

Empower Weight Management Class 1

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Presentation Overview

- Introduction
- Digestion – before and after surgery
- Macronutrients
- Dehydration Risk
- Food Diaries



Introduction

- Bariatric/Metabolic surgery has been developed to help you lose weight.
- However, it is not magic!
- 50% of the attainable results are dependent on YOUR postoperative compliance.
- The surgery requires a major change in your eating and exercise habits to achieve & maintain your desired weight loss.
- By using your surgically reduced stomach pouch effectively, you will have a positive impact on your overall health.



It's takes a team!

Our Role

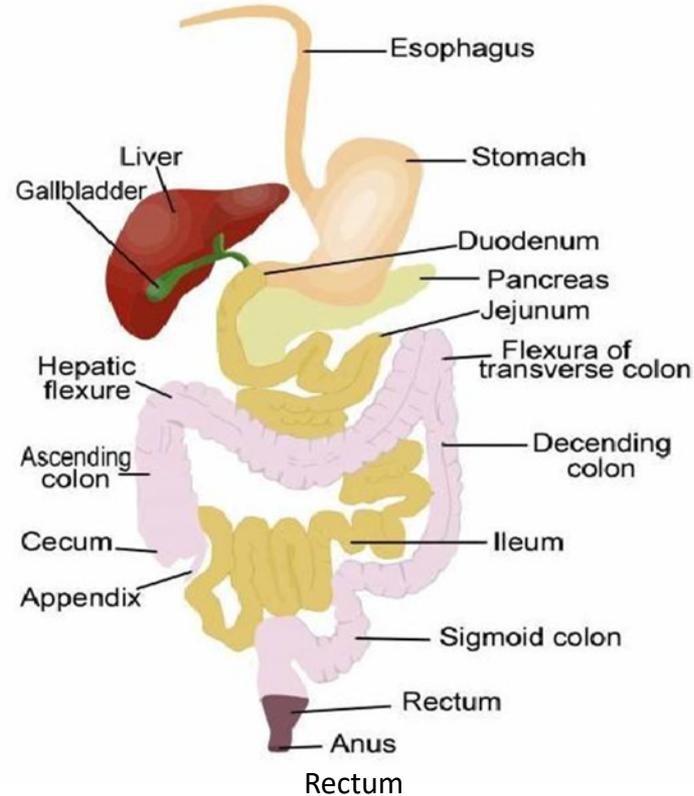
- To Educate
- To Support (medical, nutritional, psychological)

Your Role

- To evaluate food choices
- To begin practicing lifestyle changes



Digestive System



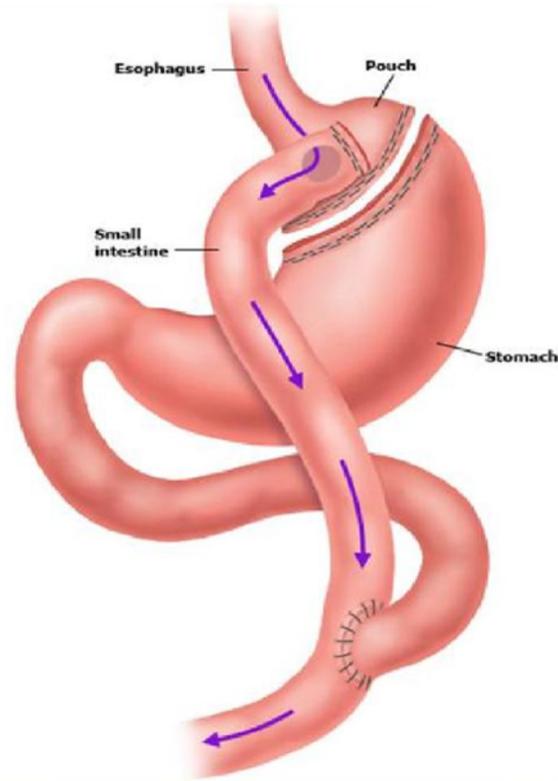


Digestion – Before Surgery

- Begins in the mouth with digestive enzymes in our saliva.
- Stomach holds food for ~4 hours and initiates protein digestion with strong acidic gastric juice.
- Moves into duodenum as chyme and food is broken down into simple nutrients.
- Duodenum absorbs iron and calcium.
- Jejunum absorbs our nutrients.
- Ileum continues absorption -> bowel movement.



Digestion After RNYGBP



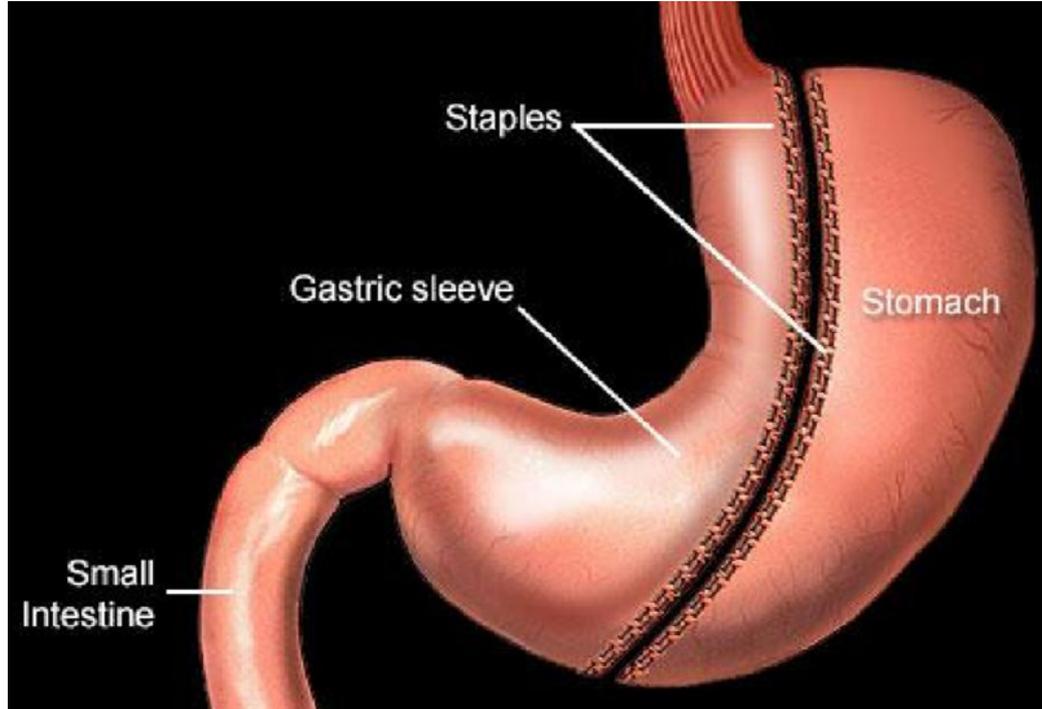


Digestion – After Gastric Bypass

- Stomach size is reduced to ~1 ounce (or 30 mL).
- Food bypasses most of the stomach and duodenum and empties into the jejunum.
- Potential intolerances: milk (lactose), beef, raw fruits and vegetables.
- Produces positive changes in gut hormones (Ghrelin) that reduce appetite, increase satiety.
- Can lead to long term vitamin-mineral deficiencies.



Digestion After Gastric Sleeve





Digestion - After Gastric Sleeve

- Removes approximately 80% of the stomach (fundus).
- Pylorus remains intact and no change to the GI tract.
- Produces positive changes in gut hormones (Ghrelin) that decrease appetite.
- Non-reversible procedure.
- Can lead to long term vitamin-mineral deficiencies.



Nutrition at a Glance

- Protein: helps build, maintain, and repair body tissue.
- Carbohydrate: provides energy (eat more complex carbohydrates / avoid simple sugars)
- Fat: provides concentrated source of energy and essential fat-soluble vitamins A, D, E, and K.
- Water: supports all body functions, carries nutrients throughout body and removes waste.



Macronutrients: Protein

- Can be used as an energy source
- Helps with immune function
- Provides satiety
- Functions: builds, maintains and repairs tissue and lean muscle mass
- Protein malnutrition is uncommon in bariatric surgery patients since the body can adapt to short-term periods of low protein intake



Protein Needs

- Protein intake is based on a person's height and gender
 - Women generally need 60 grams (gm) daily
 - Men need 80 grams daily
- Incorporating protein beverages for the first few weeks, and then focusing on protein-based meals will help you to meet your protein goal.
- Slight hair shedding is normal in the months immediately following bariatric/metabolic surgery & is rarely a sign of nutrition complication.



Good Protein Sources

- Meat-1oz (7 gm)
- Fish-1oz (7 gm)
- Poultry-1oz (7 gm)
- Beans/lentils-1/2C (7 gm)
- Eggs-1 (7 gm)
- Milk-8oz (8-10 gm)
- Cheese-1oz (7 gm)
- Yogurt-8oz (8 gm)
- Cottage cheese-1/2C (7 gm)
- Peanut butter-2 Tbsp. (7 gm)
- Tofu-1/2C (10 gm)
- Soy milk-8oz (11 gm)
- Nuts-1oz (7 gm)
- Pumpkin seeds-1oz (8.5 gm)
- Protein drinks/powders (20-30gm)



Macronutrients: CHO

- Carbohydrates are the main energy source for the body
- Simple CHO= mono and disaccharides (sugar, corn syrup, fruit juice, soda)
- Complex CHO= polysaccharides (oatmeal, whole grains, brown rice, dried beans, lentils, vegetables and dairy)



Fiber - Soluble

- Binds with fatty acids and slows stomach emptying so sugar is released and absorbed more slowly.
- Can help lower total cholesterol/LDL.
- Promotes regular bowel movements.
- Sources: whole grains, fruits, vegetables, legumes, nuts and seeds.



Fiber - Insoluble

- Insoluble fiber is not digested or absorbed by the body.
- Helps with satiety.
- Can reduce the risk of colon cancer.
- Sources: brown rice, whole grain breads/cereals, legumes, skins of fruits/vegetables.



Macronutrients: Fats

- Functions:
 - Forms a major part of cell membranes
 - Provide fat-soluble vitamins (A,D,E,K)
 - Energy source (9 kcals/gram)



Heart Healthy Fats

- Monounsaturated Fats:
 - Help lower levels of unhealthy fats in the blood
 - Sources: Plant oils, avocados, nuts
- Polyunsaturated Fats:
 - Beneficial for heart health
 - Sources: fish, canola and soybean oil, ground flaxseed, walnuts



Fats To Limit

- Saturated Fats:
 - Increase the risk of heart disease
 - Sources: animal fats found in meat, full-fat dairy, baked goods, processed or fried foods, and coconut oil



What's Your Upper Limit on Fat?

- Experts recommend consuming less than 30% of total calories from fat and less than 10% from saturated fats.
- Total Kcals / Sat Fat gms / or Total Fat gms
 - 1600 18 or less 53
 - 2000 20 or less 65
 - 2500 25 or less 80



Ways to Limit Saturated Fat

Food	Type	Ounces	Grams
Cheese	Regular Cheddar	1oz	6
	Low Fat Cheddar	1oz	1.2
Ground Beef	Regular	3oz	7.2
	Extra Lean	3oz	5.3
Milk	Whole	1 cup	5.1
	Low Fat (1%)	1 cup	1.6
Breads	Croissant	1medium	6.6
	Bagel	1 medium	.1
Frozen Desserts	Regular Ice Cream	1/2 cup	4.5
	Frozen Yogurt	1/2 cup	2.5
Spreads	Butter	1 tsp	2.4
	Soft Margarine	1 tsp	.7



Fats to Limit

- Trans Fats:
 - Created when liquid oils are heated (hydrogenation), which turns them into solid fats
 - Sources include baked goods/pastries, fast food, potato chips, snack crackers, movie popcorn
- Experts recommend 2gm or less/day



Macronutrients: Water

- Supports all body functions.
- Carries nutrients throughout the body.
- Removes waste.



Question:

Why are patients at risk for dehydration following bariatric surgery?



Dehydration Risk

- After bariatric surgery you are at risk for dehydration because you cannot consume large quantities of fluid quickly, instead you will have to sip on fluids throughout the day. This may be a challenge for some and a new habit to create.
- Your fluid goal is 48-64 oz. per day.
- Symptoms of dehydration include: fatigue, increased thirst, dry mouth, dizziness, confusion, headache, decreased urine output, or dark urine.



Food Diaries

- Journaling increases your awareness of food habits.
- Writing down what you eat helps you to make small changes that will increase your long-term success.
- Food diaries help your Bariatric Team assess your readiness for surgery.
- Food diaries are feedback not failure!



Food Diaries: The Essentials

- Time of day
- Entrée, sides and snacks
- Portions
- Protein/Calories - optional
- Fluids - type and amount
- Exercise- type and amount



Food Diary: Websites

- Fresno Bariatrics-Baritastic App
 - Code 38558
- Myfitnesspal.com
- Loseit.com
- Caloriecount.com
- Or... you can record on a paper food tracker.



Goals for the Month:

- Eat protein-based meals.
- Decrease simple carbohydrates and limit high fat foods.
- Drink at least 48-64oz of fluids/day.
- Slow down, chew well to prepare for your new, smaller stomach.
- Keep a food diary; submit monthly.

