

Atlantic General Hospital
Bariatric Patient Education Binder

Contact us @

www.atlanticgeneral.org/bariatrics

asimmons@atlanticgeneral.org

410-641-9568 (office)

410-629-6513 (Angela Simmons, CRNP)



Chapter 1

Getting Started In Your Bariatric Program

Losing Weight: Getting Started

[Español \(Spanish\)](#)

alert icon

COVID-19:

- [National Hunger Hotline 1-866-3-HUNGRY or 1-877-8-HAMBRE](#)[external icon](#)
- [Food Assistance and Food System Resources](#)
- [Nutrition for Health](#)

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Losing weight takes more than desire. It takes commitment and a well-thought-out plan. Here's a step-by-step guide to getting started.

Step 1: Make a commitment.

Making the decision to lose weight, change your lifestyle, and become healthier is a big step. Start by making a commitment to yourself. Many people find it helpful to sign a written contract committing to the process. This contract may include how much weight you want to lose, the date you'd like to lose the weight by, changes you'll make to establish healthy eating patterns, and a plan for regular physical activity.

Writing down the reasons you want to lose weight can also help. It might be because you have a family history of heart disease, or because you want to see your kids get married, or because you want to feel better in your clothes. Post these reasons where they serve as a daily reminder of why you want to make this change.



Step 2: Take stock of where you are.

Consider talking to your health care providers. They can evaluate your height, weight, and explore other weight-related risk factors you may have. Ask for a follow-up appointment to monitor changes in your weight or any related health conditions.

Write down everything you eat for a few days in a food diary. By doing this, you become more aware of what you are eating and when you are eating. This awareness can help you avoid mindless eating.

Next, examine your current lifestyle. Identify things that might pose challenges to your weight loss efforts. For example, does your work or travel schedule make it difficult to get enough physical activity? Do you find yourself eating sugary foods because that's what you buy for your kids? Do your coworkers frequently bring high-calorie items, such as doughnuts, to the workplace to share with everyone? Think through things you can do to help overcome these challenges.

Step 3: Set realistic goals.

Set some short-term goals and reward your efforts along the way. Maybe your long-term goal is to lose 40 pounds and to control your high blood pressure. Then some short-term eating and physical activity goals might be to start eating breakfast, take a 15 minute walk in the evenings, or have a salad or vegetable with supper.

Focus on two or three goals at a time. Great, effective goals are —

- Specific
- Realistic
- Forgiving (less than perfect)

For example, “Exercise More” is not a specific goal. But if you say, “I will walk 15 minutes, 3 days a week for the first week,” you are setting a specific and realistic goal for the first week.

Remember, small changes every day can lead to big results in the long run. Also remember that realistic goals are *achievable* goals. By achieving your short-term goals day-by-day, you'll feel good about your progress and be motivated to continue. Setting unrealistic goals, such as losing 20 pounds in 2 weeks, can leave you feeling defeated and frustrated.

Being realistic also means expecting occasional setbacks. Setbacks happen for many reasons – maybe the holidays, longer work hours, or another life change. When setbacks happen, get back on track as quickly as possible. Also take some time to think about how you could prevent setbacks in similar future situations.

Keep in mind everyone is different – what works for someone else might not be right for you. Just because your neighbor lost weight by taking up running, doesn't mean running is the best option for you. Try a variety of activities such as walking, swimming, tennis, or group exercise classes. See what you enjoy most and can fit into your life. These activities will be easier to stick with over the long term.

Step 4: Identify resources for information and support.



Find family members or friends who will support your weight loss efforts. Making lifestyle changes can feel easier when you have others you can talk to and rely on for support. You might have coworkers or neighbors with similar goals, and together you can share healthful recipes and plan group exercise.

Joining a weight loss group or visiting a health care professional such as a registered dietitian can help. Healthcare providers, may provide further information about medications, devices or even surgery to assist you in controlling your weight and supporting your overall health.

Step 5: Continually “check in” with yourself to monitor your progress.

Revisit the goals you set for yourself in Step 3 and evaluate your progress regularly. If your goal is to walk each morning but have trouble fitting it in before work, see if you can shift your work hours or if you can walk at lunchtime or after work. Evaluate which parts of your plan are working well and which ones need tweaking. Then rewrite your goals and plan accordingly.

If you are consistently achieving a particular goal, add a new goal to help you continue on your pathway to success.

Reward yourself for your successes! Recognize when you're meeting your goals and be proud of your progress. Use non-food rewards, such as a bouquet of freshly picked flowers, a sports outing with friends, or a relaxing bath. Rewards help keep you motivated on the path to better health.

Want to learn more?

Losing Weight

What is healthy weight loss and why should you bother?

Improving Your Eating Habits

Your eating habits may be leading to weight gain; for example, eating too fast, always clearing your plate, eating when you're not hungry and skipping meals (or maybe just breakfast).

Keeping the Weight Off

Losing weight is the first step. Once you've lost weight, you'll want to learn how to keep it off.

National Institutes of Health Resources:

- [Treatmentexternal icon](#) for overweight and obesity.
- Choosing a safe and successful weight-loss [programexternal icon](#).
- Prescription [medicationexternal icon](#) to treat overweight and obesity.
- [Bariatric surgeryexternal icon](#) for severe obesity.

US Department of Agriculture Resources:

- Establishing and maintaining a positive [body imageexternal icon](#).
- [Strategiesexternal icon](#) to lose or gain weight successfully.
- Weight management for [children and teensexternal icon](#).
- What you should know about [popular dietsexternal icon](#).

Connect with Nutrition, Physical Activity, and Obesity

www.cdc.gov/healthyweight



SMART Goal-Setting Worksheet

Step 1: Write down your goal in as few words as possible.

My goal is to: _____

Step 2: Make your goal detailed and SPECIFIC. Answer who/what/where/how/when.

HOW will you reach this goal? List at least 3 action steps you'll take (be specific):

1. _____

2. _____

3. _____

Step 3: Make your goal is MEASUREABLE. Add details, measurements and tracking details.

I will measure/track my goal by using the following numbers or methods:

I will know I've reached my goal when

Step 4: Make your goal ATTAINABLE. What additional resources do you need for success?

Items I need to achieve this goal: _____

How I'll find the time: _____

Things I need to learn more about: _____

People I can talk to for support: _____

Step 5: Make your goal RELEVANT. List *why* you want to reach this goal:

Step 6: Make your goal TIMELY. Put a deadline on your goal and set some benchmarks.

I will reach my goal by (date): ___/___/___.

My halfway measurement will be _____ on (date) ___/___/___.

Additional dates and milestones I'll aim for:



Chapter 2

Pre-Surgery Healthy Meal Planning

10 tips

Nutrition Education Series

choose MyPlate

10 tips to a great plate



Making food choices for a healthy lifestyle can be as simple as using these 10 Tips.

Use the ideas in this list to *balance your calories*, to choose foods to *eat more often*, and to cut back on foods to *eat less often*.

1 balance calories

Find out how many calories YOU need for a day as a first step in managing your weight. Go to www.ChooseMyPlate.gov to find your calorie level. Being physically active also helps you balance calories.

2 enjoy your food, but eat less

Take the time to fully enjoy your food as you eat it. Eating too fast or when your attention is elsewhere may lead to eating too many calories. Pay attention to hunger and fullness cues before, during, and after meals. Use them to recognize when to eat and when you've had enough.



3 avoid oversized portions

Use a smaller plate, bowl, and glass. Portion out foods before you eat. When eating out, choose a smaller size option, share a dish, or take home part of your meal.

4 foods to eat more often

Eat more vegetables, fruits, whole grains, and fat-free or 1% milk and dairy products. These foods have the nutrients you need for health—including potassium, calcium, vitamin D, and fiber. Make them the basis for meals and snacks.



5 make half your plate fruits and vegetables

Choose red, orange, and dark-green vegetables like tomatoes, sweet potatoes, and broccoli, along with other vegetables for your meals. Add fruit to meals as part of main or side dishes or as dessert.

6 switch to fat-free or low-fat (1%) milk

They have the same amount of calcium and other essential nutrients as whole milk, but fewer calories and less saturated fat.



7 make half your grains whole grains

To eat more whole grains, substitute a whole-grain product for a refined product—such as eating whole-wheat bread instead of white bread or brown rice instead of white rice.

8 foods to eat less often

Cut back on foods high in solid fats, added sugars, and salt. They include cakes, cookies, ice cream, candies, sweetened drinks, pizza, and fatty meats like ribs, sausages, bacon, and hot dogs. Use these foods as occasional treats, not everyday foods.

9 compare sodium in foods

Use the Nutrition Facts label to choose lower sodium versions of foods like soup, bread, and frozen meals. Select canned foods labeled "low sodium," "reduced sodium," or "no salt added."



10 drink water instead of sugary drinks

Cut calories by drinking water or unsweetened beverages. Soda, energy drinks, and sports drinks are a major source of added sugar, and calories, in American diets.



Go to www.ChooseMyPlate.gov for more information.

DG TipSheet No. 1
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Grocery Shopping Helpful Tips

Before You Go

- Find at least 2 healthy recipes that you enjoy for the week. Here are some resources:
www.eatingwell.com
www.cookinglight.com
www.chefdave.org (recipes from a bariatric chef)
- Be Realistic. If you are busy and don't have time to cook every evening, be creative with crock-pot recipes, a couple evenings designated as "left-over" nights and or quick meals such as sandwiches or pasta and salad.
- Always go to the grocery store with a list!
- Eat something before you go! You will do less impulse buying.

Helpful Food Tips

Fiber

- Choose breads, grains and snack foods that provide at least 3g fiber per serving
- Choose cereals and entrees that provide 5 or more grams of fiber per serving
- Cereal guideline: <200 calories, >5g fiber, <10g sugar

Fat

- Total fat <3grams of fat in 100 calories is considered low fat
- Saturated Fat: Look for products with <2g per serving
- Look for Trans fat-free- <0.5g per serving
- For meat, focus on "percent lean" listed on the label and choose ground beef that is at least 90% lean

Sodium

- Frozen dinners: ≤400mg of sodium
- Canned foods: ≤300 mg of sodium per serving

Bariatric-Friendly Shopping List

Vegetables and Fruits

Choose vegetables and fruits in a variety of colors. Buy them in season to save \$

- Fresh, canned (low in sodium), and frozen (without added butter or sauces) vegetables all count!
- Fresh fruit
- Canned fruit in 100% juice, **not** syrup
- Dried fruit (watch portion size- 2 Tbsp raisins= 80 calories)
- Frozen berries without added sugar

Milk & Milk Products

Look for fat-free or low-fat milk products (any product that is 100 calories or less per serving)

- Skim or 1% milk
- Unsweetened soy milk
- Cheese (3g fat or less per serving)
- Low fat, light yogurt

Bread, Cereals & Grains

Look for whole-wheat or whole grain as the first ingredient listed on the label

- See Healthy Carb list

Meat, Beans, Eggs & Nuts

- All fresh fish and shellfish (shrimp may be problematic after surgery)
- Skinless poultry
- Lean Beef (round, sirloin, tenderloin, 90% lean ground beef)
- Pork (tenderloin, loin chops, Canadian bacon)
- Any Beans (black, pinto, white, navy, kidney, garbanzo (chick peas), lentils)
- Eggs and egg substitute
- Any nuts (watch portion size- 1 oz nuts (~3Tbsp) = 160-200 calories)

Fats & Oils

Limit saturated fat and look for products with no trans fat

- Margarine & spreads (soft, tub or liquid) with no trans fat
- Vegetable oil (canola oil, olive, sesame)
- Light salad dressing and mayonnaise (don't need to go fat-free!)

Beverages

No carbonated beverages after bariatric surgery- the bubbles can stretch the pouch!

- Water
- Diet Snapple, Diet V8 Splash, V8 Fusion Light
- Powders: Crystal Light, Sugar Free Kool-Aid, Store Brand Sugar Free Drink Mixes
- Flavored Waters: Fuze Low Carb, Fruit20, Nestle Pure Life, Aquafina Flavor Splash, Mio
- Herbal Tea

Snacks (200 calories or less)

Lite vanilla yogurt with ½ cup Kashi Go Lean Crunch cereal

Cheesy Popcorn: Toss hot popcorn (94% fat free) with 1 Tbsp grated Parmesan, 1 Tbsp olive oil and a pinch of cayenne pepper (1/2 large bag mixed with ingredients ~200 calories)

Sesame carrots: Toss 2 cups of baby carrots with 1 Tbsp toasted sesame seeds and a pinch each of dried thyme and salt

½ English muffin with 2 tsp peanut butter and ½ banana

3 Ryvita Krisps with 3 Tbsp hummus or 3 Tbsp Alouette lite garlic spread

Nutty Rice Cake: Spread 1 Tbsp almond butter or peanut butter on 1 brown rice cake. Top with ¼ sliced apple and drizzle with ¼ tsp honey

Trail mix (1 cup cereal, 1 Tbsp raisins, 1 Tbsp nuts)

1/4 cup hummus with 5-6 whole grain, low fat crackers or 1 cup raw veggies

½ cup reduced fat cottage cheese with ½ cup mandarin oranges (in own juices)

Protein Power Snack: 1 large hard-boiled egg with 1 cup edamame (soybean pods) plus ½ cup grapes

10 Garden of Eatin' ® Tortilla chips with ¼ cup salsa plus 1 oz string cheese

Whole wheat flatbread- spread with 1 Tbsp Alouette® light garlic spread. Top with diced cucumber, chopped tomato and 1 Tbsp Reduced Fat feta cheese.

1 (1.5oz) bag pistachios (130 calories) with piece of fruit

Energy Bar (Look for a bar that is <200 calories, <2.5g saturated fat, at least 3g fiber) Try Luna Bar, Power Bar- Whole Grain Harvest, Balance Trail Mix

Small sweet potato (computer mouse size)- Microwave for 6 minutes or until tender. Add 1 tsp tub margarine and sprinkle with cinnamon or drizzle with a little honey

1 cup Cascadian Farms® edamame (soybeans- looks like fuzzy, sugar snap peas- good for you heart!)- sprinkle with sea salt

Hardboiled egg with Hummus (remove yolk and replace with hummus)

The perfect hard-boiled egg: Place eggs in a single layer in a saucepan with enough cool water to cover the eggs by at least 1 inch. Cover the pan, & bring just to a boil; immediately turn off the heat. Let eggs stand for 15 minutes. Run eggs under cold water until completely cooled. Gently crack each shell, and peel under running water.

1 (1.5oz) bag pistachios (130 calories) with piece of fruit

If you have a sweet tooth...

Chocolate Whip- Mix 2 heaping Tbsp Hershey's baking cocoa with 1- 8oz container Cool Whip Lite and freeze (1 cup serving= ~180 calories)

Dip 4 Nilla Wafers or 10 Back to Nature® Cinnamon Graham Sticks (Food Lion- health section) in Vanilla Fat free Jello pudding (individual cups)

Banana Fluffer Nutters- Cut 1 small banana in half lengthwise. Combine 1 ½ Tbsp marshmallow crème and 1 tsp peanut butter in a small bowl. Spread peanut butter mixture over 1 half of banana; top with remaining half (151 calories)

Skinny Cow low fat ice cream sandwich (1 sandwich= 130 calories)

Smart Ones Fudge Bar (80 calories)

Sugar free cocoa with skim milk

Quick Breakfast Ideas

Waffle Breakfast Sandwich:

Top 1 (4") whole wheat waffle (Kashi® 7 Grain) with 1 Tbsp peanut butter and 1 small banana sliced. Drizzle with a little honey and complete the sandwich with the other waffle.

“Ice Cream” Smoothie

Blend 1 cup fresh fruit, 2c. skim milk, 1-3oz package of instant nonfat vanilla pudding mix & 1 cup crushed ice for 45 seconds

Oatmeal in a Dash: Cook packet of plain oatmeal with 1 cup low fat milk. Sprinkle cinnamon & mix in 2 Tbsp wheat germ & dash vanilla extract.

Eggs in a Mug: Coat coffee mug with cooking spray. Add 2 eggs with 2 Tbsp low fat milk; beat until blended. Microwave 45 seconds; stir. Microwave 30-45 seconds. Top with 1 Tbsp shredded cheddar cheese, salt and pepper.

Flax Muffin in a Mug: 1 tsp butter; 1 egg, slightly beaten; ¼ cup ground flax meal; ½ tsp cinnamon; ½ tsp baking powder; 1 packet (or 2tsp) Splenda

Spray mug with vegetable spray, add butter and microwave to melt it. Add the rest of the ingredients to the mug, stir and microwave for 45 seconds to 1 minute. When muffin is done, just turn it out onto a plate.

Vegetable Quiche Cups To Go (Need to prep ahead): 1 package frozen chopped spinach; ¾ cup liquid egg substitute; ¾ cup shredded reduced-fat cheese; ¼ cup diced green bell pepper; ¼ cup diced onions; 3 drops hot pepper sauce (optional)

1. Microwave the spinach for 2 ½ minutes on high; Drain excess liquid.
2. Line a 12-cup muffin pan with baking cups- Spray the cups with cooking spray.
3. Combine the egg substitute, cheese, peppers, onions and spinach in a bowl.
4. Divide evenly into muffin cups. Bake at 350 degrees for 20 minutes.

Fruit & Yogurt Parfait: 1 cup lite vanilla yogurt, ¼ cup Kashi Go Lean Crunch cereal, ½ cup strawberries, ¼ cup blueberries

Egg McMuffin: Poach 1 egg and add 1 slice of cheese and 2 slices of Canadian bacon to sandwich

Cinnamon-Apple Bake: Place peeled slices of 1 medium apple in a bowl; top with ½ cup bran cereal and a dash of cinnamon. Microwave on high for 2 minutes.

PB & B: Spread 1-2 Tbsp of peanut butter on whole grain bread and wrap it around a banana and Go!

great
living starts here™

cooking for a happy heart



low fat cooking can be achieved by:

- Using smaller portions of lean meats, skinless poultry and fish.
- Trim off any visible fat.
- Using cooking methods that remove fat from red meats and poultry.
- Adding a minimal amount of healthy fat in preparing all foods.

low fat cooking methods

Broil or Roast: (chicken, steaks, chops, roasts) Place meat on a rack so the fat can drip off. Remove the skin from the chicken or turkey before serving.

Braise or Stew: (chicken, chops, steaks) Trim meat well and remove chicken skin before serving. "Braising" means cooking in liquid. Braising can be done on the top of the stove in a covered pan, on low flame, or in a covered dish in a slow oven (350° F). To enhance flavor, add vegetables (onions, celery, tomatoes, carrots, mushrooms) and herbs or other seasonings (garlic, sage, basil, caraway, tomato paste, ketchup, wine, and Worcestershire sauce).

Low Fat Frying: Wipe frying pan with an oiled paper towel. Treating your pan in this way, turns it into a "non-stick" pan. This method is just as effective as using a pan coating spray. Cook on low flame. If meat is broiled and/or cooked in a pan, cook thoroughly and drain off any fat. Use cookware that conducts heat slowly and steadily to prevent scorching and sticking, such as cast iron or non-stick skillets

Vegetable Seasoning Suggestions: Use fat-free meat stock for seasoning vegetables. Freeze stock in ice cube trays and defrost as needed. Add a teaspoon of smoke or hickory flavoring to the broth instead of salt, pork or other meat fat. Toss vegetables with a dash of heart healthy oil*, garlic powder, lemon juice, vinegar, pepper sauce, or minced onion.

Combination Meals: To decrease your meat intake, combine smaller amounts of lean meats with vegetables and whole grains. Examples: Stir-fried meat and vegetables, chicken and rice, turkey and white bean soup.

low fat recipe modifications

Ingredients	Possible Substitutes
1 whole egg	¼ cup egg substitute 1 egg white and 1 tsp oil 2 egg whites
1 Tbsp butter	1 Tbsp trans fat free margarine 2 tsp preferred oil*
1 cup hydrogenated shortening (or lard)	2/3 cup preferred oil* 1 cup + 3 Tbsp margarine
½ cup butter/ margarine	¼ cup applesauce + ¼ cup margarine
1 cup whole milk	1 cup skim milk
1 cup light cream	3 Tbsp oil and skim milk equal to 1 cup 1 cup evaporated skim milk
1 cup heavy cream	2/3 cup milk and 1/3 cup oil
1 cup sour cream	¾ cup buttermilk and ¼ cup oil 1 cup plain low fat yogurt 1 cup blenderized low fat cottage cheese
1 oz hardened cheese (cheddar, colby, muenster)	1 oz skim milk mozzarella cheese 2 Tbsp ricotta cheese 2 Tbsp 1% cottage cheese
1 oz (1 square) chocolate	3 Tbsp powdered cocoa + 1 Tbsp oil (for chocolate frosting or sauces) ¼ cup cocoa (for cakes or cookies)
1 cup ice cream	1 cup ice milk 1 cup low-fat ice cream with no added sugar
1 oz bacon (2 slices)	Canadian bacon, turkey or soy bacon
1 cup mayonnaise	1 cup nonfat mayonnaise 1 cup nonfat salad dressing (mayonnaise type)

* Healthy fats include nut oils, olive oil, canola oil, and non-hydrogenated soybean oil.

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RECIPE MODIFICATION

Breads, Grains, Pasta

- Prepackaged rice & noodle mixes- use ½ butter and only use ½ of the seasoning mix
- Low fat pancakes- use egg whites & cut the oil by 50%
- Substitute whole wheat flour for ½ of the white flour. Don't go 100%; the texture will be too dense.

Vegetables

- Pasta sauce- to lower the sugar and salt content of tomato sauce, use Hunt's® no-added salt tomato sauce
- Instead of cheese sauce or butter, sprinkle some Parmesan or Romano cheese over veggies
- Roast or grill veggies. Coat them lightly with vegetable oil spray. Add oregano. Roast in the oven @ 400° F for ~15 minutes until tender-crisp.
- Microwave vegetables in low-sodium chicken broth

Dairy

- Use skim milk in place of whole milk (instant puddings)
- Use light margarine or spreads (need to use regular margarine for cooking and baking)
- Use fat-free whipping cream, fat-free half and half or evaporated skim milk in place of cream
- Non-fat plain yogurt (can be used in place of some of the mayonnaise called for in a recipe) or fat free sour cream (try on a baked potato)
- Fat free ricotta cheese- use it in place of cottage cheese in most recipes and use it for lasagna fillings (it can be made to taste better if mixed in equal parts with silken tofu)

Meat, Poultry, Fish

- Use 90% extra lean ground beef for chili, tacos and casseroles calling for ground beef (too dry for hamburger patties)
- Replace bacon with Canadian bacon.
- Replace poultry skin with: combo of fat-free yogurt, mustard (~1tsp) & concentrated orange juice (~1Tbsp); coat chicken with yogurt mixture and then dip in bread crumb mixture (1/8 tsp garlic powder, 1/8 tsp paprika, bread crumbs); spray with light olive oil spray
- Instead of fried fish:
 1. spread 2 tsp of light mayo and sprinkle with Old Bay seasoning (good on orange roughy, flounder, halibut)
 2. bake fish with a splash of white wine, chopped tomatoes and basil or oregano

Baked Goods & Sweets

- You can reduce the amount of sugar called for in a recipe by $\frac{1}{4}$ to $\frac{1}{3}$
- Cake mixes- substitute 2 egg whites or $\frac{1}{4}$ cup egg substitute for 1 egg & replace up to $\frac{1}{2}$ the amount of oil with applesauce or pureed prunes
- Frozen phyllo sheets- low fat substitute to biscuits or pie crusts. Spray phyllo sheets with margarine spray
- Use skim milk instead of whole milk
- “Sweeten” recipes with extracts (vanilla or peppermint) or sweet spices (cinnamon or allspice). Warm these spicy foods; they’ll taste sweeter. Other spices to “sweeten” up include cardamom, ginger, mace & nutmeg.
- Create your own “syrup”- In a blender, puree fresh, sliced peaches, berries or apples with a little fruit juice, honey and a pinch of cinnamon.

THINGS TO KNOW About Baking with Splenda

- Regular Splenda does not deliver the same crispness in crusts and cookies that real sugar does. Try Splenda Sugar Blend for Baking for crusts, cakes, cookies, and other recipes where you want crispness.
- Regular Splenda produces less juice in fruit fillings for pies and crisps than real sugar does, so you might need to add less flour or cornstarch than a recipe calls for. Splenda Sugar Blend for Baking will yield slightly more juices, but you will probably still need less flour or cornstarch.
- Splenda does not work in whipped egg whites for meringues, angel food cake or other such desserts. Whites whipped with Splenda are grainy and deflate quickly.

Fats, Oils & Margarine

- Sauces:
 - Use a mixture of cornstarch & water or pureed potatoes to thicken sauces
 - “Roux” made up of margarine & flour paste (equal parts); whisked with cold milk, broth and or wine
 - Blend fresh dill into nonfat, plain yogurt for seafood or chicken
 - Use an herb rub on meat, poultry, fish (i.e. rub cumin, chili powder, coriander, red & black pepper, & cinnamon on pork roast)
- Stick margarine- best for baking; use brands with “No trans fat” (Promise)
- Spreads for sandwiches:
 - hummus
 - roasted red peppers (in vinegar)
 - sun dried tomatoes packed in olive oil (washed & drained)

Pre-Op Liver Shrinking Diet

Your surgeon has recommended that you follow a low sugar, reduced calorie diet for 2 weeks prior to surgery. The purpose of this diet is to reduce the size of your liver to make your surgery safer and easier to perform. **The day before surgery is clear liquids only and nothing to eat or drink after midnight.**

1000 Calorie daily meal plan

Sample Menu	
Breakfast	Protein shake (150-200 calories)
Snack	1 Fruit (60 calories)
Lunch	Healthy Frozen Meal (250 calories) plus 1 cup non-starchy vegetables (50 calories) OR 4oz Lean Meat (160 calories) / 1 cup vegetables (50)/ 2 Fats (90 calories)
Snack	Protein Shake (150-200 calories)
Dinner (same as lunch)	Lean Cuisine (250 calories) with 1 cup broccoli (50 calories) OR 4oz Fish (160 calories) / 2 cups garden salad (50 calories) with 2 Tbsp light salad dressing (90 calories)
Snack (optional)	SF Jello

Free Foods:

Crystal Light	Bouillon	Sugar Free Jello
Fruit2O	Mio	Sugar-Free Popsicles
Propel Zero	Diet V8 Splash	Sugar Substitutes (Equal, Sweet’N Low, Splenda)
Diet Snapple	Black coffee	Seasonings
Herbal Tea	Black Tea	Mustard
Fat-Free broth		Vinegar

- **Drink at least 64oz (2 quarts) of fluid daily.** Fluids must be sugar free and less than 10 calories per serving. At this point, no carbonation!
- Please start taking a complete multivitamin daily. **Stop taking fish oil and/or other herbal supplements 7 days before surgery.**

A Special Note for Diabetic Patients:

- Please discuss this meal plan with your dietitian, primary care physician or endocrinologist before starting. The meal plan and your medication may need to be adjusted to prevent low blood glucose.
- If your blood sugar drops too low (less than 70mg/dl), eat or drink 15 grams of carbohydrate. The following items provide 15g of carbohydrate:
 - 4oz 100% fruit juice
 - 1 Tbsp regular jelly
 - 1 Tablespoon honey
 - 3 glucose tablets
- Wait 15 minutes and check blood glucose again. If your blood glucose is still under 70mg/dl, eat or drink another 15 g carbohydrate. Consume 15g of carbohydrate every 15 minutes until your blood sugar is above 70mg/dl



Chapter 3

Dining Out and Portion Control

Healthy Dining Out Strategies

Restaurant Tips

1. Do not go to a restaurant famished. This may cause you to eat the entire bread basket before your meal is served. Eat a small snack 1-2 hours before getting to the restaurant (hot tea with crackers, yogurt and a piece of fruit, handful of nuts)
2. Order a salad or broth based soup (with vegetables or beans) to help curb your appetite before your main meal comes.
3. Think about food preparation!
 - Ask what is on the salad (omit shredded cheese and croutons if part of the salad)
 - Order salad dressing and sauce on the side. Every tablespoon of mayonnaise and salad dressing is about 100 calories and every teaspoon of oil and butter is about 35-40 calories.
 - Ask for fish or chicken to be broiled with no extra butter.
4. Take the opportunity to load up on veggies when dining out. Most vegetables and salads taste better when someone else prepares them. Fill up on veggies so you eat less meat.
5. Share an entrée with a friend or spouse or take ½ the meal home with you.
6. Ask for substitutions. Instead of French fries, request a double order of vegetables. If you can't get a substitute, just ask that the high-fat food be left off your plate.
7. Dip your fork into the dressing and then into the salad. You'll use less this way.
8. Shrimp cocktail is a healthy first starter. 5 jumbo shrimp with 2 Tbsp cocktail sauce is only 124 calories.
9. Choose lean steaks- sirloin, tenderloin, filet mignon, London broil. Fatty steaks include rib eye, T-bone, New York Strip, and porterhouse.

Fast Food Hints

1. You are safe to order a hamburger or junior-size burger. (McDonald's hamburger= 280 calories vs. McChicken= 430 calories)
2. Skip the croissant or biscuit. Eat your sandwich on a bun, bread or English muffin.
3. Order salads without all the high-fat toppings- bacon bits, cheeses and croutons.
4. Instead of French fries, order a fruit n-yogurt parfait (McDonalds), plain baked potato or mandarin oranges (Wendy's)

Mexican Cuisine

1. Limit refried beans (typically sauté onions in lard and then add the beans)
2. Pile on extra lettuce, tomatoes and salsa.
3. Go easy on cheese, sour cream (1 Tbsp= 30 calories), and guacamole (2 Tbsp= 50 calories)
4. Watch out for deep-fried taco salad shells – a taco salad can have more than 1,000 calories.
5. Move the basket of chips (5 Tortilla chips= 115 calories)

Healthy Picks

- Black bean soup or gazpacho
- Tortillas or soft tacos (un fried) filled with chicken, seafood or vegetables
- Seafood burritos or enchiladas (with a minimum of cheese)
- Soft flour tortillas with chili con carne, black beans or Mexican rice
- Camarones de hacha (shrimp in tomato coriander sauce)
- Arroz con pollo (boneless chicken with rice)

Italian Cuisine

1. Avoid cream sauces: Stick to olive oil or tomato sauce pastas
2. Ask for grated cheese on the side. Add a Tablespoon (1 Tbsp= 35 calories) yourself rather than the three or four the kitchen might deploy

Healthy Picks

- Minestrone soup
- A salad of Italian greens, fava beans, drained Italian tuna, plum tomatoes and slices of skim-milk mozzarella, with oil and vinegar on side
- Chicken piccata or cacciatore
- Eggplant pomodora (tomato)
- Roasted peppers and sun-dried tomatoes over pasta
- Shrimp sautéed in wine sauce

Chinese Cuisine

1. Order steamed rice over fried rice (save 170 calories)
2. Ask for steamed vegetables.
3. Limit dishes that are “crispy”, batter-dipped, or in sweet and sour sauce
4. Order steamed dumplings or spring rolls (1 fried egg roll= 250 calories vs. 1 spring roll= 100 calories)
5. Go easy on the soy sauce (1 Tbsp= 1000mg sodium)- use light instead (500mg)

Healthy Picks

- Hunan tofu
- shrimp with garlic sauce
- stir-fried vegetables
- Szechuan shrimp
- chicken chow mein
- beef with broccoli
- Moo shu vegetables
- Wonton soup

Japanese Cuisine

Healthy Picks

- Miso soup
- Gyoza (meat or seafood dumplings)
- Sashimi
- Sushi
- Hibachi chicken or lean beef
- Teriyaki style meats, chicken or fish

Did you know...

- A serving of pancakes, French toast, or waffles has about 900 calories- including the 250 from the ¼ cup of syrup and 100 calories from the margarine or butter.










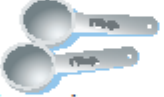








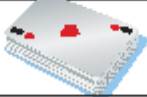



- A Starbucks venti (20 oz) frappuccino is low in fat, but thanks to the sugar, it has 360 calories. Milk fat supplies most of the calories in the cappuccino (200), caffe latte (350), and caffe mocha (510). These numbers are for a venti.
- An overstuffed tuna salad sandwich can have about 700 calories, thanks to the quarter-cup of mayo. Chicken salad is not much better. A Subway Classic Tuna on 6" roll is not too bad, about 430 calories. An Arby's Market Fresh® Chicken Salad sandwich is 860 calories- yikes!
- A large order of French fries from fast food is about 500 calories.
- An entire large movie theater popcorn with butter has about 1,650 calories. A small popcorn without butter has 400 calories.
- An order of General Tso's chicken, orange or crispy beef, or sweet and sour pork has about 1,600 calories.
- Most spaghetti, lasagna, and Parmigiana dishes run about 1,000 calories. Alfredo has about 1,500 calories.
- A trimmed, 16oz prime rib has about 1,000 calories and two day's worth of saturated fat. A trimmed, 12oz sirloin has about 400 calories and less than half a day's saturated fat.
- A 7oz platter or nachos (~48 chips) with 12oz cheddar cheese and 1 cup salsa is 2,498 calories, 174.5g fat!



Portion Estimator

Manage portions so you can manage your diabetes. Meal planning is a big part of living with diabetes. It does not have to be hard. Learning to estimate how much to eat and drink can help. Use things you see every day for comparison to make this easier.

- Plan how much you will eat, so you can follow your meal plan.
- Keep accurate food diaries of what you have eaten and drank.

Portion Equivalents:						
1 cup	=	 one-cup measure	=	 size of baseball	=	 2 scoops mashed potatoes
1/2 cup	=	 half-cup measure	=	 size of lightbulb	=	 a scoop of ice cream
1/3 cup	=	 third-cup measure	=	 size of egg	=	 small handful of crackers
2 Tablespoons	=	 2 T measuring spoons	=	 size of golf ball	=	 small scoop of peanut butter
1 Tablespoon	=	 Tablespoon measure	=	 size of thumb	=	 dollop of Miracle Whip
1 teaspoon	=	 teaspoon measure	=	 size of penny	=	 pat of butter
3 ounces (oz)	=	 size and thickness of a deck of cards	=	 small pork chop		
1 ounce (oz)	=	 size of 4 dice	=	 meat, fish fillet, chicken		

Diabetes Educators: Call 1-800-635-2288 for information or patient brochures.

Medicare Part B patients: Call 1-877-231-5199 and mention reference code ED06500 to order your diabetes testing supplies.

Website: www.PrescriptionSolutions.com/diabetes

The information in this educational tool does not substitute for the medical advice, diagnosis or treatment of your physician. Always seek the help of your physician or qualified health provider for any questions you may have regarding a medical condition.

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Chapter 4

Activity and Exercise

Staying Active at Any Size

On this page:

- [Can anyone be active?](#)
- [Why should I be active?](#)
- [What do I need to know about becoming active?](#)
- [What kinds of activities can I do?](#)
- [Where can I be active?](#)
- [How can I get past my roadblocks?](#)
- [How can I stick with my physical activity plan?](#)
- [Clinical Trials](#)

Physical activity may seem hard if you're [overweight](#). You may get short of breath or tired quickly. Finding or affording the right clothes and equipment may be frustrating. Or, perhaps you may not feel comfortable working out in front of others.

The good news is you can overcome these challenges. Not only can you be active at any size, you can have fun and feel good at the same time.

Can anyone be active?

Research strongly shows that physical activity is safe for almost everyone. The health benefits of physical activity far outweigh the risks.¹

<https://www.niddk.nih.gov/health-information/weight-management/staying-active-at-any-size>



Physical activity is safe for almost everyone.

The activities discussed here are safe for most people. If you have problems moving or staying steady on your feet, or if you get out of breath easily, talk with a health care professional before you start. You also should talk with a health care professional if you are unsure of your health, have any concerns that physical activity may be unsafe for you, or have

- a [chronic](#) disease such as [diabetes](#), [high blood pressure](#), or [heart disease](#)
- a bone or joint problem—for example, in your back, knee, or hip—that could get worse if you change your physical activity level

Why should I be active?

Being active may help you live longer and protect you from developing serious health problems, such as type 2 diabetes, heart disease, [stroke](#), and certain types of [cancer](#) *NIH external link*. Regular physical activity is linked to many health benefits, such as

- lower blood pressure and [blood glucose](#), or blood sugar
- healthy bones, muscles, and joints
- a strong heart and lungs
- better sleep at night and improved mood

The [Physical Activity Guidelines for Americans, 2nd edition](#) *External link* (PDF, 14.2 MB), define regular physical activity as at least 150 minutes a week of moderate-intensity aerobic activity, such as brisk walking. Brisk walking is a pace of 3 miles per hour or faster. A moderate-intensity activity makes you breathe harder but does not overwork or overheat you. You should also do muscle-strengthening activities at least 2 days a week.

You may reach this goal by starting with 5 minutes of physical activity several times a day, 5 to 6 days a week. You could then gradually work up to 10 minutes per session, 3 times a day. If you do even more activity, you may gain even more health benefits.¹

When combined with healthy eating, regular physical activity may also help you control your weight. However, research shows that even if you can't lose weight or maintain your weight loss, you still can enjoy important health benefits from regular physical activity.^{2,3}

Physical activity also can be a lot of fun if you do activities you enjoy and are active with other people. Being active with others may give you a chance to meet new people or spend more time with family and friends. You also may inspire and motivate one another to get and stay active.

What do I need to know about becoming active?

Choosing physical activities that match your fitness level and health goals can help you stay motivated and keep you from getting hurt.¹ You may feel some minor discomfort or muscle soreness when you first become active. These feelings should go away as you get used to your activity. However, if you feel sick to your stomach or have pain, you may have done too much. Go easier and then slowly build up your activity level. Some activities, such as [walking](#) or [water workouts](#), are less likely to cause injuries.

If you have been inactive, start slowly and see how you feel. Gradually increase how long and how often you are active. If you need guidance, check with a health care or certified fitness professional.

Here are some tips for staying safe during physical activity:

- Wear the proper safety gear, such as a bike helmet if you are bicycling.
- Make sure any sports equipment you use works and fits properly.
- Look for safe places to be active. For instance, walk in well-lit areas where other people are around. Be active with a friend or group.
- Stay hydrated to replace the body fluids you lose through sweating and to prevent you from getting overheated.
- If you are active outdoors, protect yourself from the sun with sunscreen and a hat or protective visor and clothing.
- Wear enough clothing to keep warm in cold or windy weather. Layers are best.



Stay hydrated to replace the body fluids you lose through sweating. If you don't feel right, stop your activity. If you have any of the following warning signs, stop and seek help right away:

- pain, tightness, or pressure in your chest or neck, shoulder, or arm
- extreme shortness of breath
- dizziness or sickness

Check with a health care professional about what to do if you have any of these warning signs. If your activity is causing pain in your joints, feet, ankles, or legs, you also should consult a health care professional to see if you may need to change the type or amount of activity you are doing.

What kinds of activities can I do?

You don't need to be an athlete or have special skills or equipment to make physical activity part of your life. Many types of activities you do every day, such as walking your dog or going up and down steps at home or at work, may help improve your health.

Try different activities you enjoy. If you like an activity, you're more likely to stick with it. Anything that gets you moving around, even for a few minutes at a time, is a healthy start to getting fit.

Walking

Walking is free and easy to do—and you can do it almost anywhere. Walking will help you

- burn calories
- improve your fitness
- lift your mood
- strengthen your bones and muscles

If you are concerned about safety, try walking in a shopping mall or park where it is well lit and other people are around. Many malls and parks have benches where you can take a quick break. Walking with a friend or family member is safer than walking alone and may provide the social support you need to meet your activity goals.

If you don't have time for a long walk, take several short walks instead. For example, instead of a 30-minute walk, add three 10-minute walks to your day. Shorter spurts of activity are easier to fit into a busy schedule.



If you don't have time for a long walk, take several short walks instead.

Walking tips

- Wear comfortable, well-fitting walking shoes with a lot of support, and socks that absorb sweat.
- Dress for the weather if you are walking outdoors. In cold weather, wear layers of clothing you can remove if you start getting too warm. In hot weather, protect yourself against the sun and heat.
- Warm up by walking more slowly for the first few minutes. Cool down by slowing your pace.

Dancing

Dancing can be a lot of fun while it tones your muscles, strengthens your heart and lungs, and boosts your mood. You can dance at a health club, dance studio, or even at home. Just turn on some lively music and start moving. You also can dance to a video on your TV or computer.

If you have trouble standing on your feet for a long time, try dancing while sitting down. Chair dancing lets you move your arms and legs to music while taking the weight off your feet.

Bicycling

Riding a bicycle spreads your weight among your arms, back, and hips. For outdoor biking, you may want to try a mountain bike. Mountain bikes have wider tires and are sturdier than bikes with thinner tires. You can buy a larger seat to make biking more comfortable.

For indoor biking, you may want to try a recumbent bike. On this type of bike, you sit lower to the ground with your legs reaching forward to the pedals. Your body is in more of a reclining position, which may feel better than sitting straight up. The seat on a recumbent bike is also wider than the seat on a regular bike.



For indoor biking, you may want to try a recumbent bike.

If you decide to buy a bike, check how much weight it can support to make sure it is safe for you.

Workout clothing tips

- Clothes made of fabrics that absorb sweat are best for working out.
- Comfortable, lightweight clothes allow you to move more easily.
- Tights or spandex shorts are the best bottoms to wear to prevent inner-thigh chafing.
- Women should wear a bra that provides extra support during physical activity.

Water workouts

Swimming and water workouts put less stress on your joints than walking, dancing, or biking. If your feet, back, or joints hurt when you stand, water activities may be best for you. If you feel self-conscious about wearing a bathing suit, you can wear shorts and a T-shirt while you swim.

Exercising in water

- lets you be more flexible. You can move your body in water in ways you may not be able to on land.
- reduces your risk of hurting yourself. Water provides a natural cushion, which keeps you from pounding or jarring your joints.
- helps prevent sore muscles.
- keeps you cool, even when you are working hard.

You don't need to know how to swim to work out in water. You can do shallow- or deep-water exercises at either end of the pool without swimming. For instance, you can do laps while holding onto a kickboard and kicking your feet. You also can walk or jog across the width of the pool while moving your arms.

For shallow-water workouts, the water level should be between your waist and chest. During deep-water workouts, most of your body is underwater. For safety and comfort, wear a foam belt or life jacket.

Tips for protecting your hair

If you're worried that pool water will damage or mess up your hair, try these tips:

- Use a swim cap to help protect your hair from pool chemicals and getting wet.
- Wear a natural hairstyle, short braids, locs, or twists, which may be easier to style after a water workout.
- Buy a shampoo to remove chlorine buildup, available at most drug stores, if your hair feels dry or damaged after a pool workout.

Strength training

Strength training involves using free weights, weightlifting machines, resistance bands, or your own body weight to make your muscles stronger. Lower-body strength training will improve your balance and prevent falls.

Strength training may help you

- build and maintain strong muscles as you get older
- continue to perform activities of daily living, such as carrying groceries or moving furniture
- keep your bones strong, which may help prevent [osteoporosis](#) *NIH external link* and fractures

If you are just starting out, using a weightlifting machine may be safer than dumbbells. As you get fit, you may want to add free-weight exercises with dumbbells.

You do not need a weight bench or large dumbbells to do strength training at home. You can use a pair of hand weights to do bicep curls. You can also use your own body weight: for example, get up and down from a chair.



Strength training may help you build and maintain stronger muscles as you get older.

Proper form is very important when lifting weights. You may hurt yourself if you don't lift weights properly. You may want to schedule a session with a certified fitness professional to learn which exercises to do and how to do them safely. Check with your health insurer about whether your health plan covers these services.

If you decide to buy a home gym, check how much weight it can support to make sure it is safe for you.

Strength-training tips

- Aim for at least 2 days per week of strengthen-training activities.
- Try to perform each exercise 8 to 12 times. If that's too hard, the weight you are lifting is too heavy. If it's too easy, your weight is too light.
- Try to exercise all the major muscle groups. These groups include the muscles of the legs, hips, chest, back, abdomen, shoulders, and arms.
- Don't work the same muscles 2 days in a row. Your muscles need time to recover.

Mind and body exercise

Your local hospital or fitness, recreation, or community center may offer classes such as yoga, tai chi, or Pilates.

You also may find some of these workouts online and can download them to a computer, smart phone, or other device. These types of activities may help you

- become stronger and more flexible
- feel more relaxed
- improve balance and posture



Your local hospital or fitness, recreation, or community center may offer classes such as yoga, tai chi, or Pilates.

These classes also can be a lot of fun and add variety to your workout routine. If some movements are hard to do or you have injuries you are concerned about, talk with the instructor about how to adapt the exercises and poses to meet your needs—or start with a beginner’s class.

Daily life activities

Daily life activities, such as cleaning out the attic or washing the car, are great ways to get moving. Small changes can add more physical activity to your day and improve your health. Try these:

- Take 2- to 3-minute walking breaks at work several times a day, if possible.
- Stand, walk, or stretch in place during TV commercials.
- Take the stairs instead of the elevator or escalator whenever you can.
- Park farther from where you are going and walk the rest of the way.

Even a shopping trip can be exercise because it provides a chance to walk and carry your bags. Chores such as mowing the lawn, raking leaves, and gardening also count.

Where can I be active?

You can find many fun places to be active. Having more than one place may keep you from getting bored. Here are some options:

- Join or take a class at a local fitness, recreation, or community center.
- Enjoy the outdoors by taking a hike or going for a walk in a safe local park, neighborhood, or mall.
- Work out in the comfort of your own home with a workout video or by finding a fitness channel on your TV, tablet, or other mobile device.

Tips for choosing a fitness center

- Make sure the center has exercise equipment for people who weigh more and staff to show you how to use it.
- Ask if the center has any special classes for people just starting out, older adults, or people with mobility or health issues.

- See if you can try out the center or take a class before you join.
- Try to find a center close to work or home. The quicker and easier the center is to get to, the better your chances of using it often.
- Make sure you understand the rules for joining and ending your membership, what your membership fee covers, any related costs, and the days and hours of operation.

How can I get past my roadblocks?

You most likely will face roadblocks that keep you from meeting your physical activity goals. Think about what keeps you from being active, then try to come up with creative ways to address those roadblocks. Here are a few examples to help you get started:

Barrier	Solution
I don't have enough time.	Instead of doing one long workout session, build in three 10-minute bursts of activity during your day, such as a brisk walk. Even standing up instead of sitting at your desk has benefits.
I just don't like exercise.	Good news! You don't have to run a marathon or go to the gym all the time to benefit from being active. To make physical activity more fun, try something you enjoy doing, such as dancing to the radio or taking a yoga class with friends. Many people find they start to like exercise better the more they do it.
I'm worried about my health or getting hurt.	If you have a hard time being active because of your health, talk with a health care professional first. A certified fitness professional can also guide you on how to be active safely.
I feel self-conscious working out in front of others.	Start being active at home until you feel more confident. Be active with friends who will support and encourage you.
(Add your barrier here.)	(Add your solution here.)
(Add your barrier here.)	(Add your solution here.)
(Add your barrier here.)	(Add your solution here.)

How can I stick with my physical activity plan?

Sticking with a plan to be physically active can be a challenge. Online tools such as the [NIH Body Weight Planner](#) can help. The NIH Body Weight Planner lets you tailor your calorie and physical activity plans to reach your personal goals within a specific time period.



Devices you can wear, such as pedometers and fitness trackers, may help you count steps, calories, and minutes of physical activity.

You also can download fitness apps that let you enter information to track your progress using a computer or smart phone or other mobile device.

Devices you can wear, such as pedometers and fitness trackers, may help you count steps, calories, and minutes of physical activity. Trackers can help you set goals and monitor progress. You wear most of these devices on your wrist like a watch, or clipped to your clothing.

Keeping an activity journal is another good way to help you stay motivated and on track to reach your fitness goals.

Set goals. As you track your activity, try to set specific short- and long-term goals. For example, instead of “I will be more active,” set a goal such as “I will take a walk after lunch at least 2 days a week.” Getting started with a doable goal is a good way to form a new habit. A short-term goal may be to walk 5 to 10 minutes, 5 days a week. A long-term goal may be to do at least 150 minutes of moderate-intensity physical activity a week.

Get support. Ask a family member or friend to be active with you. Your workout buddy can help make your activities more fun and can cheer you on and help you meet your goals.

Track progress. You may not feel as though you are making progress, but when you look back at where you started, you may be pleasantly surprised. Making regular activity part of your life is a big step. Start slowly and praise yourself for every goal you set and achieve.

Review your goals. Did you meet your goals? If not, why? Are they doable? Did you hit a roadblock trying to meet your goal? What will you do differently next week? Brainstorm some options to overcome future roadblocks. Ask a friend or family member to help support your goals.

Pick nonfood rewards. Whether your goal is to be active 15 minutes a day, to walk farther than you did last week, or simply to stay positive, recognizing your efforts is an important part of staying on track. Decide how you will reward yourself. Some ideas for rewards include getting new music to charge you up or buying new workout gear.

Be patient with yourself. Don’t get discouraged if you have setbacks from time to time. If you can’t achieve your goal the first time or can only stick to your goals for part of the week, remind yourself that this is all part of establishing new habits.

Look ahead. Try to focus on what you will do differently moving forward, rather than on what went wrong. Pat yourself on the back for trying.

Most importantly, don’t give up. Any movement, even for a short time, is a good thing. Each activity you add to your life is another step toward a healthier you.

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[1] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Physical Activity Guidelines for Americans, 2nd edition. Washington, DC: U.S. Department of Health and Human Services; 2018. <https://health.gov/our-work/physical-activity/current-guidelines> External link. Updated January 14, 2019. Accessed January 14, 2019.

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Additional Links

- [Understanding Adult Overweight and Obesity](#)
- [Tips to Help You Get Active](#)
- [Walking: A Step in the Right Direction](#)

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Physical and Aqua Therapy Options:

- **Aquacare:** 1-302-536-1774, www.aquacarephysicaltherapy.com **Aquatherapy offered. Handicapped Accessible. Multiple Locations include:** Berlin, MD 410-677-0700, Salisbury, MD (Milford Street) 410-548-7600 and (Salisbury Blvd.) 410-677-0700, Millsboro, DE 302-945-4250, Millville, DE 302-539-3110.
- **Atlantic Physical Therapy:** 1-888-208-3828, www.AtlanticPTRehab.com **Physical and Occupational therapy offered with multiple procedures and treatment modality options. Multiple Locations include:** Berlin, MD 410-208-3630, West Ocean City, MD 410-390-2490, Salisbury, MD 443-736-4091, Millsboro, DE 302-934-0304, Laurel DE, 302-875-8640, West Fenwick, DE 302-564-7476, Ocean View DE 302-829-8508 ***Free Transportaion Offered***
- **Eastern Shore Physical Therapy:** 1-410-641-2900, www.easternshorept.com **Physical therapy offerd in addition to deep tissue laser therapy. Location:** Suite 405 Building #4 on Franklin Ave in Berlin, MD.
- **PIVOT Physical Therapy:** 1-844-748-6878, www.PivotPhysicalTherapy.com **Physical therapy, Occupational therapy, AND Aquatherapy offered with mulitple procedures and treatment modality options. Multiple locations available in MD and Southern DE:** Berlin, MD 410-641-9576, Salisbury, MD 410-324-7409, Easton, MD 410-820-4449, Cambridge, MD 410-228-7479, Fenwick, DE 302-988-1586, Ocean View, DE 302-541-5705, Rehoboth Beach, DE 302-227-2008, Seaford, DE 302-404-5120.



Chapter 5

Lifestyle Changes Before and After Bariatric Surgery

Life After Bariatric Surgery

Updated February 2021 | Written by the [Public Education Committee](#)

<https://asmbs.org/patients/life-after-bariatric-surgery>

[Obesity is a disease](#) that can be difficult to treat and is related to many other medical problems. Treatment for obesity goes beyond a quick diet or surgery. Patients should expect to have a new lifestyle that combines healthy eating, exercise, and regular visits to healthcare providers. This approach will offer the best chance for success to prevent weight regain and return of medical problems.

- [Diet](#)
- [Vitamins and Minerals](#)
- [Exercise](#)
- [Medications](#)
- [Smoking and Alcohol](#)
- [Pregnancy](#)
- [Struggles with Weight Loss and Long-Term Follow Up](#)

Diet

- Stay hydrated! Drink 64 ounces of fluid or more each day
- Be sure to take 60-100 grams of protein per day
- Immediately after surgery, patients start with a liquid diet and will advance eventually to solid foods
- Avoid foods with high amounts of sugar and starch

Immediately following surgery, patients will be on a special diet explained by their bariatric surgery team. Most patients will start out on a liquid diet for some weeks, then will slowly start to take soft foods, and then eventually solid foods. Soon after surgery, working to drink plenty of fluids is very important, but can be difficult. Patients will need to drink 64 ounces of fluids or more to avoid nausea, kidney problems, constipation, and fatigue. In addition to staying hydrated, patients will need to focus on how much protein they take in. Most bariatric surgery programs will recommend 60 to 100 grams per day, depending on the patient. This will mean focusing on high protein foods and avoiding foods with high amounts of sugar and starch. Patients that don't take in enough protein can experience weakness and muscle loss, and this can cause serious problems.

In addition to staying hydrated, patients will need to focus on how much protein they take in. Most bariatric surgery programs will recommend 60 to 100 grams per day, depending on the patient. This will mean focusing on high protein foods and avoiding foods with high amounts of sugar and starch. Patients

that don't take in enough protein can experience weakness and muscle loss, and this can cause serious problems.

Vitamins and Minerals

- After weight loss surgery, patients will need to be on vitamin and mineral supplements for life

After any weight loss surgery, patients will need to take over the counter vitamins and minerals for life. Each bariatric surgery program will instruct patients on how much to take. These typically include: a multivitamin, Vitamin B12, Calcium, Vitamin D, and Iron. Some patients will need chewable vitamins, but some can take pills if tolerated. Patients who do not take vitamins every day for life can suffer severe and even life-threatening medical problems due to low vitamin and mineral levels.

Exercise

- Exercise is encouraged and can help maintain weight loss long-term

After weight loss surgery, patients often feel they have more energy and may want to exercise. Walking frequently, starting within just a few hours after surgery, can help patients recover faster. Each patient will be different and should check with their surgeon before they start intense exercise, but once this is started, it should be done with the goal on average to 30 minutes per day of moderate exercising. Exercise will also help keep the weight loss off when it becomes a habit.

Medications

- After weight loss surgery, many patients have their medications decreased or stopped by their doctor
- After surgery, some medications may be changed to liquid or chewable forms for a period of time

Many bariatric patients are already taking several medications for their medical problems. After surgery, patient will often be able to be taken off certain medications or their dosages will be decreased. These decisions will be made with the patient's primary doctor and their surgeon. Some patients will need different forms of medications if they are taking extended-release drugs, and some will need adjustments in dosages very early after surgery. Changes such as liquid or chewable medications may be needed, and these should be done under the direction of a doctor or pharmacist. Many patients will be on some form of anti-acid medication for a period of time after surgery.

Smoking and Alcohol

- Most surgeons will require patients to quit smoking prior to weight loss surgery
- Alcohol use after weight loss surgery can cause serious problems

Patients who have chosen to undergo a major surgical procedure to make themselves healthier need to quit smoking for the rest of their life. However, quitting can be very difficult and primary doctors and

surgeons can assist by giving tools to help patients stop smoking. Most bariatric surgery programs will require patients to stop all nicotine products before surgery. This is because tobacco use can cause multiple problems besides just lung cancer. Nicotine use worsens the body's ability to heal from surgery, and puts patients at risk for heart attack, pneumonia and blood clots immediately after surgery.

Alcohol use after bariatric surgery can have serious consequences. Alcohol is absorbed more quickly into the blood stream after surgery, and bariatric surgery patients will have higher levels of alcohol in their system for a longer period of time after drinking compared to before surgery. These and other factors can lead to an increased risk of alcoholism in bariatric surgery patients.

Pregnancy

- Female patient should avoid pregnancy for 12 to 18 months after weight loss surgery
- Weight loss surgery often can help patients become pregnant

Female patient should have a birth control plan before surgery and avoid pregnancy for 12 to 18 months after surgery. In order to reach their lowest possible weight and ensure that they have adequate nutrition should they want to become pregnant. In addition, bariatric surgery patients who had problems getting pregnant before can find that they have a much easier time after surgery. This can happen even in women who weren't having periods before surgery.

Struggles with Weight Loss and Long-Term Follow Up

- Obesity is a long-term disease and even after surgery, patients need regular follow-up

Early after surgery, patients will follow up every few months for the first year. They should have yearly visits with a bariatric specialist for life. These are important visits, since obesity is a chronic disease, and can continue or even return after surgery. Additional treatment- with weight loss medications, advice on lifestyle changes, and even more surgery can be part of long-term follow up.



Chapter 6

Behavior Change Goals for Before and After Bariatric Surgery

Pre-Surgical Preparation...

Questions to ask self:

- How am I preparing for this journey that lies ahead? _____

- What do I hope this surgery will accomplish? _____

- Who comprises my support system? _____

- What are my strengths that will carry me through this period? _____

- What are my fears about this process? _____

Nutrition Goals

1. Become Label Able.

- Eat at least 3 times a day. Do not skip meals.
- Use smaller plates to assist with portion control.
- Wean off carbonated +/- or sugar-laden beverages. "I will drink \leq ____ beverages a week."

2. Practice Mindful Eating.

- Chew food until mush at least ____ meal(s) daily.
- Do not drink with the meal and wait 30 minutes to drink after eating at least ____ meal(s) daily.
- "I will think of new hobbies and activities to replace food."

3. Achieve the Right Balance With All Types of Food and Exercise

- Every meal, combine a lean protein with a fruit or vegetable.
- Wean off sweets and fried foods. Eat these 10% of the time or less.
- "I will start and maintain a routine exercise program (i.e.: Walk- 3 days a week for 20 minutes)."

4. Commit to Using Supplements after Surgery.

- Practice drinking slowly 64oz non-carbonated, sugar free fluids daily.
- "I will purchase a protein supplement to use after surgery."
- "I will purchase a chewable/liquid multivitamin to use after surgery."

5. Re-Train Your Tastebuds

- "I will eat my protein first, fruit or vegetable second and starch last at all meals."
- "I will dine out \leq 3 times a week."
- "I will plan ____ healthy meals/snacks per week."

*You should journal food and exercise and attempt to lose 5% of your excess weight during your program. When you have accomplished this, you may make your pre-op appointments and schedule surgery.

Your goal weight is _____

Goals met. I'm ready for surgery _____ DOB _____ Date _____

The 6 stages of behavior change: a how-to guide

By Erin Eatough, PhD

<https://www.betterup.com/blog/behavior-change>

June 3, 2021 - 15 MIN READ



[Why is behavior change so hard?](#)

[The elements of behavior change](#)

[The 6 stages of behavior change](#)

[How to change behavior](#)

[Lasting behavior change is possible](#)

If you've ever made (and broken) a New Year's resolution, you know how hard behavior change can be.

You start January all excited about how different your life is going to be. Your motivation levels are through the roof.

But by mid-February, you're back to where you were before Thanksgiving. Bad habits are now routine again.

But why is changing behavior so hard? And is there a way to make successful behavioral changes?

Let's take a look at behavior change theory to determine what makes behavior change so hard. We also provide you with behavior change examples and share a six-step process that will teach you how to change behavior.

Why is behavior change so hard?

Most of our behavior is habitual. Behaviors become automatic when repeated over time.

A good example of this is driving. When you learn to drive, it requires conscious effort to learn and remember all the right steps — “mirror, signal, maneuver,” anyone?

But as time goes on, those actions form habits.

This happens when you've practiced them so often that they become automatic.

Successful behavioral change is hard because our brains get stuck in fixed patterns.

But the same mechanism that fixes our problem behavior as mental habits is often the solution to changing them.

The role of neuroplasticity in behavior change

Neuroplasticity is the process by which our brains change as we learn. It refers to the physical structures of the brain.

A new connection forms in your brain every time you learn something new.

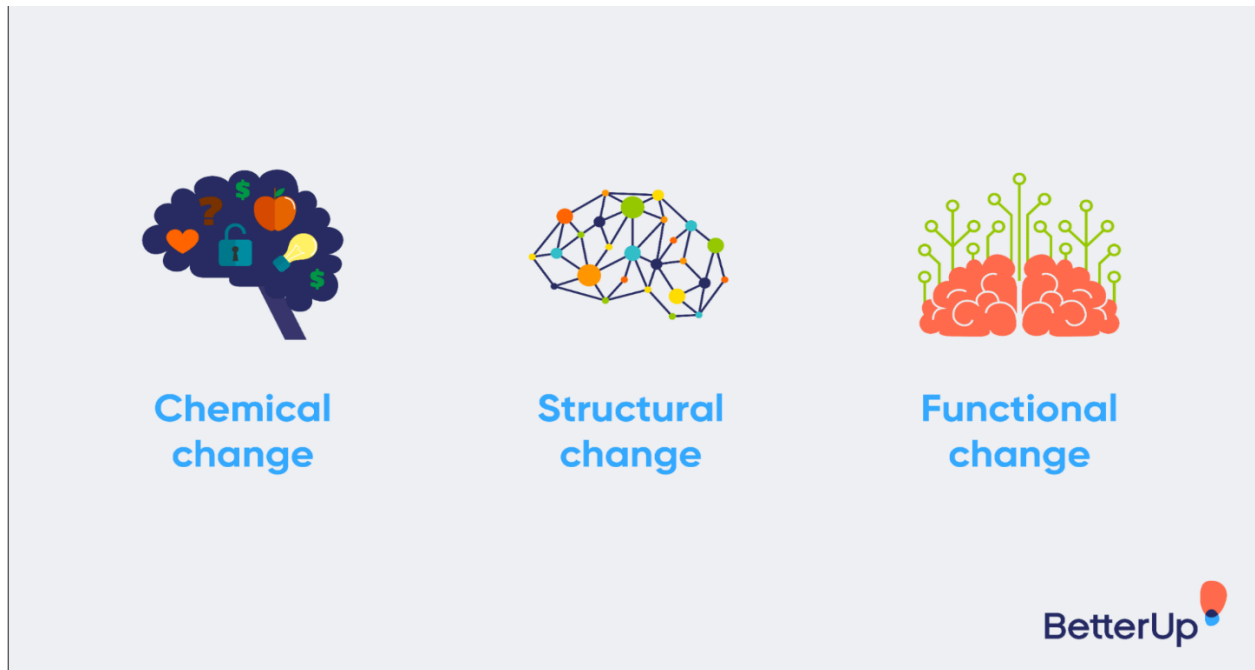
It's weak at first, but with repetition, that connection becomes stronger over time. This makes the new, healthier behavior into a habit.

The three stages of the neuroplastic change process are:

- **Chemical change:** these are short-term changes in brain chemistry in response to new behavior. They boost short-term memory and improve motor skills short term.
- **Structural change:** new connections form, altering the brain's structure. This boosts long-term memory and long-term improvement of motor skills.
- **Functional change:** entire brain networks change, becoming more efficient in their functioning. This is when lasting behavioral change occurs.

Intentional behavior change requires weakening a strong neural connection to break the old habit. At the same time, you strengthen the new one.

This is hard because setbacks can easily knock us back into our old mental patterns and behaviors.



The elements of behavior change

Before you start your planned stages of change, you must first understand the elements of change.

These are the factors that will either help or hinder you in achieving your desired behavior change.

Behavioral science change theory proposes different models. Each includes different elements of change.

However, for simplicity, we can break them down into four main ones.

1. Your willingness to change

How ready are you to change your current behavior? Are you changing for yourself or someone else?

Self-motivation is a key factor in making your new behavior stick.

2. The benefits of change

Awareness of the benefits of your target behavior will help you stay motivated.

It will also increase your resilience and ability to overcome setbacks.

3. Your barriers to change

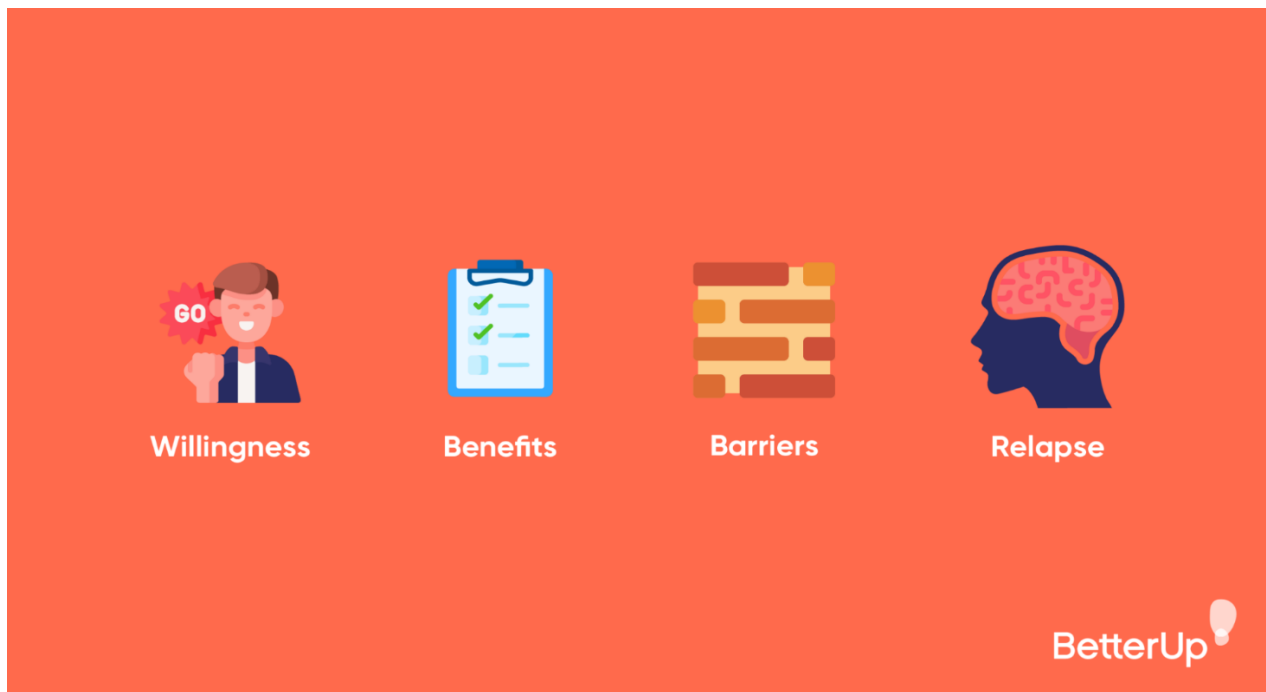
Are your current circumstances preventing you from changing?

Identify any barriers to behavior change and list any possible solutions.

4. The likelihood of relapse

If you want to make lasting change, you will face obstacles and setbacks along the way.

Being aware of possible challenges will help you prepare for and overcome them.



The 6 stages of behavior change

According to the [transtheoretical model of change](#), there are six stages of behavior change.

1. Precontemplation stage

At this stage, people are not yet aware of the negative behavior they need to change.

They don't see their behavior as a problem and aren't interested in getting help.

They may become defensive if someone pressures them to change. They also avoid speaking, reading, or thinking about it.

They may also absorb information about this problem from family, friends, or the media, but won't take action until they see it as problematic.

2. Contemplation stage

At this stage, people are aware of the negative consequences or problems. But they're not yet ready to change their unhealthy behavior.

They do start thinking about it, however. They know it's necessary to change but aren't ready.

They might weigh the pros and cons and whether the long-term benefits outweigh the short-term effort.

This stage can last a few days or an entire lifetime, depending on the individual.

3. Preparation or determination stage

This is the phase when a person is ready to make a change. They become committed to changing and motivated to take the necessary steps.

They read, talk, and gather information about the problem.

The preparation stage is crucial to the success of behavior change. Skipping this stage can drastically decrease your chances of success.

4. Action stage

At this stage, people use the strategies they learned in the previous phase to start a new, healthy behavior.

This takes willpower, and there is a high risk of failure and slipping back into old behavior and habits.

It can help to avoid external temptation and set rewards for achieving intermediate goals.

The support of others is also essential at this stage.

5. Maintenance stage

In this stage, people have made progress and realized the benefits of changing.

They understand that maintaining change will require effort, but they are aware of its value.

They create strategies to prevent relapse until the new habit becomes familiar and natural.

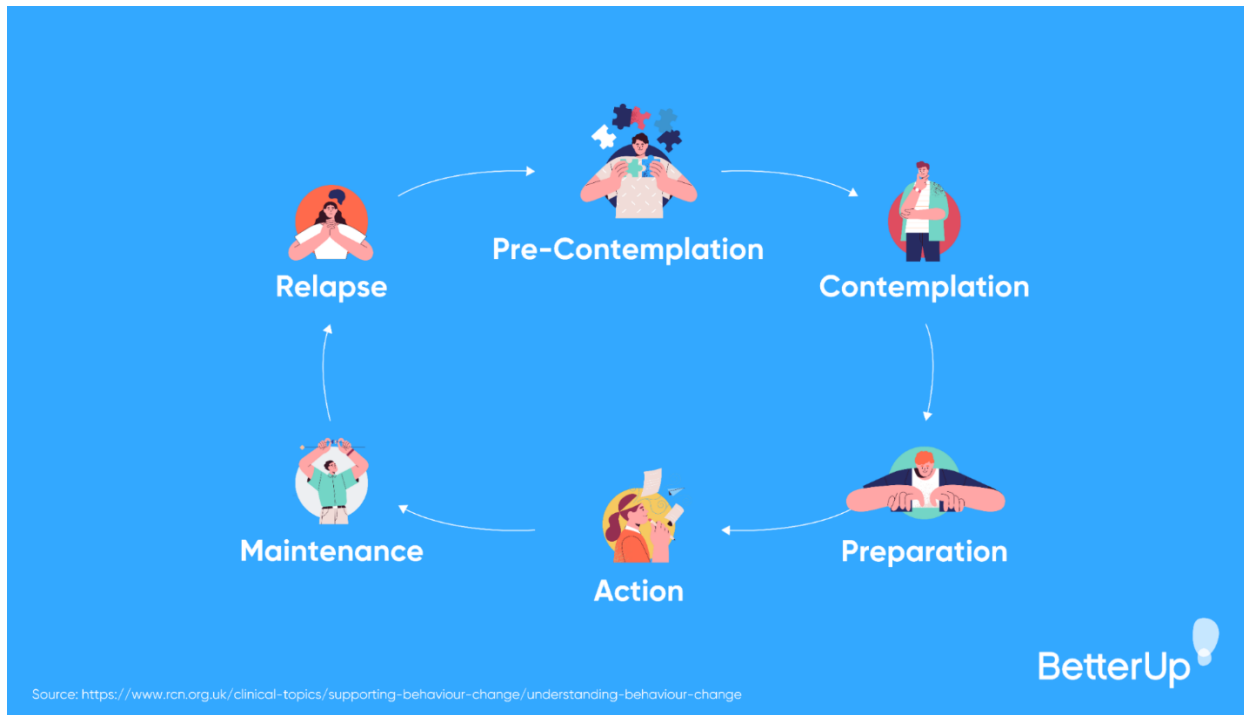
6. Relapse stage

This stage is when people slip back into their old behaviors and habits.

Relapsing is a normal part of the process of change.

The key is to identify the trigger that caused the failure and look for new and better strategies for dealing with it.

Bearing in mind the benefits of the change helps regain motivation when restarting the stages of change model.



How to change behavior

Now that you understand the elements of change and the six stages of behavior change, it's time to put them into action.

Let's take a look at four of the most common areas of behavior change and some behavior change interventions for each one.

1. Nutrition

If you've ever tried a radical change in your diet and eating habits, you know how difficult it can be.

Instead of extreme, unsustainable changes, try introducing small changes one at a time.

Research shows that this approach makes it [easier to sustain changes over the long term](#).

For example, if you drink a lot of soda, try reducing your consumption to one per day for a while. Eventually, you'll find it easier to let go of that one-soda-a-day habit.

2. Physical activity

If you're the kind of person who pays for a gym membership but never goes, you need to be strategic in your approach to physical activity.

For example, you can build physical activity into your daily routine with a few simple tweaks.

Leave your car a few blocks from the office and walk the rest of the way.

Take the stairs instead of the elevator. Get a standing desk.

But exercise is important, and these changes alone, though good, might not be enough.

To stay committed to exercise, find something you enjoy doing (yes, you have permission to cancel your gym membership).

Whether it's a brisk walk in the woods, a round of golf, a choreographed dance routine, or even a game of Twister, it's important to have fun while exercising.

Tracking your goals and progress and logging your activity can also help you stay motivated.

3. Medication non-adherence

According to research, 50% of chronic disease medications are not taken according to the prescription.

If you struggle with taking your prescribed medication, follow these steps:

- Set an alarm to help you remember to take it.
- Use a pillbox labeled with the days of the week, so you can see when you've taken it and when you haven't.
- Make a note on your phone or use a medication reminder app.

But remember, if you are having trouble taking any prescribed medication, it is always recommended to discuss it with your doctor first.

4. Insomnia

Clinicians use a form of cognitive behavioral therapy to treat patients with insomnia. It's an intervention known as brief behavioral therapy for insomnia.

This is a four-step process that you can try to improve your sleep patterns and reduce insomnia.

1. **Keep a sleep diary for two weeks.**

Track the time you go to bed, time taken to fall asleep, how often you wake up and for how long, what time you wake up, and what time you get out of bed.

2. **Set a wake-up time**

Decide what time you would like to get up and set your alarm for that time each morning.

Get out of bed when your alarm goes off, no matter what kind of night you've had.

3. **Limit your total time in bed**

After tracking your sleep for two weeks, calculate the average number of hours you sleep per night.

Add 30 minutes to that number to calculate your total time in bed limit.

4. Calculate your target bedtime

Subtract your total time in bed from your wake-up time to calculate your target bedtime.

Aim to go to bed at this time (and not before), as long as you are sleepy.

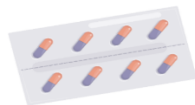
Increase your total time in bed by 15 to 30 minutes per week as your sleep cycle starts to regulate itself.



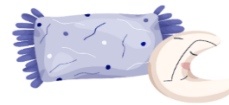
Nutrition



Physical activity



**Medications/
Medication
nonadherence**



Sleep/Insomnia



Lasting behavior change is possible

Behavior change isn't easy. Be kind to yourself as you go through this process.

Self-Review

- Re-state your personal long-term & short-term goals: _____

- Would you say you are closer to achieving your goals? Yes _____ No _____
- Are you setting realistic weekly goals for yourself? (i.e. 1-3 lb weight loss) Yes _____ No _____
- What is your 10% weight loss goal, when do you anticipate reaching it, & how will you do it? _____

- How much weight have you lost since the beginning of the program? _____

- How many calories did the dietician prescribe for you each day? _____

- How many days are you following your recommended meal plan? _____

- If you do not follow your meal plan at times, why? _____

- Are you exercising regularly? Yes _____ No _____
 - Describe the type of exercise you engage in: _____

 - How long do you typically exercise: _____

 - How often do you exercise: _____

 - What limits your ability to exercise: _____

- What are your biggest challenges in the program so far? _____

THE LIGHT SYSTEM

GREEN

- ✓ Achievement of weight goal
- ✓ Verbalizes GOOD understanding of diet
- ✓ Gives specific examples of behaviors changed
- ✓ Gives examples of behaviors needed to work on
- ✓ Has plans developed for problem areas (or asks for help)
- ✓ Quit smoking
- ✓ Reduced or eliminated drinking high calorie or caffeinated beverages
- ✓ Increased exercise or activity
- ✓ Actively completes check-in sheets
- ✓ Attending Support Group meetings

YELLOW

- ✓ Lost little or no weight
- ✓ Verbalizes key or basic concepts of diet
- ✓ Acknowledges behaviors needed for change but cannot give specific examples of “practice”
- ✓ Does not foresee any problems or challenges
- ✓ Thinks the surgery will be easy
- ✓ Has not quit smoking
- ✓ Poor completion of check-in sheets

RED

- ✓ Gained weight
- ✓ Little knowledge of diet, lifestyle, and behaviors needed for after surgery
- ✓ Little interest in changing behaviors/diet
- ✓ Binge eating/sleep eating
- ✓ Unrealistic weight goals
- ✓ Poor adherence to class goals
- ✓ Incomplete pre-op tasks

*** The Bariatric Team reviews each patient’s individual case to determine the “readiness for surgery”.**

If concerns should arise, you may be given additional requirements (i.e. additional visits with Registered Dietitian; attend extra classes; complete food/exercise logs, etc...)



Chapter 7

Dietary Changes and Supplements

Vitamin & Mineral Supplements

Individuals who undergo bariatric surgery have reduced ability to absorb vitamins which places them at higher risk of developing nutritional deficiencies. Remember, you are eating much less food and it will be harder to get the proper nutrition you need each day. It is recommended that you begin taking vitamins as soon as you start the Pre-op diet and get into the habit of taking them daily FOR THE REST OF YOUR LIFE!

Note! It is not required to purchase a bariatric vitamin. You can choose any brand as long as you reach the recommended doses of each vitamin. However, keep in mind that standard over the counter (OTC) brands are formulated to meet the needs of the general population. As a bariatric patient, your body requires a much higher level of 13 micronutrients that OTC brands will not meet; this is why we recommend taking a bariatric vitamin. **Below you will find recommendations for each vitamin and dosage. NO GUMMY VITAMINS of any kind after surgery!**

Supplement	Frequency	Dosage	Recommendations
Multivitamin With Iron	<p><u>OTC: 2 servings daily</u></p> <p>Examples: Flintstones Complete, One-A-Day Women's, Centrum Adult</p> <p><u>Bariatric: 1 serving daily (each brand has different serving sizes)</u></p> <p>Examples: Celebrate, Bariatric Fusion, BariMelts)</p>	Look for a vitamin that contains at least 18mg iron	<p>Take with meals to avoid an upset stomach</p> <p>Take at bedtime if iron causes upset stomach</p> <p>All vitamins must be in a chewable or liquid form the first 3 MONTHS!</p> <p>AVOID vitamins with words like "super", "ultra" and "Mega" unless recommended by your healthcare provider</p>
Calcium Citrate	2 times per day	1200-1500mg daily from food and/or supplement	You do not need additional calcium if you are drinking 2 milk-based protein supplements

		<p>Take in divided doses of 500-600mg two times daily.</p> <p>Do not take more than 2000mg daily</p>	<p>Space 2 hours apart from your multivitamin and iron supplements- calcium blocks the absorption of iron</p> <p>Avoid: Calcium carbonate (ie. Tums, Oscal, Caltrate)</p>
Vitamin B12	Once per day	<p>500mcg sublingual (under your tongue) or liquid daily</p> <p>OR</p> <p>1,000mcg monthly injection from your Primary Care Physician</p> <p>OR</p> <p>Nasal spray- 500mcg once a week</p>	<p>You only need additional Vitamin B12 if you are taking an OTC (Over the Counter) vitamin. The Bariatric vitamins include higher levels of B12.</p>
Vitamin D	Once per day	<p>3,000 IU (or 75mcg) Vitamin D3 daily (including the amount from your calcium supplement and multivitamin)</p>	<p>If 3,000 IU of Vitamin D3 is included in your bariatric vitamin, you do not need to take a separate supplement.</p> <p>Take with food for best absorption!</p>
Iron	The iron in your multivitamin may be sufficient	45-60mg daily	If you take an OTC multivitamin, take an additional 18-30mg iron

			<p>Most bariatric vitamins contain 45-60mg iron so no need for additional supplementation</p> <p>Taking Vitamin C at the same time as iron can increase absorption</p> <p>Do not take at the same time as your calcium supplement!</p>
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Vitamin Schedule Post-Op Surgery (Sample)

<p>8a.m. Breakfast</p>	<ul style="list-style-type: none"> • Multivitamin with Iron Take one of the following approved brands: <ul style="list-style-type: none"> - 1 Flintstones™ Complete - 1 Centrum® Complete - 1 CelebrateONE® Chewable (18 or 45 mg Iron) • 500mcg Sublingual or Liquid B12 (Do not need if taking a bariatric vitamin)
<p>10:30a.m. Mid-morning</p>	<ul style="list-style-type: none"> • 500-600mg Calcium Citrate with Vitamin D Take one of the following approved brands: <ul style="list-style-type: none"> - 3 caplets Citracal® Petites - 1 Celebrate® Soft Chew - 2 Bariatric Fusion Chews <p style="text-align: center;">OR</p> • Protein Shake with 500-600mg calcium
<p>3:30pm</p>	<ul style="list-style-type: none"> • 500mg Calcium Citrate with Vitamin D

Mid-afternoon	OR
	<ul style="list-style-type: none"> • Protein Shake with 500-600mg calcium
6 p.m. Dinner	<ul style="list-style-type: none"> • Multivitamin with Iron (only if taking OTC)

*Vitamins must be in chewable or liquid form **the first 3 months after surgery.**

Recommend using a free online website tool at www.MyMedSchedule.com to keep track of your vitamins and medications. It will send you automatic text message alerts as a reminder.

Protein Supplements

Tips when choosing a protein shake:

- Protein should be the first ingredient. (i.e. whey protein or soy protein isolate) ; If you are lactose intolerant, avoid whey protein concentrate
- Less than 200 calories per serving
- Less than 5g sugar per serving
- At least 15g protein per serving (No more than 40g protein per serving)
- **Avoid** drinks such as Boost, Ensure, or Slim Fast. These have added fat and sugar and have too many calories.
- **Avoid collagen-based supplements**

Commonly used protein shakes:

New Direction (\$16.00 for 7 packets)

- Powder mixed with water (1 packet= 200 calories, 27g protein)
- Available at **Atlantic Bariatric Center**

Optimum 100% Whey Protein (\$27.99 for 2lb powder)

- Powder mixed with water or low fat milk (1 scoop= 130 calories, 24g protein)
- Available at The Vitamin Shoppe, Walgreens®, GNC

EAS Myoplex Carb Control (\$56.64 for 24 drinks)

- Ready to drink – 110 calories, 25g protein
- Available at Harris Teeter (Selbyville)

Designer Whey® (\$22.99 for 2lb powder)

- Powder mixed with water or skim milk (1 scoop= 100 calories, 18g protein)
- Available at GNC, Rite-Aid

Unjury™ (\$22.50 for 17 servings)

- Flavored or Unflavored (if dislike the taste) powder- mix with milk or any other beverage
- 1 packet= 100 calories, 20g protein
- Coastal Drug Pharmacy (Berlin), AGH Rediscrpts Pharmacy

Nature's Best® Isopure Zero Carb (\$47.99 for 12 bottles- 2 serving each)

- Alternative to “milky” protein shakes- available in a variety of fruit-type flavors
- 12oz bottle= 160 calories, 40g protein
- Available at GNC

Premier Protein (\$37.95 for 24-count)

- Ready to drink- 160 calories, 30g protein
- Available at Wal-Mart, Sam's Club, Food Lion (Ocean City)

Ensure Max (8.99 for 4pack at Walmart)

- Ready to drink- 150 calories, 30g protein; Flavors: Milk Chocolate, Café Mocha, French Vanilla, Mixed Berry
- Available at Wal-Mart, Walgreens, Target, Food Lion

* Good supplements to consume while on clear liquid diet- if choosing a powder, mix with water, not milk (can add milk once on full liquid diet).

Now in Stock at AGHRx RediScripts

Protein



\$22.50 each

Chocolate Splendor (17 Servings)

Strawberry Sorbet (17 Servings)

Unflavored (15 Servings)

\$5.50 Shaker (20 oz.)



Opurity Supplements

**Bypass/Sleeve Optimized Multi Chewable
(\$31.20 for 90 ct.)**

Sleeve & Bypass Bariatric Multi Capsules (\$29.95 for 180 ct.)

Calcium Citrate Plus Chewable (\$15.00 for 125 ct.)

Celebrate Supplements

**Multi-Complete 45 Chewable Forrest Berry
(\$24.95 for 60 ct.)**



Our pharmacy staff would be happy to answer any of your questions. Just call 410-641-9240. Hours: 8 a.m.-6 p.m., Monday through Friday and 9 a.m.- 5 p.m. Saturday.

Plant Based Protein Supplements

Tips when choosing a protein shake:

- Protein should be the first ingredient
- Less than 200 calories per serving
- Less than 5g sugar per serving
- At least 15g protein per serving (No more than 40g protein per serving)
- **Avoid** meal replacements like regular Ensure, Boost, and Slim Fast. They have added fat and sugar and have too many calories. Look for their low sugar, high protein products that meet the above requirements.
- **Avoid collagen-based supplements**

Ripple (\$19.99 for 15 servings)

- Powder to mix with water or dairy free milk (20g protein, 4g total carbohydrate, 2g fiber)
- No sugar alcohol
- Found on Amazon

Vega Sport (\$39.98 for 20 servings)

- Powder to mix with water or dairy free milk (30g protein, 4g total carbohydrate, 1g fiber)
- Contains stevia, no sugar alcohol

Orgain (\$23.17 for 20 servings)

- Powder (21g protein, 18g total carbohydrate, 5g erythritol, 6g fiber)
- Do not consume the Ready to Drink- too high in carbohydrate
- Contains erythritol and stevia

Owyn (\$37.99 for 28 servings powder, \$35.99 for 12 RTD)

- Powder (20g protein, 8g total carbohydrate, ,2g fiber)
- Ready to Drink (20g protein, 10g total carbohydrate, 5g fiber)
- No sugar alcohol

Ensure Plant Based Protein (\$10.44 for 4 servings at Walmart)

- Ready to drink (20g protein, 14g total carbohydrate, 5g fiber)
- Contains Stevia

If the protein supplement contains > 3g dietary fiber, DO NOT consume for 4 weeks after surgery. Too much fiber is hard on your new stomach pouch. You can resume after the 4 weeks.

Good Sources of Protein

Foods	Protein
1 cup Skim milk or Lactaid milk	8 grams
1 cup soy milk	8 grams
6oz Greek yogurt	12 grams
½ cup cottage cheese	12 grams
3 oz chicken, fish or beef (deck of cards)	21 grams (1 oz= 7g)
1 egg	6 grams
½ cup beans (black, kidney, chickpeas, lentils)	6-10 grams
½ cup edamame (soybeans)	6 grams
2 Tbsp non-fat, dry milk	4 grams
1oz low fat cheese	7 grams
¼ cup Feta cheese	5 grams
2 Laughing Cow® cheese wedges	4 grams
½ cup Quinoa	6 grams
¼ cup Hummus	4 grams
2 Tbsp peanut butter	6 grams
¼ cup nuts or 1oz	5-6 grams
¼ cup sunflower seeds	7 grams
3 Tbsp Hemp seeds (add to smoothies or baked goods)	10 grams
Veggie Burger (1 patty)	10 grams
½ cup Tofu	15-20 grams
1 cup Kashi® GOLEAN, Crunch Cereal	9 grams

High Protein Shakes (low sugar and low fat)

Banana Cow Smoothie

Blend $\frac{3}{4}$ c. of skim milk with 1 scoop of chocolate protein shake. Add $\frac{1}{2}$ small banana. Once smooth, add ice until desired consistency is reached. To add a boost of healthy fats, add 1 tbs. ground flaxseed.

Orange Dreamscicle

Blend $\frac{3}{4}$ cup of skim milk with 1 scoop vanilla protein shake. Add 2 teaspoons of sugar free Jell-O powder. Once smooth, add ice until desired consistency is reached. For additional flavor consider adding a few rinds of fresh orange peel or zest.

Hot Chocolate

Heat $\frac{3}{4}$ cup of milk in the microwave or on the stove. Add milk to blender and blend at medium speed. Add chocolate protein powder, 1-1.5 tbs. of unsweetened cocoa and 2 packets of calorie-free sweetener such as Equal or Splenda. Blend until smooth.

Blended Mocha Latte

Cool $\frac{3}{4}$ cup of strong decaffeinated coffee. Add coffee to blender and begin blending. Add 1 scoop chocolate protein powder, 1-1.5 tbs. unsweetened cocoa, and 2 packets of a calorie-free sweetener such as Sweet-N-Low, Equal or Splenda. Once thoroughly blended, add ice until desired consistency is achieved. Decaffeinated instant coffee grounds can also be used with skim milk instead of coffee.

Strawberry Sensation

Place 6 oz. sugar-free strawberry yogurt and $\frac{3}{4}$ cup of skim milk into the blender. Add 1 scoop of vanilla protein powder, blend until smooth. Add 3-4 medium frozen or fresh strawberries. For an extra boost of healthy fats, add 1 tbs. of ground flaxseed.

Pistachio Whip

Place 8-10 ice cubes in a food processor or blender. Process until ice resembles snow cone texture. Open the lid, using a spoon scrape the ice off of the sides. Add $\frac{1}{4}$ cup of water, 1 scoop vanilla protein, 2 – 3 teaspoon of sugar-free pistachio pudding powder. Replace lid and process on high for 1 minute.

Lemon Cheesecake Shake

Blend $\frac{3}{4}$ cup of skim milk with 1 scoop vanilla protein shake. Add 1 teaspoon of lemon extract and 2 teaspoons of sugar-free cheesecake pudding powder. Once smooth, add ice until desired consistency is reached.

Other Flavor-Enhancing Tips

- Add sugar free Jell-O or sugar free pudding powder to flavor any shake.
- If you like coffee, start with a milk base then add a few teaspoons of decaffeinated instant coffee into the blender.
- Any extract can be added to your shake. Feel like summer? Try adding a dab of coconut and pineapple extract to your vanilla shake!
- Berries are a very concentrated source of nutrition. Add fresh or frozen berries to any shake. Unlike ice cubes, frozen berries will not dilute your shake.
- If you are craving something creamy and smooth, add your favorite sugar-free yogurt to the shake.





Chapter 8

Emotional Adjustments After Surgery

Finding support after bariatric surgery...

- Some of your family or friends may find it difficult to support you through your bariatric surgery. They may not realize that the negative comments they make about your surgery could upset or hurt you. This type of situation can be challenging. The best way to avoid a problem is to have a good, effective support system in place to counteract any negativity you may encounter.
- Tips:
 - Talk & communicate openly with family & friends about your surgery & your program. Let others know what your goals are & of your intentions to keep them. Calmly let them know what your expectations are & what types of comments & behaviors you might find helpful or supportive.
 - Offer to bring your support members to one of your support groups to help enlighten them & engage them in the weight loss process.
 - Provide your support members with information that you find useful & relevant to understanding why the program & surgery are important to you.
 - Practice polite ways of changing the subject if someone starts to make negative comments or makes you feel uncomfortable about the subject of surgery.
 - Consider limiting the amount of time you spend with others who are resistant to abiding by your requests to remain positive about your surgery.
- Your support system could be a family member, friend, co-worker, neighbor, medical professional, etc. Think about who lifts you up, & who helps you in your effort to make the lifestyle changes necessary for surgery. Here are some things you may want to consider when choosing your support individuals or system:
 - Who supports healthy eating habits, encourages my exercise regimen, keeps me motivated to stay on track, encourages healthy lifestyle changes, is supportive of me having bariatric surgery, is there for me when I need him/her, makes me feel good about myself, discourages unhealthy lifestyle habits, lifts my self-esteem???

Follow the links below, or continue reading for more information on emotional adjustment and support after bariatric surgery:

<https://www.obesityaction.org/resources/baby-steps-emotional-adjustments-after-weight-loss-surgery/>

<https://www.obesityaction.org/resources/support-groups-educating-motivating-and-celebrating-weight-loss-surgery-patients/>

Baby Steps

Emotional Adjustments

after Weight-Loss
Surgery



By Lynne Routsong-Wiechers, MSW, LISW

- *I look in the mirror (if I get the nerve up) and see somewhat of a familiar face, but unsure as to whom is looking back.*
- *I look at my body and wonder how on earth I allowed myself to get this way... I then cry.*
- *I see the disappointment in my children's faces when they ask me to play with them, but I just don't have the energy nor the will to move.*
- *I wake up in the morning and dread putting my feet on the ground because of the pain that I know is coming.*
- *I avoid public places and gatherings with friends because I fear the stares and the comments that may come.*
- *I look at my closet, and realize that the majority of my closet consists of blue and black stretch pants and wide slip on shoes.*
- *I dread traveling far distances, especially by plane, for fear that my luggage gets lost and I*

These are the thoughts that race through an obese person's mind daily. Obesity is something that you go to sleep and wake up with. You can't get away from it. It becomes your identity. There is so much shame and guilt that is associated with being overweight.

Having weight-loss surgery causes a ripple effect and many other areas of your life will change. A person will often experience changes in their emotional state; for example, depression may often times go away. Pa-

- can't find clothes in my size at the stores and the fact that I can no longer comfortably sit in a seat.*
- *I pretend that my seatbelt fits on an airplane because I don't want to ask for an extension.*
- *I go grocery shopping at night so I am not judged by what I put in my cart.*
- *I am convinced that my arms are becoming shorter because my bathroom habits are becoming difficult.*
- *I notice that walking even short distances feels like I have run a marathon.*
- *I am always hot and sweating even when it's cold outside.*
- *I no longer feel attractive towards my significant other.*
- *I feel like I have lost all sense of myself.*
- *I am scared that today may be my last.*

tients also could experience less physical pain and obstacles. Some changes that could occur include:

- Career
- Relationships
- Marriage
- Friendships
- Spirituality

Currently, I no longer suffer with the physical comorbidities. I am able to walk and even sometimes run

By Lynne Routsong-Wiechers, MSW, LISW

Summer 2006

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Having weight-loss surgery causes a ripple effect and many other areas of your life will change. A person will often experience changes in their emotional state; for example, depression may oftentimes go away. Patients also could experience less physical pain and obstacles. Some changes that could occur include:

- Career
- Relationships
- Marriage
- Friendships
- Spirituality

Currently, I no longer suffer with the physical co-morbidities. I am able to walk and even sometimes run around the yard with my children. I even got on a bike! I no longer suffer from depression and my energy level is off the charts. After having undergone my surgery, I realized that many people don't truly understand what its like to be affected by obesity unless they walked in our shoes.

Patients with obesity need a voice and they need to be heard. I decided to open up a counseling practice specifically for gastric bypass patients and obesity-related issues. I see the relief in my patients' eyes when they see my pre-surgery picture and realize that, "I have walked in their shoes." There is so much shame and guilt that is associated with being overweight. I try to encourage my patients to let the guilt go and focus on the reality that they will lead a very different life after surgery.

The Changes: This is Not the Easy Way out.

We dream about it. We think about it. We almost become obsessed with the thoughts of being a healthy person. It sometimes keeps us up a night. We finally see the light at the end of the tunnel and realize that we will get there. We wait for weeks sometimes months for that “letter.” You know which one I am talking about – the letter from the insurance company. Then one day you go to the mailbox and there it is. You realize that it’s now a reality! All of the preparation has paid off, but now the reality of what is about to happen sets in.

Getting patients to realize that weight-loss surgery is not the easy way out is essential in successful weight-loss. Regardless of what we hear in the media and from society, this is not easy. Deciding to have this surgery is difficult, but living as a weight-loss surgery patient is not always easy.

Fear of the Unknown: “Baby Steps”

Although we are looking for a change in our lives, change can be scary and unknown. Many of us fear change, but at the same time look forward to it. I can’t tell you how many times patients, including myself, ask themselves, “why did I do this,” right after surgery. Most often this emotion is short-lived, but it’s an example of how change can affect us.

I realized that I was no longer going to allow food to control me. Food issues become an addiction and we must learn that we no longer live to eat, but instead we eat to live.

In addition, we all go through a phase where you have a difficult time realizing the new you. For example, although patients may reach their goal weight, they may look in the mirror and ask themselves, “who is that thin person?” Losing a massive amount of weight can make a person feel vulnerable and afraid. Remember, individuals with obesity like to “blend in” with the crowd, but all of a sudden we are now the focus of attention. People are watching us. They are now watching what we eat, asking us how much we have lost and even giving us compliments. This can make us feel uncomfortable.

I call it taking “baby steps.” We are re-learning who we are in life. In relation to baby steps, we have to re-learn how to eat according to our surgery. We have to adjust to:

- Eating smaller portions
- Chewing food to a pulp
- Not drinking while eating
- Avoiding high sugar and fatty foods
- Changing our eating behaviors for good

Food is a central part of our life. If you’re an alcoholic, the cure for alcoholism is to stop drinking. Unfortunately, we need food for survival. Food issues become an addiction and we must learn that we no longer live to eat, but instead we eat to live. It took me a long time to understand this concept. There were so many things in my life related around food. I realized that I was no longer going to allow food to control me.

What’s in my Toolbox: “Surgery as a Tool”

Weight-loss surgery is a great tool. This means that it is not the fix all, but if you correctly use the tool then you will have increased chances of success. If you choose to misuse the tool, then chances are you will have less success. This surgery will enable you to only eat small portions and feel a sense of fullness.

Although this sounds so “simple” it can be difficult. In addition, we go through phases where we long for food. This is also known as “food grief.” It is as if we long for our “friend” of food. We turn to food in times of celebration, sadness, for reward and for comfort. When a person can no longer turn to food to fill the void, they must find other ways.

Many of my patients, including myself, find other hobbies or activities. In addition, this is when bariatric support groups become so helpful and beneficial.

Seven Steps to Improving Emotional Adjustments Post-Surgery

1. Follow your doctor's orders and recommendations. This means following the dietary changes from the start. Get lots of rest and take care of your physical needs.
2. Journal. I know what you are thinking. Journaling is boring and tedious and we don't like it, right? By keeping track of the foods you eat and how you feel will truly help you feel more in control emotionally and physically. This is especially helpful if you find that you are emotionally eating.
3. Set realistic goals and expectations. For many, goals may be getting off their medication(s), walking without getting winded or the ability to cross their legs. So whatever your goals are make sure that you write them down and modify them as needed.
4. Reflect on the past. Although it is important to move on, it's also important for patients to remember the moment when they decided to have weight-loss surgery. It's sort of like we have to hit our "low or bottom" to realize that we have to change.
5. Take lots of pictures, measurements and keep your pants. It is important that we take pre-op pictures and post-op pictures regularly. This reminds us about our success. Measurements and pre-op clothing are important especially during the dreaded plateaus. We may be losing inches and it's important that we have visual aids to help us realize our success. Although you may be a smaller size, you may still view yourself as the larger you. It's important to have a visual reference point to remind us that we are losing weight.
6. Seek help. It is important to ask for help if you find that you are having difficulty adjusting to the many changes after surgery. Seek support via support groups, family, friends and/or professional counseling. Support groups and counseling are especially rewarding and helpful because we realize that many patients often experience the same adjustment issues and it makes us feel less isolated and alone while we travel our journey.
7. Live life to the fullest. You deserve to be healthy, happy and have fun! Enjoy and savor every moment of your weight-loss journey. You deserve it.

Lynne's Story

I was 285 pounds at 5'4" tall. I had tried every diet known to man, including rigorous exercise programs, usually ending up with only a five to 10-pound weight-loss. I realized that my weight gain was not going to stop.

Physically, I was hurting. Emotionally, I suffered from depression, and my career became a struggle. I was counseling in a private practice but barely had the energy to see three patients per day, often having to take a nap in between. I came to the realization that "I" was the one who needed to gain control and get help. That's a tall order coming from a psychotherapist. After all, we are the ones who are supposed to be helping others. I swallowed my pride and decided to take control of my life. I wanted to be free; free of this body and free to "live" life, not just exist.

I began living my new life three years ago. I underwent gastric bypass surgery in Dayton, Ohio and have not looked back. I lost 160 pounds and went from a size 24 to a size 4/6. My whole life has changed.

About the Author:

Lynne Routsong-Wiechers, MSW, LISW, has worked in private practice counseling since 1996. She underwent gastric bypass in 2003 and has dedicated her practice to working with gastric bypass and obesity patients. She is

currently a Bariatric Psychotherapist in Dayton, Ohio, providing consultation to medical professionals and speaking to the public regarding gastric bypass.

Support Groups

*Educating,
Motivating
and
Celebrating*

Weight-Loss Surgery Patients



By Colleen Cook

From the “Do I have to go?” to the “I can’t wait until next month” attitude, feelings about bariatric support groups are as diverse as the groups themselves. At any one of the thousands of bariatric support group meetings held each month, you will find that those in attendance include:

- Weight-loss surgery investigators seeking information and the “real story”
- Anxious pre-op patients waiting for surgery
- Early post-op patients or “newbies”
- Long-term veteran patients checking in
- Back on trackers seeking to re-lose pounds
- Friends and family members
- Volunteers
- Professionals

Each person is there for a different reason, with different needs and doesn’t it make you wonder, “What is it that draws these people together? Why do they come?”

Our experience with thousands of weight-loss surgery patients and hundreds of support groups has provided us some valuable insight into why people attend support groups, how they are benefiting and why those who are not attending should. Here are just a few of the benefits that we identified:

Validation: From my own experience, I recall the weeks prior to my surgery were a time of great trepidation; a time full of questions.

For instance, I remember thinking:

- “Am I doing the right thing?”
- “Will I be ok?”
- “Will I succeed?”
- “Is it worth the risk?”

As many do, I turned to a bariatric support group to find not only answers to my practical questions, but also for validation for my decision to have weight-loss surgery. While each must find his or her answers to these questions and come to feel good about their choices, support groups can help provide insight, perspective and real world experiences from those who have been there and now are able to share their perspective.

Education: Quality support groups provide more than just social and emotional support. They provide a wonderful opportunity for learning. Some groups provide a more structured agenda, featuring scheduled topic presentations and discussions. Others enjoy participatory activities designed to reinforce key principles of success and help patients learn concepts sometimes difficult for lay people to grasp.

Many groups often invite guest speakers. Some are bariatric professionals like dietitians, psychologists and fitness instructors. Other guests provide presentations on topics like grooming, dating and cooking. All are designed to educate, inform and provide a well-rounded foundation of knowledge for long-term success.

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Summer 2006

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Motivation:

There is a wonderful story told of a young mother wanting to have her little boy learn to play the piano. He was taking lessons and she was just sure that he would become a famous pianist. She made arrangements for him to go to Carnegie Hall to see the Master Ignacy Paderewski play.

She dressed-up her son in his little suit and took him to the concert. They found their seats, settled down real close to the stage, and the mother turned around and saw a friend of hers and started talking. When she turned back around the little boy was gone, and she panicked immediately. “Where did he go? Oh, no!” Moments later, she noticed her son up on the stage, at the grand piano on Carnegie Hall, playing “Twinkle, Twinkle Little Star.” He had just learned the song. The audience was aghast – “Somebody stop him!” “That is awful!” “Somebody get him down from there!”

From the back of the room came the Master Ignacy Paderewski at a dead run, down through the aisle, up onto the stage, and behind the little boy. He began playing an accompanying melody to the little boy’s song and as he did, he encouraged, saying, “Don’t stop, keep going, you’re doing fine.”

As weight-loss surgery patients, we sometimes feel alone and misunderstood in the real world. It is so very important to surround ourselves with people who understand our decision to have weight-loss surgery and what it is like to deal with the many physical, emotional and relationship changes that we experience throughout our journey. Support groups are a place to find people who provide us with understanding, compassion and encouragement.

Celebration:

As pounds come off, health is restored and dreams come true. It is a wonderful thing to have an opportunity to share successes with others. Support groups provide just such a place. Whether formally or informally, comments like these abound: “I am half the woman I used to be!” “I can cross my legs!” “They didn’t even recognize me!”

What an exciting time for weight-loss surgery patients. Support groups provide patients a time to share their success; to have a moment in the sun, to be queen or king of the prom, to graduate, or to receive a personal recognition for their achievement with a pin, photo or certificate.

Rededication:

The first few years following weight-loss surgery are awesome, but there comes a time when we reach what I call, “the end of invincible.” It is not uncommon for patients to slip back into old habits, regain a few pounds and become discouraged. When and if that happens, support groups become an even more important connection to help stay focused, in control and successful. A monthly weigh-in or check-in at a support group meeting provides an important element of accountability and an opportunity to reconnect and rededicate ones self to long-term goals.

So, if you need to be educated, motivated, celebrated or rededicated, you will find it all at a quality support group meeting. For meetings in your area, refer to the International Support Group Registry online at www.bariatricsupportcenter.com.

About the Author:

Colleen Cook is a speaker, author and President of Bariatric Support Center International (BSCI), a company that specializes in providing long-term education and support for weight-loss surgery patients and professionals. For more information on BSCI or for the International Support Group Registry visit www.bariatricsupportcenter.com.

Staying on track after bariatric surgery...

- Reasons I do not want to regain weight: _____

- Healthy eating habits to continue: _____

- Positive activity habits to continue: _____

- Personal triggers to be aware of that may make me veer from my program: _____

- Personal motivators for practicing healthy eating and exercise: _____



Chapter 9

Post-op Meal Planning and Possible Complications

Atlantic General Bariatric Center Gastric Sleeve/Bypass Post-Op Diet Instructions

These are general guidelines regarding when to introduce various foods. This diet progression will minimize risks for complications, allow for proper healing, and enhance weight loss. Everyone is different and may not advance at the same rate. Choosing a well balanced diet and following the types and amounts of foods listed will help to maintain good health while losing weight.

Clear Liquids ⇒ **Full Liquids** ⇒ **Puree/Soft Foods** ⇒ **Solid Food**
 (Day 1 & 2) (Day 3-Week 2) (Weeks 3-4/ 5-6) (Week 7 & beyond)

Clear Liquids (Day 1-2 after surgery)

During this stage, you will drink **room temperature** liquids that are thin enough to be sucked through a straw. However, you will **not** be using a straw, only taking sips. It is important to be on liquids to keep the stomach from working too hard, promote healing, and to avoid any vomiting in the immediate post-operative period.

- **You must sip fluids all day. The goal should be 4oz of liquid every hour while awake (Total fluid intake: 48-64oz daily)**
- **DO NOT USE A STRAW!**
- **No carbonated beverages!**
- **Avoid Regular & Decaffeinated coffee for 2 weeks after surgery (can irritate the lining of the stomach)**
- **Avoid citrus juices (orange/grapefruit) & tomato juice for the first 3 weeks.**

Recommended Beverages

Beverages/ Fluids	Water, herbal tea, sugar free popsicles, diet gelatin, Sugar free beverages: Crystal Light®, Diet Snapple®, Propel®, Fruit2O® , diluted fruit juice (no more than 4oz per day and avoid acidic juices)
Soups	Clear broth, bouillon

Full Liquids (Day 3 thru Week 2)

This diet includes the clear liquids listed above and solid foods that are diluted until runny (food should slide off the back of a spoon).

- Drink 48oz- 64oz of fluid per day.
- Start drinking your protein supplements- these count towards your fluid goal!

- Eat 3 meals per day plus 2-3 protein drinks in between meals.
- Choose full liquids with <25g of sugar per serving.
- Start taking your multivitamin on DAY 14!

Recommended Foods

*** You can include the foods from above in addition to the foods listed here**

Protein Foods Eat First	Skim, 1% milk or unsweetened light soy milk Lite, low calorie yogurt (Dannon® Light ‘n Fit) Strained cream soups made with fat-free milk (Campbell’s ® 98% fat free cream of chicken soup) Sugar-free pudding
Non-Protein Foods	100% Fruit juice (less than 4oz/day) Diluted oatmeal, cream of wheat or cream of rice (runny)

Puree “Baby Food” Stage (Weeks 3-4)

At this stage, the diet will consist mainly of soft or blended foods that are low in fat and sugar. Foods should be the consistency of smooth yogurt or thick liquid. (**No chunks, lumps or bumps!**)

- Start with 1 ounce (2 Tbsp). Meal size should be no more than 4 Tbsp (1/4 cup). Stop when you are full!
- Eat 3 small meals with protein supplement between meals.
- Eat protein foods first. If you are not too full, try vegetables or fruit.
- This is the stage where you separate solids from liquids (30 minutes before and after each meal) and continue for the rest of your life!

Recommended Foods

Protein Foods: Meat Meat Substitute	Chopped up soft poached eggs or scrambled eggs, low fat blended cottage cheese, Pureed moist meat (broth or low-fat gravy), poultry, and seafood Mashed soft fish, silken tofu
Non-Protein Foods, eat only if still hungry	
Fruits	Unsweetened applesauce, any fruit pureed without the skin and no seeds, mashed ripe banana
Vegetables	Pureed cooked vegetables (no corn, peas or veggies with stalks), marinara sauce
Breads, Pasta, Starches	Hot cereal- unsweetened oatmeal, cream of wheat, and grits (made with milk), mashed white or sweet potatoes, hummus
Miscellaneous	Blended soups (no chunks of vegetables or meat)- limit

	creamed soups to low fat versions Sugar free Jell-O, sugar free Popsicles, sugar free/fat free ice cream
--	-------------------------------------------------------------------------------------------------------------

Soft Foods (Weeks 5-6- you may stay in this phase for up to 4 weeks)

- Continue drinking 2 protein shake daily.
- Always eat your protein first, then a fruit or vegetable. AVOID rice, bread and pasta until you can comfortably consume adequate protein, fruits and vegetables.
- Your portions will likely be ¼- ½ cup per meal. LISTEN to your fullness cues.
- Chew food thoroughly, about 20 times.
- Meal should last no less than 20 minutes, and no more than 30 minutes.

The following foods listed also include foods from previous phases.

Recommended Foods

Proteins: Meats, Meat Substitutes	Moist, ground lean meat or poultry, chicken salad w/ lite mayonnaise, Egg Beaters, egg Salad w/ lite mayonnaise, flaked fish, mashed beans such as: pinto, navy, kidney, garbanzo, low fat cottage cheese or ricotta cheese, low fat cheese, scrambled eggs, tuna fish w/ lite mayonnaise, lite yogurt or sugar free, silken tofu
Protein Supplements	Skim milk, 1% milk, unsweetened light/low calorie soy milk, protein shake (see list)
Fruit	mashed bananas, canned fruit (packed in own juice), Ripe, soft fresh fruit (no skin or seeds)
Vegetables	Soft cooked vegetables without hulls or tough skin (ie. Peas or corn), vegetable juice, asparagus, eggplant, carrots, beets, zucchini, tomato sauce, winter squash
Breads, Pasta, & Starches	Cooked or dry cereal (<3g fiber per serving), potatoes without the skin, rice or pasta in sauce, toasted bread with no seeds or nuts, crackers
Fats & Oils	Light butter & tub margarine (~1 tsp), fat free gravy, low fat or lite mayonnaise, olive oil and canola oil (no more than 1 tsp)
Condiments	Herbs and mild spices- use with caution as tolerated

Solid Foods (Week 7 & Beyond)

You should slowly transition yourself to more solid foods. If you do not tolerate a food at first, you can try to reintroduce it a week later. Once you have transitioned to solid foods, your food choices should always be high in protein and low in refined carbohydrates (white flour). Choose protein first, then vegetables and fruits, and then whole grains.

- Eat only 3 small low calorie, low fat meals plus 1-2 high protein snacks as needed.
- The amount of food you will eat will be between ½ - 1 cup per meal.
- Drink 24-32oz of calorie free beverages plus 24-32oz of protein shakes per day between meals to meet fluid needs.
- Aim for 60-80 grams of protein per day. Continue the protein supplements if you are unable to consume this amount from food sources alone.
- Take 2 bites of protein, 2 bites of fruit or vegetable and 1 bite of starch. Repeat until you are comfortably full.
- Chew food thoroughly.
- Stop eating when no longer hungry, or with any sign of fullness.

Problematic Foods

Foods most likely to cause problems are stringy foods and foods that may swell. The following list of foods may be difficult to tolerate and should be introduced slowly into your diet.

- Dry meat
- Shrimp
- Untoasted or doughy bread
- Pasta
- Rice
- Peanut Butter
- Fibrous Vegetables (corn, celery, asparagus, broccoli stalks)
- Coconut
- Pineapple
- Rhubarb
- Nuts
- Popcorn
- Greasy or fried food (should be avoided anyway)
- Seeds & skins of fruits and vegetables
- Membrane of citrus fruits (orange, grapefruit)

***If food feels stuck, do NOT drink or eat anything else**

If you don't tolerate certain foods or notice nausea or vomiting during or after eating, ask yourself the following:

- Did I chew to a mush consistency?
- Did I eat too fast?
- Did I eat too much volume?
- Did I drink with my meal?
- Was the food moist or dry?
- Did I eat a food high in fat?

Tips for Long-Term Success

Remember that it is not always what we eat, but how we eat, that determines our calorie intake. Review your behavior modifications regularly and remember that these must become a habit in order for you to lose weight and keep it off.

1. **Calorie Free Beverages for Life!** Never drink liquids with your meal- you don't want the beverages to "wash down" your food.
2. **Don't Bypass Breakfast.** To maintain consistent, permanent weight loss, you should incorporate a morning meal. If you feel "tight" in the morning and it is difficult for you to tolerate a solid breakfast, then drink a balanced liquid meal replacement.
3. **It Still Matters What You Eat.** Pack your meals with lean protein and fiber. These foods create a sense of fullness and will prevent you from overeating at mealtime. Avoid "slider" foods (fried, greasy foods, chips, pastry, ice cream, highly processed foods). These are foods that will easily pass through the opening and can lead to weight gain.
4. **Do Not Overeat!** Stop eating when you feel comfortably satisfied- if ignored, vomiting will follow and you can stretch the size of the stomach pouch.
5. **A Food Journal is Essential.** It is one of the most effective tools to promote awareness and mindfulness of food consumed.
6. **Plan Ahead.** Pick a day you are not so busy and stock your pantry with healthy foods and map out a week of healthy meals. Pack healthy snacks if you are on the road a lot.

If you have any questions before or after surgery, please do not hesitate to call. We are committed to helping you achieve a successful weight loss.

Amy Gehrig, RD, LDN

410-641-9568

agehrig@atlanticgeneral.org

(Office hours: Tuesday and Wednesday-9:00am – 4:30pm)

Amanda Buckley, RD, LDN

410-641-9568

abuckley@atlanticgeneral.org

(Office hours: Monday, Thursday, & Friday-9:00am – 4:30pm)

Basic Diet Guidelines: After the Surgery

1. **Eat at least 3 times a day.**
2. **STOP eating or drinking as soon as you feel full.** Pushing yourself to eat more will cause the stomach to stretch. If you continue to eat or drink once you are full, you will probably vomit.
3. **Eat slowly and chew foods until mush consistency. You should take at least 20-30 minutes to finish each meal.** If you are eating fast, you may be full before you can feel it and then overeat.
4. **Introduce one new food at a time.** If not tolerated, try re-introducing several days later. Most food intolerances are temporary.
5. **Do not drink with your meals.** Fluids push some foods through your stomach pouch faster. This will make you hungry sooner and more likely to snack. Some foods will just sit in your stomach pouch when combined with fluid and cause discomfort. **Stop drinking liquids 15 minutes before eating and wait 30 minutes after eating before you drink.**
6. **Do not drink liquids that have calories, except for milk/protein liquids and limited amounts of fruit juice.** Liquids that contain calories include regular soft drinks, Gatorade®, Powerade®, Kool-Aid®, sweetened tea, and coffee with sugar. If you want to drink fruit juices, limit to no more than ½ cup per day.
7. **Always eat your protein foods (meat, egg white, tuna fish, low fat cheese) first!** This will help prevent a protein deficiency.
8. **Take your multi-vitamin and calcium supplements daily.**
9. **Post-op, keep a food record and track those foods that cause gastric discomfort and/or intolerance (refer to the following page)**

Food Exchange List

*Use spices, artificial sweeteners, vinegar, lemon juice, mustard, horseradish, & sugar free gelatin, as desired

Starch (80-100 Cal)	Fruit (60 Cal)	Vegetables (25 Cal)	Fats (45 Cal)
1 Serving:	1 Serving:	1 Serving:	1 Serving:
½ c cereal	4 oz apple	1 Cup Raw:	2 tbsp avocado (1oz)
1 slice bread	½ c applesauce	Tomato	1 tsp butter
¼ bagel	4 oz banana, ½ large	Cucumber	1 tsp margarine
½ English muffin	¾ c blueberries	Onion	2 tbsp low fat salad dressing
1 low fat waffle 4"	17 small grapes	Pepper	2 tsp peanut butter
½ pita bread 6"	1 c honeydew	Broccoli	1 tsp canola/olive oil
½ oz low fat crackers	1 c cantaloupe	Beets	8 large black olives
1/3 c pasta	½ grapefruit	½ Cup Cooked:	6 almonds
1/3 c rice	6 oz orange	Asparagus	6 cashews
½ c corn	1 c papaya	Green Beans	10 peanuts
½ c peas	4 oz peach	Cauliflower	16 pistachios
3 oz potato	4 oz pear	Unlimited Veggies (<20 Cal):	1 bacon slice
1 oz roll	½ c pineapple	Lettuce	2 tbsp half & half
½ hamburger/hot dog bun	5 oz plum	Cabbage	
1 pancake 4"	1 c raspberries	Mushrooms	
1 tortilla 6"	2 tbsp raisins	Spinach	
	1 c strawberries	Celery	
	8 oz tangerine	Radishes	
	1 ¼ c watermelon	Scallions	
	½ c canned fruit (peaches, pears)	Zucchini	
Dairy (90-100 Cal)	Very Lean Meat(35 Cal p/	Lean Meat (55 Cal p/1 Oz):	Free Food Options (<20

1 Serving:	1 Oz):		Cal p/serving):
8 oz skim/1% milk	Turkey breast	Beef: Sirloin steak, tenderloin, roast	Fat free cream cheese
6-8 oz light yogurt	Chicken breast	Veal: Chop, roast	Fat free margarine
6 oz non fat frozen yogurt	Nonfat cheese	Pork: Center chop	Fat free sour cream
½ c evaporated fat free milk	¼ c cottage cheese	Seafood: Salmon, oysters	Fat free salad dressing
	Fish: Cod, Flounder, Trout, Halibut, Tuna in water	Low fat cheese	Salsa or hot sauce
	Shellfish: Clams, Scallops, Crab, Shrimp	Low fat lunch meat	Pickle relish
	Game: Venison, Buffalo	1 Medium egg	Sugar free syrup or jelly
	2 Egg whites	¼ c beans	

COMMON COMPLAINTS

• **Nausea/Vomiting**

You may experience nausea and/or vomiting the first few weeks after surgery. One cause of nausea/vomiting is non-compliance with the nutrition guidelines. If you have problems, ask yourself the following questions, and modify your behavior(s) appropriately:

- Did I eat or drink too fast?
- Did I drink fluids with my meal or too soon before/after the meal?
- Am I eating more than I should?
- Am I chewing solid foods until mush?
- Did I advance my diet too quickly?
- Did I eat hard-to-digest foods such as tough meat or doughy bread?
- Am I taking my multivitamin (make sure it includes thiamin)?
- Am I taking in too much protein (from the protein shake) in one sitting?

Repeated vomiting may cause stress on the new stomach pouch and result in irritation- or even **worse, rupture of the staple line. If vomiting persists throughout the day, do not eat solid foods.** Return to clear liquids until symptoms resolve. If symptoms persist for more than 24 hours, contact the physician.

• **Constipation**

Constipation may occur within the first few weeks after surgery. Remember that food intake is very small compared to before surgery therefore, bowel movements will be decreased. Many patients report that they have a bowel movement every 2 or 3 days. Other reasons include inadequate fiber and fluid intake which will increase as your diet progresses. If constipation becomes a problem:

- Increase fluids as tolerated (48-64oz/day)
- During stage 3, include soft fruits and vegetables with your protein
- Try 4-6 oz of prune juice daily
- If you have increased your fluids and fiber but you are still constipated, talk to the surgeon about taking a stool softener. Many patients will add a fiber supplement (ie. Citrucel; Benefiber) daily along with a stool softener (ie. Colace) if necessary.

• **Diarrhea**

Some patients experience loose stools the first few weeks after surgery. If you experience diarrhea:

- Limit or avoid foods with lactose (See handout: Lactose Intolerance)
- If your protein shake contains milk or whey protein concentrate, switch to whey protein isolate only.
- Eat slowly.
- Avoid drinking fluid with meals.
- Avoid high-sugar, high-fat, and spicy foods.
- Limit consumption of sugar-free products that contain sugar alcohols.

- **Dehydration**

The signs & symptoms of dehydration range from minor to severe.

- Mild to Moderate symptoms of dehydration include: increased thirst, dry mouth, fatigue, decreased urine output, darker urine, headache, dry skin, dizziness, & fewer tears.
- Severe symptoms of dehydration include: severely decreased urine output & dark yellow urine, dizziness or lightheadedness that makes the person unable to stand or walk normally, drop in blood pressure when going from sitting to standing position, rapid heart rate, fever, confusion, extreme fatigue, seizure.
- SEEK MEDICAL ATTENTION IF: increased or constant vomiting lasting > 1 day, fever >101.0, diarrhea for >2days, decreased or no urine production (> 30 ml per hour), weakness, confusion, headache, rapid breathing, chest pain, fainting.

- **Headaches/Dizziness**

If you experience headaches or feel dizzy/lightheaded, you may be dehydrated. This can happen if you are losing fluids from frequent vomiting or diarrhea or just not drinking enough during the day.

- Drink plenty of water and other low-calorie fluids with electrolytes (ie. Propel®, Gatorade G2®).
- Add salt to foods; drink bouillon/broth
- Eat on a regular schedule (every 3-4 hours).

- **Dumping Syndrome**

“Dumping” occurs when too many simple carbohydrates (table sugar, ice cream, regular soda, desserts, candy) or fatty foods enter the small intestine too quickly after eating. Symptoms include abdominal fullness, nausea, sweating, cramping or abdominal pain followed by diarrhea. Patients also report feeling warm, dizzy, weak or faint. To avoid dumping, avoid simple sugars and fatty foods.

- **Lactose Intolerance**

Some patients develop lactose intolerance after surgery. If you experience bloating, stomach cramps and/or diarrhea after consuming dairy products, try the following:

- Avoid all lactose-containing products (see handout)
- Try Lactaid® milk, almond or soy milk as alternatives.
- Avoid whey protein concentrate and milk solids in your protein shake.
- You should be able to tolerate dairy products that contain less lactose (ie. Lite yogurt, hard cheese, kefir)

- **Hair Loss/Shedding (See handout link)**

- <https://www.obesityaction.org/wp-content/uploads/Weight-Loss-Surgery-and-Hair-Loss.pdf>

- **Minor wound or skin infection/ irritation** (reaction to surgical scrub or adhesive), scarring, deformity, loose skin

- **Esophagitis/Heartburn** Inflammation of the, acid reflux

- **Bloating, Cramping, Malodorous stool or gas**

- Low sodium, potassium, or blood sugar; low blood pressure
- Anemia, metabolic deficiency (iron, vitamins, minerals)

- Development of gallstones or gallbladder disease
- Allergic reactions to drugs or medications (nausea, hives, itching, etc)
- Staple-line disruption, weight gain, failure to lose satisfactory weight

H. Pylori Diet Plan

Your surgeon has diagnosed you with H. pylori infection. H. Pylori (*Helicobacter Pylori*) can cause gastritis (inflammation of the gastric lining). Following a healthy diet can help alleviate the symptoms of gastritis. Generally, gastritis can be treated with lifestyle management and can reduce your risk of stomach ulcers and even gastric cancer.

Foods To Eat

- High-fiber whole foods like whole grains, beans and legumes.
- Healthy Fats from nuts, seeds, and omega 3 fatty fish (ie. Tuna, salmon)
- Probiotics (*L. fermentum*, *L. casei*, and *L. rhamnosus*) or fermented foods like kombucha, yogurt, kimchi, kefir, sauerkraut
- Low-sugar, low-acid fruits like blueberries, strawberries and apples
- Functional foods like ginger, garlic, turmeric
- Vitamin C rich foods (ie. Cauliflower, broccoli, bell peppers, kiwi)
- Green tea
- Resveratrol rich foods (ie. Peanuts, pistachios, grapes, blueberries)

Foods to Avoid

- Acidic fruits (orange, grapefruit, lemon) and onion
- Coffee and Tea
- Alcohol
- Carbonated energy drinks and soda
- Fried foods
- Spicy foods
- High salt foods
- Red meat and processed meats

Rueda-Robles, A.; Rubio-Tomas, T.; Plaza-Diaz, J.; Alvarez-Mercado, A.I. Impact of Dietary Patterns on *H. pylori* Infection and the Modulation of Microbiota to Counteract Its Effect. A Narrative Review. *Pathogens* **2021**, *10*, 875. <https://doi.org/10.3390/pathogens10070875>

WEIGHT-LOSS SURGERY, NUTRITION AND HAIR LOSS

by Jacqueline Jacques, ND

Typically, about 90 percent of hairs are anagen (in a growth phase) and 10 percent are telogen (in a dormant or resting phase) at any given time, meaning you are usually losing a lot less hair than you are growing so you don't have noticeable hair loss. But sometimes this can change.

A common fear and complaint of bariatric surgery patients is post-operative hair loss. While for most of us as people, our hair is an important part of our self-image and body image, it is not very important to our bodies. For this reason, nutrition can have a great impact on hair health because when forced to make a choice, the body will shift nutritional stores to vital organs like your brain and heart and away from your hair.

Hair loss has many causes. The most common type of hair loss after weight-loss surgery is a diffuse loss known medically as telogen effluvium, which can have both nutritional and non-nutritional causes.

GROWING AND LOSING HAIR

Whether you are aware of it or not, for most of your life you are always in the process of both growing and losing hair. Human hair follicles have two states; anagen, a growth phase, and telogen, a dormant or resting phase. All hairs begin their life in the anagen phase, grow for some period

of time, and then shift into the telogen phase which lasts for about 100 to 120 days. Following this, the hair will fall out.

Specific types of stress can result in a shift of a much greater percentage of hairs into the telogen phase. The stressors known to result in this shift, or telogen effluvium, include:

- High fever
- Severe infection
- Major surgery
- Acute physical trauma
- Chronic debilitating illness (such as cancer or end-stage liver disease)
- Hormonal disruption (such as pregnancy, childbirth or discontinuation of estrogen therapy)
- Acute weight-loss
- Crash dieting
- Anorexia
- Low protein intake
- Iron or zinc deficiency
- Heavy metal toxicity
- Some medications (such as beta-blockers, anticoagulants, retinoids and immunizations)

WEIGHT-LOSS SURGERY AND HAIR LOSS

Nutritional issues aside, bariatric surgery patients already have two major risks of major surgery and rapid weight-loss. These alone are likely to account for much of the hair loss seen after surgery. In the absence of a nutritional issue, hair loss will continue until all hairs that have shifted into the telogen phase have fallen out. There is no way of switching them back to the anagen phase.



by Jacqueline Jacques, ND

Winter 2011

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Weight-loss Surgery and Hair Loss

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Hair loss rarely lasts for more than six months in the absence of a dietary cause. Because hair follicles are not damaged in telogen effluvium, hair should then regrow. For this reason, most doctors can assure their weight-loss surgery patients that with time and patience, and keeping up good nutritional intake, their hair will grow back. Discrete nutritional deficiencies are known to cause and contribute to telogen effluvium. One would be more suspicious of a nutritional contribution to post-bariatric surgery hair loss if:

- Hair loss continued more than one year after surgery
- Hair loss started more than six months after surgery
- Patient has had difficulty eating and/or has not complied with supplementation
- Patient has demonstrated low values of ferritin, zinc or protein
- Patient has had more rapid than expected weight-loss
- Other symptoms of deficiency are present

Nutrition Iron

Iron is the single nutrient most highly correlated with hair loss. The correlation between non-anemic iron deficiency and hair loss was first described in the early 1960s, although little to no follow-up research was conducted until this decade. While new research is conflicted as to the significance of ferritin as a diagnostic tool in hair loss, it has still been found that a significant number of people with telogen effluvium respond to iron therapy.

Optimal iron levels for hair health have not been established, although there is some good evidence that a ferritin level below 40ug/L is highly associated with hair loss in women.¹ It is worth noting that this is well above the level that is considered to be anemia, so doctors would not be expected to see this as a deficiency.

Zinc

Zinc deficiency has been tied to hair loss in both animal studies and human cases. There is data linking zinc deficiency in humans to both telogen effluvium and immune-mediated hair loss. Zinc deficiency is a well-recognized problem after biliarypancreatic diversion/duodenal switch,

and there is some indication that it may occur with other procedures such as gastric bypass and adjustable gastric banding.

In 1996, a group of researchers chose to study high dose zinc supplementation as a therapeutic agent for related hair loss² in patients with vertical banded gastroplasty. The study administered 200 mg of zinc sulfate (45mg elemental zinc) three times daily to post-operative patients with hair loss. This was in addition to the multivitamin and iron supplements that patients were already taking. No labs for zinc or other nutrients were conducted.

Researchers found that in patients taking the zinc, 100 percent had cessation of hair loss after six months. They then stopped the zinc. In five patients, hair loss resumed after zinc was stopped, and was arrested again with renewed supplementation. It is important to note that in telogen effluvium of non-nutritional origin, hair loss would be expected to stop normally within six months. Since the researchers conducted no laboratory studies, and there was no control group, the only patients of interest here are those who began to lose hair again after stopping zinc. Thus we cannot say that zinc would prevent hair loss after weight-loss surgery, and further study would definitely be needed to make this connection.

A further note: The Tolerable Upper Intake Level (UL) for zinc is set at 40mg in adults. This study utilized a daily dose of more than three times that level. Not only can these levels cause gastrointestinal distress, but chronic toxicity (mostly associated with copper depletion) can start at levels of 60 mg/day. Information related to this study has made its way to many a support group and chat room – even to doctor’s offices – with the message of “high dose zinc will prevent hair loss after weight-loss surgery.” Patients should be advised that high dose zinc therapy is unproven and should only be done under supervision due to the associated risks of toxicity. A lab test to check for zinc deficiency would be best before giving a high dose such as this.

Protein

Low protein intake is associated with hair loss. Protein malnutrition has been reported with duodenal switch, and in gastric bypass to a much lesser degree. Little is known about incidence, as only around eight percent of surgeons track labs such as total protein, albumen or prealbumen. Limited studies suggest that patients with the most rapid or greatest amounts of weight-loss are at greatest risk.³

With surgical reduction of the stomach, hydrochloric acid,⁴ pepsinogen⁵ and normal churning are all significantly reduced or eliminated. Furthermore, pancreatic enzymes that would also aid in protein digestion are redirected to a lower part of the small intestine. It is thus likely that maldigestion, rather than malabsorption, is responsible for most cases. Some studies have also implicated low protein intake.⁶

Research also indicates that low levels of the amino acid l-lysine can contribute to hair loss and that repletion of lysine stores may both improve iron status and hair regrowth. In a study of

anemic patients with hair loss who were supplemented with 1.5 to 2 grams of l-lysine in addition to their iron therapy, ferritin levels increased more substantially over iron therapy alone.¹

Many individuals believe that supplementing with or topically applying the nutrient biotin will either help to prevent hair loss or will improve hair regrowth. To date, there is no science that would support either of these presumptions. While biotin deficiency can cause dermatitis, hair loss is only known to occur in experimentally induced states in animal models or in extreme cases of prolonged diets composed exclusively of egg whites.⁷

Other

Other nutrients associated with hair health include vitamin A, inositol, folate, B-6 and essential fatty acids. Hair loss can also be caused by systemic diseases, including thyroid disease and polycystic ovarian syndrome (PCOS) and is influenced by genetics.

Conclusion

Hair loss can be distressing to bariatric surgery patients and many will try nutrition themselves to see if they can prevent it. Unfortunately, there is little evidence that early hair loss is preventable because it is mostly likely caused by surgery and rapid weight-loss.

Later hair loss, however, can be indicative of a nutritional problem, especially iron deficiency, and may be a clinically useful sign. Educating patients about the potential for hair loss and possible underlying causes can help them to make informed choices and avoid wasting money on gimmicks that may have little real value.

About the Author:

Jacqueline Jacques, ND, is a Naturopathic Doctor with more than a decade of expertise in medical nutrition. She is the Chief Science Officer for Catalina Lifesciences LLC, a company dedicated to providing the best of nutritional care to weight-loss surgery patients. Her greatest love is empowering patients to better their own health. Dr. Jacques is a member of the OAC National Board of Directors.

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Chapter 10

Surgical Procedure Details

<https://asmbs.org/patients/bariatric-surgery-procedures>

Bariatric Surgery Procedures

Updated May 2021 | Written by the [Public Education Committee](#)

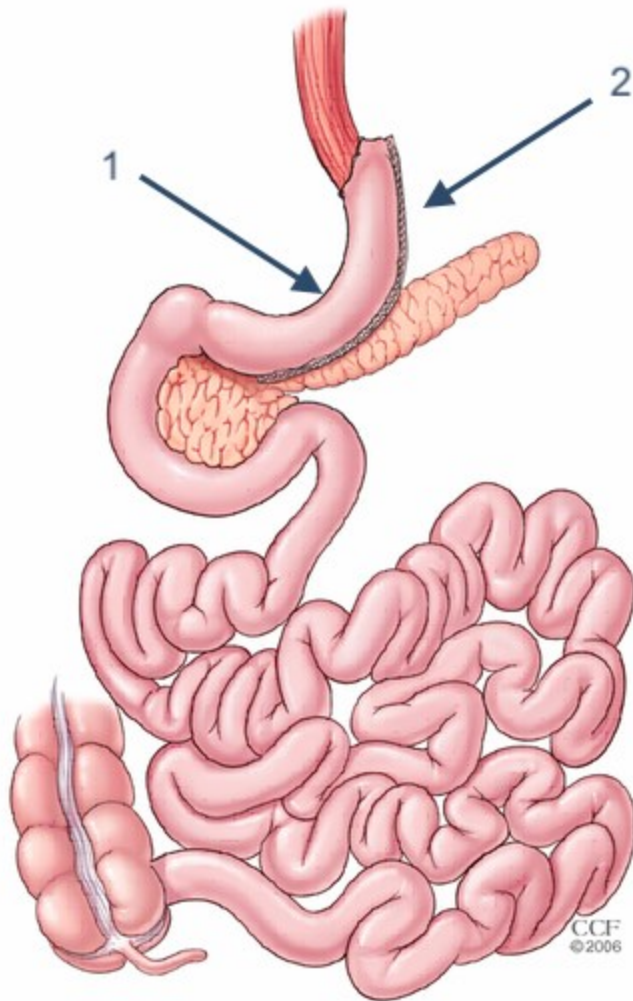
Weight loss surgery is also known as bariatric and metabolic surgery. These terms are used in order to reflect the impact of these operations on patients' weight and the health of their metabolism (breakdown of food into energy). In addition to their ability to treat [obesity](#), these operations are very effective in treating [diabetes](#), high blood pressure, sleep apnea and high cholesterol, among many other diseases. These operations also have an ability to prevent future health problems. The [benefits](#) allow patients with obesity who choose to undergo treatment to enjoy a better quality of life and a longer lifespan.

Today's metabolic and bariatric operations have been refined over the course of many decades and are among the best studied treatments in modern medicine. They are performed with small incisions using minimally invasive surgical techniques (laparoscopic and robotic surgery). These advancements allow patients to have a better overall experience with less pain, fewer complications, shorter hospital stays and a faster recovery. These operations are extremely safe, with complication rates that are lower than common operations such as gallbladder removal, hysterectomy, and hip replacement.

The goal of these operations is to modify the stomach and intestines to treat obesity and related diseases. The operations may make the stomach smaller and also bypass a portion of the intestine. This results in less food intake and changes how the body absorbs food for energy resulting in decreased hunger and increased fullness. These procedures improve the body's ability to achieve a healthy weight.

The common procedures endorsed by the American Society for Metabolic and Bariatric Surgery are listed and explained below. Each surgery has its own advantages and potential drawbacks. Your bariatric surgeon will review your health history and work with you to determine which surgery is best for you.

Sleeve Gastrectomy



The Laparoscopic Sleeve Gastrectomy, often called the "sleeve", is performed by removing approximately 80% of the stomach. The remaining stomach is the size and shape of a banana.

The Procedure

1. The stomach is freed from organs around it.
2. Surgical staplers are used to remove 80% of the stomach, making it much smaller.

How it Works

The new stomach holds less food and liquid helping reduce the amount of food (and calories) that are consumed. By removing the portion of the stomach that produces most of the “hunger hormone”, the surgery has an effect on the metabolism. It decreases hunger, increases fullness, and allows the body to reach and maintain a healthy weight as well as blood sugar control. The simple nature of the operation makes it very safe without the potential complications from surgery on the small intestine.

Advantages

1. Technically simple and shorter surgery time
2. Can be performed in certain patients with high risk medical conditions
3. May be performed as the first step for patients with severe obesity
4. May be used as a bridge to gastric bypass or SADI-S procedures
5. Effective weight loss and improvement of obesity related conditions

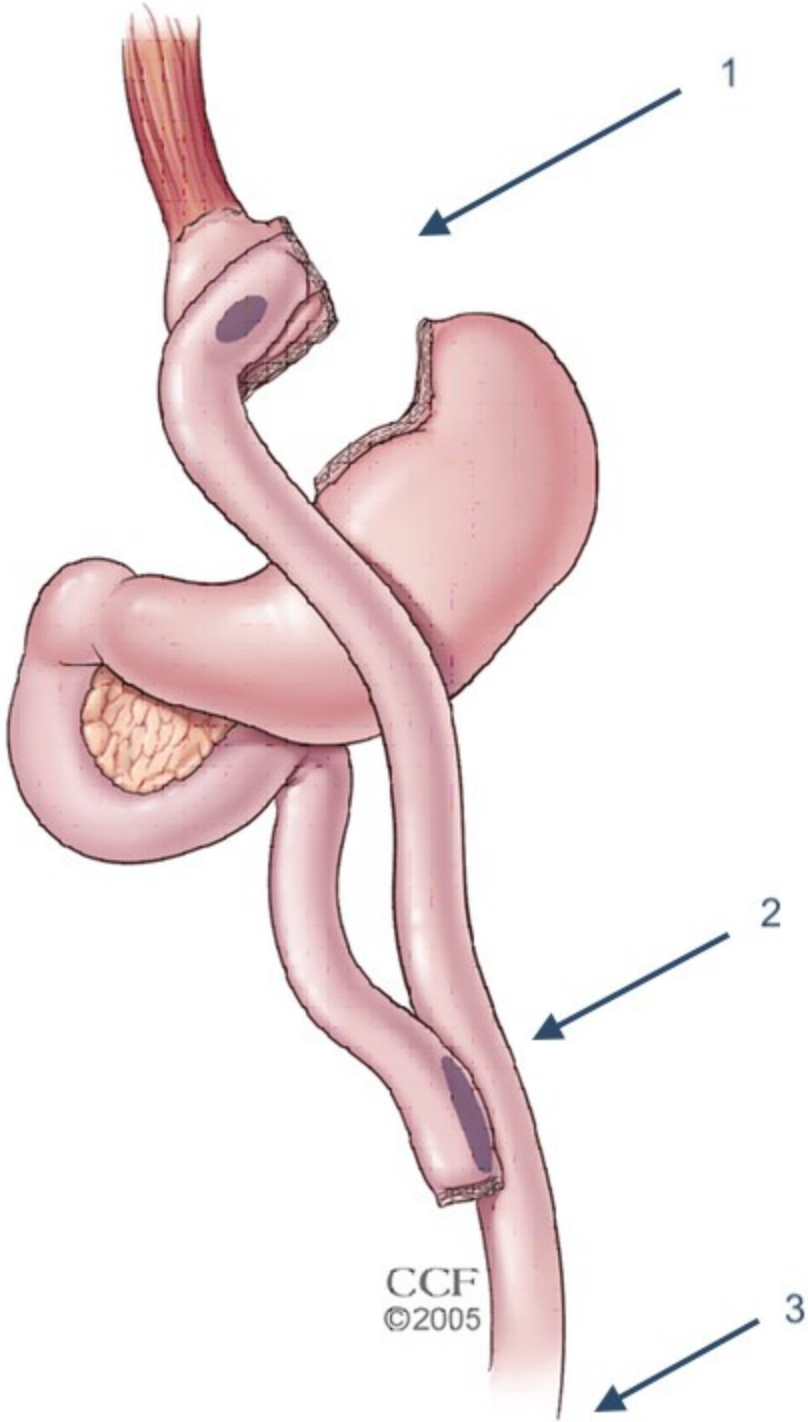
Disadvantages

1. Non-reversible procedure
 2. May worsen or cause new onset reflux and heart burn
 3. Less impact on metabolism compared to bypass procedures
-

Follow Link Below for Video Explaining Sleeve Gastrectomy Procedure :

<https://youtu.be/JVCrF5aEo7E>

Roux-en-Y Gastric Bypass (RYGB)



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The Roux-en-Y Gastric Bypass, often called the “gastric bypass”, has now been performed for more than 50 years and the laparoscopic approach has been refined since 1993. It is one of the most common operations and is very effective in treating obesity and obesity related diseases. The name is a French term meaning “in the form of a Y”.

The Procedure

1. First, the stomach is divided into a smaller top portion (pouch) which is about the size of an egg. The larger part of the stomach is bypassed and no longer stores or digests food.
2. The small intestine is also divided and connected to the new stomach pouch to allow food to pass. The small bowel segment which empties the bypassed or larger stomach is connected into the small bowel approximately 3-4 feet downstream, resulting in a bowel connection resembling the shape of the letter Y.
3. Eventually the stomach acids and digestive enzymes from the bypassed stomach and first portion of the small intestine will mix with food that is eaten.

How it Works

The gastric bypass works in several ways. Like many bariatric procedures, the newly created stomach pouch is smaller and able to hold less food, which means fewer calories are ingested. Additionally, the food does not come into contact with the first portion of the small bowel and this results in decreased absorption. Most importantly, the modification of the food course through the gastrointestinal tract has a profound effect to decrease hunger, increase fullness, and allow the body to reach and maintain a healthy weight. The impact on hormones and metabolic health often results in improvement of adult onset diabetes even before any weight loss occurs. The operation also helps patients with reflux (heart burn) and often the symptoms quickly improve. Along with making appropriate food choices, patients must avoid tobacco products and non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen and naproxen.

Advantages

1. Reliable and long-lasting weight loss
2. Effective for remission of obesity-associated conditions
3. Refined and standardized technique

Disadvantages

1. Technically more complex when compared to sleeve gastrectomy or gastric band
2. More vitamin and mineral deficiencies than sleeve gastrectomy or gastric banding
3. There is a risk for small bowel complications and obstruction
4. There is a risk of developing ulcers, especially with NSAID or tobacco use
5. May cause “dumping syndrome”, a feeling of sickness after eating or drinking, especially sweets

Follow Link Below for Video Explaining Gastric Bypass Procedure :

https://youtu.be/nHTO_Gl9DmE

Summary

All of the procedures discussed above are endorsed by the American Society for Metabolic and Bariatric Surgery and are excellent options to help you achieve healthy, long-term weight loss and improve medical conditions related to obesity. While all operations have risks, bariatric procedures performed at accredited centers are safe and have a low risk for complications. Successful bariatric surgery requires a team-based approach including your surgeon, dietitian, psychologist, nurse case manager, and obesity medicine specialist who will focus on taking you through each step of the journey. Patients will do better if they continue to eat healthy, engage in physical activity, keep their appointments with obesity medicine providers, and take vitamins and mineral supplements as instructed. Your bariatric care team will provide you with lifelong support to succeed and [maintain a permanent healthy lifestyle](#) including changes to your diet and regular physical activity. Most patients need periodic blood work testing to monitor vitamin and mineral levels and have yearly checkups at their comprehensive metabolic and bariatric surgery care center.