



LAPAROSCOPIC DUODENAL SWITCH POST-SURGERY DIET 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.

There are four stages to the post-surgery diet. The diet will transition from liquids to purees to solids. Upon reaching the final stage, your diet will consist of small, low-fat, low-sugar meals to be eaten over a 30-minute time period. Fluids will be important for hydration throughout each stage of the diet progression, therefore a goal of 48-64 oz. fluids daily is recommended.

Call dietitian (713-493-7700) if you have questions about diet, supplements and vitamins.

POST-SURGERY DIET PROGRESSION

	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
			45 - 60 grams protein daily
DAYS 15 - 30	PUREED DIET		48 - 64 oz fluids daily
			(food is applesauce or baby food consistency)
			+60 grams protein daily
			Bariatric Multi-vitamin w/ ADEK (chewable)
			1800-2400 mg Calcium Citrate (chewable)
			18-36 mg Iron (chewable)
			B-Complex (take 1 daily)
DAY 30 (slowly progress to regular diet)	SOFT DIET [LOW FAT, LOW CARBOHYDRATE]		48 - 64 oz fluids daily
			(food should be chewed to applesauce or baby food consistency)
			+60 grams protein daily



Duodenal Switch Stage One: Day 1 & Day 2

STAGE I: CLEAR LIQUID 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 and cause an obstruction). Breath freshening alternatives are sugar free breath strips or liquid breath freshener drops.

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). In some cases you will need to 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.

This is what you can do in order to prevent dehydration:

- Buy a sports bottle and take it with you everywhere so you can sip water all day
- Drink at least 48 to 64 ounces of fluids per day. Increase this amount if you are sweating.



Duodenal Switch Stage Two: DAYS 3 - 14

STAGE 2: FULL LIQUID DIET

GOAL: 48-64 ounces of fluids; 60 grams protein daily

Sip slowly - no more than 8 ounces of any fluid per hour

Avoid fruit juices or sugar-sweetened beverages

Protein Supplements: 20-25grams protein, less than 5grams sugar, less than 250calories

Isopure Protein Powder, Bariatric Advantage Meal Replacement Powder

Ready to drink shakes: Optisource, EAS Myoplex Light, GNC Lean Shake 25

Other Acceptable Fluids: less than 5 grams of sugar

Any clear liquid listed in Stage 1

Low sodium V-8 juice (NO fruit juice)

No sugar added/sugar-free, fat free fudgicles

Skim, 1-2% milk

Fat free cream soups thinned with skim milk (strained, no bits)

Fat free/low fat greek plain/vanilla yogurt

Sugar free pudding made with skim milk

Protein powder may be added to foods or beverages to increase protein content during consumption (do not add to very hot foods)

Sample Meal Plan for **Stage 2:**

8:00 am	4 oz protein supplement
9:00 am	4-8 oz sugar free liquid
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



Duodenal Switch Stage Three: DAYS 15 - 30

STAGE 3: PUREED FOODS STAGE

GOAL: 48-64 fluid ounces and at least 60 grams of protein

Foods in this stage are the consistency of applesauce. Mash foods very well, 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 30 minutes

No fluid with meals or 30 minutes after eating. Drinking while eating may cause an early fullness, nausea and/or vomiting

EAT PROTEIN FIRST - start with 1 ounce and increase gradually to 2 ounces

Do not skip meals.

No straws or carbonated beverages

DO NOT CHEW GUM - if swallowed, it could cause an obstruction

High Protein Foods:

Fish (mashed very well). Avoid beef/pork/chicken/shellfish unless pureed in blender

Fat free/light/carb control Greek plain/vanilla yogurt

Soft scrambled eggs, mashed hardboiled eggs with fat free mayonnaise

Fat-free refried beans (may add chicken broth to moisten if needed)

Low-fat or Fat-free plain cottage cheese

Sample Menu for **Stage 3:**

8:00 am 6 oz yogurt

9:00 am 4 oz protein supplement

10:00 am 8 oz fluids

Noon 1 oz mashed fish (gradually increase to 2 oz) 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 outline above

Protein powder may be added to pureed fruits and vegetables to help increase protein in diet if needed.

- Vitamin Supplements are to be taken daily in evenly divided doses throughout the day.
 - Supplement recommendations
 - Bariatric Multi-vitamin w/ ADEK
 - Chewable Calcium Citrate (1800-2400 mg/day)
 - 18 -- 36 mg chewable Iron (may be included in multi-vitamin)
 - B-Complex vitamin (take 1 daily)



Duodenal Switch Stage Four: DAY 3 I, advance as tolerated (Maintenance Diet)

STAGE 4: SOFT SOLIDS PROGRESSING TO REGULAR DIET

GOAL: 3 meals and 2-3 small snacks daily (48-64 oz. fluids; 60-80 grams of protein daily)

Foods should be chewed to applesauce consistency.

Protein (Meat/Meat Substitute): 2-3 oz./meal; 1-2 oz./snack

Vegetables: 2-3 servings daily (1/4 cup, 1/2 piece = 1 serving)

Starches: 2-3 serving daily (1/4 cup quinoa, 2-3 high fiber crackers)

Avoid high fat/greasy/fried foods limit fats.

EAT SLOW AND CHEW WELL

Avoid liquids with meals. Wait 30 minutes after you eat.

Avoid liquid calories (juices, smoothies, sweet coffee/tea drinks, etc.)

No grazing (over-snacking)

Eat protein first at all meals.

Introduce fresh fruits/vegetables and shredded salads slowly (start with canned fruits and well cooked vegetables).

Avoid bread, rice and pasta for 6 months

Avoid alcohol for 6 months

We recommend that you introduce new foods one at a time while beginning Stages 3 and 4 of the diet to ensure that you are able to tolerate that food item. If you develop food intolerance, discontinue that food for a week or two and then reintroduce it again. Keep in mind that for some patients certain food intolerances may be permanent.

REMEMBER: It is still possible to over stretch your pouch, so watch your portion sizes. Also continue to limit fats, sweets, and sugar intake to maximize your weight loss and maintenance.

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



Post Surgery Frequently Asked Question, 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.

Many patients benefit from the addition of probiotics to assist in replenishing the intestine with healthy bacteria. Probiotics are available at www.tlcsurgery.com. Click on e-store, then Bariatric Advantage.



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 panic, 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 multivitamin daily and making sure that you consume at least 60 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. 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.