

Victoria Band Surgery- Nutrition Guidelines

The gastric band is a tool designed to help you lose weight, however it is important to recognize that the necessary diet and lifestyle modifications are an integral part of achieving your weight loss goals and ensuring long-term success. In addition to regular follow-up and support from a Registered Dietitian, the following pre and post nutrition guidelines are designed to help you establish lifelong healthy eating habits.

Pre Surgery- Food for Thought...

A 10 % weight loss is strongly advised in order to make your body as healthy as possible prior to surgery. This can reduce the amount of fat in your liver and intra-abdominal area, which will provide the surgeon with a better view of your stomach and in turn reduce the chance of any post-operative complications.

The first step before surgery is to get your eating habits on track and kick start your metabolism by implementing the following healthy eating tips:

- ❖ Plan regular meals and snacks (4-6 hrs apart) **including breakfast.**
- ❖ Choose well balanced meals by including at least 3 out of the 4 food groups:
 - ✓ **Vegetables and fruit:** Make vegetables the “main course” at lunch and supper, and incorporate a variety of antioxidant rich colours (red, green, orange, yellow and purple). Choose fresh or frozen vegetables, and have whole fruit more often than juice.
 - ✓ **Grain products:** Choose “whole grain” high fibre carbohydrates (2 or more grams of fibre per serving). Emphasize Low Glycemic Index (GI) foods: whole wheat pasta/couscous, sprouted grain, barley, bulgur, quinoa, sweet potato and winter squash.
 - ✓ **Milk and Alternatives:** Choose skim or 1% milk, yogurt, cottage cheese and block cheeses with < 20% milk fat (MF).
 - ✓ **Meat and Alternatives:** Select lean meats and poultry (without the skin) that are prepared with little or no added fat/salt. Eat at least 2 servings of fish/week and include meat alternatives such as beans (chickpeas, black beans), lentils and tofu *at least* once per week.

*****Meals that include high fiber foods (grains, fruit/veggies, and legumes), protein (dairy/meat alternatives) and healthy fats make you feel satisfied longer.***

- ❖ **Watch your portions:** Meals should be about the same size to evenly distribute calories throughout the day. Refer to the food guide for specific quantities and use the “balanced plate” visual when portioning out food (i.e. ½ plate veggies, ¼ of the plate each for protein and starch).
- ❖ **Shop wisely:** remember that what you have on hand is what you have to choose from! Shop the outside isles where the freshest and most nutritious foods are found.
- ❖ **Limit added fats and emphasize healthy fats:**
 - ✓ When cooking try: steaming, sautéing in broth, baking, broiling, and BBQ.
 - ✓ Include a small amount of unsaturated fat (2-3 Tablespoons) each day: non- hydrogenated margarines, canola, olive, and grapeseed oil(s).
 - ✓ Omega 3 fatty acids- fatty fish and ground flax seeds/oil. Unsalted nuts and seeds (small handful).
- ❖ **Listen to your hunger and fullness cues:** Trust your body to tell you when you are hungry and stop eating when you feel satisfied and not “full”, as it takes 20 minutes for your stomach to signal to your brain that it has had enough. Avoid eating on the run, at your desk or in front of the TV as it makes it easier to overeat.
- ❖ **Enjoy high calorie foods in moderation:** Foods high in sugar and or fat can be included in small amounts. If you are going to buy a special “treat”, purchase a single serving to avoid tempting yourself later. Remember the 80/20 rule- this works out to a treat 2-3 times per week.
- ❖ **Stay hydrated:** You require 2-3 litres (6-8 cups) of fluid a day. If you are dehydrated, your body can’t properly metabolize and use fat stores. The majority of your fluids should come from water, however lower fat milk is also a nutritious choice. Avoid juice and pop as they are a source of calories and do not fill you up.

Post Surgery Diet Guidelines

After surgery, you will progress your diet slowly over a 3-4 week period by following a series of stages, in which you transition from liquids to solids. This will help prevent any problems including: nausea, vomiting, reflux, and most of all difficulty attaining your weight loss goals.

Stage 1- Clear Liquid Diet (day after surgery)

A clear liquid is defined as anything that you can see through. These fluids will be consumed at home after your procedure, as it is likely that you may have a reduced appetite. Examples include:

- Broth (chicken, beef, vegetable)
- Unsweetened diluted fruit juice (i.e. apple, cranberry) or non carbonated sugar free alternatives (i.e. crystal light)
- Sugar free popsicles/jello
- Decaffeinated tea (hot or cold)

***** Remember to take small sips frequently throughout the day**

Stage 2- Full Fluids (Day 2-7)

It is important to follow a liquid diet during this time to allow sufficient time for the pouch to heal and prevent any food from getting stuck in the band, potentially causing it to slip. All fluids should pour off a spoon and be sugar free.

Guidelines:

- Eat 5-6 small meals throughout the day to avoid overloading the pouch
- Keep your portions to a measured ¼- ½ cup serving size.
- Eat slowly by allowing 20-30 minutes per meal
- Choose foods high in protein and include a source at each meal/snack (i.e. skim or 1% milk/yogurt, fat free cottage cheese).
- Sip water or no calorie fluids (crystal light, broth, herbal tea, decaf coffee/tea, “flat” club soda/diet soft drink) constantly between meals (30-45 min before eating and 1 hour after eating) to reach your daily target of 6-8 cups/d.

Examples of full fluids:

- Skim or 1% milk
- Thinned hot cereal (cream of wheat, cream of rice, blended oatmeal)
- Sugar free custard/yogurt or plain yogurt
- Protein drink (milk with whey or skim milk powder)
- Creamed soups made with skim or 1% milk
- Thinned mashed potatoes

Sample meal plan:

Breakfast: ¼ cup thinned cereal, ¼ cup skim milk

Snack: ½ cup skim milk or ½ cup sugar free custard

Lunch: ¼ - ½ cup low fat cream soup

Snack: ½ cup protein drink

Supper: ¼ - ½ cup thinned mash potatoes

Stage 3- Soft/Blenderized diet (day 8-13)

Guidelines:

- Eat 5-6 small meals throughout the day (~ every 3 hours)
- Keep your portions to a measured ½ - ¾ cup serving size.
- Eat slowly by allowing 20-30 minutes per meal
- Emphasize protein rich foods and include a source at each meal/snack (i.e. skim or 1% milk/yogurt, fat free cottage cheese).
- Sip water or no calorie fluids (crystal light, broth, herbal tea, decaf coffee/tea, “flat” club soda/diet soft drink) constantly between meals to (10-20 min before eating and 30 minutes after eating) to reach your daily target of 6-8 cups/d.
- Start taking your daily vitamin and mineral supplements as prescribed by your practitioner.

Preparing the Blenderized Diet

Use a blender, food processor or food mill to ensure that there are no lumps or bumps in the food. The following are tips to make sure the food is the appropriate consistency (i.e. applesauce).

- Cook foods until tender in a small amount of water. Canned fruits and vegetables are an option to save time.
- Always put liquid ingredients in the blender first then add solid food.
- Blend on low speed until smooth. At least ½ cup food is necessary for most blenders to function.
- Add more liquid as needed to make the consistency smoother or thinner. Use the cooking liquids from vegetables, skim milk, broth, strained soup/water, olive/canola/safflower/sunflower oils or juice.
- Pour the blended foods through a sieve to remove any remaining pieces of food.
- Do not overcook foods as this can make them more difficult to blend.
- Blenderize a large amount of at one time and freeze it in individual portion sizes. Ice cube trays are useful for this purpose.
- Always measure food in (ml or cups) to ensure that you are eating the correct amounts.

Foods	Choose More Often	Avoid
Protein Meat, fish, poultry and alternates	<i>Prepare by baking, broiling, poaching or boiling.</i> Strained or pureed lean meat, chicken, turkey or fish. Soft boiled/poached egg. Tofu added to soup.	Fried meats or eggs. High fat meats: sausage, hot dogs, salami, bacon, pepperoni, luncheon meats.

Milk and milk products	As tolerated, skim or 1% milk, low fat cottage cheese, plain/non fat yogurt, artificially sweetened yogurt.	2% and whole milk products. Sweetened yogurt, cream, ice cream, ice milk, sherbert and milkshakes.
Carbohydrates	Cooked hot cereal with no added sugar (cream of wheat, cream of rice, well cooked rolled oats). Smooth mashed potatoes.	All bread and cracker products: pasta, tortillas, rice, pretzels, popcorn, pastries, baked goods, biscuits, sugar-sweetened cereals.
Fruits	Unsweetened applesauce, Unsweetened pureed fruit, (canned pears, peaches, apricots), bananas, berries	Fruit juice, fruit canned in syrups, Fibrous fruits such as pineapple, oranges, seeds from fruits. Dried fruits and whole fresh fruit.
Vegetables	Pureed vegetables (carrots, green beans, peas, asparagus tips, beets, parsnips, zucchini, squash). Vegetable/tomato juice (limit to 6 oz/day).	Whole cooked or raw vegetables. Fibrous tough skins/seeds: corn, celery, artichokes. Gas forming vegetables: broccoli, cauliflower, Brussels sprouts, cabbage.
Fats and Oils	In small amounts (1-3 tsp daily). Low fat/non fat mayonnaise, salad dressings. Margarine, vegetable oil.	Regular fat mayonnaise, salad dressings, sour cream, peanut butter.
Miscellaneous	Herbs and spices (as tolerated), artificial sweeteners, mustard, vinegar.	Alcohol, regular soft drinks, regular coffee and tea. Syrup, jam, honey, regular sugar.

Sample Meal Plan for Stage 3:

Breakfast: ¼ cup cottage cheese and ¼ cup blended fruit

Snack: ½ cup skim milk or ½ cup artificially sweetened custard

Lunch: ½ cup blenderized soup (skim milk or broth based)

Snack: ½ cup high protein drink

Supper: ¼ cup blenderized meat; 2 Tbsp blenderized vegetables; 2 Tbsp mashed potato thinned with broth

Snack: ½ cup artificially sweetened yogurt

Stage 4- Soft Foods (Days 14-28)

The soft diet is a transition from blenderized to solid foods. It consists of solid foods that are easy to chew and digest (you may need to chop, dice or grind depending on individual tolerances). During this time, you gradually introduce a variety of solid foods and progress to a normal diet as tolerated. By this time you may also notice that you are starting to feel hungry and may be tempted to eat more than the recommended portions- it is important that you continue to follow the guidelines. One way to curb this hunger is to make sure that you include protein as part of each meal and snack.

Guidelines

- Eat a variety of foods and try one new food at a time. Plan your meals to include the recommended number of servings from each of the four major food groups.
- Keep your portions to ½ -1 cup per meal.
- Eat slowly and chew thoroughly until foods are a “mushy” consistency (chew ~ 20-30 times).
- Include a source of protein at each meal.
- Pay attention to your body’s hunger cues and eat only when hungry. Eat to the point of when you are starting to feel full. Stop eating before you are full.
- Aim for 8 cups of water or low calorie fluids/day. ***Do not eat and drink at the same time- no beverages 10 minutes before you eat and 30 minutes after you eat.***
- Take your vitamin and mineral supplements daily.

Foods	Choose More Often	Avoid
<u>Protein</u> Meat, fish, poultry and alternates Milk and milk products	Tender, well cooked, ground or moist meat, poultry and fish (prepared by baking, roasting, poaching or stewing). Eggs, Egg substitute. Tofu Dried beans/peas or lentils (well cooked).	All fried meat, poultry, fish and eggs. Smoked or spiced meat including: bacon, salami, pepperoni, luncheon meats, sausages and smoked fish.
	Skim or 1% milk, Buttermilk Low fat cheese, cottage cheese. Light yogurt or plain yogurt.	2% and whole milk. Regular cheeses.
<u>Carbohydrates</u>	Cooked or dry low sugar cereals (cream of wheat/rice, rolled oats Special K, Rice Krispies, Cheerios, Life).	“Doughy” breads/rolls made with white flour or those containing nuts/seeds Pastries, baked goods, donuts.

	Whole wheat toast, wheat crackers, plain cookies (arrowroot, digestives).	Whole grain/bran cereals (red river, sunny boy, Shredded wheat, All bran, granola). Pretzels, popcorn. Starchy foods made from refined flours/added sugar.
Fruits	Unsweetened canned fruits. Soft whole fruits as tolerated (banana, cantaloupe).	Fruit juice, fruit canned in syrups, fibrous fruits such as pineapple, rhubarb oranges. Dried fruits.
Vegetables	Soft cooked fresh, frozen or canned. Vegetable/tomato juice (limit to 6 oz/day). Potato, sweet potato, yams.	Raw vegetables. Fibrous or tough skins/seeds: corn celery, artichokes. Gas forming vegetables: broccoli, cauliflower, Brussels sprouts, cabbage.
Fats and Oils	In small amounts: butter, margarine or oil. Low fat/non fat mayonnaise, salad dressings, cream cheese, sour cream.	Regular fat mayonnaise, salad dressings, cream cheese, sour cream, peanut butter.
Miscellaneous	Lemon juice, mild herbs and seasonings (as tolerated), artificial sweeteners, mustard, vinegar.	Alcohol Pepper, spices. Popcorn, pretzels, potato chips. Nuts and seeds, crunchy peanut butter. Candy, ice cream regular soft drinks Syrup, jam, honey, regular sugar.

Sample Meal Plan for Stage 4

Breakfast: ½ cup cream of wheat and ¼ cup skim milk or 1 soft boiled egg and ½ slice of whole wheat or rye toast lightly buttered

Snack: ½ cup high protein blender drink or ¼ - ½ cup low fat cottage cheese

Lunch: ½ cup low fat homemade soup or ½ cup mashed black beans with 2 tsp of melted low fat cheese and 1 tsp salsa

Snack: ½ - 1 cup soft fruit (i.e. sliced banana, cantaloupe or watermelon)

Supper: ¼ cup stewed (minced chicken); ¼ cup yam; ¼ cup beans or carrots or ¼ cup poached fish; ¼ cup rice and ¼ cup (squash or asparagus tips)

Snack: ½ cup artificially sweetened yogurt

Food for Life

Congratulations on taking the necessary steps to commit to a lifetime of healthy eating! The “Pre-Surgery” nutrition guidelines that you may have started to implement should continue to be followed. Since the quantity of food you are able to eat is reduced, it’s important to make every bite count by including a balance of high quality protein, whole grains, fruits and vegetables and healthy fats. This will ensure you are meeting your nutritional requirements. The following is a summary of the key points to remember:

Incorporate three balanced meals and 1-3 small snacks/day. Emphasize nutrient dense food choices from the following food groups:

Protein: Is essential for the growth and repair of all the body’s cells and tissues. It plays an important role in healing and maintaining a healthy immune system. It also provides us with key nutrients such as iron, b-vitamins and zinc.

Best sources of protein (provide ~ 7 grams/ounce):

- Fish, seafood
- Poultry (chicken, turkey)
- Beef, pork
- Eggs and egg substitute
- Non fat, 1% milk, Soy milk (8 oz)
- Low fat cottage cheese (1/4 cup)
- Low fat cheese (1 ½ oz)
- Protein bars (look for 15 grams or more of protein)
- Protein shakes (look for 10 grams or more of protein)

Other sources (vegetarian):

- Beans and legumes
- Soy and Tofu products
- Nuts/seeds and nut butters (limit to no more than 1 oz or ~20 nuts due to high fat and content)

Carbohydrates: Are the body’s primary source of energy and help maintain blood sugar levels. When broken down by the body they are utilized as fuel for your brain and muscles. Carbohydrates can be classified as either whole grain or refined/simple and are made up of fibre, starch and sugar. The refining process removes most of the nutrients and fibre, leaving a “white” starchy product (i.e. white bread, rolls, pasta and rice)-these foods should be avoided. **Fibre** helps make you feel full, reduces constipation and helps to lower cholesterol, blood sugars and blood pressure.

Best whole grain (high fibre) choices:

- large slow cook oats (oatmeal)
- brown rice
- quinoa
- millet
- barley
- rye

Good whole grain choices:

- sprouted whole grain wheat/kamut/spelt breads
- whole wheat pasta/couscous
- whole wheat/corn tortillas
- bulgur
- whole grain/bran cereals

Vegetables and Fruits: Provide our body with important nutrients including vitamins, fibre and antioxidants, which are responsible for preventing and repairing damage done to the body's cells. The key thing to remember is to incorporate a variety of brightly coloured choices (red, orange, yellow, green, blue and purple).

Healthy Fat(s): provide the body with energy and nutrients required to help in the absorption of fat soluble vitamins (A, D, E and K). Saturated and Trans fats are considered "bad fats" and can contribute to elevated cholesterol and heart disease. By avoiding high fat animal meats, whole fat dairy products, tropical oils (coconut and palm), packaged/processed foods and fried foods, you can limit your intake. Polyunsaturated and Monounsaturated fats are considered healthy fats because they come from plant foods and should be included in limited amounts

Healthy fats to choose:

- Extra Virgin olive oil
- Canola oil
- Safflower oil
- Peanut oil
- Grapeseed
- flaxseed
- Nuts/peanut butter/almond butter
- Avocados
- Fish (salmon, mackerel , trout and herring)

Recognize your body's hunger and fullness cues. Eat only when hungry and stop when you are starting to feel full

- Set aside 30-45 minutes to eat each meal. Make use of the kitchen table by sitting down with family/friends and avoid eating on the run, at your desk, or in front of the television.
- Take small bites and chew each bite 20-30 times. Pay attention to taste by savouring flavours and textures.

Stay Hydrated

The body is made up of 60-70 % water weight. Water is essential in keeping all the cells and tissues hydrated and eliminating toxins and waste products.

- Consume 6-8 cups of fluids/day in between meals with emphasis on water. Other fluids should be free of calories, sugar, carbonation and alcohol. Caffeine

is a stimulant and may be irritating to the stomach. Caffeinated drinks should be consumed in limited amounts. If you should decide to drink alcohol after your surgery, remember that it is high in calories and can slow down your weight loss- especially sweet drinks such as margaritas and coolers with added sugar. Alcohol does not count towards your total daily consumption as it is dehydrating, so remember to drink more water.

- Sip fluids consistently throughout the day and avoid big gulps as this may contribute to abdominal discomfort and reflux.
- Avoid fluids 10 minutes before you eat and 30 minutes after eating.

Take your vitamin and mineral supplements daily

Since the quantity of food you are eating is limited, it is important to make sure that you are meeting your daily requirements for vitamins and minerals in order to prevent any deficiencies. The following are some guidelines around supplements:

Multivitamin

- Chewable multivitamin/mineral supplement daily containing iron, folic acid, selenium and zinc.
- Take with food.
- If the multivitamin contains iron, do not take your calcium supplement at the same time (at least 2 hrs apart).

Calcium (1000-1200 mg/d)

- Choose a chewable calcium citrate that contains vitamin D.
- Split into 500 mg doses throughout the day for best absorption.
- The following are good sources of calcium and provide ~ 300 mg of calcium based on the serving size:
 - 1 cup milk
 - 75 g canned salmon with bones
 - $\frac{3}{4}$ cup yogurt
 - 1 cup unsweetened soy beverage

Vitamin D (800-1000 IU/d)

- The combination of your multivitamin and calcium supplement should be enough to provide you with the 800-1000 IU.
- Best sources include: sunshine (10 minutes daily in spring/summer), fortified milk, eggs, salmon, sardines and egg yolks.

Plan regular exercise that you enjoy

While diet is certainly a cornerstone of maintaining a healthy lifestyle, regular physical activity is also an integral part. Not only does it play a key role in weight loss and maintenance, but it also helps with the following:

- Increasing metabolism, which helps you stay at a healthy weight.
- Increasing energy levels.
- Strengthens your muscles and bones.
- Stress reduction.

- Reduces your risk of heart disease/stroke, high blood pressure, osteoporosis, cancer, depression and joint pain.

The key to ensuring success with establishing your fitness goals is to find activities that you enjoy. Also consider activities that include family and friends.

Remember to think **FIT**:

Frequency- Start slow and work up

Intensity- quicken your pace/speed

Time- go longer