Mexico Bariatric Center

Nutrition Guide

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MEXICO BARIATRIC CENTER

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Pre-Op Nutrition Guide

PRE-SURGERY EXPECTATIONS

Start the pre-op phase based on your BMI.

7 Days Before Surgery

- Some medications may need to be discontinued before surgery, depending on your **SURGEON's** instructions.
- Specific medications to stop: Coumadin, ANY ANTICOAGULANTS OR BLOOD THINNERS, Plavix, Aspirin, Ibuprofen, Motrin, Advil, Nuprin, Aleve, or any other non-steroidal anti-inflammatory medication.
    - ** Remember this also includes baby aspirin and most arthritis medications, as these can cause stomach irritation and possibly more bleeding postoperatively.
- If there are any medications you need to stay on, talk directly to our medical liaison, Jen.

14 Days Before Surgery

- Discontinue ALL vitamins and supplements unless otherwise approved by your surgeon.
- During your pre-op phase:
    - Discontinue ALL consumption of Grains, Dairy, Starches, Sugars, Desserts, and Carbohydrates, and keep fruit to a minimum of one serving a day (1/2 cup of berries, OR 1/2 a banana, OR 1/2 an apple).
    - Discontinue drinking ALL caffeine 2 weeks before your surgery date. Caffeine may cause acid reflux post-op due to the acidity. You may drink decaffeinated coffee/tea. Please ensure to stay hydrated.
- Discontinue oral birth control and supplemental hormones
    - IUD'S & IMPLANTS are safe and do not need to be removed

During your pre-op phase:

- Discontinue ALL carbonated beverages (including sparkling water).
- **Avoid:** Ginseng, Ginger, Garlic, and Omega 3 supplements. These increase bleeding risk.
- Begin the practice of **NOT** drinking 30 minutes before/during/after meals. This needs to become a LIFELONG HABIT.

PRE-OP GUIDELINES

This nutrition guide aims to help shrink your liver prior to surgery by depleting stored glycogen.

The goal is to consume **three whole meals per day** (Breakfast, Lunch, and Dinner). Your meals should contain three Macronutrients: Protein, Healthy Fats, and Fibrous Carbohydrates.

DO NOT use protein shakes as a meal.

Here is an 'example' of what your day should look like:

BREAKFAST	Lunch/Dinner	Snacks am/pm
2 Whole Eggs 1 Tsp Olive oil 1/2 an avocado 1 Cup of Spinach (Raw or Cooked)	4-6 oz (110g - 170g) of lean protein 2 fist size of vegetables (fibrous carbs) 1-2 thumb-size of fats	Protein Smoothie with Greens and Berries Protein Shake (limit 1-2 per day if needed) ½ Apple with Almond Butter Vegetables with Hummus

APPROVED PROTEIN LIST

GRASS-FED MEAT

- Lamb
- Lean/Extra lean cuts of beef
- Lean pork (Pork Tenderloin, Canadian Bacon)
- Wild Game (Buffalo, Elk, Venison)

WILD-CAUGHT FISH

- Cod
- Flounder
- Haddock
- Halibut
- Mackerel
- Salmon
- Sardines
- Tuna
- Seabass

PROTEIN ALTERNATIVES

- Vegan Protein Powder
- Whey Protein Powder
- Nuts & Seeds
- Beans (all varieties)
- Tofu
- Tempeh
- Quorn

ORGANIC POULTRY

- Chicken Breast
- Eggs / Egg Whites
- Egg Substitute
- Turkey

WILD CAUGHT SEAFOOD

- Clams / Scallops
- Crab
- Lobster / Shrimp

APPROVED FATS LIST

- Avocado
- Olive Oil
- Nuts (Limit to a handful per serving)
- Flax Seeds
- 85% Beef
- 90% Bison
- Whole Eggs
- Nut Butters (1 TBSP per serving)
- Chia Seeds
- Salmon
- Hemp Seeds

APPROVED FIBROUS CARBS LIST

You may eat an unlimited amount of Fibrous Carbs (VEGETABLES). You are not limited to this list.

- Celery
- Radish
- Bell Pepper
- Broccoli
- Onions
- Black Beans
- Bok Choy
- Asparagus
- Cabbage
- Green Beans
- Spinach
- Cucumber
- Mushrooms
- Tomato
- Eggplant
- Carrots
- Lettuce
- Zucchini
- Cauliflower
- Brussel Sprouts
- Chickpeas
- Lentils

Please cut out the following from your diet:

- Rice
- Pasta
- ALL Dairy
- Potatoes/Sweet Potatoes
- Quinoa/Buckwheat
- Muffins/Breads/Rolls (ALL WHEAT & GLUTEN)
- Oats/Cereals/ Granola
- Tortillas

Try our weight loss soup recipe: https://mexicobariatriccenter.com/weight-loss-magic-soup/

Have as much soup as you would like!

RECOMMENDED PROTEIN POWDERS

Ideally, you should get your protein intake from natural foods. However, if you need to supplement with protein powder, we recommend using whey isolate or plant-based proteins.

Choose a protein shake high in protein 20 grams or more and 5 grams or less of sugar.

Here are a few of our favorites, which you can find on Amazon:

- Premier Protein
- Fairlife Core Power
- Nuzest Clean Lean Protein - Premium Vegan Protein Powder
- Naked Pea Protein

2 DAYS PRE-SURGERY PREP

You need to only consume Clear Liquids.

Approved Clear Liquids you may have:

- Water
- Caffeine Free Herbal Tea
- Bone Broths: Chicken, Vegetable, Beef
- Protein waters like Protein2O, Isopure, Premier Clear
- Gatorade Zero/ Powerade Zero/ Propel
- Sugar-Free Jello
- Sugar-Free Popsicles

Please DO NOT drink this:

- Protein Shakes

DAY OF SURGERY PREP

Do not eat or drink anything after midnight the night before the surgery.

That means you will need to **STOP** the following:

- All Medication, unless prescribed by the doctor
- All Liquids

Please note that you must bring ALL your prescribed medications in properly labeled pharmaceutical bottles for documentation during Pre-Op testing.

Do **NOT** take any medications after surgery until you have consulted with the doctor(s) and have gotten approval.

Post-Nutrition Guide

HOSPITAL POST- OP DAY 1 (PHASE 1)

Immediately post-op after the leak test, you must work your way up to drinking up to 64 ounces (2 Liters) of liquids. This will help you stay hydrated.

You will also need to ensure you are getting adequate amounts of protein (broths or protein water) to help with your recovery post-op.

Important Considerations for Phase 1:

- This phase will start when you are in the hospital after the leak test and is recommended for 7 days and may last up to 14 days
- Intake goal is 64 fluid ounces (2 Liters), and a minimum of 48 fluid ounces (1.5 Liters) per day
- Clear broths/bouillon (chicken/beef/vegetable)
- To avoid Acid Reflux, drink 1 fluid ounce (medicine cup) at a time, wait 60 secs, and proceed to the next fluid ounce
- Drink Water / Sugar-Free drinks/ Decaffeinated Herbal Teas
- Sugar-Free Jello/ Sugar-Free Popsicles

Things to **AVOID**:

- Carbonated drinks/Milk/Dairy/Protein Shakes/Iced drinks/ Caffeinated drinks
- No vitamin or mineral supplements at this time
- No Sugary Drinks (this may cause dumping syndrome)
- NO ALCOHOL

PHASE 2 - THICK LIQUIDS

This phase begins 7 days after surgery if you can tolerate and advance from phase 1.

In this phase, the goal is to consume 60-90 grams of protein daily. Choose a protein supplement with at least 20-30 grams of protein and no more than 5 grams of sugar.

Important Considerations during Phase 2:

- Getting enough protein is the main goal for Phase 2. Slowly work your way up to 60-90 grams of protein per day. It can take 2-3 weeks to reach this goal.
- Protein aids in proper wound healing after surgery.
- It helps your body burn fat instead of muscle
- The hydration goal is still 64 fluid ounces (2 Liters) per day

- You should also start your vitamin supplements 14 days post-surgery

TRY THIS:

- Blended soups (Homemade is best)
- Protein Shakes
- Fruit and vegetable purees-no seeds
- Clear protein powder (add to savory items)
- Greek yogurt
- Oatmeal or Cream of Wheat

NOT THIS:

- Tomato or cream-based soups
- High-sugar flavored yogurts
- Ice cream/sorbet
- Smoothies from chain restaurants
- Store-bought baby food
- Alcohol

Below is a guide to how you can expect your thick liquid day to look like:

REMEMBER:

- Work your way up to this
- It may take 5-14 days to be able to drink this much

MEAL	LIQUIDS	LIQUID GOAL	PROTEIN (G)
BREAKFAST	Protein shake Sip Water	5 ounces 5 ounces	15
SNACK	Protein shake Sip Water	5 ounces 5 ounces	15
LUNCH	Blended/Strained Soup with unflavored protein added Sip Water	5 ounces 5 ounces	20
SNACK	Protein shake Sip Water	5 ounces 5 ounces	15
DINNER	Protein shake Sip Water	5 ounces 5 ounces	15
SNACK	Protein shake Sip Water	5 ounces 5 ounces	15
		TOTAL: 60oz	TOTAL: 95 grams

SMOOTHIE RECIPE:

A great way to get your micronutrients and protein in is to make your smoothie.

- Lots of leafy greens (like kale, spinach, etc)
- Fruit (apple, banana) **no seeds**
- Protein Powder
- Water and Ice

You should also start your vitamin supplements 14 days post-surgery.

PHASE 3 - SOFT SOLIDS (PUREED)

This phase starts 15-21 days after surgery and can last up to 14 days.

You should start weighing your foods to 4-6 ounces (110 - 170 grams) per meal. 3 ounces (85 grams) will always be protein.

PROTEIN FIRST!

Think of your new pouch as shaped like a funnel. You can pour any liquid into this funnel, and it will run through and out the bottom. The same thing happens with your pouch when you only consume liquids, so **you do not want to drink your calories or overeat**. It is important to transition to food and wean yourself off the protein shakes at this stage.

Make sure to chew all of your food to applesauce consistency. Like drinking fluids, the goal is to take small bites and wait 60 seconds before your next bite. **THIS WILL HELP AVOID NAUSEA AND VOMITING.**

Do **NOT** drink with any meal. You will need to **STOP** drinking 30 minutes before and 30 minutes after a meal.

You want to introduce, at most, 1 new food every 2-3 days.

Important Considerations during Phase 3:

- **Soft Dairy** - low-fat organic yogurt/ cottage cheese/ ricotta cheese/ string cheese/ laughing cow
- **Well Cooked Vegetables** - Carrots/ Sweet Potatoes/ Asparagus/ Broccoli/ Cauliflower. Make sure this is a mashed-up consistency. Eggs & Beans - Try poached and fried eggs first to see if you can tolerate this, and slowly advance to scrambled and hard-boiled. Beans are perfect in soups.
- **Flakey Fish** - Focus primarily on baked white fish. Avoid shrimp for now.
- **Chicken** - Start with dark meat first; if you can tolerate chicken, you can almost tolerate anything.

During this phase, you want to **AVOID**:

- Raw Vegetables
- White Bread
- Steak
- Popcorn
- All Desserts
- Hot Dogs
- Nuts or Seeds can get stuck in your staple line, leading to complications.
- All Processed Products & Snacks

PHASE 4 – SOLIDS PHASE

This phase begins 21 days or later following surgery. You and your stomach have made it! Now, it's time to create a healthy, sustainable lifestyle.

Important Considerations during Phase 4:

- Eat lots of good calories (healthy proteins, fats & fibrous carbs) and very few bad calories (processed & junk)
- You should have a variety of foods you eat
- Should digest most soft solid items well without discomfort
- "Can" try any firm food items now
- Continue to chew to applesauce consistency
- Some foods may take months to be able to eat comfortably

Long-Term Intake Goal:

- Protein 3 - 4 ounces (100-120 grams)
- Vegetables 2 ounces
- Fats: 1-2 Tbsp
- Carbs: 1 ounce

What are Macros & why track them?

Macros is short for "macronutrients" and refers to the proteins, carbohydrates, and fats that make up our foods. Some foods might be primarily one macronutrient, whereas other foods may contain all three macronutrients.

For example, 140 grams of white rice has 40 grams of carbohydrates. 100 grams of avocado has 2 grams of protein, 9 grams of carbohydrate, and 15 grams of fat. See the difference?

1G OF PROTEIN = 4 CALORIES	1G OF CARBOHYDRATE = 4 CALORIES	1G OF FAT = 9 CALORIES

The foods we choose to fill our diet with matter! Imagine a diet full of salmon, avocados, and rice vs. a diet full of soda, cookies, and ice cream.

Although the latter might taste fantastic, it has the potential to lead down a very different health profile over time.

Weigh and measure food: You can use a food tracking application (MyFitnessPal, Baritastic, or BariatricPal) to determine the protein, carbohydrate, fat, and calories you consume in a day. This will help you avoid hitting a stall and allow you to progress over time.

30 DAYS AND BEYOND

After the first month post-op, most people can eat a wide variety of foods and digest most items well. This is when it is a good time to fine-tune your nutrition and follow a healthy, balanced regimen that is sustainable long-term.

We recommend a nutritious diet based on the following macronutrients (**lean proteins, healthy fats, and fibrous carbs**):

CALORIES & MACRONUTRIENT GOALS:

- **Calories**: 1200
- **Protein**: 30-40% of total Calories
- **Fats**: 25-35% of total Calories
- **Carbs**: The rest of your Calories goes to good Carbs.
- **Sugar**: Up to 25 grams (from vegetables & fruits)
- **Fiber**: 25-35 grams daily

Post-Op Vitamin Guide

VITAMIN REQUIREMENT

TYPE OF VITAMIN/ MINERAL	DOSAGE
Bariatric-Specific Multivitamin	1 Serving Per Day
Iron To Be Taken With Vitamin C	Iron: 45-60 Mg/Day Vitamin C: 500 Mg/Day
Calcium Citrate	500 Mcg, 3x A Day For A Total Of 1500-2000 Mg Per Day
Vitamin D3	3,000 Iu Daily (You Can Purchase Calcium That Includes D3)
Vitamin B12	500 Mcg (Only Required If B12 is Low)
Vitamin B Complex (With Thiamine)	Thiamine Should Be In The Dosage Of 75- 100 Mg/Day
Zinc & Biotin (Optional: To Minimize Hair Thinning)	Zinc: 15 Mg/Day Biotin: 10000 Mcg (10mg/Day)

- Vitamin supplementation should begin 14 days after surgery or as soon as you start the soft solids stage of your diet. **These should be Chewable, Crushed, or Drinkable.**
- Read the supplement label. No single vitamin or mineral may contain everything you need.

Where to buy Bariatric Vitamins: www.emergebariatrics.com

VITAMIN SCHEDULE

Recommended Vitamin Schedule:

AM: Multivitamin, B12 (plus iron if not in your multivitamin)
Mid-Morning: 500 mg Calcium Citrate, Vitamin D3, and Thiamine (B1) (If not in your multivitamin)
Lunch: 500 mg Calcium Citrate, 2nd dosage of your multivitamin (If needed)
Dinner: 500 mg Calcium Citrate

Tips for Taking Vitamins:

- **Do NOT** take on an empty stomach or on a full stomach. Take it with food.
- **Do NOT** take iron and calcium supplements together.

WHY VITAMIN & SUPPLEMENTS ARE ESSENTIAL AFTER SURGERY

After weight-loss surgery, you will digest and absorb nutrients differently. Due to these differences, vitamin and mineral supplementation is essential. Knowing what supplements you need to take after bariatric surgery is vital to your long-term success.

Research shows that the majority of post-op weight loss surgery patients have one or more deficiencies without proper nutrition and supplementation. Studies have shown that after bariatric surgery, patients do not get the minimum requirements of thiamin (B1), niacin (B3), pantothenic acid (B5), pyridoxine (B6), folate, calcium, biotin, and iron.

With a deficiency, you can experience:

- Muscle loss
- Fatigue
- Hair loss
- Cracked and dried skin
- Weak and brittle bones/osteoporosis
- Weakness
- Nerve damage
- So much more

B12 Deficiency:

After gastric bypass and sleeve gastrectomy, you do not produce enough gastric acids or intrinsic factor (IF) to absorb vitamin B12 properly. Both stomach acid and IF work to release B12 from food and assist with the absorption of the vitamin. For this reason, a B12 supplement is needed as a sublingual tablet, nasal spray, or injection.

Iron Deficiency:

Iron supplementation is recommended for all patients to prevent deficiency or anemia. With gastric bypass surgery, the predominant area (the duodenum) of iron absorption is bypassed with the surgery, so the amount of iron in a standard multivitamin (18 mg) may not be enough to prevent anemia if you have this kind of surgery. If you are iron deficient after a gastric bypass, you will need to take more iron. Menstruating females also have a higher iron recommendation (45-60mg).

Calcium:

Be sure to choose calcium citrate and not calcium carbonate. After gastric bypass or sleeve gastrectomy, you will not produce the stomach acid needed to activate and absorb calcium carbonate.

Thiamin (B1):

Thiamin needs to be in your multivitamin or taken separately to prevent deficiency. Thiamin deficiency quickly occurs, can be very serious, and may not be recognized until it is too late. Long-term deficiency symptoms, such as brain damage, heart failure, and paralysis, can be irreversible.

Hair Loss:

Hair loss is a common side effect of rapid weight loss. It typically occurs between 3 and 6 months after surgery and can last up to 12 months. While this is temporary, and your hair does grow back, it can be frustrating.

Possible Nutritional Deficiencies:

1. **Not enough high-quality protein:** Be sure to get a minimum of 90 grams of protein daily.
2. **Iron (the micronutrient most related to hair loss):** Ferritin levels below 40 or Hgb below 11g/dL are associated with hair loss.
3. **Essential fatty acids** are needed to supplement with linoleic and linoleic acid. Barlean's essential fatty acid is recommended.
4. **Biotin:** 1 – 2.5 mg per day is recommended. 5.
5. **L-lysine** makes up 27% of the protein in the hair. A supplement of 1.5 – 2 grams per day is recommended. Also found in fish, meat, and eggs.

To minimize your hair loss, get a minimum of 60 grams of protein daily, take the recommended bariatric vitamin supplements daily, and add biotin to your supplement regimen.

Post-Op Recovery Guide

ACID REFLUX & GERD

How to Avoid Acid Reflux & GERD Symptoms:

- Drink 1 fluid ounce (medicine cup) at a time, wait 60 seconds, and go for another.
- Eat small bites, chew food thoroughly to baby food consistency, and wait 60 seconds before the next small bite.
- CHEW AND DRINK SLOWLY.
- Eat smaller, more frequent meals (Every 2-3 hours).
- Stop eating 3 hours before bed. Eating right before bed can affect your sleep.
- Start taking a probiotic that has at least 50 billion units. Follow the directions on the bottle.
- Do not overeat. Over-eating can trigger acid reflux.

Foods that may assist with Acid Reflux:

- Yogurt (low sugar)/Whole plain Greek yogurt
- Leafy greens like spinach, collards, etc.
- Asparagus
- Cucumbers
- Eggs
- Salmon & Tuna
- Almonds
- Oatmeal
- Herbal teas- chamomile tea
- Use olive oil on vegetables and foods
- Lean meats like chicken, turkey, fish, seafood
- Fairlife Milk (w/ digestive enzyme in it)- can buy where you get regular milk
- Fermented foods/ vegetables (examples: pickled cucumbers, pickled garlic, pickled beets, pickled radishes, sauerkraut, soy sauce)

Food to Avoid (FOODS YOU CAN NOT HAVE):

- Chocolate
- Sugar substitutes
- Coffee
- Peppermint
- Greasy/fried or spicy foods, sausages
- Tomatoes and tomato products
- Orange Juice, citrus fruit and beverages
- Soda or carbonated beverages
- Corn, potato chips, and many grains like rice
- Alcoholic drinks

WOUND CARE

For Fastest Healing:

1. **KEEP IT CLEAN**: Use soap and water only. Do not use peroxide, alcohol, or iodine. Chemicals like peroxide kill bacteria but also kill healthy cells required for wound healing. This can delay healing and cause unsightly scars.

2. **KEEP IT COVERED**: Use loose gauze and tape. You may stop covering them when they are closed (scabbed over) and there is no drainage.
3. **KEEP IT DRY**: Avoid ointments, waterproof bandages, bathing (a quick shower is fine), swimming, or keeping the area free of sweat.

Signs of Infection:

- Pain
- Fever
- Brown foul-smelling pus
- Inflammation of the infected area
- Increased temperature at the incision site
- Redness beyond the borders of the incision

Things that may delay Healing:

1. Antibiotic ointment (keeps the incision wet, no Neosporin® or equivalent)
2. Waterproof bandages (keep the incision wet (moisture from sweat and fluids can't escape) 3.
3. Removing Fibrin (a yellow substance produced by the body that is imperative in wound closure; often confused by patients as "pus")
4. Baths (not quick showers)
5. Swimming
6. Pulling/cutting sutures that are "poking out" (once the internal portion dissolves, the external portion will fall off)

Most common Post-Op Concerns that are most often harmless:

- **"Pain under left rib"**- In most cases, this is a healing pain that resolves in 2 weeks. For some, it can last up to 6-8 weeks. Usually, medication for pain will be sufficient for this pain. If it is not reduced by medication or is accompanied by fever, follow up with a local provider as soon as possible to identify the source of pain.
- **Drainage** - Drainage is common and most often healthy. Red, pink, and clear drainage are common. Brown foul-smelling drainage (uncommon) is a sign of infection and should be looked at and treated by a local provider.
- **Excessive nausea**- The new healing pouch can be sensitive to any pressure or pressure from things coming down the esophagus. This symptom can most often be eliminated by taking 1 ounce of fluid or less (or solid food when you reach that stage). Wait 60 seconds before the next ounce of liquid (or solid). Using this trick, a patient can often get 15 ounces of fluid in 15 minutes. Do that 5 times a day or more, and you will meet your liquid goal. Liquids do not sit in the stomach like solids do. It is **NOT** recommended to drink (30 mins before or after) with solids as liquids can push foods into the intestine faster, and then you may feel hungrier faster.

If you still experience excessive nausea even after trying the "60-second trick", follow up with a local provider to ensure you do not become dehydrated. IV rehydration may be necessary.

If you have any concerns about your incision, please email our Surgeon Liaison at jen@mexicobariatriccenter.com and include a photo.