

Insights into Developing Nutrition Protocols for Bariatric Patients at Cherokee Indian Hospital

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Objectives

- Describe three potential benefits of bariatric surgery for patients with diabetes.
- Explain bariatric surgery screening guidelines.
- Describe essential components for establishing a pre-bariatric program.
- Identify at least two benefits of pre and post op Medical Nutrition Therapy for people who have bariatric surgery.
- Locate online bariatric surgery resources for clinicians and patients.
- Identify one change you can make in your clinical or public health practice.

Poll Questions

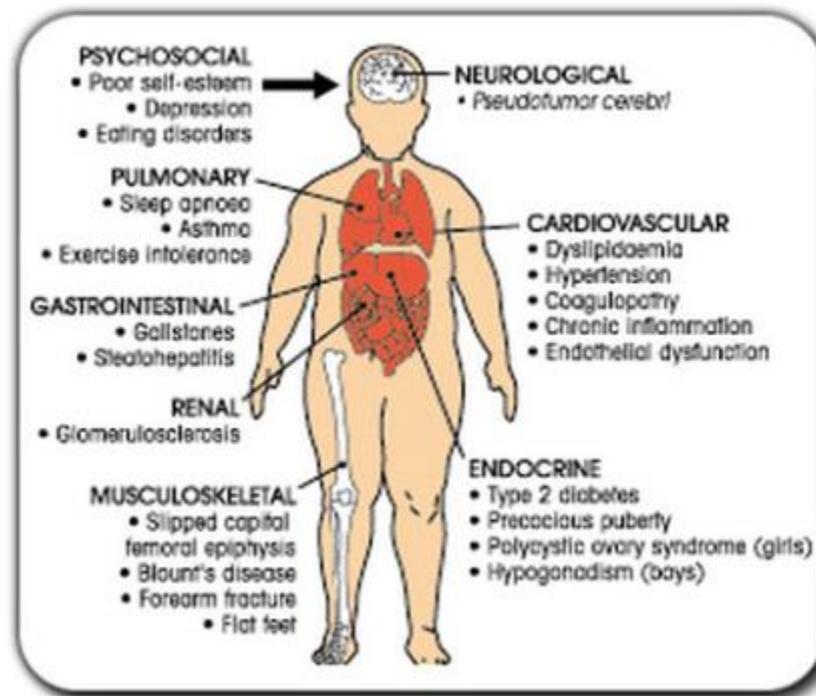
1. Do you regularly see pre or post op bariatric patients?
2. Do you have a bariatric support group in your facility?
3. Do you have nutrition protocols for pre/post bariatric patients?

What is Obesity?

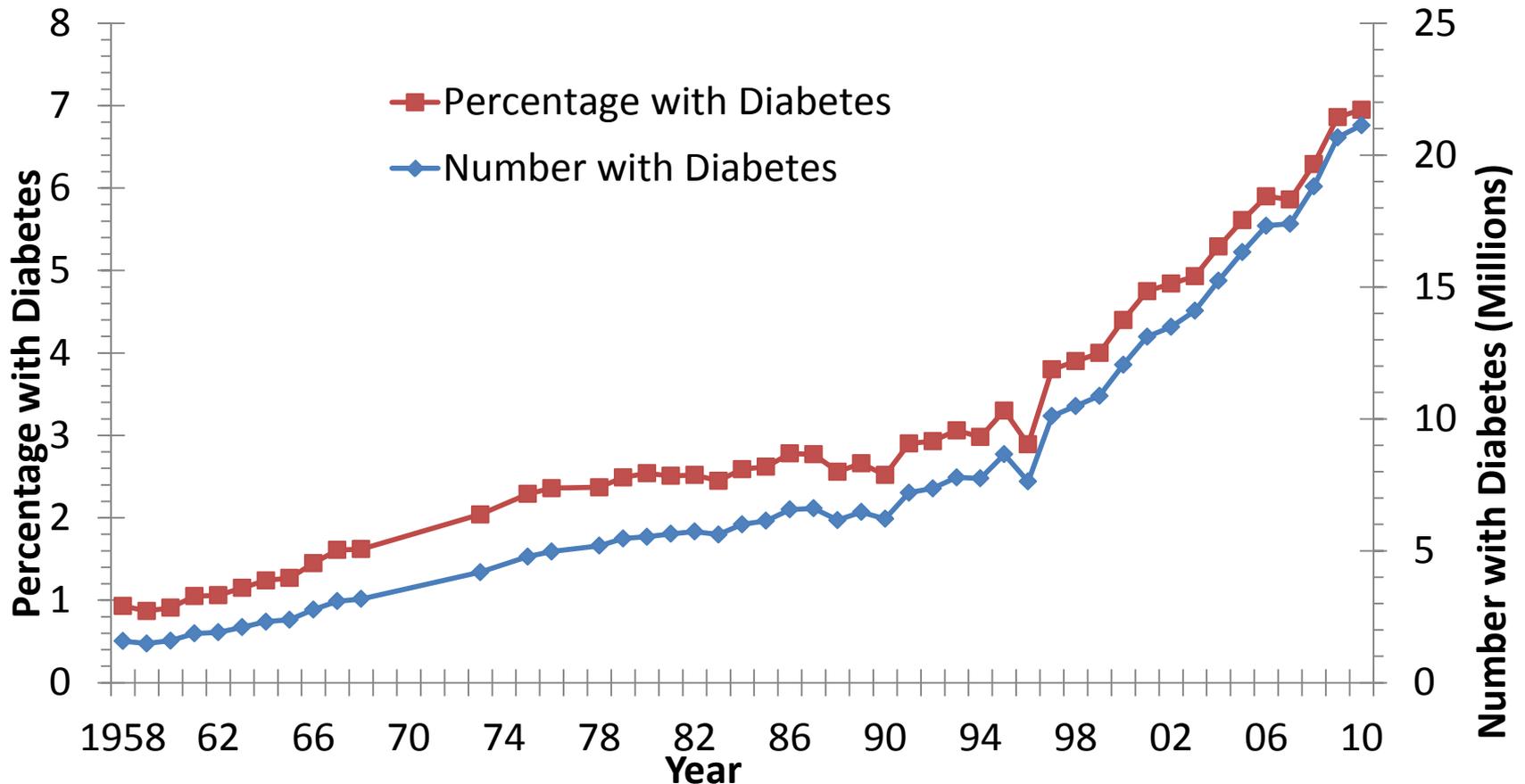
- Obesity is no longer considered a cosmetic issue that is caused by overeating and a lack of self-control. The World Health Organization (W.H.O.), along with National and International medical and scientific societies, now recognize obesity as a chronic progressive disease resulting from multiple environmental and genetic factors.
- The categories and respective BMI categories are:

| Category | BMI Range |
|---------------------------|----------------|
| Normal Size | 18.9 to 24.9 |
| Overweight | 25 to 29.9 |
| Class 1, Obesity | 30 to 34.9 |
| Class II, Serious Obesity | 35 to 39.9 |
| Class III, Severe Obesity | 40 and greater |

Effects of Obesity

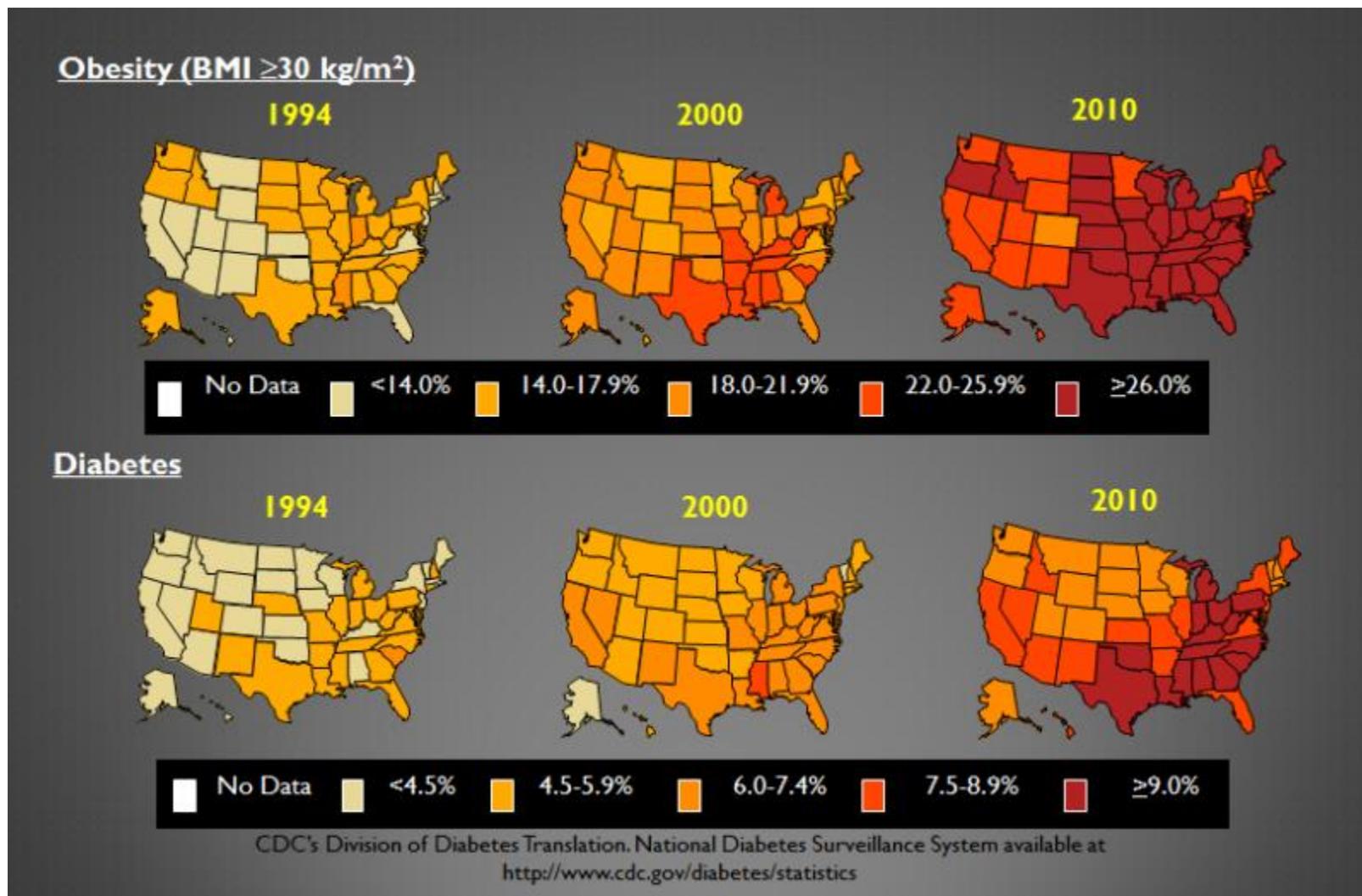


Number and Percentage of U.S. Population with Diagnosed Diabetes, 1958-2010



CDC's Division of Diabetes Translation. National Diabetes Surveillance System available at <http://www.cdc.gov/diabetes/statistics>

Age-Adjusted Prevalence of Obesity and Diagnosed Diabetes Among U.S. Adults Aged 18 Years or Older



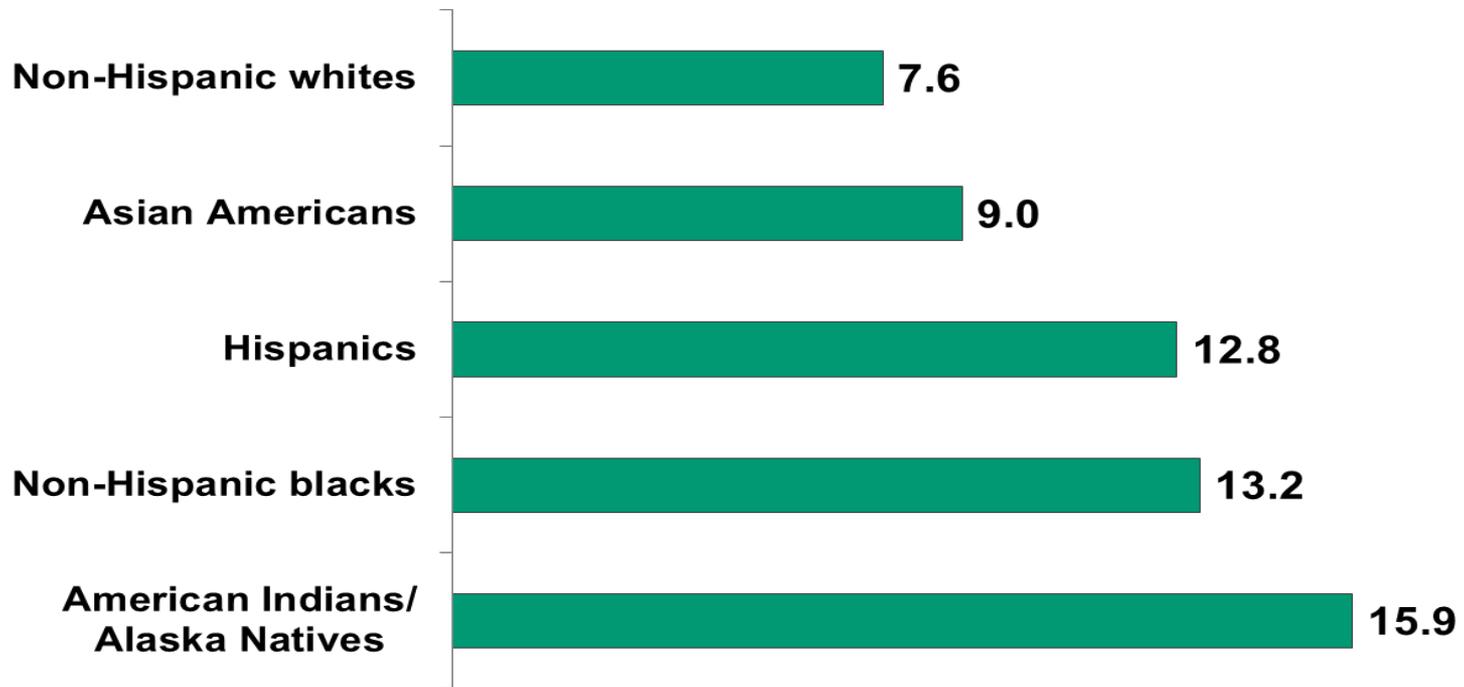
Prevalence of Overweight and Obesity in IHS Active Clinical Patients

- The prevalence of obesity in AI/AN population has increased dramatically over the past 30 years.
- According to the IHS Clinical Reporting System, over 80% of AI/AN adults ages 20 to 74 are overweight or obese, among children and youth, between 45% and 51% are not at a healthy weight.

Adults (ages 20-74)

- 81% overweight or obese
- 54% are obese
- 85% of adults ages 45-54 are overweight or obese (highest percentage of adult patients)

Age-adjusted* percentage of people aged 20 years or older with diagnosed diabetes, by race/ethnicity, United States, 2010–2012



*Based on the 2000 U.S. standard population.

Source: 2010-2012 National Health Interview Survey and Indian Health Service's National Patient Information Reporting System

Cherokee



- BMI Obese 51.7% (2-74 years)
- Diabetes Prevalence 21.8% (active user population)



IHS Recommendations for Weight Management, Overweight, and Obesity

- Providers may consider whether to discuss the option of bariatric surgery with diabetes patients who have a BMI ≥ 35 kg/m², particularly when lifestyle therapy and pharmacotherapy fail to control diabetes or other comorbid conditions:
- Ongoing lifestyle support and medical monitoring after surgery are needed for people with diabetes who undergo bariatric surgery.



AsMBS Bariatric surgery Guidelines by BMI

- **BMI ≥ 40** (class III obesity), or more than 100 pounds overweight
- **BMI ≥ 35** (class II obesity) and at least two obesity-related co-morbidities such as type II diabetes, hypertension, sleep apnea and other respiratory disorders, non-alcoholic fatty liver disease, osteoarthritis, lipid abnormalities, GI disorders, or heart disease.
- Considerations of extending surgery beyond the current cutoff points to include patients with **BMI 30-35** (class 1 obesity)

Before and After



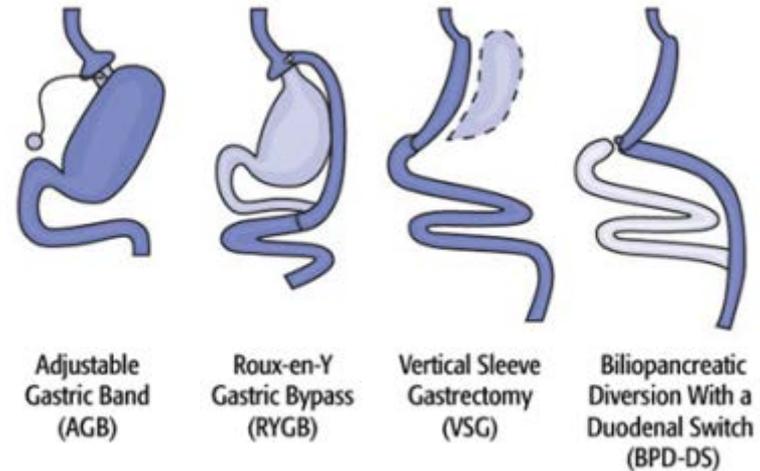
Estimate of bariatric surgery numbers ASMBS, March 2014

| | 2011 | 2012 | 2013 |
|-----------|---------|---------|---------|
| Total & | 158,000 | 173,000 | 179,000 |
| RNY | 36.7% | 37.5% | 34.2% |
| Band | 35.4% | 20.2% | 14% |
| Sleeve | 17.8% | 33% | 42.1% |
| BDP/DS | 0.9% | 1% | 1% |
| Revisions | 6% | 6% | 6% |
| Other | 3.2% | 2.3% | 2.7% |

Poll

Which procedure do you see most often in your patients with bariatric surgery?

1. RNY
2. Gastric Sleeve
3. Band
4. BDP
5. Revisions
6. Other



Bariatric Surgery for Type 2 Diabetes

- Prevents and treats type 2 diabetes
- Remission was reported in 78% of patients and 62% remained in remission >2years after surgery.
- American Diabetes Association definition of remission: “Normalization of blood glucose levels in the absence of medications”.

(Bariatric surgery for type 2 diabetes: The Lancet, June 9, 2012; Diabetes Care Volume 37, Supplement 1, January 2014)



Randy Jackson

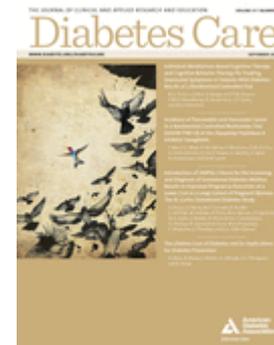
- Former American Idol judge had gastric bypass surgery in 2003 after being diagnosed with Type 2 diabetes.



Remission ?

- Rates vary....related to extent of weight loss, the number of years the patient has had diabetes, and the type of surgery.
- Largely based on clinical reports and not A1C's; follow up of cohorts is poor.
- Studies are heterogeneous.
- Definitions of remission vary. Use of the ADA definition generated lower remission rates than did other definitions.
- “Maintenance of weight-loss is probably more important than initial weight loss for long-term glycemic control. Glycemic control deteriorates in bariatric surgery patients who are unable to maintain weight loss.”

The Lancet Diabetes 3: Bariatric surgery for type 2 diabetes. June 9, 2012.

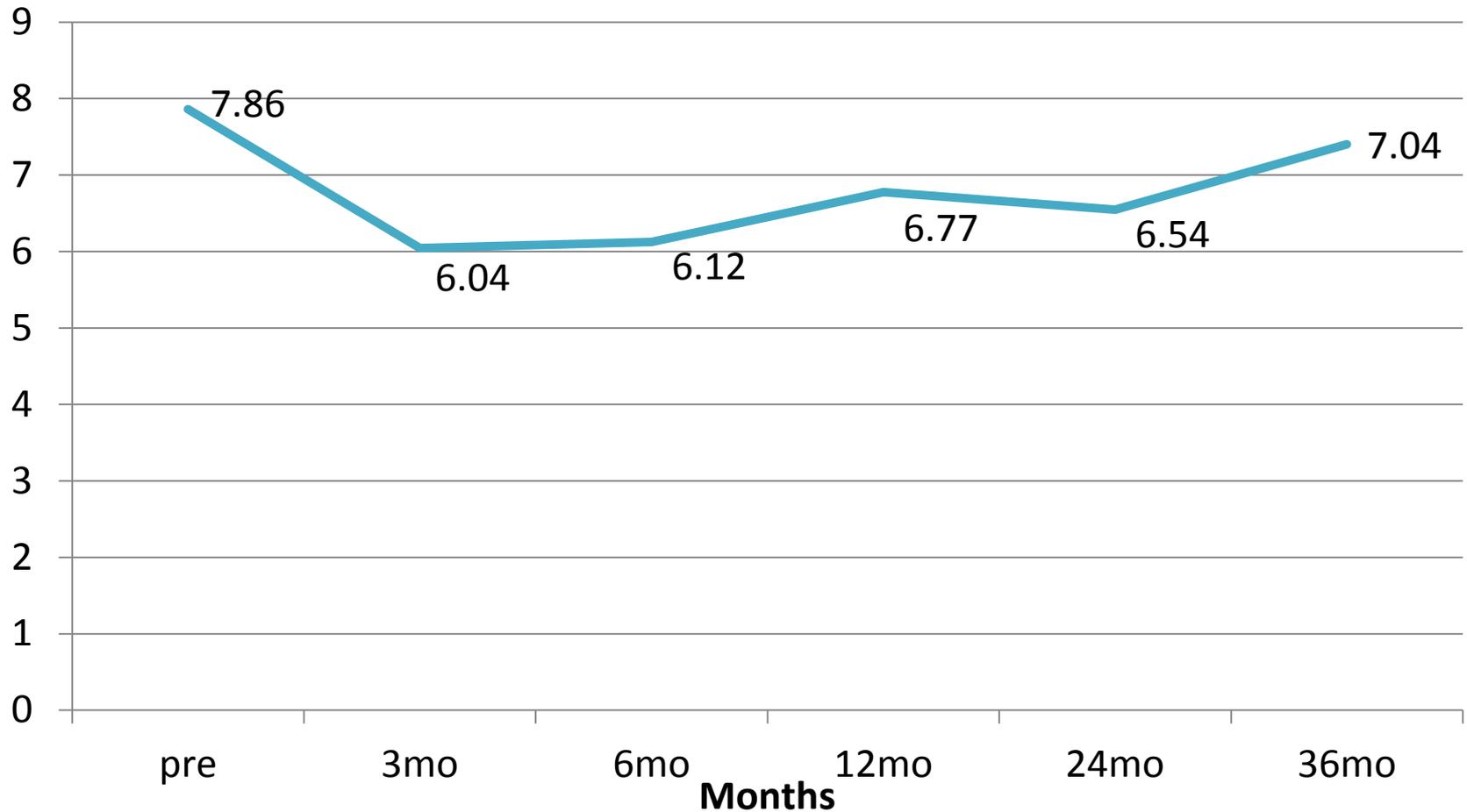


Diabetes Remission

- A study by DiGiorgi et al showed that three years after RYGB, “the incidence of T2DM recurrence or worsening in patients with initial resolution or improvement was significant.”
- Patients who had a greater likelihood of recurrence or worsening of T2DM had:
 - **A lower preoperative body mass index.**
 - **Regained a greater percentage of their lost weight**
 - **Had greater postoperative glucose levels**
 - **Patients on diabetes meds before RYGB were more likely to experience improvement vs. resolution (92 vs. 8%)**
- Before widespread acceptance of bariatric surgery as a definitive treatment for those with T2DM can be achieved, additional study of this recurrence phenomenon is indicated.”

CIHA

Hemoglobin A1c – avg. (n=23)



Standards of Medical Care in Diabetes – 2014

Bariatric Surgery Recommendations

American Diabetes Association

- Patients with type 2 diabetes who have undergone bariatric surgery need lifelong lifestyle support and medical monitoring.



AACE/TOS/ASMBS Guidelines - 2013

- **Preoperative weight loss** is encouraged to reduce liver volume in patients with enlarged liver or fatty liver disease.
- Preoperative weight loss or **medical nutritional therapy (MNT)** to **improve comorbidities**, such as reasonable preoperative glycemic targets.
- Improved bariatric surgery outcomes are associated with an **A1C** of 6.5 – 7.0% or less, a fasting blood glucose level of ≤ 110 mg/dL, and a two hour postprandial blood glucose of ≤ 140 mg/dL.
- Preoperative **glycemic control** should be optimized using a diabetes comprehensive care plan, including healthy dietary patterns, MNT, physical activity, and as needed pharmacotherapy.

The Cherokee Experience

- Over the past several years, providers referred patients to bariatric surgery centers and patients had minimal interaction with RD's for pre-op MNT.
- Following surgery we have noticed significant weight regain.
- The hospital pays for surgery through contract health referrals.
- BCBS (the main insurer in NC) started to pay for bariatric surgery in 2006 which increased numbers for surgery further. Until recently BCBS required all pre-bariatric patients to have six months of MNT prior to surgery.

Medical Policy Updates

Blue Cross and Blue Shield of North Carolina

Medical Policy Update for July 15, 2014

- The requirement that patient be an active participant in non-surgical weight reduction program for at least 6 months prior to surgery is removed.



The Need for Standardization

- Initiated due to the introduction of BCBS's non-surgical weight reduction program requirement.
- Different contract providers have different pre and post op requirements.
- Patients needed to focus on lifestyle change from a standard curriculum (allows for measurable outcomes)
- RD's needed to provide evidence based information.
- RD's provide nutrition information in a specific time frame.

CIHA Protocol

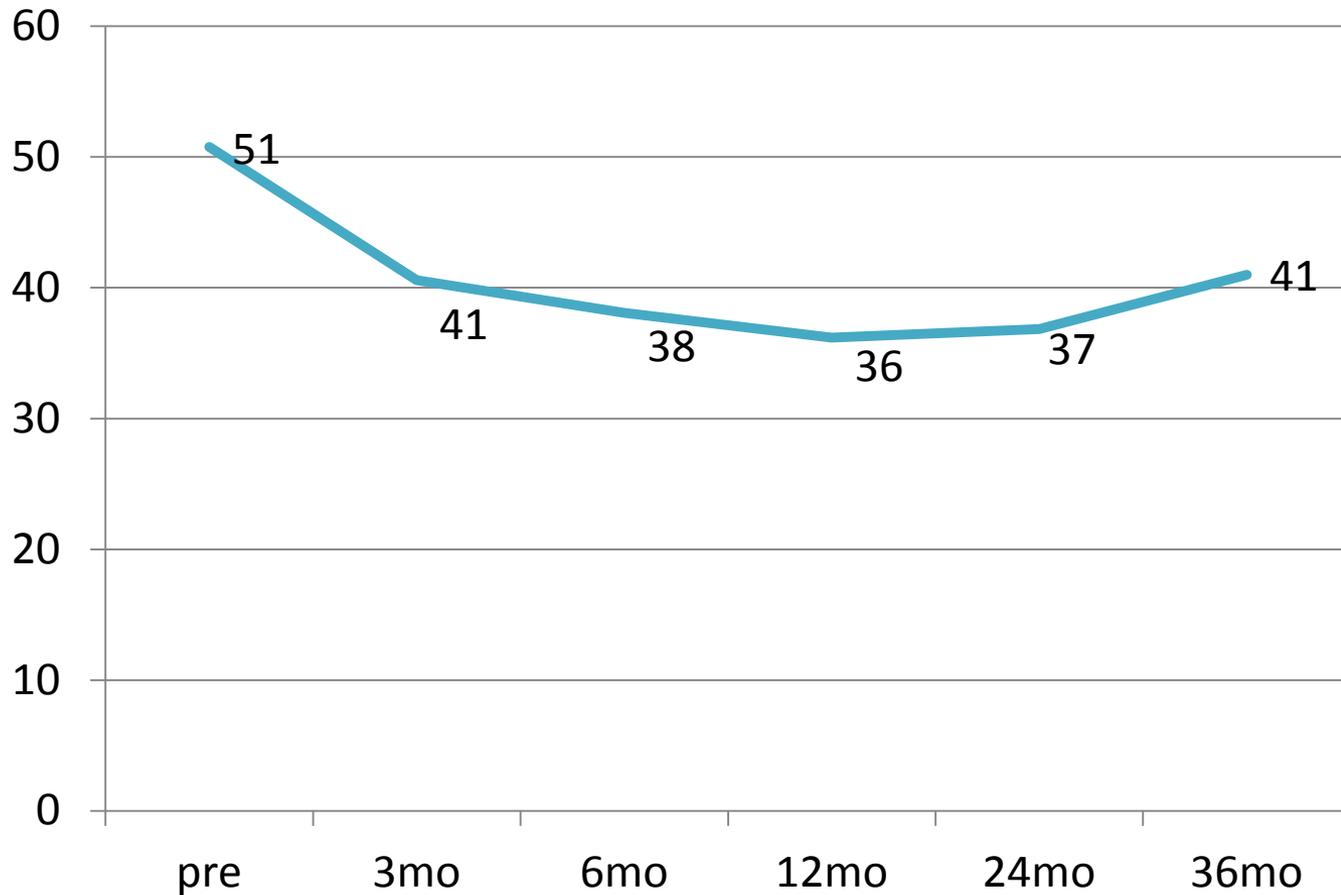
- Patient and provider review criteria for bariatric surgery.
- Provider reviews best practice requirements for bariatric surgery.
- Patient is referred to an RD for MNT.
- RD conducts a pre-bariatric nutrition assessment and patients participate in five more monthly MNT sessions.
- 5-10% weight loss is encouraged.
- Patient are encouraged to attend “free information sessions” with contracted providers and bariatric support group meetings.
- At the end of six months patients are assessed and referred back to their provider, who will then initiate or defer a referral for surgery.
- Once approved for surgery, the patient will set up an appointment with the contractor of their choice.

Bariatric Patients from Cherokee

- The Contract Health department at CIHA began approving co-pay coverage for bariatric surgery in 2009.
- Contract Health has provided coverage for 21 patients electing to have bariatric surgery since fall 2012.
- The total number of patients who have had surgery is significantly higher when taking into account patients who have used their own insurance.
- In 2013, the CIHA standardization protocol was implemented.

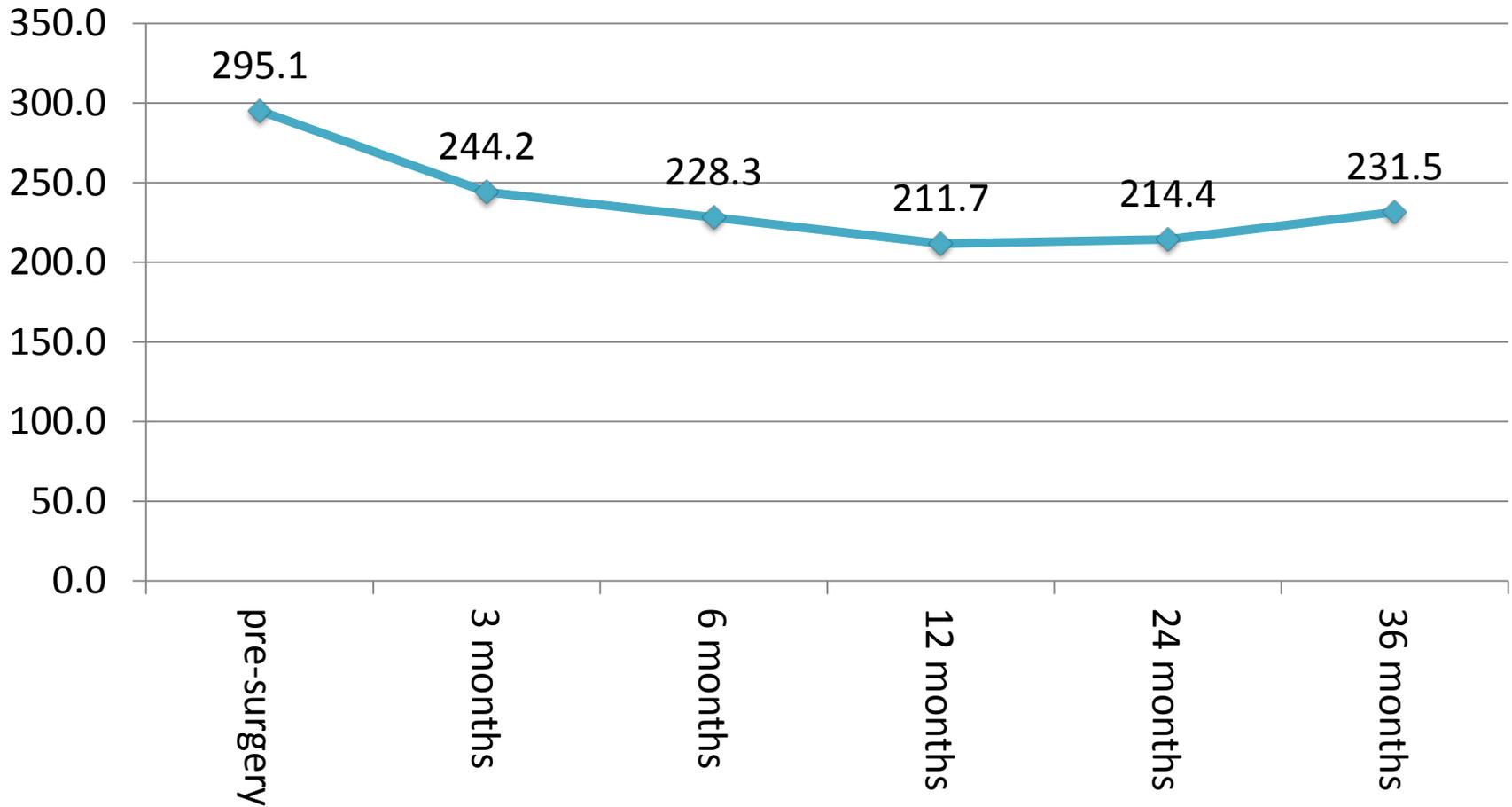
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BMI – Average (N=31)



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Average Weight (n=31)



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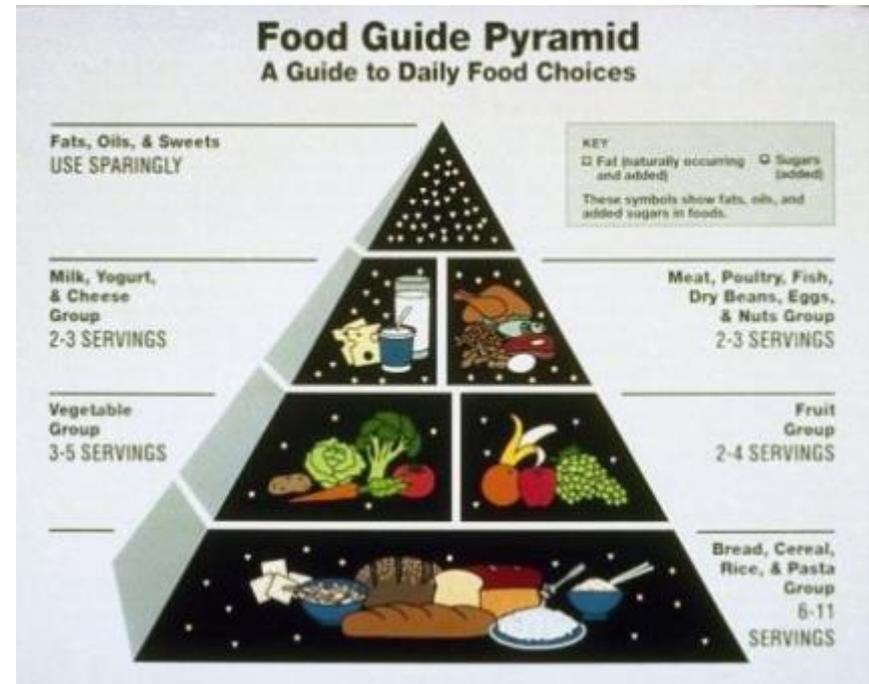
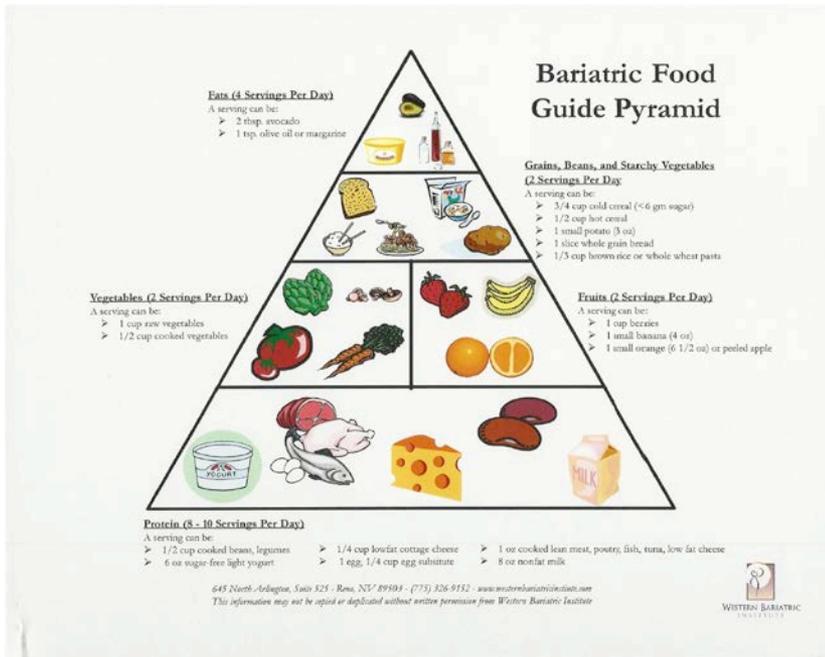
Goals of Post-Operative Diet

- To ensure optimal outcome of surgery post-operatively.
- To preserve protein stores.
- To provide sufficient energy to spare protein.
- To ensure a sufficient vitamin intake to allow for energy metabolism and health maintenance.
- To ensure an adequate mineral intake for prevention of anemia and other outcomes of deficiency.
- Ensure adequate hydration.

Dietary Guidelines After Bariatric Surgery

- Eat balanced meals with small portions every 3-4 hrs
- Follow a diet low in calories, fats and sweets
- Keep a daily record of food portions, calorie and protein
- Eat slowly and chew, chew, chew
- Avoid sugar, concentrated sweets and fruit juices
- Drink 64 fluid ounces/day
- Consume 65 to 75 gms. of protein each day
- Drink 15 minutes before or 30 minutes after a meal
- Take vitamin supplements as recommended

Bariatric Food Pyramid



CIHA Pre-Bariatric MNT

Session 1

- Pre-surgery Patient History
 - Anthropometrics, weight history, medical history, labs, dietary intake, eating patterns/behaviors, physical activity
- Eating Self-Assessment
 - Assesses current food choices, portion sizes, eating patterns, hunger awareness and environmental cues
- Ready or Not
 - Questions to help patients determine if they are ready for weight loss surgery and to commit to lifestyle changes
- Behavior Change Goals

What habits need modifying?

CIHA Pre-Bariatric MNT Session 2

- **Weight Loss 101**
Explaining what foods should be limited and what food should be included in a healthy meal plan. Focus on low fat, low sugar.
- **Meal Patterns**
Low fat, low sugar patterns for six different calorie and protein goals.
- **Food Records**
Chart for recording food intake, calorie, protein, hunger level triggers and environmental cues.



CIHA Pre-Bariatric MNT

Session 3

- **Mindful Eating**
Tips for eating mindfully.
- **Hunger Scale**
Awareness of level of hunger.
- **Tips for Emotional Eating**
Suggestion for coping with emotions without food.
- **Exercise 101**
Benefits of physical activity, how to start exercising, and common obstacles.



CIHA Pre-Bariatric MNT

Session 4

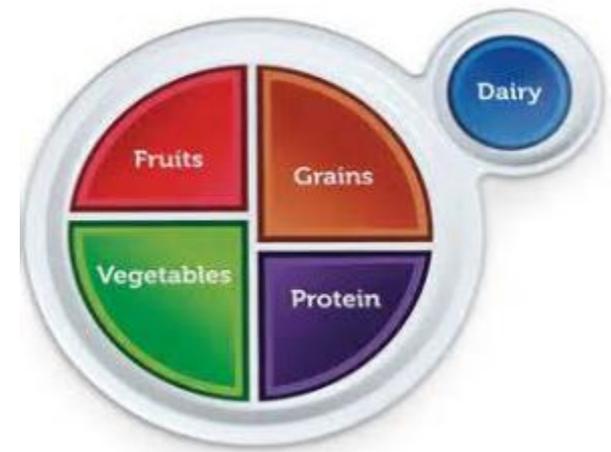
- **Perfect Protein**
Importance of protein, low fat protein sources.
- **Meal Replacements**
Suggestions for healthy meal replacements
- **Decision to Change**
Cost and benefits of changing behaviors
- **Behavior Change Goals**
Reassessment



CIHA Pre-Bariatric MNT

Session 5

- **Managing Portions/Scaling Back**
Healthy portions for proteins, carbohydrates, and fats. My Plate.
- **Meal Planning and Eating Out**
Tips for Planning weekly meals.
- **Healthy Cooking Tips**
- **Savvy Shopping**
How to read a food label.
- **Weight Loss Surgery**
Separating myths from reality



CIHA Pre-Bariatric MNT

Session 6

- **A New Beginning**
Questions to consider while preparing for weight loss surgery
- **Behavior Change Goals**
Assessment
- **Eating Self Assessment**
Assessment
- **Weight Proofing Your Home**
Tips for making the home more health friendly



Quit Smoking



Other Program Highlights

- EHR template developed for MNT documentation.
- Monthly bariatric support started at CIH which is promoted by contracted surgical sites, RDs to patients, staff and providers and promoted on hospital's facebook page.
- Telebariatric program started with a contracted provider for follow-up of pre and post op patients so they don't have to drive long distances for their appointments.
- Weight loss registry started on RPMS to keep track of CIH patients.



Future Considerations

- Maintain continuity of nutritional care post op.
- To encourage primary care providers to refer post bariatric surgery patients to an RD for weight regain or other nutritional problems.
- Develop a protocol for prenatal bariatric patients.
- Better communication between contract providers and CIH post op especially after 15 months.
- Ensure all bariatric patients are tagged in EHR
- Refer patients to Behavioral Health Consultant preop.

Resources

- Academy Nutrition Care Manual
- ADA Pocket Guide to Bariatric Surgery. Second Edition. Weight Management Dietetic Practice Group.
- The Complete Counseling Kit for Weight Loss Surgery, Toni Piechota
- Myfitnesspal – Free downloadable diet and exercise tracker
- Obesity Action Coalition
- Weight Management Dietetic Practice Group (Bariatric Subunit)
- Bariatric Centers of Excellence
- Life After Gastric Bypass : 6 Steps to Ensure Your Weight Loss Success, K Segrave & J Wayne, 2006
- Am I Hungry? Mindful Eating Program for Bariatric Surgery. Michelle May & Margaret Furtado, 2012

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