

## Esophagectomy Diet

### *Nutrition guidelines*

*This handout describes dietary guidelines for patients who have had an esophagectomy.*

### Eating After Your Surgery

During your *esophagectomy*, your surgeon removed your *esophagus* (the tube that carries food and drink from your mouth to your stomach). For the first 4 to 6 weeks after your surgery, you will be able to eat and drink only soft foods. Follow the diet guidelines in this handout to make sure you get enough calories and nutrients to heal well.

### Getting Started

When your doctor says you are ready to start eating, your diet will include clear and full liquids such as broth, tea, water, gelatin, milk, yogurt, pudding, creamy soups, and protein drinks.

Once you leave the hospital, you should be ready to begin following a Soft Diet. You will be on this diet for the next 4 to 6 weeks, or longer if needed.

If you start to have trouble swallowing moist, soft solid foods, or if you have nausea and abdominal discomfort, go back to a Full Liquid Diet. Talk with your dietitian if you have any questions.

### For Best Results

- **Eat and drink slowly.**
- Cut your food into small pieces and chew it well.
- Stop eating when you feel full.
- Drink 8 to 10 cups of liquid each day, between meals. One cup equals 8 ounces.
- Instead of eating 3 large meals, eat 5 to 6 small meals a day. At first, you may be able to eat only about  $\frac{1}{2}$  cup of food at a time.



*Try eating 5 to 6 small meals during the day instead of eating 3 large meals.*

- Focus on eating high-calorie, high-protein foods. You need enough calories, protein, and nutrients for wound healing, to maintain your weight, and to prevent muscle loss.
- Do not lie down right after a meal. Wait at least 30 minutes before reclining. This will give your food time to settle and will help prevent *reflux* (when stomach acid backs up into your esophagus).
- If you have diarrhea, nausea, bloating, weakness, and sweating, you may have *dumping syndrome*. If you have these symptoms:
  - Avoid foods that are high in sugar, fat, and *lactose* (the sugar that naturally occurs in dairy products).
  - Try not to drink anything 30 minutes before or after a meal.

### Jejunostomy Tube

You will go home with a *jejunostomy tube* (j-tube) to provide extra liquid nutrition while you are not able to eat very much solid food. During your hospital stay, we will teach you how to use this feeding tube.

We will also arrange for you to meet with a home infusion company. This company will deliver the j-tube supplies you need (nutritional formula and pump) when you go home.

Your doctor and dietitian will work together to decide when you no longer need the j-tube.

### Soft Esophagectomy Diet for Home

Food Group	OK to Eat and Drink	Do NOT Eat or Drink
<b>Meats and Other Proteins</b> (2 to 3 oz. portions) <i>Chop meat into pea-sized pieces and add sauce, broth, or gravy for moisture.</i>	Tender moist fish, baby shrimp, crab, lobster, chopped chicken; ground meat with gravy or sauces; meat loaf, meat balls, canned chicken, deli turkey, deli ham; tuna, cottage cheese, tofu; soft-cooked or scrambled eggs, sliced hard boiled or deviled eggs; moist casseroles with finely ground or chopped meat; tuna or egg salad without coarse ingredients; moist macaroni and cheese, plain or flavored yogurt; thinly sliced cheese	Clams, mussels, oysters, prawns, roast beef, pork or lamb, steak or chops; salami, pastrami, hot dogs, sausage, bacon*; casseroles with rice or other grains, crunchy casseroles, cheese cubes (OK if melted in foods), sandwiches, peanut butter, other nut butters (OK in smoothies), yogurt with fruit chunks, pizza *OK if meat is pureed

<b>Food Group</b>	<b>OK to Eat and Drink</b>	<b>Do NOT Eat or Drink</b>
<b>Breads and Cereals</b>	Cooked cereal or dry cereal moistened with milk such as cream of wheat, cream of rice, instant oats, instant grits, Cheerios, Rice Krispies, Special K	Breads, rolls, crackers; whole-grain, high-fiber dry or cooked cereals; old-fashioned or steel-cut oatmeal; cereals with dried fruits, nuts, or seeds
<b>Starches</b>	Well-cooked, moist potatoes (without skins), potatoes in sauces, well-cooked pasta in sauces cut into small pieces, hummus, canned refried beans	Potato chips, potato skins, fried potatoes, rice, corn, whole beans such as pinto, black, kidney
<b>Vegetables</b>	Vegetable juices; soft, well-cooked vegetables (such as carrots, beets, squash, or green beans) that can be mashed with a fork	Raw or fried vegetables, salad, whole kernel corn, peas, dried beans, spinach, celery, gas-forming vegetables such as broccoli, cabbage, Brussels sprouts
<b>Fruits</b>	Fruit juices, cooked or canned fruits without seeds or skin (peaches, pears, mandarin oranges); ripe bananas, melon, mango, papaya	All other fresh, frozen, or dried fruits or fruits with seeds or skins (oranges, apples, berries, pineapple, pomegranate)
<b>Drinks</b> <i>Drink 64 ounces a day</i>	All allowed except carbonated drinks	Carbonated drinks: soda pop, sparkling water, beer; chia seed drinks
<b>Soups</b>	Soups made with allowed ingredients that are easy to chew such as chicken noodle, tomato, blended cream soup, blended split pea soup, canned stew	Avoid soups with large chunks of meat or vegetables
<b>Sweets and Snacks</b> <i>Avoid all of these foods if they cause dumping syndrome (see page 2)</i>	Pudding, custard, ice cream, sherbet, fruit ice, frozen yogurt, gelatin made with allowed food, popsicles, milkshakes, smoothies, sugar, syrup, honey, jelly, plain chocolate	Cookies, pies, or any dessert with a crust or that contains nuts, shredded coconut, or dried fruit; bread or rice pudding, nuts, chewy candy such as caramels, licorice, hard candy, pickles, popcorn, sticky foods, hot spicy foods

<b>Food Group</b>	<b>OK to Eat and Drink</b>	<b>Do NOT Eat or Drink</b>
<b>Fats and Condiments</b>	Butter, margarine, salad dressing, mayonnaise, gravy, sour cream, whipped toppings, coconut oil, olive oil, canola oil, mild spices, ketchup, mustard, barbeque sauce, cream cheese	Chunky condiments such as salad dressings with seeds, fruit, or vegetables; cream cheese with fruit or vegetable pieces
<b>Pre-made Protein Drinks</b>	Ensure, Boost, Glucerna, Slimfast, Carnation Instant Breakfast, Muscle Milk	If dumping syndrome is a problem, try using products designed for people with diabetes

## **Your Calorie and Protein Needs**

- You need to eat \_\_\_\_\_ calories a day.
- Every day, you will need to eat \_\_\_\_\_ grams of protein. This equals \_\_\_\_\_ protein servings.

## **High-Quality Protein Foods**

Below is a list of common foods rich in high-quality protein. Unless listed otherwise, each food amount listed is equal to **1 protein serving** (7 grams).

- 1 oz. cooked fish, poultry, or lean ground meat
- 1 egg or ½ cup liquid egg substitute
- 1 oz. cheese (melted, so that it is soft)
- 1 cup milk (skim, 1%, 2%, or whole)
- 1 cup yogurt
- ½ cup canned tuna or salmon
- 1 cup pudding
- 3 oz. tofu
- Protein powders (serving size depends on the protein content of each brand)
- Nutritional supplement drinks (serving size depends on the protein content of each brand)

## **Boosting Calories**

After surgery, your body needs more calories for healing. Here are some ways to add calories to your diet:

- Instead of eating 3 large meals a day, eat smaller meals more often, or divide meals in half. For example, have an egg for breakfast and then have some canned fruit and cooked cereal for a midmorning snack.

- Use mayonnaise or salad dressing on meats and eggs.
- Add butter or margarine to hot cereal, eggs, cooked vegetables, mashed potatoes, pasta, and soups.
- Use gravies and sauces on meats and vegetables. You can find a variety of sauce mixes at the grocery store.
- Use sour cream to top fruits, meats, cream soups, and baked potatoes. Sour cream can also be added to sauces, scrambled eggs, and omelets.
- Eat avocados plain or make guacamole to top egg dishes, meats, cooked vegetables, or cottage cheese.
- Add whipped cream on top of canned fruit, pudding, or Jell-O.
- Eat cheesecake (without the crust).

## **Boosting Protein**

After surgery, your body needs more protein for healing. Here are some tips to add protein to your diet:

- Use milk, Fortified Milk (see recipe below), evaporated milk, or cream instead of water to cook hot cereal or to make instant cocoa, canned soup, custard, and pudding.
- Add pureed or chopped meat to scrambled eggs, omelets, or soups. For example, add chopped chicken to cream of chicken soup, pureed ham to split pea soup, or ground beef to tomato soup.
- Add chopped, hard-cooked eggs to sauces, soups, casseroles, or chicken or tuna salad.
- Add grated cheese to cooked vegetables, sauces, soups, and casseroles.
- Try eating a snack of cottage cheese with avocado or canned fruit.

## **High-Calorie/High-Protein Drink Recipes**

*See recipes on pages 6 and 7.*

You can make these drinks at home to supplement your diet. The flavors may be changed to suit your own tastes. If you are lactose intolerant, use soy milk, rice milk, or almond milk instead of cow's milk.

You may also use pre-made high-calorie, high-protein drinks.

### **Fortified Milk**

*Makes 4 servings, 8 oz. each*

- 1 quart regular whole milk
- 1 cup powdered milk

Blend, chill well. Use in place of regular milk in cooking or special drinks.

*Per serving: 265 calories, 18 grams protein (2½ protein servings)*

### **Breakfast in a Glass**

*10 oz. per serving*

- ½ cup whole milk or Fortified Milk
- ¼ cup orange or pineapple juice
- ¼ cup liquid egg substitute
- ½ banana
- 1 teaspoon sugar

Blend all ingredients.

*Per serving:* With whole milk: 210 calories, 10 grams protein; with Fortified Milk: 270 calories, 15 grams protein (2 protein servings)

### **Egg Nog**

*10 oz. per serving*

- 1 cup whole milk or Fortified Milk
- ¼ cup liquid egg substitute
- ½ teaspoon sugar

Blend all ingredients.

*Per serving:* With whole milk: 210 calories, 14 grams protein; with Fortified Milk: 320 calories, 25 grams protein (3½ protein servings)

### **High-Protein Shake**

*12 oz. per serving*

- ½ cup whole milk
- 1 cup ice cream
- 1 package Carnation Instant Breakfast

Blend all ingredients until smooth.

*Per serving:* 340 calories, 10 grams protein (1½ protein servings)

### **Basic Banana Smoothie**

*1 serving*

- 1 cup vanilla 2% low-fat yogurt
- 1 frozen banana
- 3 ice cubes

Blend all ingredients until smooth.

*Per serving:* 300 calories, 12 grams protein (2 protein servings)

## **Yogurt Shake**

*8 oz. per serving*

- ½ cup whole milk or Fortified Milk
- ¼ cup fruit yogurt
- ¼ cup soft fresh or canned fruit

Blend all ingredients until smooth.

*Per serving:* With whole milk: 225 calories, 8 grams protein (1 protein serving); with Fortified Milk: 310 calories, 13 grams protein (2 protein servings)

## **Peanut Butter Smoothie**

*1 serving*

- 1 cup 2% low-fat milk
- 2 tablespoons peanut butter
- 1 frozen banana

Blend all ingredients until smooth.

*Per serving:* 415 calories, 17 grams protein (2½ protein servings)

## Sample Menus

Day 1	Day 2	Day 3
<b>Breakfast</b> ½ cup cooked cereal ½ cup milk	<b>Breakfast</b> 1 scrambled egg with 1 oz. cheese added	<b>Breakfast</b> Fruit smoothie with ½ cup yogurt and blended peaches or banana
<b>Snack</b> 1 oz. thinly sliced turkey breast	<b>Snack</b> ½ banana ½ cup yogurt	<b>Snack</b> 1 oz. thinly sliced cheese
<b>Lunch</b> ½ cup pea soup 1 cup milk or fruit juice	<b>Lunch</b> ½ cup tuna casserole 1 cup milk or fruit juice	<b>Lunch</b> ½ cup macaroni and cheese 1 cup milk or fruit juice ½ cup applesauce
<b>Snack</b> 1 deviled egg	<b>Snack</b> 1 pudding cup	<b>Snack</b> 6 oz. to 8 oz. yogurt
<b>Dinner</b> ½ chicken breast marinated in teriyaki sauce ½ cup cooked carrots 1 cup milk or fruit juice	<b>Dinner</b> ½ cup pasta with meat sauce 1 tablespoon grated parmesan cheese ½ cup cooked zucchini 1 cup milk or fruit juice	<b>Dinner</b> 2 oz. meatloaf ½ cup mashed potatoes 1 teaspoon butter or margarine 1 teaspoon sour cream 1 cup milk or fruit juice
<b>Snack</b> ½ cup cottage cheese ½ cup canned fruit	<b>Snack</b> 1 can Glucerna or Ensure	<b>Snack</b> ½ cup dry cereal or instant oatmeal made with milk ½ cup milk or yogurt

### Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Registered Dietitian:

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Phone:

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