

**Nutrition Myths, Diet Fallacies, and Weight Loss Surgery:
The Skinny on Oral Health Considerations**

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Diet Myths

- CHOs make you fat
- Fat free foods lead to fat free bodies
- Healthy food is more expensive
- Gluten free desserts are healthier
- Eating late at night leads to weight gain
- You should fast to cleanse toxins from your body
- Energy bars are good for weight loss
- You can eat whatever you want as long as you exercise

Food fads, dietary trends and potential impact on oral health

- Juicing
- Intermittent Fasting
- High protein diets
- Gluten free diet
- Paleo diet
- Vegan diet
- Energy drinks, sports drinks, vitamin water

Fad Diets/Dietary Trends: Practice Considerations for the Dental Professional

- Comprehensive medical history
- Question about recent illnesses, changes in health behaviors or diet modifications
- UPDATE of all meds and supplements—be aware of oral considerations
- Keep good prescription drug and dietary supplement reference(s) on hand
- Observe patients for physical manifestations of bleeding
- Perform thorough oral exam at each visit
- Teach OH techniques to reduce oral disease risk

- Ask about any special diets patient is on; ask them to describe the diet if you're not familiar with it.
- Ask about any oral symptoms or conditions that may have been noticed while following the dietary regimen.
- Serve as an advocate by educating your patient about possible oral manifestations related to fad diets and/or specific supplement(s) your patient may be consuming.
- Integrate preventive protocols into homecare regimens as indicated

NOTES:

Bariatric Surgery Patients, Our Dental Patients: What's Our Role?

- Over past few years bariatric surgery has increased > 600%
- Two main types: Restrictive (Lap Band, Sleeve Gastrectomy) and Malabsorption (Roux-en-Y Gastric Bypass)
- Gastric ulcer, diarrhea, chronic vomiting, reflux and gastro esophageal cancer are common complications.
- Protein, Vitamins A, C, D, K, B12, iron, zinc, and calcium common deficiencies (Moravec and Boyd, 2011)

Weight loss surgery is an option if:

BMI \geq 40kg/square meter or \geq 35kg/m²

Failure of nonsurgical weight loss

Absence of psychiatric or medical contraindications

Well informed, motivated patient

Weight loss surgery is NOT an option if:

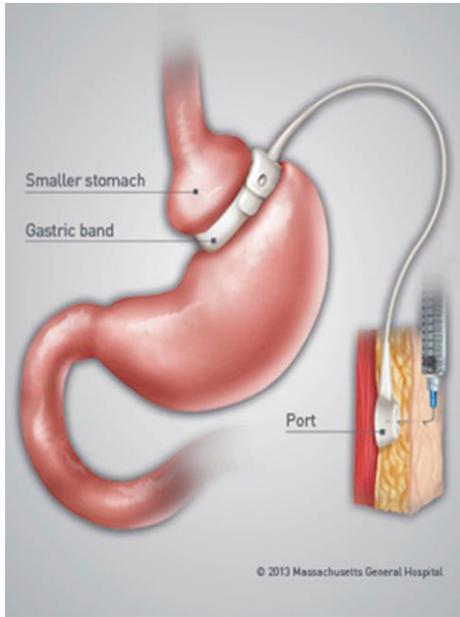
Severe heart failure, unstable CAD, end stage lung disease, active CA diagnosis/treatment; cirrhosis with portal hypertension

Current drug or alcohol abuse

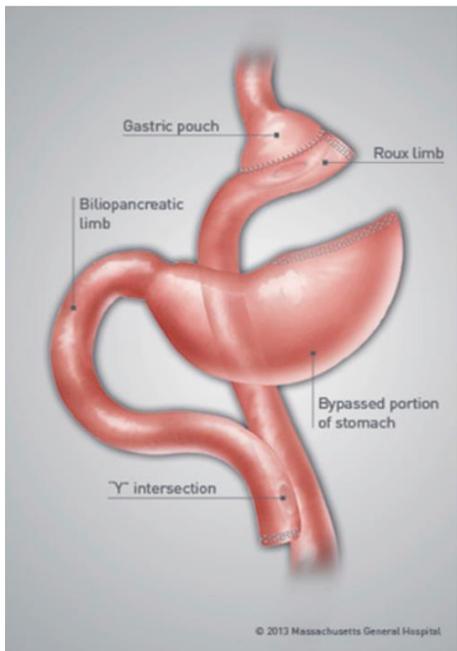
Uncontrolled severe psychiatric illness

Two Main Types of Weight Loss Surgery:

- 1) Restrictive (Lap Band and Sleeve Gastrectomy)



2) Malabsorptive (Roux-en-Y gastrectomy)-RYGB



Printed with permission from Sue Cummings MS, RD and Janey Pratt MD. Cummings S. Pratt J. Metabolic and bariatric surgery: Nutrition and dental considerations. [J Am Dent Assoc.](#) 2015 Oct;146(10):767-72.

Diet after Bariatric Surgery

- Required to eat more frequently, 3 portions of dairy, 2 portions of meat and 5 portions of veggies
- At first, must eat small bites and perform 20 chews to a soft consistency.
- All liquids must be consumed afterwards rather than with meals.

Caries and Bariatric Surgery

Mariscano et al found 6 mos post-surgery, 25% of pts had more decayed teeth than before surgery.

Mariscano JA, de Moura-Grec PC, Belarmino LB, et al. Interfaces between bariatric surgery and oral health: longitudinal survey. *Acta Cir Bras.* 2011; 26 (Suppl):79-83.

Tooth hypersensitivity; increased risk of dental caries and tooth enamel erosion (Heling and Sgan-Cohen, 2006).

Hyposalivation Prior to Bariatric Surgery

Patients report hyposalivation prior to surgery

Improvement seen post surgery for patients getting RYGB

Increased salivation 'may' reduce risk of periodontal disease.

Periodontitis and Bariatric Surgery



Abstract

Journal of Periodontology

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Response to Periodontal Therapy in Patients Who Had Weight Loss After Bariatric Surgery and Obese Counterparts: A Pilot Study
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Background: Periodontitis and obesity are both chronic health problems, and the literature supports an association between the two. Weight loss after bariatric surgery (BS) has been shown to decrease overall mortality as well as the development of new health-related conditions in morbidly obese patients. The present study aims to assess whether significant weight loss would improve the response to non-surgical periodontal therapy in obese patients.

Methods: This study included 30 obese (body mass index >30 kg/m²) patients affected with chronic periodontitis. Of these, 15 patients had previously undergone BS and lost ≥40% of their excess weight for ≥6 months after surgery. The other 15 patients were also obese but did not have the surgery, nor did they lose weight to serve as a control group. All participants received non-surgical periodontal therapy (scaling and root planing and oral hygiene instructions). Probing depth (PD), clinical attachment level (CAL), bleeding on probing (BOP), gingival index (GI), and plaque index were measured at baseline

and at 4 to 6 weeks after the periodontal treatment. Descriptive statistics, linear mixed-effects models, and linear regression models were used for data analysis.

Results: The mean age of the study participants was 47.1 ± 11.5 years, and 36.7% of the participants were males. There was a statistically significant improvement after periodontal therapy in the BS compared with the obese group ($P < 0.05$). The PD had a mean reduction of 0.45 mm in the BS group versus 0.28 mm in the control group. The reduction in CAL was 0.44 mm versus 0.30 mm, percentage of BOP sites was 16% versus 15%, and GI was 1.03 versus 0.52 in the BS and control groups, respectively.

Conclusion: An improved response to non-surgical periodontal therapy is observed in obese patients who had significant weight loss after BS compared with obese patients who did not have such a surgery.



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Impact of Bariatric Surgery and Diet Modification on Periodontal Status: A Six Month Cohort Study

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Abstract

BACKGROUND: Nutrition is an essential component of oral health and improper nutrition is an important aetiological factor in the development of obesity as well.

AIMS AND OBJECTIVES: This study aimed to evaluate effect of diet modification and oral hygiene maintenance after bariatric surgery on the periodontal status of Class III and IV obese patients.

MATERIALS AND METHODS: Two hundred and twenty four patients between the age ranges of 18 -64 years, from both sexes, were subjected to complete periodontal examination prior to bariatric surgery and 6 months post surgery. Patients were advised diet modification which included more fibrous food intake & decreased intake of soft and sugary food along with supragingival scaling & oral health care regime after bariatric surgery with a 6 month follow up. No periodontal surgical intervention was performed.

RESULTS: The patients showed a mean differences in the bleeding score, plaque and gingival index which was found to be statistically significant ($p < 0.001$). The improvement in clinical attachment level and probing pocket depth before and after surgery were found to be statistically insignificant ($p > 0.05$).

CONCLUSION: Thus we conclude that fibrous diet along with good periodontal care can help to improve the oral hygiene status of patients undergoing bariatric surgery, even if periodontal surgical intervention is not performed resulting in freedom from periodontitis, thus improving quality of life of the patient.

Bariatric Patient Management: Considerations for the Dental Professional

- ✓ Gingival inflammation, reduced immune function/delayed wound healing, increased risk of periodontal disease and xerostomia
- ✓ Decreased production of saliva; Salivary substitutes
- ✓ Consider re-mineralization protocols
- ✓ Dental sealants may be indicated
- ✓ Educate patients on effective plaque removal and use topical fluorides (OTC or prescription)
- ✓ Toothpastes for sensitivity; in office application of sensitivity gel/paste or fluoride gel

- ✓ Xylitol for caries prevention—may be contraindicated for GERD patients
- ✓ Post-surgical recare intervals dictated by patients periodontal condition
- ✓ Collaboration between the dental professional and dietitian is KEY to ensure consistent messages delivered and goals are reinforced.
- ✓ Daily vitamin supplementation of nutrient absorption impacted by bariatric surgery
- ✓ Encourage regular examinations, blood work and bone scans from MD

NOTES: