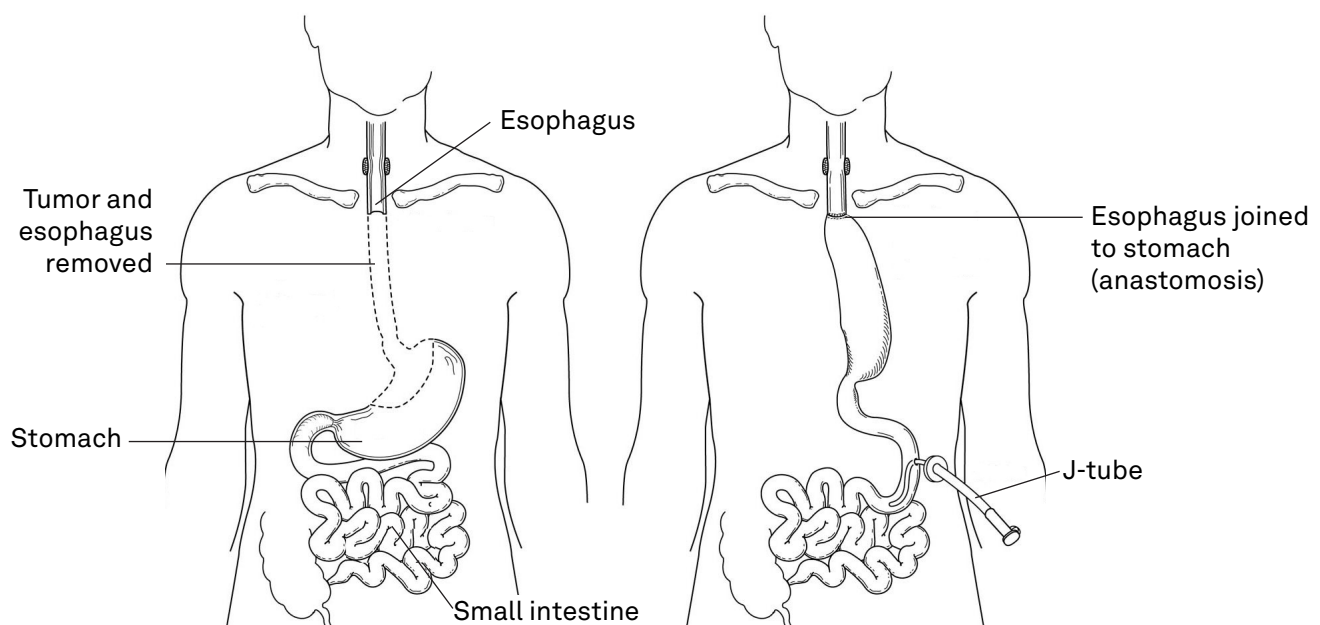
You will need good nutrition for healing and recovery after esophagectomy surgery. Follow the guidelines and directions from your physician and registered dietitian nutritionist (RDN) both before and after surgery.


If you have any questions, please talk with your physician or registered dietitian nutritionist.

## Esophagectomy

The esophagus is the portion of your gastrointestinal tract (GI tract) that connects your mouth to your stomach. During esophagectomy surgery, the surgeon removes part of the esophagus (Figure 1). They join the stomach to the remaining part of the esophagus. This creates a tube much like an esophagus for food to pass through.

**Figure 1. Esophagectomy**





You will start eating right away after surgery. But, it may not feel the same. Your stomach will not be able to hold as much food, so you will get full quickly. You may have trouble eating enough food to fuel your recovery. You may also have other symptoms when you eat as you recover from surgery.

You will work closely with your surgery team and an RDN. They will help you adapt to changes in your eating and get the nutrition you need before and after surgery. After surgery, your care team will follow you closely and let you know when your diet can move to the next phase.

## Nutrition before surgery

Proper nutrition before surgery is very important to help your recovery after surgery. Your body uses calories and protein to fuel and repair your body tissues. Before your surgery, you will meet with one of the Thoracic Surgery RDNs.

Follow the general healthy eating guidelines recommended by your RDN. Make sure to eat enough high-protein foods throughout the day in the weeks leading up to surgery. This will help in healing and recovering from surgery quicker.

When preparing for surgery, review the guidelines below for after surgery. Arrange to have these foods ready for you when you return home.

## Nutrition after surgery

Follow these guidelines after surgery.

### Eating after an esophagectomy

- › Eat small, frequent meals. Aim for 6 to 8 meals per day rather than eating 3 large meals per day.
  - This will be more comfortable for you and ensure you get all the nutrients you need.
  - Your appetite may decrease right after surgery. It is important to stay on a regular eating schedule (every 2 to 3 hours) instead of waiting to feel hungry.
- › Take small bites, chew food well and eat slowly. Stop eating when you feel full. This helps you swallow and digest your food properly.

- › Eat high-calorie and high-protein foods.
  - The portion size and textures of your foods will look different after surgery. It is important to get enough calories and protein, so you do not lose weight.
  - Weight loss can be harmful to your recovery from surgery.
  - Your RDN can help you find high-calorie/high-protein foods that are right for you.
- › Choose foods that are soft and moist. These foods are easier to swallow after surgery and easier to digest.
- › Avoid gummy foods like bananas and some breads at the beginning.
- › Sit upright while eating or drinking. Do not lie down for 1 to 2 hours after eating.
- › Avoid eating and drinking up to 2 hours before going to sleep. Sleep upright at a 45-degree angle.
  - This will help food and drinks move down the esophagus/stomach. It will prevent stomach acid from moving upwards, which can cause damage and lead to symptoms of acid reflux.
- › Drink 6 to 8 cups (48 to 64 ounces) of fluids every day to prevent dehydration.
  - Drink most of your fluids between meals and snacks.
  - Aim to drink fluids about 30 to 60 minutes before or after you eat a meal or snack. It is OK to drink sips of fluids during meals if it helps with swallowing.

## **Oral nutrition supplements**

Your RDN may recommend oral nutrition supplements, such as Boost® or Ensure® products, to help you meet your calorie and protein needs. If you are unable to tolerate these supplements, your RDN will work closely with you to find a product that best suits your specific needs.

## **Tube feedings**

Some people who have an esophagectomy may need a feeding tube into the small intestine called a jejunostomy tube (J tube). The surgeon puts this in during surgery. This tube can help a person meet their nutritional needs with liquid tube feedings. Your care team will decide if you need a J-tube. Your RDN will let you know how much formula you need. They may adjust your tube feedings as needed. Your tube feeding routine will likely change throughout your recovery as your diet advances and you are able to eat more.

## Progressing your diet

It is important to listen to your physician's guidance on when it is the right time for you to advance your diet. Most likely, you will start a clear liquid diet right after surgery and then progress to a full liquid diet before discharge.



## Clear liquid diet

A clear liquid diet helps you stay hydrated and may give you some vitamins and minerals that your body needs to function properly. A clear liquid diet gives you some energy at a time when a full diet is not right for you. Most people who have had an esophagectomy follow this diet for 1 or 2 days right after surgery.

Foods you can have	Foods to avoid
<ul style="list-style-type: none"><li>• Water and ice chips</li><li>• Clear fruit juices without pulp, such as apple, cranberry, grape</li><li>• Sugar-free clear drinks mixes such as Crystal Light®</li><li>• Sugar-free sports drinks such as Gatorade Zero® or Powerade Zero®</li><li>• Broth or bouillon</li><li>• Gelatin</li><li>• Fruit ice, sorbet and popsicles</li><li>• Tea or coffee; sugar substitute sweeteners and lemon are OK</li><li>• Hard candies (sugar-free are best)</li><li>• Salt for flavor</li><li>• Clear nutritional supplements such as Boost Breeze® or Ensure Clear®</li></ul>	<ul style="list-style-type: none"><li>• Carbonated beverages are not allowed until your surgeon approves</li><li>• Alcohol</li><li>• Caffeinated beverages</li><li>• Dairy creamers</li></ul>

### Sample clear liquid menu

<b>Breakfast</b>	4 ounces cranberry juice 12 ounces chicken broth 8 ounces coffee 4 ounces orange gelatin Water, ice
<b>Mid-morning snack</b>	8 ounces Boost Breeze® or Ensure Clear®
<b>Lunch</b>	4 ounces grape juice 1 popsicle 12 ounces beef broth 8 ounces tea Water, ice
<b>Mid-afternoon snack</b>	8 ounces Boost Breeze® or Ensure Clear®
<b>Dinner</b>	4 ounces apple juice 12 ounces of vegetarian broth 1 lemon sorbet 8 ounces Crystal Light® 8 ounces tea Water, ice
<b>Nighttime snack</b>	4 ounces grape juice 1 fruit ice

## Full liquid diet

The full liquid diet includes liquids as well as some foods with **small** amounts of fiber. The full liquid diet can give you many of the nutrients your body needs, but it may not give you enough vitamins, minerals and fiber. It is easy to digest and leaves little food in the stomach and intestines. Most people who have had an esophagectomy follow this diet for less than 2 weeks. The full liquid diet includes all the liquids from the clear liquid diet plus the following:

Food group	Foods you can eat	Foods to avoid
Breads, grains and cereals	Thinned hot cereals such as Cream of Wheat®, Cream of Rice® or thinned grits	All grain foods including whole grains and processed grains such as pasta, rice, cold cereals and bread Snacks and sweets that are flour based such as cakes and cookies
Fruits	Clear fruit juices without pulp (orange, apple, cranberry and grape)	Whole, frozen, fresh and canned fruits
Vegetables	Vegetable juice such as V8® (Do not drink these if you have gastroesophageal reflux.)	Whole, frozen, fresh and canned vegetables
Meats or other animal-based protein sources	Pureed meats or poultry thinned with broth or other liquids Strained, creamed soups Yogurt (Greek or Icelandic varieties have more protein.) Milk and all milk drinks *Some people may have lactose intolerance after surgery. Lactose-free or other milk-alternative products are OK.	All cold cuts such as salami and ham Beef and pork (all cuts) Chicken and turkey (all cuts) Fish Eggs Cheese Flavored yogurt with fruit chunks, seeds or nuts (Must be smooth and blended if flavored.)

Food group	Foods you can eat	Foods to avoid
Plant-based protein sources	Pureed tofu, pureed beans thinned with broth or other liquids Nut-based, oat milk and coconut milk yogurts	All meat substitutes such as soy and tofu) Nuts and nut butters
Fats	Almond oil, avocado oil, canola oil, cashew oil, corn oil, grapeseed oil, olive oil, safflower oil, sesame oil, soybean oil and sunflower oil Butter and soft tub margarine that does not contain trans-fat (melted or blended into foods)	Lard and oils with trans-fat
Desserts	Custard Gelatin Plain pudding Plain ice cream Sherbet Fruit ice	Any of the recommended desserts with seeds, fruit, nuts or other ingredients mixed in are not recommended
Others	Seasonings, ground spices and smooth condiments, as tolerated Gravies, sauces and tartar sauce	Condiments with chunks or pieces
Beverages	All beverages except carbonated beverages Oral nutrition supplements such as Ensure or Boost	Carbonated beverages Alcohol Caffeinated beverages

### Sample full liquid menu

<b>Breakfast</b>	1 cup Cream of Wheat 1 container yogurt without nuts, seeds or fruit 8 ounces decaffeinated coffee
<b>Mid-morning snack</b>	8 ounces Boost Breeze or Ensure Clear
<b>Lunch</b>	Mix well in a blender and then strain: <ul style="list-style-type: none"><li>• 2 cups your choice of cream soup</li><li>• 1/4 cup tender-cooked chicken or 2 scoops protein powder of your choice</li><li>• 1/2 cup thinned mashed potatoes</li><li>• 1/2 cup cooked vegetables</li></ul>
<b>Mid-afternoon snack</b>	12 ounces ready-made liquid supplement, such as Carnation Breakfast Essentials® Boost, Ensure, Orgain® or other similar products
<b>Dinner</b>	Mix well in a blender and then strain: <ul style="list-style-type: none"><li>• 1 cup pasta sauce</li><li>• 2 ounces tender-cooked meat or plant-based meat substitute or tofu</li><li>• 1 cup cooked pasta</li><li>• Enough vegetable juice/broth to make the blended food drinkable</li></ul>
<b>Nighttime snack</b>	Mix well in blender (or stir well): <ul style="list-style-type: none"><li>• 2 cups blended ice cream of your choice</li><li>• 1 cup milk or milk substitute</li><li>• 1 scoop protein powder (optional)</li></ul>

**Note: You may not be able to eat this much liquid in 1 sitting. Space out these meals to 6 to 8 smaller meals per day to tolerate them better.**



## Soft diet

At your after surgery follow-up visit, your care team will tell you if you are ready to move from the full liquid diet to the soft diet. A soft diet includes soft, moist, bland foods that are low in fiber and easier to digest after surgery. After surgery, your esophagus may not be able to move food as easily from your mouth to your stomach. A soft diet will make it easier to chew and swallow while you heal. This diet includes everything on the full liquid diet plus the following:

Food group	Foods you can eat	Foods to avoid
Breads, grains and cereals	Well-toasted breads, as tolerated Hot cereals like oatmeal, Cream of Wheat or Cream of Rice Cold cereals softened in milk Moistened pancakes and muffins Soft pasta, soft rice and polenta Potatoes, yams and sweet potatoes without skin	Gummy breads such as rolls, bagels, English muffins and soft pretzels Breads with nuts, seeds or dried fruit Tough or crusty-top breads like French or a baguette Cereals with dried fruit or nuts Cereal that is coarse like bran, Grape Nuts® and granola Cereals that do not soften when soaked in milk Potatoes and other starchy vegetable skins Pasta or rice that is hard or “al dente” Sweet rolls, coffee cake and donuts
Fruits	Applesauce Fresh ripe fruits without skin or seeds (bananas, peaches and melon) Canned soft fruit or soft fruit cups Mashed avocado Cooked fruits	Unripe fruit with seeds and skins Canned pineapple Dried fruits

Food group	Foods you can eat	Foods to avoid
Vegetables	Well-cooked soft vegetables without seeds or skins Finely chopped cooked greens	All raw vegetables Cooked vegetables with skins and/or seeds Gas-producing vegetables such as broccoli, Brussels sprouts, cabbage, cauliflower, corn, cucumbers, green peppers, onions, radishes, rutabagas, sauerkraut and turnips
Meats or other animal-based protein sources	Ground or chopped, moist meats or poultry Flaked fish without bones such as tuna and cod Eggs or egg substitutes Soft cheeses such as ricotta and cottage cheese Greek yogurt	Whole cut, tough, stringy meats, poultry and fish Hot dogs and sausages Shellfish
Plant-based protein sources	Mashed beans, lentils and other legumes (hummus) Soft or firm tofu Creamy nut butters Nut-based, oat milk and coconut milk yogurt	Nuts and seeds Crunchy nut butters Cooked or canned beans in the whole form
Fats	Almond oil, avocado oil, canola oil, cashew oil, corn oil, grapeseed oil, olive oil, safflower oil, sesame oil, soybean oil and sunflower oil Butter and soft tub margarine that does not contain trans-fat (melted or blended into foods)	Lard and oils with trans-fat
Desserts *May need to limit based on symptoms	Plain cakes, cookies and pies Pudding and custard Ice cream, ice milk, frozen yogurt and sherbet Gelatin	Any of the recommended desserts with seeds, dried fruit, nuts or other ingredients mixed in are not recommended Marshmallows

Food group	Foods you can eat	Foods to avoid
Other	Seasonings, ground spices Smooth condiments as tolerated Gravies, sauces and tartar sauce Relish and chopped olives Jams and jelly	Popcorn Potato chips, and corn chips Whole pickles and whole olives Crunchy pretzels Chewy or taffy-like candy

**Talk with your physician before adding carbonated beverages or alcohol back into your diet.**

### **Sample soft diet**

<b>Breakfast</b>	1/2 cup diced peaches 1 scrambled egg 1/2 cup Cream of Wheat or Cream of Rice (mix in a serving of protein powder if you do not eat the egg) 1 cup milk or milk alternative
<b>Mid-morning snack</b>	1/2 cup applesauce 2 tablespoons of smooth nut butter Oral nutrition supplement (Boost or Ensure)
<b>Lunch</b>	3 ounces of meatloaf with gravy or tofu with your favorite sauce 1/2 to 3/4 cups of mashed potatoes 1/2 cup soft, cooked baby peas 3/4 cup creamy soup (optional)
<b>Mid-afternoon snack</b>	1 cup of yogurt or yogurt alternative Oral nutrition supplement if you are able (Boost or Ensure)
<b>Dinner</b>	4 ounces soft, white boneless fish or mashed beans 1/2 to 3/4 cup soft rice with gravy, creamy soup or sauce 1/2 cup soft diced carrots
<b>Nighttime snack</b>	1/2 cup cottage cheese or cheese alternative and 1/2 cup soft fruit cup Oral nutrition supplement if able

## Managing possible food-related problems after surgery

Dumping syndrome is a condition that can happen when food passes from the stomach to the small intestine too quickly. This most often happens within 30 minutes of eating. Steps you can take to avoid dumping syndrome include:

- › Avoid concentrated sweets, sugar and foods sweetened with sugar.
- › Limit fruit to 2 or 3 servings per day. Avoid fruit juice because of its natural sugar content.
- › Read labels on “sugar-free” products. They may contain other types of sugar such as syrups, honey, fruit juice concentrate, fructose, lactose, dextrose, maltose, sorbitol, xylitol or mannitol. Avoid these products.
- › Avoid beverages with added sugar.
- › Separate liquids from meals. Drink liquids 30 minutes before or after meals, but not with your food.
- › Eat slowly and chew food well.

## Nutrition Counseling

Registered dietitians counsel patients on healthy food choices, weight management and strategies to manage eating problems that can happen after an esophagectomy procedure. To contact an RDN in the Northwestern Medicine Thoracic Surgery Clinic, call 312.695.3800 (TTY: 711) to schedule an appointment.

Contact your care team if you have any nausea, vomiting or bloating for longer than 24 hours.

## Sample 1-day food diary

At your follow-up visits, your RDN will want to know what you usually eat at home. Use this sample 1-day food diary to help you keep track of what you are eating.

Meal	Food and beverages <i>Use this column to write what you ate and drank at each meal and snack. Try to estimate the portions of what you had to eat and drink and put it next to each item.</i>	Notes <i>Use this column to write any notes that you feel may be important to talk about with your care team. This may include things like nausea, difficulty keeping the food item down or diarrhea right after eating.</i>
Breakfast		
Mid-morning snack		
Lunch		
Mid-afternoon snack		
Dinner		
Nighttime snack		
Beverages		