

Patient Education

Esophageal Surgery Nutrition Therapy – Hiatal Hernia Repair & LINX®

When Do I Start to Eat?

- You are encouraged to eat the day of surgery. This will activate the LINX® band right away, allowing it to open and close with the passing of food, and help to prevent scar tissue from forming.
- Eat soft foods the day of surgery. You can resume your regular diet the day after surgery if tolerated. It is acceptable to continue to eat soft foods, but do not consume only pureed foods or liquids.
- Cut foods into small pieces, make them moist, eat slowly, and take small bites of food chewing eat bite thoroughly.

How Often Should I Eat?

- To help prevent dysphagia, it is recommended that you eat one tablespoon of yogurt, pudding, custard or applesauce or one cracker *every* hour while you are awake. It is best to choose foods higher in protein since portions are small, and meeting nutrient needs will contribute to healing. This could be Greek yogurt, a cheese stick, egg salad or a protein bar that you can tolerate.
- Eating every hour may be discontinued at 6 to 8 weeks post operatively.
- Small, frequent meals are recommended (every 2-3 hours) in order to exercise the LINX®.

What about Fluids?

- Cold fluids (and foods) may cause esophageal spasms and contribute to regurgitation. You may be more successful with room temperature or warm fluids.
- Take a few small sips of warm fluids prior to a meal. If you experience food sticking, sit up straight or stand up and walk around allowing time for food to pass. Tiny sips of fluids may be taken as necessary; however, excess fluid intake with meals may lead to regurgitation.
- Avoid taking large gulps/amounts of drinks at one time as this may cause tightness or discomfort. Stay hydrated by drinking regular sips of water throughout the day.
- You may experience food stasis, or having tiny particles of food remaining in the esophagus. This can cause a sensation similar to heartburn, especially with tomato, citrus, and other irritants. Food stasis may cause excess phlegm and mucous. After meals, it is best to sip warm fluids to clear any remaining particles.
- You may want to take pills with yogurt, pudding, applesauce or other soft food rather than fluids to help prevent regurgitation.

How Do I Prevent Gas?

- During surgery, air is passed into the body and it may pocket in your shoulders, chest, back or neck causing discomfort.
- Avoid taking large bites of food and gulping air as you swallow, chewing with your mouth open, chewing gum or tobacco, eating hard candy, drinking carbonated beverages and drinking through a straw.
- Limit or avoid gas-forming foods including corn, asparagus, broccoli, Brussel sprouts, cabbage, cauliflower, dried beans and peas, lentils and other legumes, soy, and sugar alcohols.
- You may have trouble tolerating some fruits and milk/milk products after surgery. If you find that milk or milk products cause bloating, abdominal pain or diarrhea, you may consider Lactaid milk or an alternative such as almond or rice milk or use Dairy Ease which provides an enzyme that may help you to digest milk sugar (lactose).

Will I Have Trouble Swallowing?

- You may experience dysphagia, or difficulty swallowing after your procedure.
- This may start to occur right away after surgery and up to four weeks after your procedure. It will usually resolve within 12 weeks.
- You may have swelling from the hiatal hernia repair which may make swallowing liquids more difficult than swallowing solid foods. If this occurs, sip fluids slowly between meals throughout the day to prevent dehydration.
- You may experience regurgitation if you eat or drink too quickly.
- You may need to eat very slowly during this time, pausing 30 seconds to a minute between bites of food. Soft, moist foods may be better tolerated during this time.
- Continue to eat one tablespoon of yogurt, pudding, custard or applesauce or one cracker *every* hour while you are awake.
- Contact your doctor if you are regurgitating all foods and fluids or if you have persistent and severe discomfort.

Tips:

Avoid eating steak for 6-8 weeks after surgery.

Avoid meats that are dry for 3 weeks after your procedure. Cut meat, pork, poultry, or fish into small pieces. Prepare these foods with gravy, cream soups, cheese, avocado, or mayonnaise and prepare them with moist cooking techniques, such as crock pot or braising.

Avoid eating breads, toast, crust, and pizza for 3 weeks after your procedure.

You may have difficulty eating pasta and rice. Short noodles such as macaroni and cheese and rice in soups are usually better tolerated.

Avoid eating food in casings such as sausage links. You may have difficulty tolerating bacon, sausage, salad, cucumbers, peppers and peanut butter for 3-6 weeks after surgery.

Esophageal Soft Diet

Food Group	Foods Recommended	Foods to Avoid
Beverages	Milk Coffee and tea Powdered drink mixes Fruit juices without pulp Oral nutritional supplements including Ensure® and Carnation Breakfast Essentials®	Fruit juices with pulp Carbonated beverages
Grains	Well-cooked cereals (oatmeal, cream of wheat, grits) Cold cereal White Rice in sauces, soups, stews as tolerated Pasta, small noodles with sauces or in soups as tolerated Pancakes, well moistened as tolerated Crackers Graham Crackers Muffins or Quick Breads without nuts or berries well moistened as tolerated	Whole-grain breads, cereals and untoasted bread, bagels, English muffins, and hard rolls Anything with seeds, nuts, raisins, dried fruit, or coconut High fiber cereals such as bran and shredded wheat Whole grain rice Sweet rolls, coffee cake, and doughnuts Seasoned crackers Popcorn, tortilla chips, soft or hard thick pretzels, and potato chips
Proteins	Ground turkey, chicken, beef, veal, lamb, venison, pork or other Minced chicken, turkey, beef or pork Braised or crock pot beef, pork, chicken, and turkey cut against the grain (NOT STRINGY) Flaky baked, broiled, grilled or poached fish, NOT FRIED and without breading Shellfish cut into small pieces and chewed well Canned tuna, cut into small pieces Mildly flavored meat stocks Poached, hard boiled, or scrambled eggs Tofu Smooth peanut butter as tolerated	Anything fried Tough meats with gristle, such as bacon Any meat in a casing such as sausage, kielbasa, smoked sausage Sausage, in general Fatty meats Processed Meats Smoked Meats Fried or highly seasoned eggs Nuts and seeds Crunchy peanut butter
Dairy	Low-fat milk products Smooth yogurt Mild cheese (American, brick, mozzarella, baby Swiss) Cottage or ricotta cheese ALL DAIRY AS TOLERATED	Sharp/strong cheeses (sharp or extra sharp cheddar, cheese with peppers or other seasoning) Dairy with nuts or seeds
Fruits	All canned or cooked fruits without skins or seeds except those to avoid Soft, fresh fruits without skins or seeds (banana, soft melon) and juices without pulp Applesauce	Citrus fruits and juices Canned pineapple Dried fruits and coconut Fruits with seeds such as berries, figs, kiwi
Food Group	Foods Recommended	Foods to Avoid

Vegetables	<p>Well-cooked soft or canned vegetables without seeds and skins</p> <p>Generally: Cooked carrots and well cooked, canned green beans</p> <p>Peeled white and sweet potatoes (boiled, mashed, baked or creamed)</p>	<p>All raw vegetables</p> <p>French fries, fried potatoes or potato skins</p> <p>Dried beans, peas, and lentils</p> <p>Gas-producing vegetables if you are experiencing bloating, gas or gas pains including asparagus, broccoli, Brussels sprouts, cabbage, cauliflower, onions, corn, green/red/yellow/orange peppers, cucumber, radishes, sauerkraut</p>
Fats and Sweets	<p>If you eat sweets, eat them at the end of a meal; do not sacrifice nutrition for sweets</p> <p>Butter and margarine</p> <p>Mayonnaise and vegetable oils</p> <p>Mildly seasoned salad dressings, sauces, and gravies</p> <p>Plain cream cheese and sour cream</p> <p>Ice cream, sherbet, and frozen yogurt</p> <p>Pudding</p> <p>Cakes and cookies without hard pieces</p> <p>Sugar, syrup, honey, jelly, and seedless jam</p> <p>Molasses</p>	<p>Highly seasoned sauces and gravies</p> <p>Bacon, bacon fat, ham fat, lard, and salt pork</p> <p>Fried foods</p> <p>Nuts</p> <p>Anything with dried fruit, nuts, coconut, or candied fruit</p> <p>Peanut brittle</p>
Other	<p>Salt and spices in moderation</p> <p>Mustard and vinegar in moderation</p>	<p>You may need to avoid irritants including chili sauce, wing sauce, hot sauce, sriracha, wasabi, ketchup, horseradish, barbecue sauce, spaghetti sauce, cooked peppers, citrus, cinnamon, black/white/red pepper, garlic, cooked onion, spicy foods, or highly salted foods such as salty soups, miso, pickles and olives</p>

Note: There may be some foods on the recommended list that you will not tolerate, and there may be some foods on the “Foods to Avoid” list that you will tolerate. These are general guidelines and recommendations. Keep in mind that each individual’s tolerance is different.

Sample 1-Day Menu

(Note: Dysphagia Serving Size may be 1 T – ½ C of 1-3 items)

Breakfast	¼ to ½ cup Cream of Wheat ¼ to ½ cup almond milk ¼ to ½ cup canned diced peaches ¼ to ½ cup Greek yogurt
Morning Snack	1 small banana
Lunch	¼ to ½ cup fine chicken salad made without raw vegetables 4 Saltine crackers ¼ to ½ cup wedding soup without greens
Afternoon Snack	¼ to ½ cup cottage cheese ¼ to ½ cup Applesauce
Dinner	1-2 oz. meatloaf with gravy ¼ to ½ cup mashed potatoes ¼ to ½ cup cooked carrots
Night Snack	¼ to ½ cup egg salad 4 Ritz crackers
Fluids	Sip warm fluid before meals; do not drink with meals; sip 10 minutes after meals and all day
Every Hour	Eat 1 tablespoon of yogurt, pudding, applesauce, cheese stick, soft protein bar

Note: You will need extra fluids throughout the day to meet your fluid needs. Note: You will need extra fluids throughout the day to meet your fluid needs.

Shopping List

Milk or almond milk or Lactaid milk	Yogurt, Greek yogurt
Coffee and tea	Cottage cheese, ricotta cheese
Fruit juices without pulp	String cheese, mild cheeses
Soft protein bars	Canned fruit (except pineapple)
Oatmeal, Cream of Wheat, or grits	Bananas
Cold cereal (low in fiber)	Soft, fresh fruit
White rice, pasta	Applesauce
Ritz and Saltine crackers	Cream soups (except broccoli)
Fish or shellfish	Potatoes
Ground beef, chicken, or turkey	Carrots
Canned tuna	Butter or margarine
Eggs	Jelly or seedless jam

If you have any questions, please call us
For more information, visit www.linxforlife.com.

LINX DIET

✓ Foods:

- Bananas
- Applesauce
- Greek yogurt
- Pudding
- Mashed potatoes
- Meat and gravy
- Melon
- Eggs
- Grits
- Cream of wheat



✗ Foods:

- **Rice**
- **Coleslaw**
- **Chips/Crackers**
- **Lettuce**
- **Bread**
- **Crust**
- **Grapes**
- **Pineapple**
- **Breakfast meats**
- **Cold cereals**
- **Carbonated beverages**



IMPORTANT TIPS

- ◆ Eat every 2-3 hours
- ◆ Always serve meat with gravy
- ◆ Small meals recommended
- ◆ Cut food into small bits
- ◆ Avoid giving patient only liquids
- ◆ Snack options: pudding, applesauce, yogurt, bananas