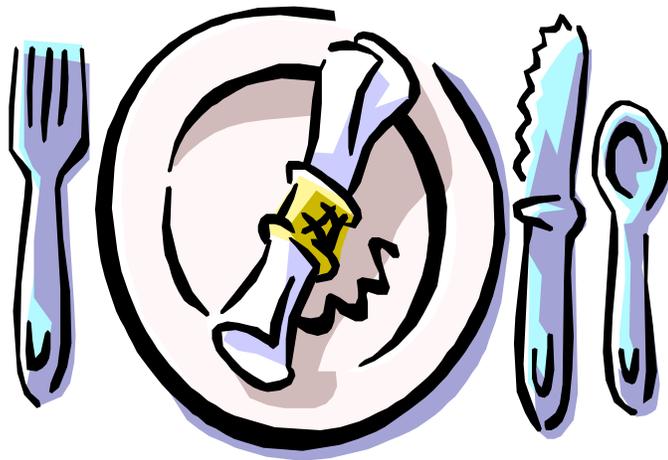


Synergy Bariatrics

Diet Progression after Bariatric Surgery (Post-Op Nutrition)

A Practical Guide for Patients



Dr. Christina Sanders

30 N. Union Rd. Suite 104
Williamsville NY 14221
Phone: (716) 565-3990
Fax: (716) 565-3988

Weight Loss Surgery Nutrition Guide

This guide will help you to make healthy food choices to ensure adequate nutrition from the reduced amounts of food and liquids you eat and drink after weight loss surgery (WLS). The diet progression specifically describes how to eat and drink for the 4-6 weeks after surgery, starting with liquids and moving on to solid foods over this time frame. You will learn how your diet should evolve over the next 6 weeks to ensure successful weight loss long term.

Diet Progression: The purpose of the diet progression is to allow adequate healing and recovery of the digestive tract after surgery. During the diet progression, textures of food eaten increase from liquid to pureed/soft foods as swelling decreases, allowing the food to pass through easier. Your goals include the following:

- Avoiding dehydration with adequate fluid intake.
- Preservation of lean muscle with adequate nutrition at each stage of recovery, focusing on protein.
- Preventing adverse side effects such as nausea, vomiting, discomfort and pain.
- Preventing specific nutrient deficiencies with adequate vitamin/mineral supplementation.

In addition for gastric bypass patients:

- Preventing adverse side effects such as “dumping”.

The Four Stages/Textures of the WLS Post-Op Diet:

1. CLEAR LIQUIDS
2. LOW-FAT FULL (CREAMY) LIQUIDS
3. PUREED/SOFT FOODS
4. HEALTHY SOLID FOODS (HIGH PROTEIN/LOW FAT/LOW SUGAR)

Note: Through all stages, if at any point you experience occasional vomiting after eating, diarrhea or cramping go back to the liquid stages and progress once symptoms subside. If symptoms continue and/or become more severe, call Synergy Bariatrics at (716) 565-3990.

Stage 1 – Clear Liquids

You will be on clear liquids in the hospital. You will continue clear liquids at home using them as your fluid source to avoid dehydration and will incorporate them with the next stages of the diet progression.

Recommended Liquids:

- Water (Preferred fluid source: Get at least 24-32oz. per day with the rest of needs met with other sources listed below)
- Decaf Coffee & Tea (In moderation)
- Gelatin (Preferably sugar-free)
- Popsicles (Preferably sugar-free)
- Clear broth (Preferably low-sodium)
- Sugar-free drinks (Ex: Crystal Light™, Propel™, Sugar-Free Kool-Aid™, Fruit²O™)
- Diluted 100% fruit juices (half water/half juice)
- Sugar-free sweeteners (Ex: Stevia™)

1. Clear liquids should be consumed in small amounts. Try to consume 1oz of clear liquid every 15 minutes during waking hours to prevent dehydration. **STOP** drinking if you feel full.
2. **WORK UP TO A DAILY GOAL OF SIX TO EIGHT 8oz. CUPS (48-64oz.)** for adequate hydration. Check the color of your urine. If it's a dark golden color you're not getting enough fluid. If it's light yellow your intake is good.
3. If you experience pain, nausea, or vomiting stop drinking. Wait a few hours and try again. **Extreme temperatures of liquids can also cause these symptoms (especially too cold).**

Liquids to Avoid:

- **Concentrated sweets/sugar added:** To prevent “dumping syndrome” in gastric bypass patients and prevent weight regain in the future.
- **Carbonation:** Because the carbonation process has been shown to take calcium away from bone stores and can contribute to excess gas.
- **Caffeine:** To slow down digestion during the diet progression. This in turn will promote healing. May be incorporated back in at Stage 2.
- **Alcohol:** Practice extreme moderation with intake due to the changes in alcohol metabolism; increased blood alcohol levels occur more rapidly after surgery.

Note: Through all stages, if at any point you experience occasional vomiting after eating, diarrhea or cramping go back to the liquid stages and progress once symptoms subside. If symptoms continue and/or become more severe, call Synergy Bariatrics at (716) 565-3990.

Stage 2 – Low Fat Full Liquids

You will be sent home from the hospital on Low Fat Full liquids. Stay on this stage **until your first post-op visit** (7-10 days), after you finish your clear liquid stage. **Date of your first post-op appointment:**_____.

Low Fat Full Liquids:

- All tolerated Clear Liquids from Stage 1
- Skim or 1% milk
- “Double-strength” milk (see recipe below)
- **Light Soy or Unsweetened** Almond Milk
- Lactaid® or Fairlife® 1% or fat free or skim milk (if lactose intolerant)
- Fat-free half & half
- Low-fat/Fat-free cream soups – strained (you can add protein powder)
- Thinned Cream of Wheat™, Ferina™ or grits (you can add protein powder)
- Low-fat or nonfat/low-sugar or light yogurts (without seeds or fruit pieces)
- Low-fat or nonfat/sugar-free pudding (you can add protein powder)
- Protein drinks/shakes (low-calorie/low-sugar)

PROTEIN:

Strive toward a **daily goal of at least 60 grams per day** by adding an unflavored protein powder or nonfat powdered dry milk to increase the protein content of liquids and thickened liquid foods eaten. Try the ideas below to help you reach your goal.

- Make shakes, cereal and pudding with “double strength” milk to boost the protein content. **RECIPE: Double Strength Milk** = 1 cup skim or 1% milk mixed with 1/3 cup nonfat dry milk powder.
- Sprinkle unflavored whey protein powder into food and drinks during the day to increase your protein consumption without increasing the volume of the food consumed.

FLUID:

Sip clear liquids throughout the day. Attempt to consume 1oz of a clear liquid every 15 minutes throughout the day to ensure adequate fluid intake and hydration. In addition, attempt to consume 2-4oz of full liquid every 2-3 hours.

SAMPLE SCHEDULE FOR STAGE 2: Try to get in at least 10 grams of protein per meal or snack to assist in consuming at least 60 grams of protein per day.

8:00 AM ½ cup Cream of Wheat (with unflavored collagen peptides)	3:00 PM ½ cup fat-free, sugar free pudding (with unflavored collagen peptides)
10:00 AM ½ cup nonfat Greek yogurt	5:00 PM 4oz Protein Shake
12:00 PM 4oz Protein Shake	8:00 PM ½ cup nonfat Greek Yogurt

This sample meal plan will provide you with at least 60 grams of protein.

STAGE 3 – PUREED/SOFT FOODS *Start Bariatric Vitamin

Stay on this stage for 9 days. For the first 1-2 days follow the pureed recommended foods below. After 1-2 days on pureed foods you can begin to include soft foods. Make sure to chew soft foods well. Chew foods until they are pureed before swallowing. This will help with tolerance of soft foods.

If full liquids are tolerated the diet may advance to include pureed/soft foods. This stage includes pureed and soft high-protein low-fat foods such as tender lean meats, meat alternatives like tofu, low-fat dairy products like cottage cheese and scrambled eggs. It is important to make sure that all foods are blenderized or extremely soft and smooth in texture. Any healthy food choice can be blenderized with a small amount of liquid such as milk, water or broth. Protein powder or dry milk powder can be added to foods that are soft but do not contain protein such as applesauce or mashed potatoes.

Recommended Foods:

Pureed (1-2 days):

- *All foods and beverages in Stages 1 and 2
- *Tender cooked vegetables, blenderized
- *Unsweetened fruits, blenderized
- *Unsweetened applesauce
- *Mashed potatoes, no fat added
- *Baby food

Soft (1 week):

- *Eggs, soft scrambled or poached
- *Low fat cottage cheese
- *Low fat cheese (mozzarella sticks)
- *Canned chicken, turkey, tuna, crab or salmon
- *Baked or broiled fish
- *Ground meat or poultry
- *Cubed seedless melon, banana slices, avocado

PROTEIN:

Continue to strive toward a daily protein goal of 60-80 grams PER DAY by adding protein powder or dry milk powder to foods that do not contain protein such as fruits and vegetables like applesauce or mashed potatoes.

- Focus on protein foods FIRST! Then you can eat other foods listed.
- Listen to your body – STOP when you feel full.

FLUID:

Your daily fluid goal is 48-64oz. from water and low-caloric beverages.

- Carry a water bottle with your favorite low-sugar/low-calorie beverages with you everywhere.
- Sip fluids slowly to avoid discomfort.
- **Avoid drinking too much with meals.** Small sips of liquids are OK.
 - Drinking too much water during meals can interfere with the natural levels of bile and acid in the stomach, slowing digestion. Reducing the ability of the digestive enzymes to properly digest foods could cause a build-up of toxic waste in the body.
 - Some patients may need to separate food and fluid based on what they are able to consume. If you are unable to consume adequate amounts of protein at meals and snack you may need to separate food and fluid.

***Take your bariatric vitamin every day.**

STAGE 3 – PUREED/SOFT FOODS *Start Bariatric Vitamin

7:00 am	8 oz water
8:00 am	2-4 oz low fat (1-2%) cottage cheese (plain)
9:00 am	8 oz water, tea or coffee
11:00 am	2-4 oz unsweetened applesauce with 1/3 scoop of unflavored protein powder
12:00pm	8 oz water
1:00 pm	2 oz pureed canned tuna 1-2 tbsp mashed potatoes or unsweetened applesauce (add unflavored protein powder if additional protein needed)
2:00 pm	8 oz Crystal Light®
4:00 pm	4-6 oz fat-free vanilla Greek yogurt or sugar free pudding with ½ scoop of protein powder
5:00 pm	8 oz water with lemon
6:00 pm	2 oz pureed canned chicken 1-2 tbsp pureed sweet potato or mashed potato
7:00 pm	1 sugar free popsicle
8:00 pm	8 oz water

7:00 am	8 oz coffee or tea (artificial sweetener is acceptable)
8:00 am	1 scrambled egg or 1 oz of low-fat cheese or ¼ cup 1-2% cottage cheese with 1-2 Tbsp banana
9:00 am	8 oz water, Crystal Light® or other beverage without carbonation or sugar
10:00 am	8 oz skim/1% milk/unsweetened almond milk with 1 scoop whey protein powder
11:00 am	8 oz water
12:00 pm	2-3 oz tuna fish (made with low-fat/light mayonnaise) 1-2 Tbsp unsweetened applesauce
1:00 pm	8 oz water, Crystal Light® or other beverage without carbonation or sugar
2:00 pm	8 oz water, Crystal Light® or other beverage without carbonation or sugar
3:00 pm	¼ cup 1-2% cottage cheese 1-2 Tbsp pureed fruit or 8 oz skim/1% milk/unsweetened almond milk with 1 scoop whey protein powder
4:00 pm	8 oz water, Crystal Light® or other beverage without carbonation or sugar
6:00 pm	2-3 oz chicken (very tender and moist; try in crock pot) 1-2 tbsp soft cooked broccoli
7:00 pm	4 oz sugar free Jell-O
8:00 pm	8 oz coffee or tea (artificial sweetener is acceptable)

STAGE 4 – HEALTHY SOLID FOODS (4-5 Weeks Post-Op)

Healthy solid foods start about four to five weeks after surgery.

- **Raw fruits with skins/seeds and vegetables** are usually tolerated at this point and can start to be added back into your diet approximately 6 weeks post-op. Start with one new food at a time and continue to experiment to widen variety of foods eaten.
- **“Gummy starches”** are better known as white pasta, rice and bread. For gastric bypass and sleeve patients, these foods can start to be added back at this point. However, crisp/toasted breads and crackers are usually tolerated without a problem and are appropriate sources of fiber to aid in regulating bowel function. Start with one new food at a time and continue to experiment to widen the variety of foods eaten.
- **“Tough meats”** (Roast beef, steaks, pork chops, roast pork). If it has to be cut with a knife, it’s probably too dense/dry. Cook your meats in a moist environment, or so they can be flaked apart with a fork!

While a healthy food plan includes all food groups it is important that the meal start with a high-protein food source. **Gastric bypass and Sleeve patients** should have 4-6 small meals per day with approximately 3-4 hours between them.

At this stage **liquids should be consumed between each meal**. Take small sips with meals to increase tolerance but wait 30 minutes after you eat before drinking again to avoid emptying the pouch of nutrients or filling up on fluid. Your multivitamin supplementation should continue to be part of your daily routine to avoid nutrient deficiencies in the future. The Healthy Solid Foods stage is described as follows:

- **High in lean protein** (60-80 grams per day- amount will increase as you progress) to avoid lean tissue loss with rapid weight loss.
- **Low in added sugars** (Less than 5 grams per serving) to avoid “dumping” syndrome for gastric bypass but and to avoid excess calories from high-sugar foods.
- **Low in total fat** (less than 5 grams per serving in animal products and processed foods, the exception is healthy fats) to help reduce potential for diarrhea and gas.
 - **Healthy fats should be consumed in moderation at meals (olive oil, nuts, seeds and avocado). Tolerance to fat quantity varies from patient to patient.**
- **Rich in fruits, vegetables and whole grains** (at least 20-30 grams of dietary fiber after about 4-6 weeks post-op) to aid in the return of bowel regularity and enhance nutritional quality of the diet.
 - **Soluble fiber helps to bulk stool if you are having diarrhea or loose bowel movements.**

***Serving = amount indicated on nutrition facts label**

***Portion = amount actually consumed**

Example: 1 serving of meat = 3oz. however with limited stomach pouch volume, amount eaten may be only 1oz. Therefore only 1/3 of the protein, fat, calories etc. will apply to intake.

Reintroducing a variety of foods back into your diet is very important. Individual tolerance will play a big role here. Remember to try new foods one at a time so if something does bother you, you know which food it was

<u>RECOMMENDED FOODS:</u> Healthy Food Plan	<u>FOODS TO AVOID:</u> Stage 4
<i>Meat/Dairy/Protein</i>	<i>Meat/Dairy/Protein</i>
<ul style="list-style-type: none"> *Soft scrambled/poached eggs *Egg whites/egg substitutes (Eggbeaters™) *White meat chicken (May use canned) *White meat turkey *Tuna (In water) *Broiled/baked fish *Deli meats (Low-fat) *Skim or 1% milk *Unsweetened Soy milk *Fat-free half & half *Low-fat sour cream *Light/low-fat yogurts (Dannon Light & Fit™) *Sugar-free/fat-free pudding *String cheese *Reduced fat cheeses *Low-fat cream soups *Low-fat/non-fat cottage cheese *Low-fat/non-fat cream cheese *Low-lactose/lactose-free skim milk (If lactose-intolerant) 	<ul style="list-style-type: none"> *“Tough” meats (Roast beef, steaks, pork chops, roast pork) † *Hot dogs *Bologna *Sausage *Bacon *Spare ribs *Regular cheese *Peanut Butter † *Whole milk *2% milk *Chocolate milk *Half & half *Regular sour cream *Regular yogurt *Regular pudding *Regular cottage cheese *Regular cream soup *Regular cream cheese *Heavy cream
<i>Carbohydrate</i>	<i>Carbohydrate</i>
<ul style="list-style-type: none"> *Malt-O-Meal™ *Cream of Wheat™ *Cream of Rice™ *Oatmeal *Corn/rice-based cereals (Cheerios™) *Mashed potatoes (Low-fat) *Baked potato without skin *Whole wheat bread (Toasted) *Whole wheat crackers (Example: Reduced Fat Triscuits™) *Low-fat granola 	<ul style="list-style-type: none"> *White bread † *Pasta † *Rice † *Sweetened cereal *High-fiber cereal † *Granola *Sweet rolls *Doughnuts *Croissants *Sweet breads with nuts or dried fruit *Pancakes/waffles & regular syrup *Popcorn † *High-fat crackers *French fries *Hash browns
<i>Vegetables</i>	<i>Vegetables</i>
<ul style="list-style-type: none"> *Tender-cooked vegetables (carrots, etc.) *Tomato juice (No more than 4-6oz./day) *V-8 juice (No more than 4-6oz./day) 	<ul style="list-style-type: none"> *Corn, peas *Fried vegetables *Vegetables in cheese sauce *Celery, baby carrots (raw) † *Vegetables with tough skins or large seeds † *Stringy vegetables (asparagus) *Lettuce †

† indicates possible “texture” problem early on

<i>Fruits</i>	<i>Fruits</i>
<ul style="list-style-type: none"> *Tender fruits without peels/seeds (Bananas, cantaloupe, honeydew) *Unsweetened soft, canned fruits *Unsweetened applesauce *Fruit juice, diluted (No more than 4-6oz./day) 	<ul style="list-style-type: none"> *Fruits with tough skins, shells or large seeds† *Dried fruits † *Fruits canned in heavy syrup
<i>Miscellaneous</i>	<i>Miscellaneous</i>
<ul style="list-style-type: none"> *Broth (Preferably low-sodium) *Sugar-free gelatin *Artificial sweeteners in moderation (Truvia) *Herbs *Spices *Lemon juice *Low-fat margarine *Low-fat mayo *Low-fat salad dressing *Sugar-free popsicles 	<ul style="list-style-type: none"> *Regular gelatin *Pies *Cakes *Cookies *Butter/margarine *Salad dressing *Nuts † *Potato chips *Corn chips *Chocolate *Ice cream *Candy *Jam/Jellies *Honey *Sugar
<i>Beverages</i>	<i>Beverages</i>
<ul style="list-style-type: none"> *Water *Decaf coffee *Decaf tea *Crystal Light ™ *Sugar-free Kool-Aid ™ *Veryfine Fruit²O ™ *“Light” juices *Diluted fruit juices 	<ul style="list-style-type: none"> *Soft drinks *Carbonated drinks of any kind *Sweetened fruit drinks *Gatorade/Snapple/SoBe *Sweetened gourmet coffees *Sweetened ice tea *Alcohol †

† indicates possible “texture” problem early on. These foods can be reintroduced into your Healthy Eating Plan over time dependent on individual tolerance. Caution is recommended with those foods that are naturally high in fat.

MODERATION IS KEY!

GENERAL GUIDELINES AFTER WEIGHT LOSS SURGERY

NUTRITION AND FLUID GOALS AT VARIOUS STAGES POST-OP:

DAILY GOALS	Less than 1 month post-op	1-6 months post-op	More than 6months post-op
FLUIDS ***to be consumed BETWEEN meals	≥48-64 ounces	≥48-64 ounces	≥48-64 ounces
CALORIES	≥ 600-800	≥800 - 1000	≥1000 - 1400
PROTEIN	≥60 grams	≥60 – 80 grams	≥80-100 grams (dependent on activity level)
CARBOHYDRATES	≥60-100 grams	≥70-130 grams	90-150 grams (depending on activity level)
FAT	15-20 grams	20-40 grams	40-60 grams
FIBER	Less than 20 grams	20-25 grams	25-35 grams

*Food journaling is always encouraged. Using paper food journals or an app like myfitnesspal or baritastic can help you keep track of your macronutrient consumption.

GENERAL GUIDELINES FOR SUCCESS:

1. **Eat 4-6 small meals snacks per day.** A meal or snack could be 2-4 ounces of protein and ¼ cup or less of a fruit, vegetable or whole grain. As your stomach pouch capacity increases, larger portions may be eaten and in between meal snacks should be reduced or stopped.

2. **Good, well-balanced nutrition is important.** Lean protein first! However, for your body to use protein properly you need to eat adequate complex carbohydrates as well. Eventually your diet will include more fruit, vegetables and whole grains.

3. **Your body needs approximately 60-100g lean protein per day.** Protein is needed for post-op healing, maintenance of body structures and preservation of muscle tissue. In the beginning you may need to eat mostly protein to achieve an appropriate daily intake.

4. **Fluids must be continually sipped all day long to prevent dehydration.** You should wait until 30 minutes after your meal to start drinking again.

5. **Eat slowly.** Chew slowly and to a pureed consistency – at least 20 times! Remember that the stomach can hold only 1-2oz. after surgery. Overeating or eating too rapidly may cause nausea/abdominal pain/vomiting.

6. **Avoid lactose if you are or become lactose-intolerant.** You may use products like soy-milk, rice-milk, Lactaid™ milk or tablets.

(GENERAL GUIDELINES FOR SUCCESS CONTINUED...)

7. **Become familiar with reading labels.** Labels are a great source of information and give you in-depth information about the product you are purchasing (such as the amount of fat, protein, carbohydrate, sugar and fiber it contains). Guidelines are as follows:

- Fat – 5 or less grams per serving in animal products (meat, cheese)
- 5-15 grams of fat per meal/snack based on patient tolerance
- Sugars – 5 or less grams of sugar per serving
 - i. The exception is yogurt and milk, keep the sugar to 13 or less grams of sugar per serving, yogurt and milk have about 8 grams of natural sugar per serving
 - ii. Try to find products with no added sugar. Sugar substitutes are OK

8. **Choose low-fat or fat-free products when available.** Fatty foods are high in calories and will hinder your weight loss if consumed in high amounts. Use caution with products labeled “fat-free” and “reduced-fat” as they may contain more sugar and/or calories than regular versions of these products.

9. **Choose sugar-free products when available.** Consuming high-sugar foods/beverages can cause a condition known as DUMPING SYNDROME in gastric bypass patients. Use caution when a product claims “no *added* sugar” or when fruit products claim “unsweetened”. These products still may contain a substantial amount of sugar identified in the ingredients list as sugar or its many forms as one of the 1st five ingredients.

10. **When cooking meats use moist-heat methods and do not overcook.** This makes them difficult to digest. Moist-heat methods include stewing, boiling, braising and steaming. You may also add small amounts of fat-free sauces to meats to make them easier to chew/swallow.

11. **Try to rule out intolerance by introducing one food at a time.** What you can’t tolerate at first may be more acceptable in a few weeks.

12. **Multivitamin/mineral supplement every day.** Here are some examples of recommended bariatric multivitamins:

Bariatric MOV Name	Serving	Cost
Bariatric Fusion- MOV chewables <i>*has calcium</i>	4 chewables per day (2, twice per day)	\$22 per month with code SYNERGY20
Bariatric Fusion 1 per day MOV capsule with Iron	1 capsule	\$14.40 for 30 days with code SYNERGY20 and purchase 90 day supply
Bariatric Advantage Ultra Solo with Iron <i>*contains vitamin K, do not take if on warfarin</i>	1 capsule	\$17.50 for 30 days with code SYNERGY and purchase 90 day supply
Bariatric Advantage Ultra Solo without Iron <i>*contains vitamin K, do not take if on warfarin</i>	1 capsule	\$16.83 for 30 days with code SYNERGY and purchase 90 day supply
Procare Health Bariatric Multivitamin with 45mg OR 18 mg iron	1 chewable tablet or 1 capsule	\$15-20 for 30 day supply
Bariatric Pal Multivitamin One with 45mg iron	1 capsule	\$30 for 30 day supply
Bariatric Choice once Daily with 45 mg Iron	1 capsule	\$29.99 for 90 day supply
Barilife <i>*has calcium</i>	6 tablets (3 tablets twice a day)	\$30.99 for 30 day supply

NOTE: It is much harder to come back from a deficiency than it is to prevent it with the right supplementation from the start.

	LEAN PROTEIN 80-100 grams per day	CARBOHYDRATE (FIBER) 90-150 grams per day ≥20-25 grams of fiber per day	HEALTHY FAT 40-60 grams per day
BREAKFAST 15-30 grams of protein** FIRST then fiber and healthy fat	eggs (and cheese) diced ham/turkey Canadian bacon poultry sausage 0% Greek yogurt cottage cheese lean ham steak	rye toast apple slices whole wheat toast bagel thin whole wheat English muffin banana oatmeal	olive oil all natural peanut butter cashew butter walnuts avocado chia seeds flax seed meal
LUNCH 15-30 grams of protein** FIRST then fiber and healthy fat	turkey tuna chicken breast ham light cheese 2% cheese stick low fat roast beef canned chicken Greek yogurt cottage cheese	baby carrots broccoli salad whole wheat bread sandwich thin light flat out beets baby spinach (for salad) banana pear	hummus olives olive oil guacamole almonds cashews sunflower seed butter almond butter
DINNER 15-30 grams of protein** FIRST then fiber and healthy fat	90%-95% lean hamburger Cabot ® light cheese chicken breast pork loin sirloin steak 97-99% lean ground turkey salmon or fish ground chicken shrimp or crab poultry sausage	mashed potatoes (no butter) triscuits spinach applesauce baked potato/spray butter mashed cauliflower sweet potato green beans broccoli peppers and onions	olive oil avocado guacamole hummus
SNACKS 1-3 depending on needs 15-30 grams of protein** FIRST then fiber and healthy fat	turkey tenderloin cottage cheese Cabot ® light cheese 0% Greek yogurt light yogurt reduced fat cheese stick Bariatric Fusion Shake chicken breast	whole wheat roll triscuits wheat thins apple baby carrots beets cantaloupe strawberries	slivered almonds peanuts cashews all natural peanut butter hummus cashew butter sunflower seed butter pumpkin seeds
		Divide grams of carbohydrate evenly between meals/snacks, 15-30 grams of carbohydrate per meal/snack is typical	Divide grams of fat evenly between meals/snacks 10-15 grams of fat per meal/snack is typically well tolerated

****1oz of meat/cheese =~7 grams of protein**

Understanding Hair Loss after Bariatric Surgery

Hair loss after bariatric surgery is very common and very stressful. The hair loss associated with bariatric surgery usually starts abruptly and very seldom lasts longer than 6 months. Human hair has a two stage growth cycle: growth phase and resting phase. About 5-15% of our hair is in the resting phase at any given time. Due to the stress more hair follicles can enter into the resting phase. This is important because the hair in the resting phase at the time of surgery is most likely the hair you will shed. This is why your hair sheds between 1 to 6 months after surgery (usually about 3 to 4 months). When the hair starts to grow again the old hair follicle is released and you lose hair. Sometimes the hair comes out before new hair grows, yikes!

So, what we have here are a few things that may be affecting people with hair loss. It starts with surgery, a low calorie intake and possibly low protein intake. Then you add illness along the way, an underactive thyroid, iron deficiency, or genetics and you get hair loss of about 5-15% of your hair follicles. Other nutrients implicated in hair loss include zinc, biotin, folate, vitamin B-6 and essential fatty acids. If no deficiency of these nutrients exists, then they will likely be of little use. **The good news is that you can count on the hair returning** unless you have a chronic illness or genetic reason for the hair thinning.

- **Relax and don't worry.** It is natural hair loss of 5-15% of your hair due to the stress of surgery and weight loss. It rarely lasts more than 6 months. **It grows back!**
- Visit your primary care doctor to be evaluated for any illness or non-nutritional reason for hair loss such as thyroid disease or other chronic illnesses.
- Follow our dietary prescription which calls for limited calories and exceptional diverse protein intake on a daily basis. DO NOT add a lot of protein and increase your calories so much that you sabotage your weight loss. **Obesity kills, not a little hair loss!**
- Take a bariatric specific multi-vitamin with adequate B vitamins, folate, zinc and biotin. Don't forget your B12 and calcium citrate with vitamin D supplements.
- Avoid excessive vitamin A and high dose zinc supplements - they are potentially harmful.
- Add iron if you are iron deficient based on your lab findings.
- Consider adding an additional B-complex. The B vitamins are not generally toxic and the extra B vitamins with biotin may help keep your metabolism running smoothly.
- Eat fish rich in omega-3 fatty acids several times a week or supplement with fish oil.

DUMPING SYNDROME

Concentrated Sweets to Avoid after Weight Loss Surgery (Keep sugar intake to 5 grams or less per portion)

DUMPING SYNDROME:

After **gastric bypass** surgery, your body is more prone to a condition called the dumping syndrome. It is usually caused by eating high-sugar foods and beverages otherwise known as **concentrated sweets**.

Dumping syndrome is usually divided into “early” and “late” phases. In fact, a patient usually experiences a combination of these events and there is no clear-cut division between them.

Early Dumping Syndrome: When foods/beverages high in sugar are consumed, water from the body can rush into the small bowel and produce cramping pain, vomiting, diarrhea, rapid heartbeat and/or sweating.

Late Dumping Syndrome: Rapid absorption of a relatively small amount of sugar in the small bowel can cause blood sugars (or blood glucose) to spike upward. When this happens the body releases insulin to bring the blood glucose level back down to normal limits. Since the original amount of sugar was a small amount, it does not sustain the increase of insulin and the blood glucose level falls below normal limits. This condition is known as hypoglycemia (low blood sugar) and causes the individual to feel weak, sleepy and profoundly fatigued.

- * Ice cream
- * Chocolate milk
- * Regular pudding
- * Sweetened, fruited or frozen yogurts
- * Dried fruits
- * Canned/frozen fruits in syrup
- * Fruit juice
- * Sugar-coated cereals
- * Doughnuts
- * Popsicles
- * Cakes
- * Pies
- * Cookies
- * Regular soft drinks
- * Lemonade
- * Kool Aid™
- * Sugared ice tea
- * Snapple™/fruit drink
- * Gatorade™
- * Table sugar
- * Honey
- * Candy
- * Jell-O™
- * Sugar gum
- * Molasses
- * Syrups
- * Sherbet/Sorbet
- * Jam/Jellies

BEHAVIOR MODIFICATION TIPS

1. Keep a record of everything you eat and drink (food diary).
2. Use smaller plates/bowls to make a meal appear larger and take smaller portions.
3. Slow down. Allow at least 20 minutes to eat.
4. Concentrate on taste and texture of food.
5. Do not eat standing up.
6. Do not watch television or do any other activity while eating - make eating an event in itself.
7. Eat at the table with a special place setting even if you are alone. Never eat "all over the house".
8. Avoid buffets.
9. Brush your teeth after meals/snacks.
10. Plan an activity to do after dinner instead of eating if this is your usual snack time.
11. If possible, take a walk after dinner.
12. Keep leftovers in an opaque, labeled container so you won't see it when opening the refrigerator.
13. Keep raw vegetables on hand for snacks.
14. Develop a hobby instead of eating while watching television.
15. Plan menus at least one day in advance.
16. Never shop for food on an empty stomach. Always take a list from a pre-planned menu.
17. Treat yourself to a non-food-related reward for not overeating.
18. Try not to think of your eating plan as a diet. You are developing new eating behaviors which will assist in weight loss as well as improved health.