



Laparoscopic Duodenal Switch (Loop DS) Post-Surgery Nutrition Guidelines

Laparoscopic Duodenal Switch reduces the size of the stomach approximately 25% of its original size. The procedure is both restrictive and highly mal-absorptive meaning it will limit the amount of food that you can eat as well as causing fewer nutrients and calories to be absorbed. Life-long vitamin/mineral supplementation as well as protein supplementation is necessary due to decreased food intake as well as limited absorption of nutrients. As with any weight loss procedure, lifestyle changes are what determine long term success. It is important that you learn how to incorporate healthy eating habits and physical activity into your daily life.

Refer to your nutrition packet from the nutrition class for more details regarding the diet. Call the dietitian (713-493-7700) if you have questions about diet, supplements and vitamins.

POST-SURGERY DAYS	STAGE	GUIDELINES
DAYS 1 & 2	CLEAR LIQUID DIET	48 - 64 oz fluids daily
DAYS 3 - 14	FULL LIQUID DIET	48 - 64 oz fluids daily +40 - 60 grams protein daily Gradually start appropriate Bariatric vitamins
DAYS 15 - 30 Week 3 - 4	PUREED DIET	48 - 64 oz fluids daily +40 - 60 grams protein daily
Week 5 - 6	SOFT CHOPPED DIET	48 - 64 oz low sugar fluids daily +40 - 60 grams protein daily
Week 7 - 8	MAINTENANCE PHASE CHOPPED SOLIDS	48 – 64 oz low sugar fluids daily +60 – 80 grams protein daily Take bariatric vitamins every day

DAY 1 and 2: CLEAR LIQUIDS STAGE

GOAL: +48-64 oz. fluids daily

Sugar Free Clear Liquids

Consume 1 ounce (2 Tablespoons/30 cc) clear liquid **every 15 minutes** in order to maintain hydration (medicine/cough syrup cups measure 1 oz. and are very helpful)

Acceptable Fluids:

- Water/Propel Fitness Water/G2/ Powerade Zero
- Clear broth
- Decaffeinated coffee/tea, herbal tea (chamomile, mint, ginger, etc)
- Crystal Light/diet Snapple/Fruit-2-O/Mio
- Sugar free jello, sugar free popsicles

Reminders:

Timers are helpful to accurately track 15 min liquid consumption, and avoid dehydration.

Avoid caffeine and alcohol as these act as a diuretic and may cause stomach irritation and No straws. This will cause you to drink too much volume as well as draw in air.

Please remember to take small sips - no gulps.

Avoid chewing gum (may swallow too much air and cause chest pain).

No carbonated beverages

Dehydration:

Dehydration will occur if you do not drink enough fluids. Symptoms include fatigue, dark-colored urine, dizziness, fainting, lethargy, nausea, and low back pain (a constant dull ache across the back). If you become severely dehydrated, you will be admitted to the hospital so that fluids can be given through your veins. If your urine is dark and your mouth is dry, then you are not drinking enough. Carry water/low sugar/low calorie beverage with you EVERYWHERE!

DAY 3 - 14: FULL LIQUID STAGE

GOAL: Start vitamins, +48-64 ounces of fluids; +40-60 grams protein daily

Gradually start taking your Bariatric Vitamins now.

- You need Bariatric multivitamins
 - o With Iron if you are anemic or still able to menstruate
 - o Without Iron if you are a non-anemic male, or you are women who longer menstruates, had a hysterectomy or as gone through menopause.
- 1500mg Calcium Citrate

Continue to take small sips and drink slowly to stay well hydrated.

Avoid fruit juices, sugar-sweetened beverages, caffeine and carbonated drinks

Protein Supplements:

- >20grams protein, <10 grams sugar, <10 grams fat, <250calories
- Isopure Protein Powder, Bariatric Advantage High Protein Meal Replacement Powder
- Premier Protein, Muscle Milk, EAS Myoplex Light, GNC Lean Shake 25

Thick Liquids

- V-8 juice 100% vegetable juice (NO fruit juice)
- Tomato soup and other thick pureed soups (such as butternut squash soup)
- Campbell's 98% Fat Free Soups, strained
- Sugar free: pudding and fudge pops
- 0-2% cow's milk, unsweet soy milk/almond milk
- Low fat Greek style plain/vanilla yogurt (no fruit pieces)

Protein powder may be added to foods or beverages to increase protein content during consumption (such as Unjury, Nectar, Isopure brands)

Refer to your nutrition packet for more options during this diet phase.

Sample Meal Plan for **Stage 2 Full Liquids:**

8:00 am	4 oz protein supplement
9:00 am	4-8 oz 98% fat free cream of chicken soup, strained
10:00 am	4-8 oz protein supplement
11:00 am	4-8 oz tomato juice
Noon	4 oz protein supplement
1:00 pm-8:00 pm	Repeat the above pattern, along with drinking water

DAY 15, WEEK 3 - 4: PUREED FOODS STAGE

GOAL: +48-64 fluid ounces, +40 – 60 grams of protein, continue vitamins

Foods in this stage are the consistency of applesauce.

Mash foods very well, or place food in a blender or food processor until it is the texture of applesauce/baby food.

Take 30 minutes to eat meals, stop eating after 30minutes

Do not drink with meals: Wait 15 minutes after drinking, then eat. Wait 30 minutes after eating, then drink.

Drinking while eating may cause an early fullness, nausea and/or vomiting

Mashed/Pureed High Protein Foods:

- Fish (mashed very well)
- Cooked ground beef/turkey or chicken, pureed/blended in food processor
- Low fat Greek yogurt, fruits pieces ok (sugar <10 grams per serving)
- Soft scrambled eggs
- Mashed silken tofu
- Low-fat or Fat-free plain cottage cheese (add mashed canned fruits or sugar free jam)

Other mashed/pureed foods:

- Applesauce, mashed fruits (canned fruits in 100% fruit juice, bananas, pears)
- Mashed potatoes, mashed veggies (carrots, peas, broccoli, cauliflower)
- Plain instant oatmeal, grits, malt-o-meal, cream of wheat/rice
- Mashed beans, hummus
- Mashed avocado

Sample Menu for **Stage 3:**

8:00 am 6 oz yogurt

9:00 am 4 oz protein supplement

10:00 am 8 oz water/low calorie beverage

Noon 1 oz mashed fish and ¼ cup pureed vegetable

1:00 pm 4 oz protein supplement

2:00 pm 1 oz low fat cottage cheese and ¼ cup applesauce (unsweetened)

3:00 pm-8:00 pm Vary foods and fluids as outlined above

Week 5 – 6: SOFT CHOPPED SOLIDS PHASE

GOAL: +48-64 fluid ounces, +40 - 60 grams of protein, continue vitamins

Choose soft and easy to chew foods, chopped into small pieces

- Tender meats, deli sliced meats
- Hardboiled eggs
- Low fat cheese (light string cheese, light Babybel)
- Well *cooked* vegetables
- Peeled fruits
- Soft nuts
- High fiber crackers
- Avoid bread, rice, pasta and tortillas.

Foods should be chewed to applesauce consistency.

Continue to avoid drinking and eating together.

Avoid high fat/high sugar: foods and liquids liquid

No grazing (over-snacking)

Eat protein first at all meals.

SAMPLE MENU FOR SOFT DIET

Breakfast	1 hardboiled egg 1-2 slices deli turkey	Snack (optional)	1/2 cup low fat greek yogurt 1/4 cup chopped strawberries sprinkle stevia if needed for sweetness
Lunch	1/4 cup tuna with 1 tsp low fat mayo 1-2 high fiber crackers	Snack (optional)	Light string cheese Grapes, sliced in half -OR- protein shake
Dinner	2 ounces baked chicken (no skin) 1/4 cup fork tender carrots	Snack	1/4 cup cottage cheese 1/4 cup chopped fresh ripe peaches

Week 7 – 8: MAINTENANCE PHASE (SOLID CHOPPED PHASE)

GOAL: +48-64 fluid ounces, +60 – 80 grams of protein, continue vitamins

All foods need to be chopped into small pieces. Choose solid foods over liquids and pureeds.

- Lean grilled meats
- Fruits WITH peels on
- Raw vegetables, VERY WELL CHOPPED
- Salads and raw leafy greens, SHREDDED

Continue to avoid drinking and eating together.

Avoid high fat/high sugar: foods and liquids liquid

Eat protein first at all meals.

Foods that are cut into smaller pieces are easier to chew, especially raw vegetables and fruit peels.

SAMPLE MENU FOR MAINTENANCE PHASE DIET

Breakfast	8-11 oz Protein Shake (20-30g protein)
AM snack	¼ cup raw almonds and ½ cup chopped apple (7g protein)
Lunch	2-3oz chopped grilled chicken with ½ cup shredded romaine lettuce and 1tsp dressing (14-21g protein)
PM snack	2 Light Babybel cheese and 4 Triscuit crackers (12g protein)
Dinner	2-3oz baked Halibut and ½ cup broccoli florets (14-21g protein)
Total Protein	67-91g protein



Post-Surgery Frequently Questions, Tips, and Guidelines

Medications after Surgery

- Pain medication (usually Tylenol w/Codeine elixir) to use as needed (prescription given at discharge)
- You are to resume all pre-operative medication unless instructed differently by your surgeon upon discharge. Any medication you were taking that is larger than an M&M must be crushed, cut, or changed to liquid form during the first 8 weeks after surgery. Before altering (crushing) medications you must check with your physician first.

Recovery Instructions

When you get home, plan on taking things easy for a while. Your body is still recovering from the stresses of major surgery and weight loss occurring during the recovery period. Your activity will be restricted to no strenuous activity for 3 to 6 weeks after the operation. You may walk and perform light household duties as tolerated upon your return home. You may climb stairs. It is important to remember that you are still at risk for the development of blood clots after you are discharged from the hospital. You should not go home and sit for prolonged periods of time. Walk around for 5 minutes at a time every hour that you are awake.

Changes in Digestion

After the Sleeve Gastrectomy, you may experience changes in your bowel movements and gas. Diet intake has a major impact on these intestinal side effects. Reducing fat intake will usually have a beneficial effect on issues relating to diarrhea or loose stools. Sugar alcohols such as sorbitol, xylitol and maltitol (to name a few) can also contribute to intestinal discomfort and it is usually wise to avoid them. Diarrhea, gas and bloating may also be the result of lactose intolerance, therefore, it is best to avoid milk products as a first method of treating those side effects.



Post-Surgery Frequently Questions, Tips, and Guidelines (cont)

Hair Loss/ Skin Changes

Hair thinning or loss is expected after rapid weight loss. This is typically the result of having undergone surgery in general. However, during the phase of rapid weight loss, calorie intake is much less than the body needs, and protein intake is marginal. The body is in a state of stress, like what would happen during a period of starvation. In some patients, hair-thinning or hair loss may occur. This is temporary and usually resolves when nutrition and weight stabilize. The hair loss usually occurs anywhere from 3 to 9 months after surgery. The same reason for the hair loss can also cause changes in your skin texture and appearance. It is not uncommon for patients to develop acne or dry skin after surgery. Protein, vitamins and water intake are also important for healthy skin. You can minimize the loss of hair by taking your all of bariatric multivitamins daily and making sure that you consume at least 80 grams of protein per day. We advise patients to avoid hair treatments. If after about 9 months you start to lose hair, this can be a sign of protein malnutrition. Always make sure you're getting enough protein in your diet.

Sex/ Pregnancy

You may resume sexual activity when you feel physically and emotionally stable. Sexually active women of childbearing age will need to use birth control, as fertility may be increased with weight loss. **Oral contraceptives may not be fully absorbed.** Discuss alternative forms of birth control with your gynecologist.

Many severely obese women are also infertile because the fatty tissue soaks up the normal hormones and makes some of its own as well. However, as weight loss occurs, this situation may change quickly. You may start planning a pregnancy after 18 months, when it is safe for you to conceive. **DO NOT GET PREGNANT for at least 18 MONTHS.** It is imperative not to become pregnant before this time, since we want both you and the baby to be healthy and safe. Should you become pregnant, we ask that you arrange for your OB/GYN to contact your surgeon's office.

If, at any time, you feel as though your diet is not progressing as expected or that you may be experiencing something abnormal, please do not hesitate to call the office at 713.493.7700.

Please utilize the patient tools available through the Texas Laparoscopic Consultants website at www.tlcsurgery.com.



Complications After Surgery: CONSTIPATION

During the 1st few weeks after surgery, constipation is a common but frustrating side effect. This is due to multiple reasons: anesthesia from surgery, changes in diet and changes in physical activity. We recommend to start adding these suggestions immediately into your post-surgery recovery routine as a preventative measure against constipation. These suggestions can be easily adapted into your diet and have minimal harmful reactions to your body. If these suggestions do not help you to achieve a bowel movement, please contact our office and our medical team can further assist you.

- **HYDRATION:** Stay hydrated with 64oz or more of water/low calorie-low sugar beverage. Keep drinking every day to keep your urine very light yellow or clear.
- **FIBER:** Aim for 25-30grams of fiber daily.
 - Full Liquid Phase: Try smooth pureed veggie or bean soups (black bean, pea, lentil soups), 8oz “light” prune juice per day
 - Pureed Phase: pureed veggies and fruits, mashed beans or lentils, instant “plain” oatmeal
 - Soft Chopped Phase: high fiber crackers with more than 3grams of fiber per serving, plain bran flakes, FiberOne Original Bran Cereal (sticks, not flakes), stewed chopped prunes
 - BeneFiber Powder: 2 Tablespoons each dose, twice daily; or any non-thickening fiber powder to mix into foods or liquids (not Metamucil)
- **LAXATIVES:**
 - Smooth Move Tea 1 cup at night. This hot beverage is a caffeine free tea containing Senna, a natural gentle laxative, available at most pharmacies. This will stimulate your colon to contract and push stool through your body (stimulant laxative)
 - MiraLAX powder 1 capful dissolved into 8oz water, taken 1-2x daily. This white, clear dissolving powder is made with polyethylene glycol to help absorb water into your colon to soften your stool so it is easier to pass (osmotic laxative)
- **PROBIOTICS:** Any over-the-counter brand is safe to try (Align, Culturelle, etc.) You can open up a capsule and mix the probiotic powder into any non-dairy foods (applesauce, oatmeal, etc.) There are many different strains of bacteria that may help relieve GI issues. Bariatric Advantage has a chewable probiotic (Chewable FloraVantage Probiotic: available at TLC office as well)
- **PHYSICAL ACTIVITY:** Daily walking for at least 30 minutes can help stimulate your bowels to move
- **RE-POSITION YOUR SQUAT:** Squatty Potty toilet stool helps to re-align your bowels while you sit on the toilet, allowing for easier passage of stool through your colon.
- Contact TLC Clinic 713-493-7700 to discuss medications



Complications After Surgery: DIARRHEA

Diarrhea or loose stools are a common frustration after bariatric surgery (Sleeve Gastrectomy, RNY Gastric Bypass and Duodenal Switch). This may be due to multiple reasons: too much fatty foods and sugar in the diet, processed starches that digest into sugar quickly, undigested food passing through too rapidly, sugar alcohols, lactose intolerance with dairy products, and antibiotic usage. With prolonged diarrhea, this can lead to more severe complications such as dehydration and critical protein/vitamin/mineral deficiencies.

- **REST:** Allow your GI tract (stomach and intestines) to rest by drinking +64oz of clear liquids only for 2-3 days: water, decaffeinated tea/herbal tea, Propel Fitness Water, Vitamin Water Zero, regular sodium broth (not low sodium), Pedialyte AdvancedCare Plus.
- **FAT:** Reduce the amount of fatty foods in your diet. Fats do get absorbed properly due to an altered GI tract and can cause irritation in the colon.
- **SUGAR:** Avoid concentrated sweets (desserts, fruit juice, sugary beverages and sauces).
- **PROCESSED CARBOHYDRATES:** Reduce eating low fiber foods that quickly turn into sugar (white rice, white flour pasta and crackers and bread, skinless potatoes).
- **FIBER:** Look for +3 grams of fiber per serving of food (beans, plain bran cereals, whole wheat crackers, plain oatmeal)
- **SUGAR ALCOHOLS:** Read the food labels and avoid sugar alcohols (erythritol, mannitol, xylitol, especially sorbitol). These are typically found in many “sugar-free” or “diet foods” like protein bars, sugar free desserts and dressings.
- **CHEW WELL:** Slow down when eating. Chop your food into nickel size pieces. Take one small bite at a time and chew each bite until it is mush.
- **LACTOSE INTOLERANCE:** Eliminate dairy (cow’s milk, cheese, yogurt, cottage cheese, whey/casein protein products). Choose plant-based protein products instead.
- **PROBIOTICS:** Consider taking probiotic pills to establish good bacteria in your GI tract. Strains of bacteria vary from brand to brand so you may need to try out different products to find one that works. Align, Culturelle, Bariatric Advantage FlorVantage, and Celebrate Vitamins Balance are some suggested brands.
- **MEDICATIONS:** Discuss with TLC clinic staff if it is OK to use a dose of Imodium (Loperamide) or Lomotil (Diphenoxylate and Atropine) at bedtime. Available over the counter, these medications can decrease the number of morning bowel movements or delay being awakened at night due to the sudden urges of diarrhea.
- If severe diarrhea persists, call our TLC office 713-493-7700 to determine if more medical attention or other medications are needed.