



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

Laparoscopic Duodenal Switch reduces the size of the stomach to approximately 25% of its original size. The procedure is both restrictive and highly malabsorptive, 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 intake of food 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 containing Iron and high amounts of Vitamin A, D, E and K.
- 2000-2500mg 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 1/4 cup pureed vegetable

1:00 pm 4 oz protein supplement

2:00 pm 1 oz low fat cottage cheese and 1/4 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**

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

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 Asked 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 Duodenal Switch, you may experience frequent soft bowel movements - up to 4-6 per day. You may also experience frequent passing of foul-smelling gas, gas pains or bloating, or intolerance of certain foods. 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.

### **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](http://www.tlcsurgery.com).**