



PATIENT & CAREGIVER EDUCATION

Eating After Your Gastrectomy

This information will help you learn how to eat after your gastrectomy (surgery to remove part or all of your stomach).

After your gastrectomy, the way you eat and digest (break down) food will change. Your stomach may be smaller, or it may have been removed. This means you will feel full faster than you did before your surgery.

The valve that controls how food moves from your stomach to your intestines may have also been removed or changed during your surgery. This means you may digest your food too quickly and not absorb nutrients as well as before your surgery.

If you have questions about your diet while you're in the hospital, ask to see a clinical dietitian nutritionist. After you're discharged from the hospital, you can call 212-639-7312 if you have questions or to make an appointment with an outpatient clinical dietitian nutritionist.

General Diet Guidelines After Your Gastrectomy

After your surgery, your stomach won't be able to hold as much as it did before surgery. You will need to have 6 or more small meals a day instead of 3 main meals. This will help you eat the right amount of food, even though your stomach is smaller or gone.

Tell your doctor and clinical dietitian nutritionist if you're losing weight without meaning to.

Guidelines for eating

- Start with 6 or more small meals daily. When you first start eating, you may only be able to comfortably eat a ½ to 1 cup portion (serving)

of food at a time. Over time, you may be able to have larger portion sizes and eat less often. This can take several months. Other people may need to keep following a 6-small-meal diet. Everyone is different.

- Chew your food well. This makes it easier for your body to digest the food.
- Eat slowly. This way, you will stop eating before you get too full and feel uncomfortable.
- Sit upright during meals.
- Have your last meal of the day at least 2 hours before bedtime.
- Don't have more than 4 ounces ($\frac{1}{2}$ cup) of liquid with your meals. This will allow you to eat enough solid food without getting too full. It will also keep food from moving into your small intestine too quickly.
 - Remember that soup and protein shakes count as liquids.
 - It's okay to take extra sips of liquids if your mouth feels dry or you're coughing.
- Include protein with each meal. Good protein sources include eggs, meat, poultry, fish, nuts, milk, yogurt, cottage cheese, cheese, peanut butter, and tofu.
- Avoid spicy and peppery foods soon after your surgery.
- Avoid fatty and sugary foods if they cause discomfort. For more information, read the section "Food Intolerances After Surgery."

Guidelines for drinking

- Aim to drink about 8 to 10 (8-ounce) glasses of liquid each day. Avoid carbonated (fizzy) drinks if they make you feel full.
- Drink most of your liquids at least 1 hour before or 1 hour after your meals. This helps you avoid feeling too full and prevents dehydration.
- Don't have more than about 4 ounces ($\frac{1}{2}$ cup) of liquids with your meals.

Vitamin B12

If a large part of your stomach was removed during your surgery, you may need to take extra vitamin B12. You can get vitamin B12 as an oral supplement (such as a pill) or a monthly shot.

You may also need other vitamin and mineral supplements. If you do, your doctor or clinical dietitian nutritionist will discuss this with you.

Food Intolerances After Surgery

A food intolerance is when you have discomfort or unpleasant symptoms after having certain types of foods or drinks. After your surgery, you may have some food intolerances that you didn't have before surgery.

Sugar intolerance

Some people have cramping, stomach pain, or diarrhea (loose or watery bowel movements) within about 20 minutes of eating foods or drinks that are high in sugar. This is called dumping syndrome. Dumping syndrome can also be caused by eating too much at once.

Some people feel weak, hungry, nauseous (like you're going to throw up), anxious, shaky, or sweaty 1 to 2 hours after eating a sugary meal. This happens because your body releases extra insulin after you eat large amounts of sugar. Having too much insulin in your bloodstream causes low blood sugar.

Dumping syndrome and low blood sugar can be controlled by changing your diet and watching what you eat. Try avoiding foods and drinks with lots of sugar, such as:

- Sugar-sweetened sodas
- Fruit juices
- Candy
- Cane sugar
- Honey

- Syrups
- Cakes and cookies

It's okay to eat small amounts of cakes, cookies and candies sweetened with sugar alcohols (such as sorbitol and mannitol). Eating too much may cause loose bowel movements or diarrhea.

Eating smaller meals, having a protein source with meals, and including foods with soluble fiber (such as canned fruits, bananas, peanut butter and oatmeal) may also help with symptoms.

Fat intolerance

Some people have trouble digesting large amounts of fat. Try having small amounts at first, and then increase the amount of fat in your diet slowly. Foods high in fat include:

- Butter, margarine, and oils
- Mayonnaise
- Creamy salad dressings
- Cream cheese
- Gravies
- Potato chips and corn chips
- Rich desserts
- Fried foods
- Fatty meats

If your bowel movements (poop) smell worse than usual or are pale, greasy, or floating, you may not be digesting fats well. If you have any of these symptoms, talk with your doctor or outpatient clinical dietitian nutritionist. You may need a medication to help you digest fats. This is rare.

Lactose (dairy) intolerance

Lactose is a type of sugar found in dairy or milk products. Some people have trouble digesting lactose after having a gastrectomy. This is called lactose intolerance. Symptoms of lactose intolerance include gas, bloating, and diarrhea. These symptoms can happen 30 minutes to 2 hours after having dairy products.

After surgery, slowly bring dairy products back into your diet. Milk, ice cream, and soft cheeses have high amounts of lactose. Hard cheeses, yogurt, and butter have smaller amounts of lactose.

To test your tolerance to dairy foods, start by drinking a 4-ounce (½ cup) serving of milk.

- If you don't have any of the symptoms of lactose intolerance, you can start eating more dairy foods.
- If you have any of the symptoms of lactose intolerance, you may still be able to eat foods with smaller amounts of lactose. Pay attention to how you feel after having different dairy products. Pay close attention to how you feel after eating dairy products along with other non-dairy foods.

If you think you may be lactose intolerant:

- Try using a product to help you digest dairy products (such as Lactaid® tablets or drops).
- Try dairy products that are processed to remove the lactose from them (such as Lactaid milk, cottage cheese, and ice cream).
- Ask your clinical dietitian nutritionist for help, if needed.

Sometimes, lactose intolerance that develops after surgery goes away with time. You may want to try dairy products again in a couple of months to see if you still have symptoms.

Managing Common Problems

The following are common problems after a gastrectomy. Keeping a food log and writing down any symptoms or problems you have may help you realize why the problems are happening. You can use the blank daily food and drink log at the end of this resource.

If the tips below don't help, talk with your clinical dietitian nutritionist or doctor.

Tips for managing nausea

- Avoid foods that are rich, spicy, or greasy.
- Don't eat or drink too fast. Try putting your fork down between bites.
- Don't have too much to eat or drink at one time.
- Don't lie flat after meals. Wait 2 to 3 hours before lying down.

Tips for managing fullness

- Don't eat or drink too much at one time.
- Don't drink too much during your meals.
- Don't eat or drink too fast. Try putting your fork down between bites. It takes 20 minutes for your brain to realize that you're full.
- If you're having trouble having 6 smaller meals instead of 3 large meals, create a schedule with set times for eating and drinking.
- If you find yourself going back to the larger portions you had before your surgery, try making mini-meals or pre-portion meals ahead of time so they're readily available.
- Avoid carbonated drinks (such as soda and seltzer).
- Avoid vegetables that may make you gassy (such as broccoli, cauliflower, cabbage, onion, brussels sprouts, and beans).

Tips for managing diarrhea

- First, try eating less sugar. Then, try less dairy. Finally, try less fat. Pay attention to see if the diarrhea gets better when you cut back on any of these things. If it does, eat less of those foods.
- Avoid sugar alcohols, such as sorbitol and mannitol. These are often used in gum, hard candies, cough drops, dairy desserts, frosting, cakes, and cookies. You can see if a product has these things by checking the ingredients list. It's okay to use other sugar substitutes such as NutraSweet® or Equal®.
- Try eating foods with soluble fiber, such as canned fruits, bananas, peanut butter, and oatmeal.
- Make sure you're keeping foods safe at home.
 - Put leftovers in the refrigerator or freezer right away.
 - Throw away refrigerated leftovers after 2 days.
 - Throw away frozen leftovers after 6 months.
 - Thaw frozen leftovers in the refrigerator or microwave, not on the kitchen counter. Reheat them to safe food temperatures until they're steaming hot.

Eating at Restaurants and Social Events

Food is the focus of many social events. Remember that portions served at events and restaurants tend to be large. It usually takes some time to get used to eating out at restaurants or attending events like weddings and dinner parties.

- If you finish an appetizer, you may find that you need to take your entrée home.
- If you skip the appetizer, try eating half of your entrée and taking the rest home. You can also share an entrée with a friend.
- You may have to choose either a small soup or a drink as your fluid allowance. Or, you can choose to have just a few sips of both.

- If you want to have dessert after your meal, you may want to take it home and save it for later.

Tracking your Food and Liquid Intake

After your gastrectomy, you may feel full quickly or have other changes that affect your eating. Keeping a food and drink log will help you see what foods and portion sizes are easiest for you to eat. It will also help you make sure you're getting enough calories.

In your food and drink log:

- Keep track of all of the foods you eat and liquids you drink. Write down:
 - The time you eat or drink.
 - The amount (portion) and type of food or drink.
 - The number of calories in the food or drink
- Write down any symptoms or problems you have after eating or drinking.
 - Are you feeling too full?
 - Do you have pressure in your chest?
 - Are you having reflux?
 - Are you having pain in your abdomen (belly) or diarrhea?

See the example of a food and drink log below. There is also a blank log for you to use at the end of this resource.

Time	Portion size	Description	Calories	Symptoms?
7 a.m.	4 oz	Apple juice	60	None
8 a.m.	1 jumbo 5 oz	Scrambled egg Mashed potatoes	100 160	None
10 a.m.	6 oz	Yogurt	105	None

2 p.m.	5 oz	Mashed potatoes	160	None
4 p.m.	4 oz 1 jumbo	Vanilla pudding Scrambled egg	110 100	None
6 p.m.	6 oz 5 oz ¼ cup ¼ cup	Mashed potatoes Soft cooked butternut squash Stewed chicken Gravy	192 75 58 50	Very full, unable to finish meal
			<u>Daily total</u> 1130 calories	

Tracking your weight

It's also important to track your weight. Weigh yourself about every 3 to 5 days. It's best to weigh yourself around the same time of day each time. Make sure you're wearing the same amount of clothing when you weigh yourself. If you find you're losing weight, make a follow-up appointment with an outpatient clinical dietitian nutritionist.

Measuring foods

To accurately measure foods, use measuring spoons, measuring cups, or a food scale. You can also use the guidelines in Figure 1 to estimate amounts of some foods.



3 ounces of meat
is about the size of a
deck of cards.



3 ounces of fish is
about the size of
a checkbook.



1 cup of cut fruit,
cut vegetables, or
cereal is about the size
of a baseball.



1 ounce of cheese
is about the size of
a domino.



1 teaspoon of butter
is about the size of
a die.

Figure 1. Guidelines for estimating portion sizes

Finding calorie information

You can find the calorie information for packaged foods on the nutrition facts label (see Figure 2).

If a food doesn't have a nutrition facts label, you can look up the calorie information on a nutrition resource website, such as CalorieKing.com or MyFitnessPal.com. You can also download the MyFitnessPal application to your smartphone.

Nutrition Facts	
Serving Size 2/3 cup (55g) Servings Per Container About 8	
Amount Per Serving	
Calories 230	Calories from Fat 72
% Daily Value*	
Total Fat 8g	12%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	12%
Dietary Fiber 4g	16%
Sugars 1g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

Nutrition Facts	
8 servings per container Serving size 2/3 cup (55g)	
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Figure 2. Where to find calorie information on a Nutrition Facts label

Resources

MSK support services

Integrative Medicine Service

www.mskcc.org/integrativemedicine

Our Integrative Medicine Service offers many services to complement (go along with) traditional medical care, including music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy. They also provide counseling on nutrition and dietary supplements. To schedule an appointment for these services, call 646-449-1010.

You can also schedule a consultation with a healthcare provider in the Integrative Medicine Service. They will work with you to come up with a plan for creating a healthy lifestyle and managing side effects. To make an appointment, call 646-608-8550.

Resources for Life After Cancer (RLAC) Program

646-888-8016

At MSK, care doesn't end after active treatment. The RLAC Program is

for patients and their families who have finished treatment. This program has many services, including seminars, workshops, support groups, counseling on life after treatment, and help with insurance and employment issues.

External 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

For information on diet and cancer prevention research and education.

FDA Center for Food Safety and Applied Nutrition

www.fda.gov/AboutFDA/CentersOffices/OfficeofFoods/CFSAN/default.htm

For helpful information on food safety.

6-Meal Diet Sample Menus

The sample menus below show a soft diet in 6 small meals. They include 4 ounces of liquid with each meal (to keep you from feeling too full during meals) and 8 ounces of liquid between meals (to keep you well-hydrated). Remember that soup and protein shakes also count as liquids.

- Not all of the menu items are sugar-free. If you have diabetes, high blood sugar, or are having dumping syndrome:
 - Use sugar-free or light yogurt in place of regular yogurt.
 - Limit fruit juices.
 - If you drink fruit juices, dilute them with water.

- Menu items with an asterisk (*) have lactose. If you're lactose-intolerant:
 - Try Lactaid milk, cottage cheese, or ice cream.
 - Take Lactaid tablets or drops before having dairy products.
 - Choose almond milk, rice milk, or soy milk and non-dairy cheeses.

Sample menu 1

Time	Meal	Foods and Liquids
7:30 a.m.	Breakfast	<ul style="list-style-type: none"> • $\frac{3}{4}$ cup of cornflakes softened in $\frac{1}{2}$ cup of whole milk* • $\frac{1}{2}$ of a banana
9 a.m.	Drink	<ul style="list-style-type: none"> • $\frac{1}{2}$ cup of juice mixed with $\frac{1}{2}$ cup of water
10 a.m.	Snack	<ul style="list-style-type: none"> • $\frac{1}{2}$ cup of cottage cheese* • $\frac{1}{2}$ cup of canned fruit
11:30 a.m.	Drink	<ul style="list-style-type: none"> • 1 cup of whole milk*
12:30 p.m.	Lunch	<ul style="list-style-type: none"> • $\frac{1}{2}$ cup of chicken soup • $\frac{1}{2}$ of a tuna salad sandwich on untoasted bread with extra mayonnaise as needed to moisten
2 p.m.	Drink	<ul style="list-style-type: none"> • 1 cup of tomato juice
3 p.m.	Snack	<ul style="list-style-type: none"> • 6 ounces of fruit yogurt* • $\frac{1}{4}$ cup of cranberry juice mixed with $\frac{1}{4}$ cup of water
4:30 p.m.	Drink	<ul style="list-style-type: none"> • $\frac{1}{2}$ cup of apple juice mixed with $\frac{1}{2}$ cup of water
5:30 p.m.	Dinner	<ul style="list-style-type: none"> • 2 ounces of baked chicken • 1 small baked potato (without the skin) with sour cream* • $\frac{1}{2}$ cup of cooked carrots • $\frac{1}{2}$ cup of almond milk
7 p.m.	Drink	<ul style="list-style-type: none"> • 1 cup of water
8 p.m.	Snack	<ul style="list-style-type: none"> • 1 ounce of American cheese* • 1 slice of bread • 1 teaspoon of mayonnaise or mustard • $\frac{1}{4}$ cup of apple juice mixed with $\frac{1}{4}$ cup of water

9:30 p.m.	Drink	• ½ cup of cran-apple juice mixed with ½ cup of water
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Sample menu 2

Time	Meal	Foods and Liquids
7:30 a.m.	Breakfast	<ul style="list-style-type: none"> • 1 scrambled egg • 1 slice of untoasted bread with 1 teaspoon of margarine or butter* • ¼ cup of orange juice mixed with ¼ cup of water
9 a.m.	Drink	• 1 cup of tomato juice
10 a.m.	Snack	<ul style="list-style-type: none"> • 1 tablespoon of peanut butter • ½ of a soft roll • ½ cup of whole milk*
11:30 a.m.	Drink	• ½ cup of juice mixed with ½ cup of water
12:30 p.m.	Lunch	<ul style="list-style-type: none"> • ½ of an egg salad sandwich on untoasted bread with extra mayonnaise as needed to moisten • ½ cup of milk*
2 p.m.	Drink	• 1 cup of broth
3 p.m.	Snack	<ul style="list-style-type: none"> • 2 tablespoons of hummus • ½ of a soft roll • ¼ cup of pineapple juice mixed with ¼ cup of water
4:30 p.m.	Drink	• ½ cup of fruit punch mixed with ½ cup of water
5:30 p.m.	Dinner	<ul style="list-style-type: none"> • 2 ounces of baked fish • ½ cup of mashed potatoes • ½ cup of cooked green beans with 2 teaspoons of margarine or butter • ¼ cup of apple juice mixed with ¼ cup of water
7 p.m.	Drink	• 1 cup of water
8 p.m.	Snack	<ul style="list-style-type: none"> • ¼ cup of cottage cheese* • 1 slice of bread • ¼ cup of cranberry juice mixed with ¼ cup of water
9:30 p.m.	Drink	• ½ cup of mixed berry juice mixed with ½ cup of water

Sample menu 3

Time	Meal	Foods and Liquids
7:30 a.m.	Breakfast	<ul style="list-style-type: none"> • 1 egg omelet with 1 ounce cheese and 1 slice of chopped ham • ¼ cup of orange juice mixed with ¼ cup of water
9 a.m.	Drink	<ul style="list-style-type: none"> • 1 cup of water
10 a.m.	Snack	<ul style="list-style-type: none"> • 1 cheese blintz with 1 teaspoon of margarine or butter* • ¼ cup of apricot nectar mixed with ¼ cup of water
11:30 a.m.	Drink	<ul style="list-style-type: none"> • ½ cup of grape juice mixed with ½ cup of water
12:30 p.m.	Lunch	<ul style="list-style-type: none"> • Slider with 2 ounces of ground beef, 1 ounce of American cheese*, and 3 bread and butter pickle slices on a mini bun • ½ cup of whole milk*
2 p.m.	Drink	<ul style="list-style-type: none"> • ½ cup of cranberry juice mixed with ½ cup of water
3 p.m.	Snack	<ul style="list-style-type: none"> • 1 scoop of whey protein powder mixed with 1 cup of whole milk*, ½ of a banana, and 1 tablespoon of almond butter
4:30 p.m.	Drink	<ul style="list-style-type: none"> • ½ cup of blackberry juice mixed with ½ cup of water
5:30 p.m.	Dinner	<ul style="list-style-type: none"> • 1 slice of ham and cheese* quiche without crust • ¼ cup of apple juice mixed with ¼ cup of water
7 p.m.	Drink	<ul style="list-style-type: none"> • ½ cup of guava nectar mixed with ½ cup of water
8 p.m.	Snack	<ul style="list-style-type: none"> • 2 graham crackers with 1 tablespoon of peanut butter • ½ cup of whole milk*
9:30 p.m.	Drink	<ul style="list-style-type: none"> • 1 cup of water

Sample menu 4

Time	Meal	Foods and Liquids
7:30 a.m.	Breakfast	<ul style="list-style-type: none"> • ½ of an untoasted English muffin topped with 2 tablespoons of peanut butter and 2 teaspoons of honey • ½ cup of whole milk*
9 a.m.	Drink	<ul style="list-style-type: none"> • 1 cup of water
10 a.m.	Snack	<ul style="list-style-type: none"> • 6 ounces of full fat Greek yogurt*

		<ul style="list-style-type: none"> • ½ of a banana or canned fruit • 1 tablespoon of ground flax seed or ground almonds
11:30 a.m.	Drink	<ul style="list-style-type: none"> • ½ cup of apple juice mixed with ½ cup of water
12:30 p.m.	Lunch	<ul style="list-style-type: none"> • ½ of a grilled cheese* sandwich with tomato • ¼ cup of apple juice mixed with ¼ cup of water
2 p.m.	Drink	<ul style="list-style-type: none"> • ½ cup of cherry juice mixed with ½ cup of water
3 p.m.	Snack	<ul style="list-style-type: none"> • ½ of a mashed avocado rolled in 2 ounces of thin sliced turkey breast • ¼ cup of pear nectar mixed with ¼ cup of water
4:30 p.m.	Drink	<ul style="list-style-type: none"> • ½ cup of peach nectar mixed with ½ cup water
5:30 p.m.	Dinner	<ul style="list-style-type: none"> • 2 ounce slice of meat loaf • ½ cup of sweet potato baked with 2 teaspoons of canola, olive, or coconut oil • ½ cup of cooked spinach with 2 teaspoons of margarine or butter • ¼ cup grape juice mixed with ¼ cup of water
7 p.m.	Drink	<ul style="list-style-type: none"> • 1 cup whole milk*
8 p.m.	Snack	<ul style="list-style-type: none"> • ½ cup of vanilla pudding* topped with ½ of a sliced banana
9:30 p.m.	Drink	<ul style="list-style-type: none"> • 1 cup of water

Daily Food and Drink Log

Time	Portion Size	Description	Calories	Symptoms?

			Total:	

For more resources, visit www.mskcc.org/pe to search our virtual library.

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