

## Esophagectomy Diet

Your doctor recommends that you have an esophagectomy to treat your cancer. An esophagectomy is a surgical procedure to remove a portion of the esophagus, a muscular tube that carries food from the mouth to the stomach.

This guide will give you information on what to expect before, during and after the esophagectomy, particularly when it comes to your diet.

### **Surgery**

Swallowing may be difficult before surgery because of a partial obstruction by the tumor, irritation or inflammation of the lining of the esophagus or as a result of chemotherapy or radiation therapy.

During the surgery, a portion of the esophagus is removed. The doctor will then connect the remaining part of the esophagus to the stomach so that you can swallow. Sometimes a piece of intestine is used to make the connection.

### **Jejunostomy Tube**

An esophagectomy decreases the size of your stomach and will alter the process of swallowing, digesting and absorbing food. A feeding jejunostomy tube or “J-tube” will be placed directly into your jejunum (part of the small intestine) during surgery. This tube will help you take in adequate nutrition while the stomach and esophagus heal.

Unlike feedings directly into the stomach, the J-tube has no reservoir to control the volume or store food while it is being digested. For this reason these feedings are given only with the use of a pump. Your doctor or dietitian will prescribe a nutritionally complete liquid formula that will be pumped through the J-tube. This tube will remain in place (usually three to six weeks) until you are able to take in adequate calories, protein, fluids, vitamins and minerals by mouth.

### **After Surgery**

Tube feeding will start at a low rate and then progress to a maximum rate of 120 ml per hour. Once your personalized goal rate, as predetermined by a dietitian, is reached, you will no longer require feedings 24 hours a day. This process is called cycling the tube feeding. Cycling gives you time off the feeding pump so that you can be active, which is important to your recovery. Cycling will also help you feel hungrier once you resume a normal diet.

Within a week to 10 days after surgery, you will have a swallow study to check how your esophagus is healing. If the test shows you are able to swallow food properly, you will begin eating by mouth.

At first, your diet will consist of clear liquids or soft, regular texture food. At this point, your tube feedings will be reduced. This will shorten the time you are on the pump and also give you an opportunity to get hungry. Your dietitian will give you a tube weaning schedule.

## Nutritional Therapy

The goal of nutritional therapy is to maintain adequate calories, essential nutrients and fluid in order to promote recovery after surgery. The following tips can help you maintain a healthy diet.

- Practice portion control. When you begin eating by mouth, keep your portions to no more than what fits comfortably on a bread plate. Limit liquids at meals to no more than four ounces. Overeating may cause vomiting, discomfort and pain.
- Eat four to six meals a day. This means that every two to three hours you should be eating or drinking to help meet dietary goals. Take a walk or sit up for an hour after meals to stimulate stomach emptying.
- Stop eating two hours before bed time. The flap that normally holds food in the stomach is usually removed during surgery. It is important for your stomach to be empty at bed time to avoid reflux and food entering into the lungs. Eat your lightest meal (small portion, low-fat) at dinner. If you have reflux or nausea in the morning, stop eating four hours before bed time.
- Eat slowly and chew food well. Eating slowly will prevent spit ups, cramps and diarrhea. Cutting food into small pieces and chewing it to a paste-like consistency makes it easier to swallow and digest.
- Drink liquids often between meals. From 20 minutes before to 20 minutes after a meal, only sip fluids. Drinking too much during meals can fill the stomach and keep you from eating food. Even though you are drinking, you will continue the additional J-tube water flushes to prevent dehydration and constipation. Fluids taken by mouth should not be counted as part of this fluid.
- Make healthy food choices. When transitioning from tube feeding to an oral diet the food choices you make are important. While foods like chips, candy and chocolate have a lot of calories they are lacking in essential nutrients. Eating a well-balanced diet of proteins, fruits, vegetables and grains will aide in recovery and may help prevent cancer from coming back.

## Problem Foods

Following an esophagectomy, some foods may be problematic, including:

- Bread, which can get gummy in the throat. Many people do better with toast.
- Dry or stringy foods, like fruit skins and popcorn, can cause coughing and gagging.
- Gassy foods like carbonated beverages, onions, garlic, vegetables in the cabbage family and raw vegetables may cause difficulty in those unable to relieve gas.
- Dairy intolerance may make it hard to digest foods that contain lactose such as milk or ice cream. Lactose-free products, dairy substitutes (unsweetened soy, almond, coconut or rice milk) and probiotics (friendly bacteria that help the body digest certain foods) can help.

## Dumping Syndrome

This happens when food moves too quickly through the stomach and into the small intestine. Dumping syndrome can cause symptoms such as nausea, weakness, cramping, sweating, faintness and/or diarrhea often within thirty minutes of eating. Eating small portions slowly and avoiding concentrated sweets like cookies, candy, ice cream, greasy foods and liquid supplements, including Boost<sup>®</sup>, Ensure<sup>®</sup> or Glucerna<sup>®</sup>, will reduce the risk of dumping syndrome. Keeping a record of what you eat will help to identify the foods or eating patterns that cause dumping syndrome. This is often a trial and error process.

## Stomach Emptying

Surgery, pain medicine and inactivity can contribute to poor stomach emptying. If stomach emptying is a problem try eating small frequent meals, limiting fatty foods, walking after meals and drinking liquids between meals. Your doctor may prescribe a prokinetic, a type of medicine that promotes stomach and intestinal emptying.

## Vitamin and Mineral Supplements

While you are on tube feedings, vitamin and mineral supplements are included in the formula. After you transition to regular food, you may need to take a standard daily multiple vitamin plus minerals. Discuss this with your doctor or dietitian. A vitamin B12 test should be added to your annual blood work to assure there is no deficiency.

## Sample Menus

The menus provided demonstrate appropriate portion size and food choice. Your actual diet should vary to help provide adequate nutrition. The 1000-calorie diet is a guide when beginning the transition from tube feedings to an oral diet. The 2000-calorie diet may be closer to your goal when weaning from tube feedings. Your dietitian can help guide you during this process.

You can keep track of your calorie intake with programs or applications like MyFitnessPal. Many of these programs are free.

## Sample Menus

This menu is approximately 1000 calories and 75 grams of protein.

<b>Breakfast:</b> 1 scrambled egg ¾ cup oatmeal 1 teaspoon butter	<b>Mid-Afternoon Snack:</b> ½ cup tuna salad 5 crackers
<b>Mid-Morning Snack:</b> 1 slice toast ½ banana 2 tablespoons peanut butter	<b>Dinner:</b> 2 ounces turkey ½ cup potatoes ½ cup steamed asparagus
<b>Lunch:</b> 2 ounces chicken ½ cup noodles or rice ½ cup cooked carrots 1 teaspoon butter	<b>Mid-Evening Snack:</b> ½ cup cottage cheese ½ cup peach halves

This menu is approximately 2000 calories and 90 grams of protein.

<b>Breakfast:</b> ½ cup orange juice 2 scrambled eggs 1 slice toast 1 teaspoon butter 1 tablespoon jelly	<b>Mid-Afternoon Snack:</b> 2 tablespoons peanut butter 5 crackers 1 teaspoon jelly 1 cup milk*
<b>Mid-Morning Snack:</b> 1 waffle ½ cup fresh fruit 1 teaspoon butter ½ cup milk*	<b>Dinner:</b> 2 ounces turkey ½ cup noodles or rice ½ cup green beans 1 teaspoon margarine ¾ cup fruit salad
<b>Lunch:</b> 2 ounces chicken ½ cup mashed potatoes 2 tablespoons gravy ½ cup cooked carrots 1 teaspoon butter	<b>Mid-Evening Snack:</b> ½ cup yogurt ½ cup fresh fruit 6 vanilla wafers

\*You may substitute soy, almond, coconut, rice or other non-dairy milks.

### Your Personal Daily Nutritional Goals

Calories: \_\_\_\_\_

Protein: \_\_\_\_\_

Fluid: \_\_\_\_\_