

POST R-N-Y GASTRIC BYPASS DIETARY GUIDELINES

In the Hospital

You must follow a **clear liquid diet for the few days**. This is to allow your stomach and intestines time to rest and recover from the trauma of surgery. You should sip slowly on any of the allowed beverages whenever you are awake. You should not sip faster than **one ounce (30 cc) every 15 minutes**. Please keep track of your fluid intake on the form provided by your nurse.

Beverages Allowed in the Hospital

- WATER
- tea (decaffeinated)
- sugar-free gelatin or popsicles
- clear broth or bouillon
- juice (apple, cranberry, grape)
- any sugar-free, non-carbonated beverages (i.e. Crystal Light, Diet Snapple, etc.)

At Home

It will take a few months for your body to heal and adapt to the surgical changes made. The most important things during this time are getting **plenty of fluids** to stay well-hydrated and **adequate protein** to promote healing. Also, remember to get up and **walk 5-10 minutes** every few hours during the first week to maintain good circulation.

WEEK ONE-TWO	WEEK ONE-TWO
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Fluids

You need approximately 64 ounces (8 cups) of fluid each day. This will come from a full liquid diet containing water, protein drinks, and any other beverages from the list below.

You may not be able to drink 8 cups at first, but be sure you get at least 32-40 ounces each day, and build up to 64 ounces as soon as you are able.

You must sip all liquids slowly. Take only one swallow at a time. Sip very frequently (a swallow every few minutes) to make sure you can finish 8 cups of liquid each day.

Do not drink from a straw as this may cause discomfort from sips that are too large or from swallowing too much air. Also, **do not drink carbonated beverages.**

Protein

Your recommended protein intake is approximately 60 to 70 grams per day. Choose one or more liquid protein supplement to help you achieve this goal. These can be found in drug and discount stores, health food stores, and online. See protein supplement handout for examples.

Keep track of your protein intake to make sure you reach your daily goal. For best absorption, space your protein drinks over the whole day. You may not be able to consume all of the recommended protein in the first week or two, but keep trying. It gets easier each day as the swelling from surgery resolves. Drinking your supplements will provide you with the calories and protein you need for energy and healing.

To avoid discomfort, **choose only those supplements with no more than 5 grams of sugar per serving.** Mix powdered supplements only with water, nonfat Lactaid milk, or sugar-free beverages.

Beverages Allowed for Weeks 1-2

- WATER
- Protein supplement drinks (clear or creamy; ready-to-drink formulas or powders, mixed with any allowed beverage)
- Coffee or tea (decaffeinated only)
- Crystal Light, Diet Snapple juices, Propel, diet lemonades, any non-carbonated beverages with <5 grams of sugar per serving
- Nonfat milk-Lactaid milk or Hood Carb Countdown may be best tolerated
- Bouillon
- Broth-based or milk-based soups-strained
- Vegetable juice (i.e. carrot, tomato, V-8)
- Fruit juice (limit to one ounce at a time due to the sugar content)
- Sugar-free gelatin
- Sugar-free popsicles
- Yogurt (plain or *Light*-thinned)
- Yogurt drinks (Note: These do contain lactose and may need to be limited)

WEEK THREE - FOUR

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Meals - Puree texture only (soft, cooked food put through a blender or food processor until completely smooth)

Eat 3 meals each day, spaced about 4-5 hours apart. Choose only foods from the list below.

Eat up to 3 ounces ($\frac{3}{8}$ cup) at each meal. You may consume up to 3 different items at each of your meals. Eat 1 ounce of each ($\frac{1}{8}$ cup). Stop eating as soon as you feel satisfied. You may feel a pressure in your upper abdomen when your pouch is full. Do not eat more than 3 ounces even if you don't feel "full".

Each meal should take 30 minutes to consume. Put your spoon down for several minutes between bites. Do not eat for longer than 30 minutes. Do not drink with your meals. It is okay to resume drinking as soon after eating as it is comfortable to do so.

Foods Allowed for Weeks 3-4

- Cream of Wheat or Cream of Rice
- Soups, pureed in blender, then strained
- Mashed potatoes
- Stage One baby food (any type with <5 grams of sugar)
- Sugar-free pudding
- Sugar-free gelatin
- Yogurt, plain or *light*
- Fruits-unsweetened applesauce, mashed banana, pureed canned fruit without the juice
- Vegetables-soft, cooked carrots, squash, sweet potatoes-pureed in blender

Weeks 3-4: SAMPLE MEAL PLAN (¹/₈ cup of each food listed)

<u>Breakfast</u>	<u>Lunch</u>	<u>Dinner</u>
cream of wheat	cream soup, pureed	baby food turkey
mashed banana	light yogurt	mashed potatoes
sugar-free gelatin	applesauce	pureed carrots

Protein and Fluids

Drink choice of **protein supplement** between meals and after dinner (approximately one cup at each time, sipped over 2 hours). **Sip on water** or other sugar-free, non-carbonated beverages at all other times. Continue to drink all beverages only one swallow at a time.

Keep track to be sure you are drinking at least 48-64 ounces of fluid AND meeting your protein goal (in grams).

If you are struggling to get enough fluid and/or protein, you may want to decrease the amount of food in each meal so that you can focus more on drinking the beverages.

<i>MONTH TWO</i>	<i>MONTH TWO</i>	<i>MONTH TWO</i>
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Start adding soft foods now. Introduce **one new food at a time** to help you identify any food you don't tolerate well. Choose foods from the list below.

Continue to **eat no more than 3 oz (³/₈ cup) per meal.** Stop at the first sign of fullness. It is okay to eat less than 3 ounces if you are satisfied, but do not eat larger meals. You will eventually eat more at one time, but the new stomach pouch still needs time to adapt.

Eat slowly, taking about 10 minutes to eat each ounce of food. **Take 30 minutes to eat each meal.**

Chew each bite thoroughly. Cut your food into small bites and then chew to an applesauce consistency.

Choose at least one high protein food each meal (dairy, meat, or egg). Keep track of how many grams of protein you are consuming in your meals. See the accompanying list for the protein content of various food choices.

Drink protein supplement between meals to achieve recommended protein intake daily. You may start to drink fewer supplements as you are now eating some protein in each meal.

Stop drinking for 30 minutes after each meal. This will help to prevent dumping symptoms by allowing your meals to stay in the pouch longer. Drinking with or shortly after meals is a bad habit that will ultimately cause you to become hungry between meals.

Remember to continue sipping plenty between (but not with) meals. You may start to drink a few swallows at once if it feels comfortable. Choose only protein drinks, water and sugar-free, non-carbonated beverages.

Foods Allowed for Month Two

Dairy	yogurt (plain or <i>Light</i>), low- or nonfat cottage cheese, ricotta cheese, or cheese slices
Meat	steamed or poached fish, tuna, soft-cooked chicken, lamb, or beef (i.e. boiled, not grilled); processed lunch meats
Eggs	scrambled, soft-cooked, or poached; fried (if not crispy); Egg Beaters or other pasteurized egg substitute
Cereals	cream of wheat, cream of rice, oatmeal; (avoid cold cereal)
Soup	all types, except avoid beans, peas, long grain or wild rice, or tough chunks of meat
Fats-use sparingly	butter, margarine, cooking oil, salad dressing, mayonnaise Choose low-fat products when possible.
Sugar/Sweets	sugar substitutes (Splenda, Equal, Sweet \$ Low, sugar-free pudding, gelatin or popsicles; AVOID SWEETS)
Fruit	applesauce (unsweetened), ripe banana, ripe melon, peeled peach, plum, or nectarine; canned fruit, drained of juice
Starches/Vegetables	soft cooked potatoes or yams; soft, well-cooked vegetables (except fibrous ones); soft pasta or white rice. No corn, peas, legumes, or wild rice. Eat starches sparingly.
Miscellaneous	salt, flavorings, mild herbs

MONTH TWO SAMPLE MEAL PLAN ($\frac{1}{8}$ cup of each food listed)

Breakfast

oatmeal
banana
poached egg* (1/2-1)

Lunch

lunchmeat slice*
cottage cheese*
melon cube

Dinner

steamed fish*
yams
nonfat cheese slice*

* indicates a good protein source

Between Meals: Drink choice of protein supplement between meals and after dinner. Sip on water or other sugar-free, non-carbonated beverages at all other times.

MONTH THREE and on

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Choose solid foods only now at meal times. After 8 weeks, if a variety of soft foods are well-tolerated, it is time to add more solid food. Try to choose a lean protein food in each meal. Remember to add only one new food at a time. It is important to always cut your food into small bites and chew thoroughly.

Continue the protein supplements between meals to be sure you are getting adequate protein (per the dietitian's recommendation). Protein drinks are a better choice, but you may now also choose low sugar, high protein bars to help meet your protein needs. (See protein handout.)

Stop drinking with meals and for one hour after each meal. Solid food will take more time in the pouch to be digested and drinking too soon after a meal can flush it out. This will likely result in a feeling of hunger before your next scheduled meal time.

Drink plenty of water and other sugar-free beverages between meals. Your pace of drinking will soon return to normal, so it will be easier for you to drink at least 64 ounces each day, even with the long break around each meal time. Drinking plenty will keep you from getting hungry too soon.

Eat three meals each day; 3-4 ounces each; eaten over 15-30 minutes. Do not skip meals, do not eat faster (or graze on food for extended periods of time), and do not increase the size of your meals yet. *Note: after three months, you will be more experienced at recognizing hunger and fullness and may gradually adjust your meal size as appropriate to achieve satisfaction and freedom from hunger between meals.*

Below are listed some additional foods to add at this time as well as some foods that may best be avoided. Minimize high fat foods; avoid fibrous foods, high sugar foods, and any others which cause stomach or intestinal discomfort. Food intolerances vary with the individual. Through trial and error, problem-causing foods may be identified.

Foods to Add

Try to eat a variety of lean meat, fish, poultry, whole beans and peas, fresh fruits and vegetables, and whole grains.

- fresh fruit (peel if possible)
- vegetables (avoid fibrous ones; peel if possible)
- baked or grilled fish or chicken
- legumes, peas, corn, wild rice
- lean beef (moist, not dry)
- toast (bread), crackers, tortillas (whole grain)
- salad (chewed well) with low-fat dressing - at 10-12 weeks post-op

Foods to Avoid- to reduce risk of obstruction or stomach upset.

- tough, gristly meat, beef jerky
- fried, high fat foods
- popcorn, coconut
- sweets/desserts (cake, cookies, pastries, candy, etc)
- nuts, unless chewed very well
- carbonated beverages
- spicy food (tolerance varies)
- peels & membranes of fruits and vegetables (i.e. oranges, grapefruits)
- fibrous vegetables (artichokes, stems of broccoli and asparagus, etc.)
- dry foods (i.e. leftovers, unless moistened)
- sugar alcohols (often in protein bars, increased intake may cause diarrhea)
- alcoholic beverages (see section below)

PROTEIN

To avoid malnutrition, it is necessary to eat enough high protein foods and protein supplements to meet your daily protein goal. It is suggested that you keep a log of your protein intake (in grams) until you are sure you are getting enough every day. If you do not consume enough protein, you will break down more muscle while you are losing weight.

Protein is found in the following foods:

meat, poultry, fish, and shellfish	7g in 1 oz (by weight)
eggs/egg substitute	6g in 1 egg (1/4 cup egg substitute)
milk, yogurt	8-11g in 1 cup
cottage cheese	7g in 1/4 cup
cheese	7g in 1-2 oz
custard/pudding (made with milk)	4-5g in 1/2 cup
legumes/beans	7g in 1/2 cup
peanut butter	7g in 2 Tbsp
tofu and other soy products.	5-10g (depending on soy food choice)
protein bars & shakes (low sugar)	15-35g per serving

Read the Nutrition Facts label on food packages to determine your protein intake. Be sure to notice the serving size and compare it to the amount you are eating.

VITAMINS and MINERALS

It is impossible to meet all of your vitamin and mineral needs with your new meal plan. **It is necessary for you to take a multivitamin every day.** Your surgeon will likely prescribe one in a chewable form. If you cannot take this vitamin, please consult with the dietitian for a chewable alternative. **You will also need 1200-1500 mg of calcium citrate each day.** Take this in a liquid, chewable, or powdered form. **Most patients will need supplementation of iron and vitamin B₁₂.** Iron is in the prescribed multivitamin in an appropriate starting dose. Vitamin B₁₂ will be needed in a sublingual form (dissolves under the tongue). Your lab values should be monitored regularly to assess if more or less iron and B₁₂ is needed over time. See the separate handout for more information on vitamins and minerals.

ALCOHOL

Alcohol should be avoided completely for the first six months after surgery. During this time, alcohol causes the brain and nervous system to be depleted of the fuel needed to function. The potential consequences of this are confusion, semi-consciousness, coma, and even death. If you are still losing weight rapidly after six months, you should continue to abstain until your weight loss has slowed to no more than two pounds per week. Alcohol is absorbed more rapidly after gastric bypass surgery, causing an individual to have a more pronounced and rapid feeling of inebriation. Once weight has stabilized, it is safe to enjoy an occasional drink, with the awareness that a small amount of alcohol produces an inebriating effect.

DAIRY PRODUCTS / LACTOSE

Cow's milk may not be well tolerated after surgery. It contains a natural sugar called lactose that may cause gas, bloating, and/or diarrhea. To avoid this problem, try drinking lactose-free or reduced lactose milk first (i.e. Lactaid 100) to get the protein without the lactose. Often tolerance improves over time, so it is appropriate to add back low-fat or nonfat milk when it is well-tolerated. Most people have no problems with low-fat cheese, yogurt, or soymilk.

SIMPLE SUGARS / DUMPING SYNDROME

Foods sweetened with table sugar, brown sugar, honey, molasses, corn syrup, etc. must be avoided. These simple sugars will "dump" into the small intestines causing a variety of symptoms 10-15 minutes after eating (nausea, weakness, abdominal cramping, rapid pulse, dizziness, sweating, tremors, and occasionally diarrhea). To avoid this unpleasant reaction, do not eat cookies, candy, cakes, pastries, or drink sweet beverages. Sugar substitutes such as Equal or Splenda should be well tolerated and may be used. Do not drink beverages with, or soon after eating, any food. This also tends to cause dumping symptoms.

BEEF

Some people have difficulty tolerating beef after surgery. This may be due to the reduced acid content in your small stomach pouch. If you are comfortable eating red meat, feel free to do so; but if it causes discomfort, eat more chicken, turkey, fish, eggs, soy, and dairy to meet your protein recommendation. Chew all meat products thoroughly.

Potential Problems and Suggested Dietary Modifications

Potential Problem	Suggestions
Nausea and vomiting	You may be eating too fast, too much, or not chewing enough. If nausea occurs after eating a new food, wait a week before trying it again. It may be necessary to go back to more liquid or pureed foods for a while. Remember to avoid sweets. If you are unable to keep down any solid food, call your surgeon for evaluation.
Dumping Symptoms	Try dry meals (liquids separated from food) that are low in simple sugars/sweets. Minimize fat in meals. Lie down immediately after eating if symptoms persist.
Dehydration	Dehydration may occur if vomiting or diarrhea is persistent. or if fluid intake is not at least 6-8 cups per day. Remember to drink beverages that are low in sugar. Sipping fluids consistently is crucial to maintain hydration. Watch for symptoms of dry mouth, decreased urination and darker urine color, lightheadedness, or nausea. If symptoms exist or you are unable to consume 6 cups of fluid per day, please contact your surgeon.
Constipation	Constipation may occur during the first month after surgery, but usually resolves itself as the body adjusts to the smaller volume of food. If constipated try prune juice (1-2 oz) or Milk of Magnesia to resolve. Adequate fluids and regular intake of fruits and vegetables may prevent recurrence. After three months, a fiber supplement may be added if needed.
Diarrhea	Remember to avoid sugars and sweets and drink low lactose milk. Many patients have some lactose intolerance after surgery. Limit high fiber and greasy foods. Limit intake of sugar alcohols to prevent diarrhea.
Burping	The body usually adapts to the changed anatomy and burping resolves within a few months. Try eating slower and chew food longer to swallow less air. Avoid carbonated beverages and don't drink through a straw.

Potential Problem	Suggestions
Blockage of the stomach opening	Temporary blockage may occur if a large particle of food is swallowed without thorough chewing. If pain, nausea, and vomiting persist, contact your doctor. Temporary blockage is common with starchy foods (bread, rice, pasta) which tend to form a doughy “clog”.
Stretching of stomach pouch	Avoid eating large quantities of food at one time. In early post operative weeks, modify food texture gradually. Keep liquids separate from meals (after week four).
Hair loss	This is common in the first 3-6 months after surgery when rapid weight loss disrupts the normal growth cycle of individual hairs. This results in a large number of hairs entering the “dying” phase at one time. Consuming inadequate protein may exacerbate the problem. There is no known treatment, but it is usually reversed without intervention. Some patients have found regular use of minoxidil helpful in stimulating hair regrowth.
Gallstones	Formation of gallstones is common during weight loss. Regular intake of the prescribed medication, Ursodiol or Actigall, has been shown to reduce the incidence of gallstones.
Slow Weight Loss	Weight plateaus are common. Do not weigh yourself everyday. Do not consume caloric beverages. Avoid high fat and high calorie foods. Do not snack between meals. Ask dietitian about potential sources of excess calories. EXERCISE. Increase intensity, frequency, duration.

New Habits for Long Term Health and Maintenance of Weight Loss-*Permanently*

1. Be physically active every day.

At least 30 minutes should be set aside each day for walking, jogging, hiking, swimming, or biking. This cardiovascular workout will burn calories and help keep off unwanted pounds. In addition, a strength training routine three times per week will build muscle mass, help you stay toned, and keep your bones dense and strong.

2. Eat slowly and stop at the first sign of fullness.

It takes up to 30 minutes for your brain to receive the hormone signal that you are satisfied with your meal. Eating more quickly may cause overstretching of the stomach pouch and subsequent weight regain. Make meals pleasant and relaxing-allow at least one minute between bites. If you can't tell when you are full, just stick to no more than 6-8 ounces of food per meal for long term maintenance.

3. Eat three meals each day and do not snack between meals.

Maintaining your weight loss relies on the good habit of three small meals each day with few or no snacks. Following the principle in #4 will help you form this "snack-free" lifestyle. If occasionally you feel hungry before mealtime, try drinking plenty of water or other calorie-free beverage. Keep low-sugar protein bars handy for that rare instance when fluids just don't do the trick. No one seems to overeat protein bars, but once you start snacking, the quality of your snacks will likely deteriorate resulting in excess calories and weight regain.

4. Eat protein at every meal.

Your body cannot make or store protein, so you need to get plenty in your diet. Protein will help you feel full and satisfied and may get rid of carbohydrate cravings. Long term, aim to get 2-4 ounces of *lean* protein in each meal from meat, fish, poultry, eggs, lowfat cheeses, light yogurt, and beans.

5. Do not drink with your meals.

Your new pouch works best to keep you comfortable and satisfied when you eat solid foods for your meals, (not creamy or soft foods), and when you don't wash those foods out of your stomach too fast. Drinking with meals or within about one hour after will cause the stomach contents to liquify and empty from your pouch. You will likely feel hungry sooner and want something to eat before your next meal time. Remember #3 above.

6. Drink plenty of water every day between meals.

You should be drinking at least 8 cups of fluid every day to stay well hydrated, maybe more. If you are exercising a lot, be sure to replace fluids lost in perspiration. Water is the best thirst quencher and is calorie-free. Just remember to drink it between (not with) your meals.

7. Make wise food choices.

Eating small portions does not make it okay to eat a lot of high fat, high sugar foods. You should choose very nutritious, but low calorie foods to fill your pouch and satisfy your hunger. Lean sources of protein, vegetables, fresh fruits and whole grains should be the bulk of your diet. If, over time, you start to eat higher calorie foods (or larger portions), weight gain will likely follow.

8. Take your vitamin and mineral supplements faithfully.

If you are eating slowly and only until you feel satisfied, you should not be eating more than 6-8 ounces per meal, with few or no snacks. This should result in a calorie level perfect for long term weight maintenance, but too low to get all the nutrients you need. Thus, it is very important that you take the recommended multivitamin and calcium supplements for the rest of your life. If your doctor recommends additional iron, B₁₂, folate, or other supplements—take those, too.

9. See a Registered Dietitian for help.

Consider a visit with a registered dietitian who specializes in bariatric surgery nutrition at about one year post-op. This can help you feel confident that you have established all the right eating habits to maximize your success long term. If at any time you feel you are struggling with making the best food choices for optimal nutrition and permanent weight loss, *ask for help*. Don't wait until you are frustrated, malnourished, or too embarrassed by weight regain.

10. Keep your follow up appointments and have your labs checked yearly.

Knowledge and education are the cornerstone of your success. Be well informed about your physical health. Have your serum iron, B₁₂, folate, and albumin (protein) levels tested regularly. Have an x-ray taken of your hip and spine to evaluate your bone density. Remember, you cannot judge your protein, vitamin, and mineral status by how you feel.

11. Set realistic goals and enjoy your success.

Success after weight loss surgery may be defined as anywhere from 50-80% of your excess weight being lost. Don't expect that having had surgery will make it easy to lose that weight or keep it off. Weight loss for anyone takes motivation, hard work, and perseverance. Try setting new goals for yourself on a regular basis. *Make sure your goals are within your control, i.e. establishing a good habit, not a losing a certain amount of weight.* Start to enjoy the things that you could not do before because of excess weight or medical problems. Find new interests in life and pursue them. Try to help someone else who is struggling with a weight problem. You may be surprised how much this will help you, too!

**GENERAL GOALS OF MEDICAL NUTRITION THERAPY
FOR THE GASTRIC BYPASS PATIENT:**

- *To prevent nutritional deficiencies from reduced intake and absorption*
- *To prevent or alleviate discomfort or intolerance to foods*
- *To promote safe and successful weight loss*
- *To teach eating and lifestyle behaviors to achieve and maintain a desirable body weight*