



Role of Nutrition for Bariatric Surgery

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Financial Disclosure –

Tabitha McKay does not have any financial relationships with any commercial interests that create a conflict of interest to affect the content of this presentation about products or services

ABOUT

- Masters of Science in Nutrition from the University of New Mexico
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Learning Objectives

1. How can you support a patient that is pre or post op bariatric surgery
2. What can be done nutritionally to prepare patients to undergo bariatric surgery
3. When should you refer to a Registered Dietician (RD) or have a discussion with a RD/bariatric surgery program
4. What are the nutritional complications that can result from bariatric surgery

Surgical Qualifications

- BMI $>40 \text{ kg/m}^2$

OR BMI $>35 \text{ kg/m}^2$ with comorbidities

- Medically cleared for surgical procedure
- Psycho/social clearance
- Failure of a medically supervised weight loss program

**Qualifications used - Center for Medicare/Medicaid (CMS.gov)*

Patient Readiness

- Desired surgical intervention
- Prior experience with weight loss and diet change^{1,2}
- No evidence of diet limitation

Highly restrictive diets may be contraindication for bariatric surgery

- Motivation for change^{1,2}

Pre-op Nutrition

Diet Rx:

- High protein, low processed carb diet (15-23% kcal from protein)³
- Consistent meal pattern
- Will support uncontrolled and controlled DM patients

RD Interventions:

Carb Counting

Inclusion of physical activity

Diet and disease education (hepatitis, CKD, DM, HTN/CVD)

Pre-op Nutrition

Necessary diet changes:

- No gum, straws, or carbonated beverages⁴
- No alcohol or smoking⁴
- Decreased caffeine intake⁴
- Decreased intake of concentrated fats and sugars⁵

Pre-op Nutrition

Diet advice to avoid in this population:

- “Change to diet soda or sparkling water”
- Calorie/food or meal pattern restriction
- “No carb” diets or other “fad diets”
- Emphasis of “volumetrics”

Special Topics

Medically Supervised Weight loss Program

- Usually included in bariatric surgery programs (RD + PCP visits within 6 month period)
- Bariatric surgery should not be first intervention¹

Special Topics

Appetite suppressants and other medical weight loss aides

- Lessen the focus on eating often
- Doesn't allow patients to try and fail diet interventions
- Often causes low pre-surgery intake
- Allows patients to focus on amount of food rather than type of food

Prior to Surgery

- Readiness for surgery
“Strong for Surgery” or Enhanced Recovery After Surgery
“ERAS” guidelines⁶
- Emphasis on decreased caffeine intake; avoidance of alcohol or tobacco

Goal to control co-morbidities:

- Liver Function Tests and renal labs stabilized
- Decreased A1c and increased medical management as needed in diabetic patients

Post-op Nutrition

- **Focus on nutrient density; especially protein density^{2, 4}**
- **Allow the procedure to control amount of intake**
 - The focus should be on meal patterning NOT calorie/volume restriction
- **Provide symptom management⁵**
 - Ask about gastrointestinal symptoms and provide management as possible
 - Hypoglycemia more common post-op⁷
- **Ask about supplementation and take frequent labs**
 - Most likely deficiencies – B vitamins, Iron, vitamin A, vitamin D^{4, 8}

Post-op Nutrition

Expectations

- Weight loss of 3-5 lbs/wk
- Slowed weight loss over 1.5 yrs (65-85% of excess weight)³
- Restricted meal size
- 3 meals and 1-2 snacks per day
- Fluid intake of 48-64 oz⁴
- Possible poor tolerance of tough meats
- Intolerance of concentrated sweets and high fat foods⁵

When to Refer to RD

- Weight loss >10 lbs/wk
- Meal restriction (i.e. only ¼ c or only 1-2 meals/d)
- Low protein intake – limited preference to high protein foods⁹
- Dehydration and poor PO intake
- Increased (daily) intake of high fat/high sugar food
- Chronic dumping/diarrhea/nausea or vomiting⁵

Complications

- GI intolerance⁵
- Sarcopenic Obesity and Malnutrition⁹
- Mechanical obstruction¹⁰
- Ileus and Ischemia¹⁰
- Pregnancy¹¹

Resources

Academy of Nutrition and Dietetics (AND)

- Nutrition Care Manual
- Bariatric Surgery Pocket Guide

Other academic bodies

- CLINICAL PRACTICE GUIDELINES FOR HEALTHY EATING FOR THE PREVENTION AND TREATMENT OF METABOLIC AND ENDOCRINE DISEASES IN ADULTS: COSPONSORED BY THE AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS/ THE AMERICAN COLLEGE OF ENDOCRINOLOGY AND THE OBESITY SOCIETY
- <https://www.aace.com/files/clinical-practice-guidelines.pdf>

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