



Post WLS Diet

Stages 1, 2, & 3

Medical Disclaimer: The information provided on this handout is intended for patients enrolled in the NSHA Bariatric Surgery Program. The information should ONLY be used in consultation with the NSHA Bariatric Surgery team.



Introduction

It is important you keep this handout as a reference and bring it with you to the hospital.

This booklet has been designed to help you, your family, and your close friends start learning about nutrition for weight loss surgery. In order to be successful losing weight and keeping it off, you must learn how to modify your eating behavior permanently. The primary objective is to maintain good nutrition, facilitate safe and sustained weight loss, and nurture independence toward a healthier lifestyle.

The surgery is only part of the treatment. These diet stages are different than any other diet you may have followed in the past. It will progress through a series of five stages: the first four lasting a total of eight weeks. The Bariatric Surgery Team has designed each diet stage to provide nutrition consistent with recovery, healing, and tolerance. You will begin Stage One and proceed to Stage Three while in the hospital. You will be discharged from the hospital on Stage Three and continue that stage at home for **four weeks**. During your first appointment, four weeks after surgery, you will be evaluated to determine if it is medically safe to advance your diet and detailed Stage 4 information will be reviewed.

Post Sleeve Gastrectomy - Diet Progression

(Progression may vary slightly with each individual)

Location and Schedule	Stage	General Description	Duration
<ul style="list-style-type: none"> Starts after surgery IV fluids will be given until tolerating sips of water with a target of 1 oz per hour 	1	Water <ul style="list-style-type: none"> 1 oz per hour Sipped 	1 day
<ul style="list-style-type: none"> Completed in the hospital 	2	Clear Fluids <ul style="list-style-type: none"> Low sugar, decaffeinated, non-carbonated Sip slowly & progress to 2-4 oz per hour Clear soup broth, juice, "Boost juice", Jell-O 	1 day
<ul style="list-style-type: none"> Getting ready for discharge You will be introduced to Stage 3 and evaluated for tolerance. 	3	Full Fluids <ul style="list-style-type: none"> Low sugar, high protein Drink slowly & progress to 4-8 oz per hour Carnation Instant Breakfast, Boost, Ensure, milk, strained creamed soup, smooth yogurt 	4 weeks
<ul style="list-style-type: none"> Home Starts 4 weeks after surgery 	4	Soft Food <ul style="list-style-type: none"> Slowly introduce soft or lean pureed/ground Scrambled egg, soft-cooked vegetables, soft-cooked fish No bread, rice, pasta, or raw vegetables yet 	4 weeks
<ul style="list-style-type: none"> Home Starts 8 weeks after surgery 	5	"Normal" <ul style="list-style-type: none"> Lean meat, fish, & poultry, fresh fruit & veggies, whole grains & legumes, healthy fat, and low-fat dairy Continue with protein powder as needed to meet 60 -80g protein daily 	Lifetime

Goal # 1 - Fluid Intake

2 to 4 L = 64 to 128 oz fluid = 8 to 16 cups daily

- Fluid is an essential nutrient needed every day for normal body functioning
- Drinking adequate fluids helps to prevent hunger
- Generally, women aim for 2-3 liters (64-96oz) and men 3-4 liters (96-128oz) per day
- Signs and symptoms of dehydration: unquenchable thirst, dry mouth, lightheadedness, headache, muscle cramps, ears ringing, chronic fatigue (although fatigued is normal following major surgery)
- “Catch up” on water intake is almost impossible after surgery
- Monitor your urine output to make sure you are properly hydrated
- You may not be well hydrated if:
 - Your urine is dark in color
 - Your urine has a strong odor
 - You are urinating less than four times per day and/or only in a small quantity (less than one cup)
- Normal urine color is usually darker in the morning and lighter as the day goes on
- Vitamins can darken the color of your urine
- Avoid caffeine as it will irritate your new stomach wall

Goal # 2 - Protein Intake

60 to 80g protein daily

- Protein is essential for body growth, development, and healing
- Protein promotes weight loss
- Protein decreases hunger
- Aim for 60 to 80 grams per day
- It may take you one to two weeks to work up to this goal
- Your protein intake will be assessed during your first follow up appointment by the dietitian
- The point of the surgery is to promote fat loss not muscle loss and lean muscle tissue burns more calories. Protein will help to protect your muscle tissue.
- Low protein intake may contribute to hair loss or thinning.

Goal # 3 – Calorie Target

600 to 800 calories daily in Stage 3

- Weight loss occurs when calories **in** minus calories **out** is negative
- Your body uses calories to conduct its daily functions and provide energy
- In the first four weeks we anticipate you will be able to consume approximately 600 to 800 calories daily
- Over time your fluid and food tolerance will improve, and your dietitian will adjust your calorie goals accordingly

Progression of Stages 1 through 3

Immediately Following Surgery

- You will be “NPO” which, simply means that you will not receive any food or drink by mouth.
- You will receive intravenous fluid to keep you well-hydrated and moist swabs to prevent mouth dryness.
- You will begin Stage One when you become more alert, when it is determined that your stomach and intestines are showing signs of normal activity and after your “swallow x-ray”.

Stage 1: Water

- Completed in hospital
- Lasts one day or less
- 1 oz (30 cc) of water per hour in a medicine cup
- Sip slowly and stop sipping if you start to feel uncomfortable



Stage 2: Clear Fluids

- Completed in Hospital
- Lasts one day or less (Stage 2 helps to stimulate digestive function)
- 2-4 oz of clear liquids per hour (non-carbonated, decaffeinated, low sugar)
- In-hospital fluid choices include water, broth, Jell-o, juice, Resource or Boost clear liquid supplement (these are NOT the regular meal replacement products)
- Use a 1 oz medicine cup to prevent gulping and drinking too fast
- Sip slowly and stop sipping if you start to feel uncomfortable

Stage 3: Full Fluids

- Started in the hospital
- Continued at home for 4 weeks
- **Do not** self-advance your diet
- Stage 3 is only liquids with no lumps: high quality protein, low fat, low sugar.
- Protein choices can include Glucerna, Boost, Ensure, Carnation Breakfast Essentials, milk-based soups, dairy products, and protein powder
- Increase to 4-8 oz per hour to achieve 60 – 80 grams of protein and a total of 8 cups of fluid daily.
- It may take up to two weeks to achieve this.

Vitamins and Minerals

- You will need to take a daily adult multivitamin-mineral supplement for the rest of your life
- Depending on your past medical history, and blood work you may need additional vitamins and minerals.
- Your Weight Loss Surgery team will review your needs and make personalized recommendations
- Once you are home from the hospital start with one chewable multivitamin per day (Flintstones Complete, Centrum Chewable, or a comparable brand)
- One month after your surgery, progress to one adult complete supplement per day. This does not need to be chewable.
- Other supplements that the Weight Loss Surgery team may suggest include:
 - Calcium with Vitamin D to prevent bone disease
 - Vitamin B12 for the nervous system function
 - Iron to help produce blood cells
- These recommendations will be made at your follow-up appointments based on your blood work and food intake.

Adjustments for Diabetes

- You will be discharged from the hospital on Stage 3, but you must carefully monitor and record your blood sugar levels.
- This will provide pertinent information to your diabetic doctor and surgery team so that your medications can be adjusted accordingly.
- The goal is to prevent your blood sugar from getting too low or too high.
- Aim for safe levels (generally 4-7mmol/l).

SIGNS OF LOW BLOOD SUGAR	SIGNS OF HIGH BLOOD SUGAR
Excessive sweating, faintness Low blood sugar less than 4 Headache/irritability Pounding of heart Excessive hunger Slurred speech	Increased thirst and urination Elevated blood sugar Weakness Fatigue Loss of appetite or increased appetite

Important Information

- Taste test Stage 3 foods such as Boost, Ensure, Carnation Instant breakfast and protein powder recipes prior to surgery
- Do not use straws in Stage 3 as they may cause gas and fill you up.
- Keep fluid by the bedside, on your desk, in your car, and in your purse/bag
- Remember flavored water, gelatin, ice pops, and broth all count towards your fluid goal
- Keep a daily journal to track your exercise, food/beverages, including fluid & protein intake. See the *Progress Tracking Apps* handout.

Stage 3 Food & Beverage Suggestions

Beverages

- Low sugar, decaffeinated, non-carbonated fluid
- Water, Crystal Light, Wyler's light, Fruit 2 O, sugar free Kool Aid, Minute Maid Light, Tropicana Light, Welch's Low Cal, Diet Ocean Spray

Protein supplements

- protein powder smoothie with fruit
- Commercial complete meal replacements
- Ensure, Carnation Breakfast Essentials, Boost, Glucerna, Premier Protein, Sperrin
- See more information on protein supplements in the *Protein Sources Information* handout

Dairy Products

- Skim or 1% milk, Skim or 1% Lactaid, unsweetened soy milk, or rice milk
- **Smooth** low fat, light yogurt (no solid pieces)
- Should contain less than 1% MF
- Sugar-free, fat-free pudding, low-fat, sugar free custard (Jell-O, Hunt's, SnackPack)
- Part skim ricotta cheese or low-fat cottage cheese, pureed
- You can add a little milk when pureeing if fluids are too thick

Soup (canned or homemade)

- Strained or blended low-fat cream soups
- Pureed, broth-based soups
- Must not contain rice, potatoes, or noodles

Other Nourishment

- Thin (able to pour) low sugar hot cereals (Cream of Wheat)
- Sugar free ice pops (Popsicles)
- Unsweetened applesauce
- Sugar free gelatin (Jell-O, Hunt's, SnackPack)
- Dried skim milk powder (Carnation)

Protein Score Sheet

- Add up your protein intake every day.
- Your goal is 60-80 grams daily by the end of one or two weeks.
- Look into protein powders sold in pharmacies or health food stores.
- Choose one that has 18-24 grams of protein per scoop and no more than 120 calories.
- It is always best to read the nutrition fact label.
- The nutrition values below are estimates.

Food/Beverage	Portion	Protein (g)
water or flavored water	-	0
skim and 1% milk (Lactaid too)	1 cup	8
low fat, Light yogurt	6-8 oz	5-8
low fat, Light yogurt smoothies	8 oz	6
sugar & fat free pudding (mixed w/ milk)	4 oz	4
whipped low fat cottage cheese	4 oz	12-16
part-skim ricotta cheese	¼ cup	8
low fat cream soups, made with milk	½ cup	3
low fat broths	1 cup	1
thinned hot cereals	1 cup	3-5
sugar free ice pops	1 pop	-
unsweetened applesauce	4 oz	-
sugar free gelatin	4 oz	1
egg white powder	2 tsp	3
dried skim milk powder	1/3 cup	8
protein powder	1 scoop	20-24

Flavor Tips

- Warm chocolate protein supplement in microwave to have a hot cocoa like drink
- Blend protein supplement with crushed ice to make a frosty
- Make your own soup and blend to a liquid (chicken vegetable, lentil soup)
- Try a homemade “Egg Drop” Soup: bring 1 cup of broth to a boil. Add ¼ cup “Just Whites” (liquid or powder) and whisk/stir well.

Hi-Pro Jell-O

Use Sugar Free Jell-O

Follow directions for preparation of a 4 oz/4 servings box of Sugar Free Jell-O, any flavor

Follow package directions for dissolving Jell-O in boiling water.

Measure 1/2 cup of cold water.

Add two scoops of Unflavored protein powder to cold water, one scoop at a time, stirring slowing to dissolve.

Add ice to water with protein powder to equal one cup.

Stir protein powder with ice into dissolved Jell-O until ice has melted

Place in freezer for at least 30 minutes to chill quickly.

Important Comments:

The protein will settle somewhat toward the bottom, but the taste is unchanged.

If you like this recipe with Unflavored, you might also like it substituting the Vanilla protein powder

1 cup Jell-O as prepared has 20 grams of protein

Hi-Pro Yogurt

For Plain Yogurt use Vanilla protein powder

Put about half of a 6-ounce container of yogurt or all of a 4-ounce container in a small bowl.

The first time you try this recipe, mix in 1/4 or 1/3 scoop protein powder. Stir until well blended.

If this works well, the second time you might experiment with 1/2 scoop.

Diet V-8 Splash

Pour 6-8 ounces of Diet V-8 Splash in a large glass

Mix one scoop of protein powder in the Diet V-8 Splash until blended

Protein: 20 grams

Proteina Colada

Mix one scoop Vanilla protein powder with 8 oz Skim Milk

Add 2 drops Imitation Pineapple Extract, and

And 2 drops Imitation Coconut Extract

Adjust to taste.

Protein: 20 grams per serving

High Protein Hot Cereal Recipe

1 cup hot cereal (instant, unsweetened cream of wheat, oatmeal)

1/3 cup unflavored protein powder OR use 1/4 cup egg white powder

1/3 cup of milk

Flavorings: spice (cinnamon or nutmeg), sugar substitute (Splenda), sugar free syrup to taste

Directions: Prepare hot cereal according to package directions. Mix protein powder into 1 cup of cooked cereal, add milk to thin down to yogurt consistency. Add spice, sugar substitute, and/or sugar free syrup to taste.

Yield = two servings with ~15 grams of protein per serving

Post-WLS Stage 3 Sample Diet

THE STAGE 3 DIET IS TO BE FOLLOWED FOR 4 WEEKS POST WLS

For 4 weeks after surgery, you will need to:

- Consume only liquids (must pour like milk – no lumps), to allow your new stomach to heal and adjust.
- Keep well hydrated with 8 or more cups of total fluids daily.
- Sip fluid every hour that you are awake.
- Consume 60 to 80 grams protein daily.
- Take a daily chewable multivitamin-mineral supplement.
- You will only be getting 600 to 800 calories daily for these first 4 weeks, so be sure everything is a nutritious choice.
- Add up your fluids and protein every day. Keep a journal of this information.

Example: Simplified Typical Day

8AM	8 oz protein drink
9AM	4-8 oz water
10AM	4 oz or 1 small tub of yogurt
11AM	4-8oz water
NOON	8oz protein drink
1PM	4-8 oz water
2PM	8 oz 1% milk, soymilk, or reduced lactose milk
3PM	4-8 oz water
4PM	8 oz sugar free gelatin
5PM	8 oz protein drink
6PM	8 oz milk-based soup
7PM	8 oz decaf tea (if desired)
TOTAL	Approximately 60 grams of protein and 8 to 9 cups fluid

**Protein intake will vary depending upon protein supplement choice.*

Example: Detailed Typical Day

8AM	1 protein smoothie (see recipes on website)
9AM	4-8 oz water
10AM	4 oz pureed low-fat cottage cheese with applesauce
11AM	4-8oz water
NOON	1 cup of pureed fish chowder
1PM	4-8oz water
2PM	8 oz low fat, light yogurt
3PM	1 cup broth mixed with 1 scoop unflavored protein powder
4PM	8-16 oz water (over 2 hours)
6PM	Carnation Breakfast mixed with 8 oz 1% milk
8PM	8 oz crystal light
TOTAL	Approximately 65 grams of protein and 10 cups fluid

Post-WLS Stage 3 Sample Diet

The following is a detailed example menu of the one month of fluids you will consume **after** your surgery; also called the **Stage 3 Diet**. All liquids need to be sipped slowly. This menu contains the 60 grams of protein and the 8 cups of liquid that you need.

Breakfast	1 protein drink with at least 20 grams of protein Options: Smoothie 1cup Premier Protein Shake 1 cup Boost High Protein Shake 1 cup Ensure Protein Max Shake	120cal + 22g pro 250cal + 20g pro 112cal + 22g pro
Throughout the Morning	¼ cup of pureed low fat cottage cheese, mixed with ¼ cup applesauce 1 cup (8 oz) water	57cal + 6g pro
Lunch	1 cup soup made with milk Options: cream of tomato pureed cream of chicken pureed fish chowder	110cal + 3g pro 268cal + 15g pro 203cal + 26g pro
Throughout the Afternoon	½ cup yogurt 2 cups water	78cal + 4g pro
Supper	1 protein drink with at least 20 grams of protein Options: Smoothie 1cup Premier Protein Shake 1 cup Boost High Protein Shake 1 cup Ensure Protein Max Shake	120cal + 22g pro 250cal + 20g pro 112cal + 22g pro
Throughout the Evening	2 cups skim	160cal + 16g pro