

Metabolic & Bariatric Surgery Program Information Session





Why have Bariatric
Surgery at MUSC?

The Expert Experience

- Most established program in the area
- Dedicated interdisciplinary team
- Recognized and designated as a Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) Accredited Center with Adolescent Qualifications
- State-of-the-art technology and equipment
- All resources of MUSC available if the unexpected occurs



METABOLIC AND BARIATRIC SURGERY ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM

Bariatric Surgeons



T. Karl Byrne, MD
Professor of
Surgery,
Medical Director



Rana Pullatt, MD
Associate Professor of
Surgery, Director of
Robotic Surgery,
Diplomate in Obesity
Medicine



Aaron Leshner, MD
Associate Professor
of Surgery, Pediatric
Surgery



Program Coordination



**Nina Crowley,
PhD, RDN, LD**
Program
Coordinator



**Beth Fogle,
MHA, RN, CBN**
Nurse
Coordinator



Lisa Steinbronn
Patient Liaison



Janine Garey
New Patient
Coordinator



Bariatric Surgery Team Clinicians



**Diana Axioits,
PA-C**
Bariatric Physician
Assistant



**Amanda
Peterson, RD**
Lead Bariatric
Dietitian



Molly Jones, RD
Bariatric Dietitian,
Adolescent
Specialist

**Sharlene Wedin,
PsyD**
Bariatric
Psychologist



**Lillian Christon,
PhD**
Bariatric Psychologist,
Adolescent Specialist



Our Patients – Our Family

- Long standing support group
- Patient advocates
- Outside the clinic, support group is the place to experience what life after surgery is all about
- We bring in speakers on topics ranging from emotional eating to plastic surgery to meal planning and everything in between!
- Community events





What can You do about
Obesity?

The Problem

SOUTH CAROLINA

Obesity Fact Sheet

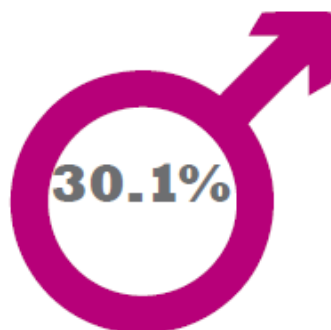
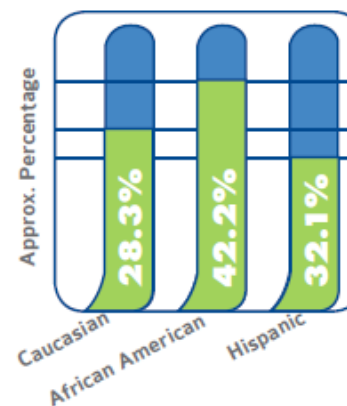
ADULT OBESITY FACTS:

Obesity affects more than 31.7% of South Carolinians.

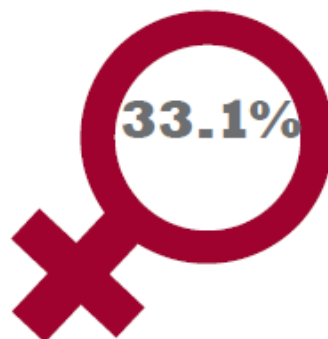


South Carolina is ranked 13/51 in states impacted by obesity.

South Carolinians Affected by Obesity by Race

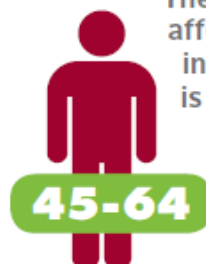


More than 30.1% of male South Carolinians are affected by obesity.



More than 33.1% of female South Carolinians are affected by obesity.

The age group most affected by obesity in South Carolina is 45-64 (36.5%).



South Carolina ranks 8th in adults with Type 2 Diabetes (11.8%).



A Solution

- For people with severe obesity it is difficult to lose and maintain a significant weight loss through traditional methods
- Weight loss surgery is currently the most effective method to help people reduce weight and associated health conditions and improve quality of life
- MBSAQIP-accredited center = interdisciplinary program, not just a surgical procedure



Effective Treatment for Morbid Obesity

- Bariatric surgery:
 - Has the greatest weight loss of all treatment options
 - Has longest weight loss duration
 - Has the ability to reduce or resolve obesity-related conditions, risks, and need for associated medications
 - Significantly improves quality of life
 - Reduces risk of mortality
 - Is a tool to aid in weight loss and maintenance
 - Is minimally invasive
 - Reduces healthcare costs for patient and healthcare system
 - Has lower 30-day mortality rate than gallbladder surgery or a hip replacement!





Who is a Candidate for
Weight Loss Surgery?

Criteria for being a Candidate for Surgery

- BMI ≥ 40 kg/m²
- BMI ≥ 35 kg/m² with obesity-related conditions:
 - Type 2 Diabetes
 - High blood pressure
 - Cardiovascular conditions (high cholesterol, coronary artery disease)
 - Sleep Apnea
 - Fertility-related complications
 - Orthopedic conditions
 - Stress Urinary Incontinence
 - Osteoarthritis
 - Degenerative Disc Disease
 - Gastroesophageal Reflux Disease (GERD)
- Have tried to lose weight without surgery but have not succeeded



Are you Ready?

- Are you ready to commit to:
 - follow diet restrictions
 - Exercise
 - taking vitamin/mineral supplements
 - comply with follow-up recommendations from team
- Are you well informed and highly motivated?
- Do you have a supportive family or social environment?
- Are you willing to stop using nicotine and drinking alcohol?
- Are you actively managing other health and psychological conditions?

Interdisciplinary team meets to evaluate readiness and make recommendations to prepare and optimize you for surgery



Objective of Weight Loss Surgery

To provide **YOU**, the
patient,
with a **TOOL** for **YOU**
to **HELP YOURSELF**
lose weight





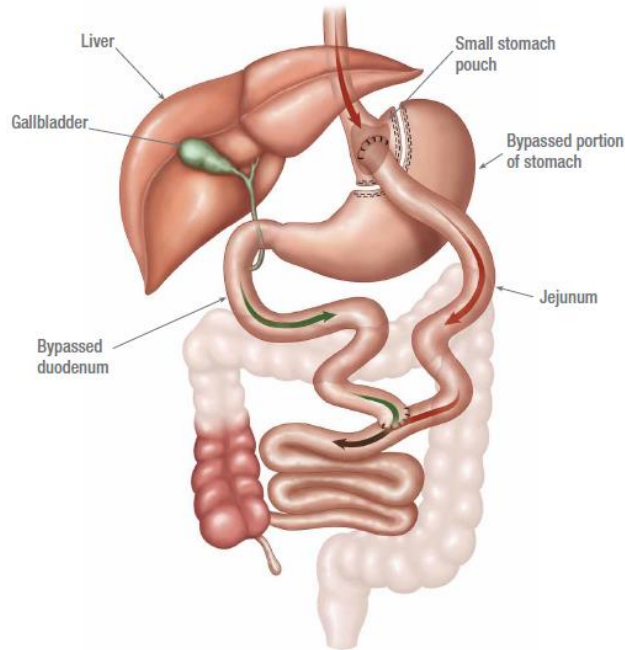
What Bariatric Procedures
are Offered and what are
the Risks and Benefits?

What is Bariatric (Weight Loss) Surgery?

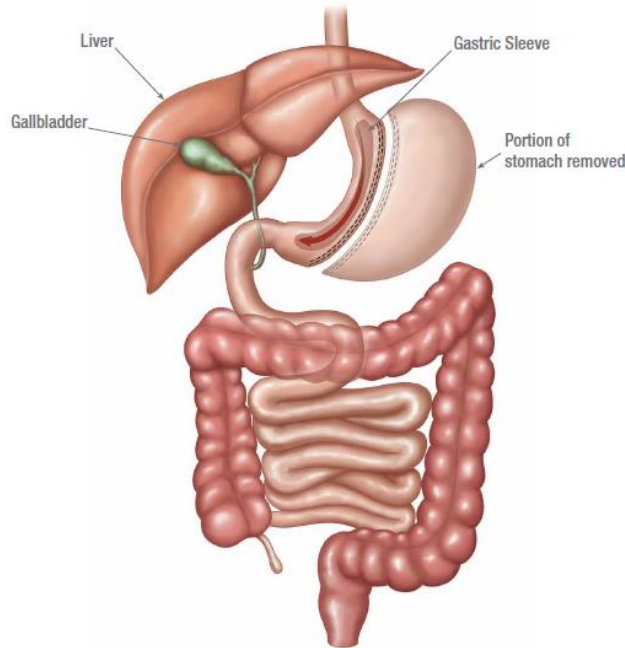
- Bariatric surgical procedures cause weight loss by:
 - **Restricting** the amount of food the stomach can hold
 - Causing **malabsorption** of nutrients
 - **Combination** of restriction and malabsorption
 - Bariatric procedures also often cause **hormonal** changes
- Minimally invasive laparoscopic surgery



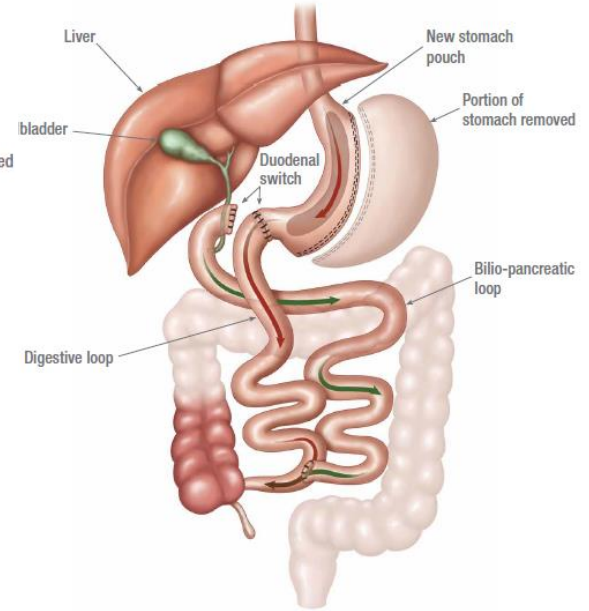
Weight Loss Surgery Types at MUSC



**Roux-en-y
Gastric Bypass**



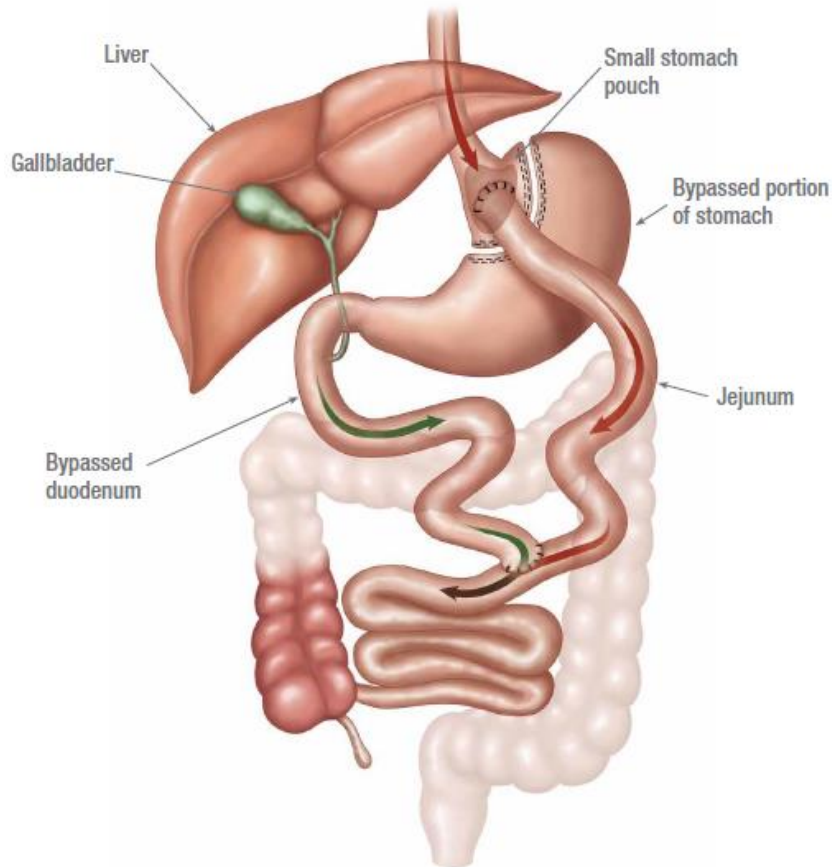
**Sleeve
Gastrectomy**



**Biliopancreatic
Diversion with
Duodenal Switch**



Gastric Bypass



- Creates a small pouch which is about 85% smaller than the size of your current stomach
- Restricts how much you can eat at one time
- Bypasses part of small intestine and limits how much is absorbed
- Reduces your appetite through favorable changes in gut hormones



Gastric Bypass

- Hospital & Recovery
 - Procedure takes approximately 1-2 hours
 - Inpatient stay 2 nights
 - Out of work 2-4 weeks (depending on job)
- Dumping Syndrome
 - Rapid emptying of food/drink from pouch into intestine due to bypass of pylorus
 - Symptoms – fast heart rate, sweating, nausea, vomiting, diarrhea
- Reactive Hypoglycemia (low blood sugar after meals)
- Ulcer at connection of stomach to intestine
 - Erosion at the mucosa at the connection
 - Smoking and taking NSAIDS increase risk
 - Take PPI after surgery to prevent

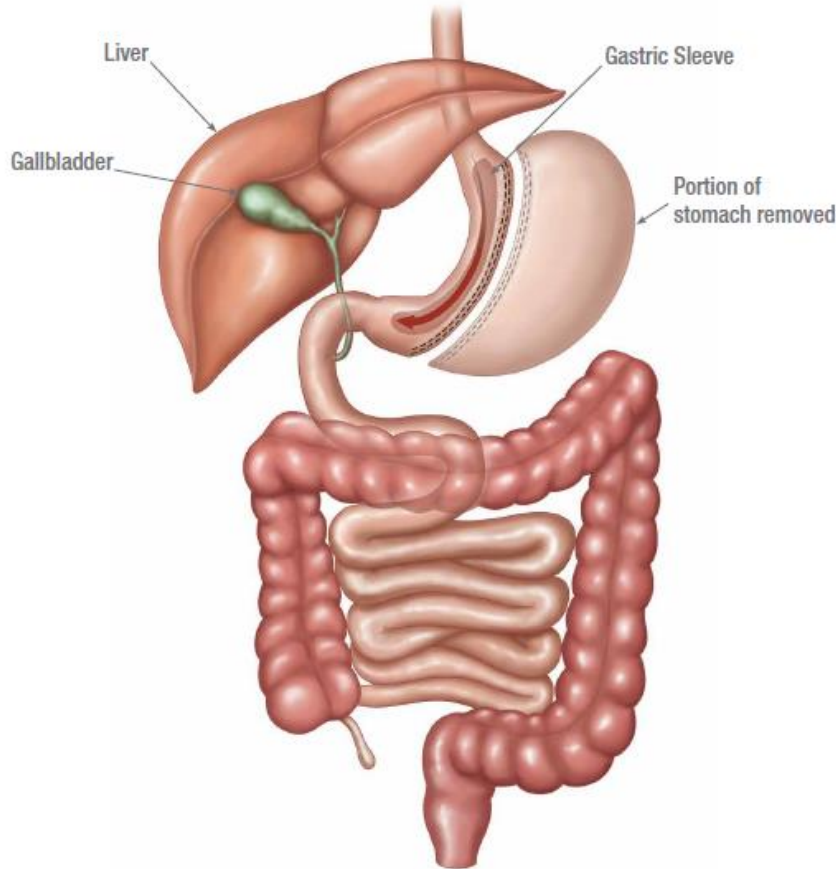


Potential Complications of Gastric Bypass

- Anastomotic leak
- Bleeding
- Deep Vein Thrombosis
- Gallstones
- Gastro-gastric fistula
- Internal hernia
- Marginal ulcer
- Pulmonary Embolism
- Small bowel obstruction
- Stricture or stenosis
- Surgical Site Infection



Sleeve Gastrectomy



- Removes ~80% of the stomach without bypassing intestines
- Keeps pylorus intact
- Creates a small narrow 'sleeve' shaped stomach
- Restricts how much you can eat at one time
- Reduces your appetite through favorable changes in gut hormones

<https://youtu.be/NyLJDf0Xun0>



Sleeve Gastrectomy

- Hospital & Recovery
 - Procedure takes about one hour
 - Inpatient stay 1-2 nights
 - Out of work 2-4 weeks (depending on job)
- Preexisting reflux (GERD) might be made worse
 - Acid-producing cells still can reflux into esophagus
 - High pressure of slim sleeve
- No manipulation of small intestine
 - Fewer complications related to hernia, bowel obstruction
- Choice procedure for adolescents, or more complex patients
- Option for 2nd stage in the future (Duodenal Switch)

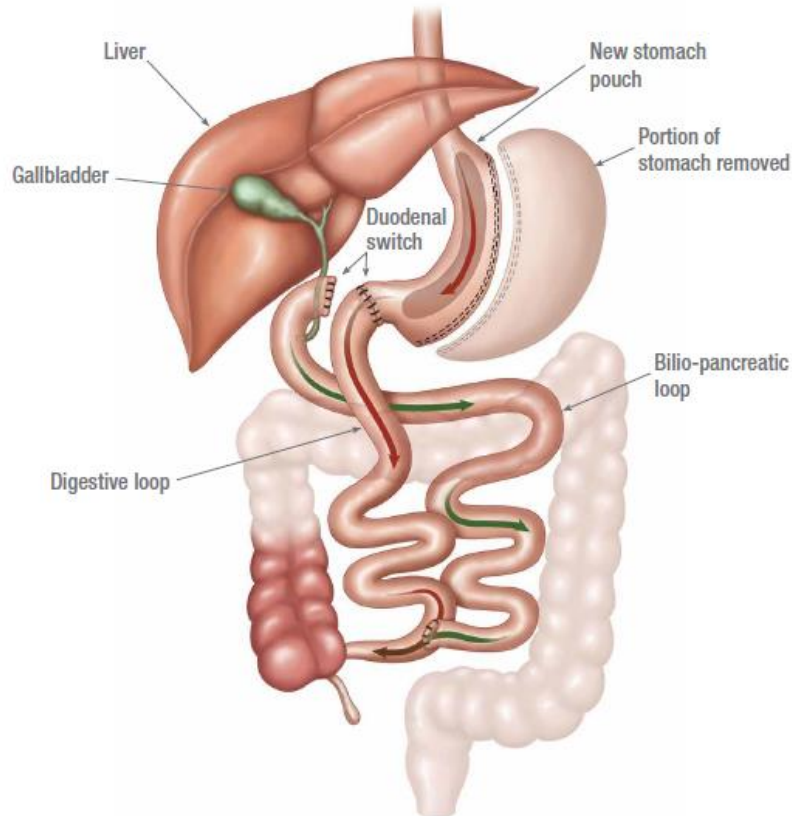


Potential Complications of Sleeve Gastrectomy

- Bleeding
- Gallstones
- Gastric fistula
- Gastric outlet obstruction
- GERD – severe reflux
- Leak
- Small bowel obstruction
- Staple line leak
- Stricture or stenosis
- Surgical Site Infection



Biliopancreatic Diversion with Duodenal Switch (BPD-DS)



- Creates a 'sleeve' shaped stomach first
- Restricts how much you can eat at one time
- Creates malabsorption by bypassing large part of small intestine after pylorus
- Reduces your appetite through favorable changes in gut hormones
- Requires additional attention to fat soluble vitamins



Duodenal Switch

- Hospital & Recovery
 - Procedure takes about 2-3 hours
 - Inpatient stay 2-3 nights
 - Out of work 2-4 weeks (depending on job)
 - Return to clinic in 1-2 weeks for drain removal
- Complex surgical procedure –experience helps!
- Malnutrition
 - Protein and fat malabsorption occurs by nature of procedure
 - Additional protein intake, and vitamins/minerals required
- Diarrhea, malodorous bowel movements/gas
 - Common side effect, new normal bowel movement pattern
 - Eating too much fat makes it more common



Potential Complications (30 days – all types)

Area	Type of complication	Rate
Surgical	Anastomotic or staple line leak	0.3%
	Anastomotic Ulcer	0.1%
	Bleeding	0.5%
	Internal Hernia	0.1%
	Stricture or Stomal Obstruction	0.3%
Wound	Incisional Hernia	0.1%
	Surgical Site Infection	0.2%
Abdominal	Intestinal Obstruction	0.3%
Respiratory	Pulmonary Embolism	0.1%
	Deep Vein Thrombosis	0.1%
Dehydration	Nausea, vomiting, fluid/electrolyte nutritional depletion	1.4%

30 day mortality 0.1%



Other Bariatric Procedures

- **Adjustable Gastric Band**
 - Lap-Band or Realize Band surgery is no longer performed here
 - Band removal or conversion to gastric bypass or sleeve gastrectomy is available
- **Revision/Conversion**
 - Sometimes patients will require a revision to a previous bariatric procedure for medical complications or weight regain
 - The same program evaluations and guidelines apply
- **Bariatric Surgery for other medical conditions**
 - Some patients require gastrointestinal surgery similar to bariatric surgery for other conditions (like reflux)



Choosing the Ideal Surgery for You

- Discussion between patient and surgeon
- Consideration of comorbid conditions (Diabetes, Reflux, etc.)
- Comorbidity resolution rates
- Risk vs. benefit
- Weight loss expectations
- Insurance coverage
- Patient preference



With ALL Procedures

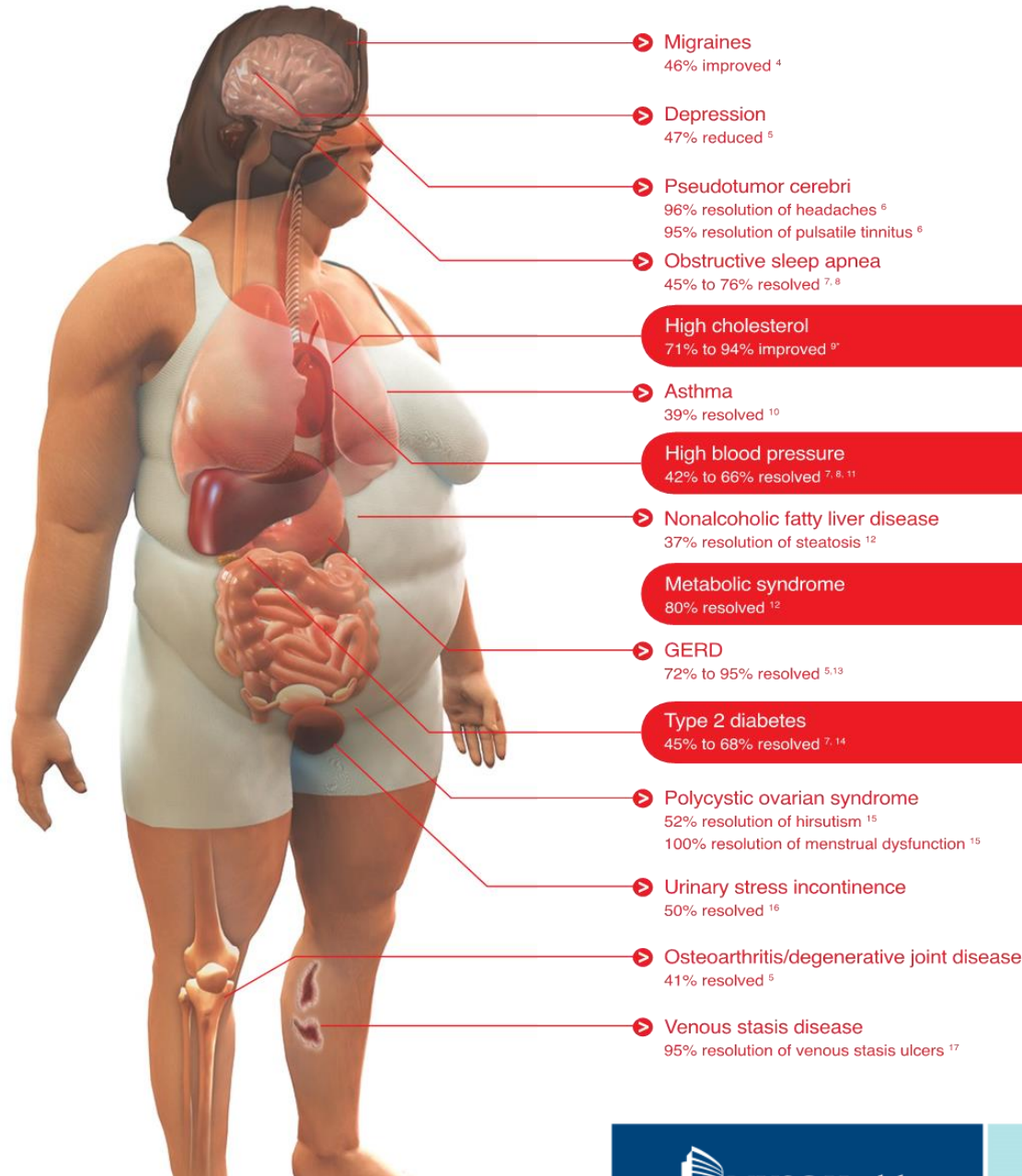
- Designed to help feel full on less solid food
- Require small high protein meals a few times per day
- Limit liquid/slider foods that don't fill you up
- Adapt new eating habits forever
- Focus on planning, eating habits and exercise
- Follow up with bariatric team for life
- Take several vitamins daily forever
- Lose the most weight in first 6 months
- Weight maintenance after 18 months
- Avoid alcohol for 6 months or longer
- Avoid pregnancy during first 18 months





What are the Expected
Outcomes of Surgery?

Resolution of Conditions Related to Carrying Excess Weight



Outcomes: Expected Weight Loss

- Weight loss discussed in terms of Percentage Excess Weight Loss (% EWL)

- “Ideal” is tricky term

$$\%EWL = \frac{(\text{pre-op weight} - \text{follow-up weight})}{(\text{pre-op weight} - \text{ideal body weight})} \times 100$$

- A successful outcome long term is generally considered the loss/maintenance of 50% EWL

- Other measures of “success”
 - Resolution of health conditions
 - Improved longevity
 - Improvement in quality of life



Expected Weight Loss by Procedure

Excess Body Weight = Current weight – Ideal body weight

Example:

Current body weight	300 pounds
Ideal body weight	<u>- 130 pounds</u>
Excess body weight	170 pounds

Expected weight loss = multiply %EWL by excess weight

Surgery	Gastric Bypass	Sleeve Gastrectomy	BPD-DS
Expected %EWL	60-75% EWL	50-70% EWL	70-80% EWL
Weight loss for 300 pound person, ideal BW 130, excess BW 170	102-128 pounds	85-119 pounds	119-136 pounds
Goal weight for example person starting 300 pounds	172-198 pounds	181-215 pounds	164-181 pounds



Possible Weight Regain

- 20-30% of patients regain significant amount of weight
- “Significant” weight – regaining more than 15% of total weight lost
 - Ex: regaining 15 pounds if you lost 100 pounds initially
- Usually occurs after 18-24 months
- Weight regain is complex and can be due to:
 - Anatomy/surgery
 - Hormonal imbalances
 - Inability to stick with eating pattern long term
 - Intake of more liquidy foods high in calories, frequent snacking/grazing
 - Physical inactivity
 - Inadequate follow up
- Treatment combines cornerstones of behavior and nutrition, and may include pharmacology and surgical options in some





What about Surgery in
Adolescents/Teens?

Adolescent/Teen Surgery

- Age 13 to 19 at the time of surgery
- BMI) $>35 \text{ kg/m}^2$ with weight-related health problems or BMI $>40 \text{ kg/m}^2$
- Consent from patient and a parent/guardian
- Psychological evaluation to ensure understanding of pre- and post-surgery requirements, commitment to lifelong aftercare
- Patient is done growing (documentation of skeletal maturity)
- Participation in a weight management program ‘
 - MUSC’s Heart Health/Pediatric Weight Management Program
 - Monthly visits – can use to meet 3-6 month insurance requirement



Adolescent/Teen
Bariatric Surgery



Teen-Friendly Approach

- Growing our team with Adolescent Specialists
 - Dr. Aaron Leshner, Pediatric Surgeon
 - Dr. Lily Christon, Pediatric/Adolescent Psychologist
 - Molly Jones, RD, Adolescent Specialist Dietitian
- Interdisciplinary roundtable meetings
- Initial visits more convenient at other locations
- Focus on unique medical/surgical needs of adolescent population
- Address unique psychosocial needs of adolescents before, during, after surgery (Mentor Program, Teen Reunions)





What's Next?

What Next?

- Contact **Insurance Company** to verify Bariatric Benefits
- Complete and mail in **patient info forms**
- **Consultation** with Surgeon & Team
 - Dietitian, Patient Liaison, Coordinator, Lab work
- **Psychosocial Evaluation** with Behavioral Medicine
- **Pre-operative Education Class**
- **Insurance Process**
 - Complete requirements, submit for pre-authorization, receive approval, schedule surgery date, pre surgical - workup, then surgery!



Documenting Monthly Consecutive Weight Loss Attempts (for Insurance)

- 3-6 consecutive months of weight loss attempts or a diet
 - 1 per Month
 - Every month
 - ~30 days apart
- Monitored by a physician
- During the 12-18 months immediately prior to surgery
 - › Call your insurance company to get # months
- Office visits regarding your weight loss attempts by a medical doctor (or NP, PA, RD, supervised by MD)
- Sample form (in packet) helps MD get the basic info that they require!

MUSC Health
Bariatric Surgery Program
Initial Patient Application
Page 1 of 7

Form Origination Date: 5/2016 Version: 1 Patient Name: _____
Version: 1 Version Date: 5/2016 MRN: _____
PATIENT IDENTIFICATION LABEL

Monthly Consecutive Weight Loss Attempts for Patients Preparing for Bariatric Surgery
This is an example of a form that includes the documentation that many insurance companies are looking for when they require 3-6 months of 'medically supervised weight loss'. **SHARE THIS DOCUMENT WITH YOUR PRIMARY CARE PROVIDER**; Fax completed forms to Lisa Jackson at 843-876-4201. Call 843-876-3046

Patient is being evaluated by MUSC for gastric bypass or vertical sleeve gastrectomy (circle one)
Insurance: _____ Number of months of 'medically supervised diet' required: _____

Month (please circle) 1 2 3 4 5 6 Visit Date: ____/____/____
Patient's Name: _____ DOB: ____/____/____
Height (in): _____ Weight (pounds): _____ Body Mass Index (kg/m²): _____
Blood Pressure: _____ Pulse: _____ Pertinent Medications: _____

Pertinent Comorbid Conditions/Diagnoses:
Please circle from most common: Diabetes, Hypertension, Gastrointestinal Reflux, Sleep Apnea, Asthma
Other: _____

Treatment Recommendations: Please indicate what type of diet plan you have recommended

☐ Calorie-level diet: _____ total calories per day or restriction of _____ calories/day
☐ Macronutrient diet: ☐ low carbohydrate ☐ low fat ☐ high protein (Atkins, South Beach)
☐ Structured Programs: ☐ Weight Watchers ☐ Metabolic Medical Center/Physicians Plan
☐ Meal Replacements: ☐ Optifast/Medifast ☐ Slim Fast ☐ Jenny Craig ☐ Nutrisystem
☐ Medications: ☐ OTC (Alli) ☐ Phentermine (____ mg/d) ☐ Orlistat/Xenical (____ mg/d)
☐ Belviq (____ mg/d) ☐ Qsymia (____ mg/d) ☐ Other: _____

Exercise Prescription: Please indicate what type of exercise regimen you have recommended

☐ Type: ☐ Walking ☐ Swimming ☐ Aerobics ☐ Bike ☐ Resistance training ☐ Going to a Gym
☐ Program (Curves, Ladies Choice) ☐ Other _____ ☐ Frequency: _____ days/week
☐ Duration: _____ minutes ☐ Frequency: _____ days/week

Response to prescribed regimen in past month: ☐ Lost _____ pounds ☐ Gained _____ pounds
Goals for next visit: ☐ lose _____ pounds ☐ adhere to diet plan ☐ adhere to exercise regimen

Comments: _____ FOLLOW UP: Return in 1 month

Provider Signature _____ Provider Name _____ Date _____

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Self-Pay for Surgery

- If you do not have insurance coverage (plan exclusion), you can opt to pay yourself out of pocket
- MUSC has self pay prices are comparable to other programs in the Charleston area
- You will meet with the financial counselor, who can answer your specific financial concerns
- Payment for surgery and copays must be paid in full at workup
- We require 90-day BLIS catastrophic coverage for self pay surgery to cover rare but costly complications
- Contact Nina Crowley, Program Coordinator to discuss in more detail – 843-876-7211, crowleyn@musc.edu



Your Journey Starts Here at MUSC!

Website: www.muschealth.org/weight-loss-surgery

Facebook: www.facebook/MUSCWeightLossSurgery



YouTube: <http://www.youtube.com/playlist?p=PL35A3DCAAF9C7BD14E>

Stay for Support Group Tonight!

MUSC Bariatric Support Group Meets the **3rd Tuesday of the month** in this room following open house **5:30-7 pm**

