THE ADOLESCENT BARIATRIC PROGRAM AT ALBANY MEDICAL CENTER PRESENTED BY:

Elizabeth Renaud, MD
Overview

• What is obesity?
• How does obesity affect my health?
• Who qualifies for surgery?
• What do I need to do to prepare for surgery?
• What type of surgery is right for me?
• What do I need to do after surgery and for the rest of my life?
Obesity Facts

- Affects 25% of industrialized world
- 30% of Americans are obese
- 25% of American children are overweight
Pediatric Obesity

Trends in Child and Adolescent Overweight

Note: Overweight is defined as BMI >= gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts. Source: National Health Examination Surveys II (ages 6-11) and III (ages 12-17), National Health and Nutrition Examination Surveys I, II, III and 1999-2004, NCHS, CDC.

*From the American Society for Metabolic and Bariatric Surgery website*
What Is Obesity?
Who is considered overweight?

Rather than using “body types” to determine who is overweight, we use a simple calculation called Body Mass Index or BMI.

BMI relates a person’s weight to their height.
BMI

$$\text{BMI} = \frac{\text{weight in pounds} \times 703}{\text{height in inches}^2}$$

Example:
5'6” patient who weighs 280 lbs
What is the BMI?

$$\text{BMI} = \frac{280 \text{lb} \times 703}{(66 \text{ in})^2}$$

$$\text{BMI} = 45.2$$
What is obesity?

- BMI (Body Mass Index)
  - Adults
    - ≥25 overweight
    - ≥30 obese
  - Pediatric:
    - ≥85th percentile overweight
    - ≥95th percentile obese
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5’6” patient who weighs 280 pounds
Has how much **Excess Body Weight**?

BMI = 45.2 = 280lbs
BMI = 24.9 (non obese) = 154lbs

Excess body weight (EBW) = 126 lbs
How does obesity affect my health?
Obesity increases the chance that you will develop one of the following diseases:

- High blood pressure
- Diabetes mellitus
- Elevated Cholesterol
- Arthritis
- GERD
- Sleep Apnea
- Gallstones
- Stroke or Heart Attack
- Cancer
  - Uterus, cervix, colon/rectal, esophagus, pancreas, kidney, breast
Medical Complications of Obesity

- Pulmonary Disease
  - Abnormal function
  - Obstructive sleep apnea
  - Hypoventilation syndrome
- Idiopathic Intracranial Hypertension
  - Stroke
  - Cataracts
- Nonalcoholic Fatty Liver Disease
  - Steatosis
  - Steatohepatitis
  - Cirrhosis
- Gall Bladder Disease
- Gynecologic Abnormalities
  - Abnormal menses
  - Infertility
  - Polycystic ovarian syndrome
- Osteoarthritis
- Cancer
  - Breast, uterus, cervix, colon, esophagus, pancreas, kidney, prostate
- Skin
- Gout
- Phlebitis
  - Venous stasis
### Severe Pediatric Obesity Persists into Adulthood

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<th>Adult BMI</th>
<th>Teens ≥ 99%ile</th>
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<td>≥ 30</td>
<td>100%</td>
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<td>≥ 35</td>
<td>88%</td>
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<td>≥ 40</td>
<td>65%</td>
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*Freedman, et al. J Pediatr 2007;150:12-7*

*From the American Society for Metabolic and Bariatric Surgery website*
How can I lose weight and keep it off ??!???
Options for Treatment of Obesity

- Medical
- Surgical
Medical Treatment of Obesity

- **Diet** – low in calories, fat and carbohydrates
- **Exercise** – 90 minutes a day
- **Behavior Modification** – eat 3 sensible meals per day, avoid snacking
- **Drugs/Prescription medications**
  - Stimulants/appetite suppressants
  - Reduce fat absorption (Xenical®, Alli)
Can surgery help me?
Why would anyone have surgery to lose weight?

- Diets fail
  up to 97% are unsuccessful
- Increased risk of associated medical conditions with weight gain
- Metabolism changes as you become more overweight

_Surgery has proven to be the MOST effective method to treat severe obesity_
WEIGHT LOSS SURGERY IS A TOOL TO HELP YOU LOOSE WEIGHT.

THE WEIGHT YOU LOSE CAN BE BIG OR SMALL→ THAT IS UP TO YOU.
Surgery

• Is not MAGIC
  Is not a QUICK FIX
  Will not CURE you of obesity
• Is not a guarantee to bring HAPPINESS to your life or to resolve personal problems
• Is not a guarantee of optimal or long-term weight loss (that is up to you)
• Is surgery on your stomach, not on the hand that feeds your mouth (you still can eat whatever you want)

• You CAN regain weight after surgery
Who qualifies for surgery?
Who is a surgical candidate?

- 1991 NIH Consensus Conference (Adults)
- Morbidly Obese
  - BMI $\geq 40$
  - BMI 35-40 with significant co-morbidity
  - Heart disease, sleep apnea, asthma, DM, HTN
- Documented diet attempts
Adolescent Bariatric Surgery - Indications

• Co-morbidities
  – Type 2 Diabetes
  – OSA (moderate to severe)
  – NASH
  – Pseudotumor cerebri
  – Quality of life

• BMI
  – BMI \geq 35\text{ with major comorbidities (T2DM, OSA, pseudotumor, severe NASH)}
  – BMI \geq 40\text{ with other comorbidities (HTN, insulin resistance, glucose intolerance, impaired quality of life and ADL)}
Albany Adolescent Bariatric Surgery Program

• Age 16-19\textsuperscript{th} birthday
  – BMI 40

• Committed, multidisciplinary presurgical program
  – 6 month minimum prior to surgery

• Family involvement requirement

• Compliance Commitment
  – No show, tardiness, and weight loss policies

• Long term post operative follow-up
Who is not eligible for surgery?

- Presence of a correctable medical cause of obesity
- Problems with substance abuse in the last 2 years
- Medical, psychiatric, or learning conditions that impair the ability to adhere to diet, exercise, or medication regimens
- Pregnant, breast feeding, or planning to become pregnant within 2 years
- Poor candidate as determined by the Surgical Weight Loss Team
What do I need to do to prepare for surgery?
Presurgical Requirements

- Education Session- Online Seminar
  - Online test for patient
  - Online test for family support member
  - Both tests must be brought to the first visit
- Meet with Dr. Renaud
- Meet with the Clinical Nutritionist (one of our medical doctors)
- Meet with the Dietician
Presurgical Requirements

- Pulmonary and Sleep apnea evaluation
- Cardiology evaluation
- Psychological evaluation
- Attend 2 support groups
- Weight loss – 5%
- Smoking cessation
- Other MD clearances if appropriate
WHY... sleep apnea evaluation?

• To reduce possible problems with anesthesia during and after surgery
• If you have sleep apnea you need to be treated (usually with a CPAP or BiPAP machine) 6 to 8 weeks prior to surgery
WHY... psychological evaluation?

• **Not** because we think you’re crazy...
• Ultimately it is to evaluate your motivation for weight loss surgery and your understanding of the limitations of surgery (it is a **TOOL**, not a **CURE**)

Albany Medical Center
WHY... support groups?

• Interact with people who are working towards WLS

• Interact with people who have had WLS so you can hear about their journey (good and bad)

• Get support for YOUR journey before and after WLS
WHY... weight loss?

• We use it as an indicator of compliance with diet and exercise
  – if you’re making healthier choices with food
  – eating smaller portion sizes
  – ↓ snacking, and
  – ↑ exercise, then we should see some weight loss
1. “But that’s why I’m here- because I can’t lose weight!”
2. “If I could lose weight then I wouldn’t need surgery”

1. Yes, you can lose weight (Are you exercising? Have you eliminated snacking?)
2. Weight loss surgery helps to maintain weight loss, which is the difficult part.
WHY... weight loss?

• Weight loss makes it easier for the surgeon to do surgery
• Weight loss ↓ surgical risk
What type of surgery is right for me?
Open or Traditional Surgery

- A 10- to 15-inch incision is made so that the surgeon can place his/her hands and instruments into the abdomen to complete the surgery.
Laparoscopic Surgery

Incisions for Laparoscopic Weight Loss Surgery

The incision location, number of incisions and the incision size may vary from surgeon to surgeon.
Types of Surgery

- Laparoscopic Gastric Bypass
- Laparoscopic Sleeve Gastrectomy
- Laparoscopic Adjustable Gastric Banding (Lap Band)
Types of Surgery

Restrictive and Malabsorptive

Laparoscopic Gastric Bypass
The Roux-en-Y Procedure

• The stomach is stapled into 2 pieces, one small and one large. The small piece becomes the “new” stomach pouch.

• The pouch is 5% of the size of the old stomach, therefore holds much less food.

• The larger portion of the stomach stays in place, however will lie dormant for the remainder of the patient’s life.
The Roux-en-Y Procedure

- The beginning section of the small intestine (the jejunum) is divided using a surgical stapler approximately 3 feet from the end of the stomach.
The Roux-en-Y Procedure

• The end of the Roux limb is then attached to the newly formed pouch (red arrow)

• The Roux limb carries food to the intestines

• The Y limb carries digestive juices from the pancreas, gall bladder, liver and duodenum to the intestines

• The food and the digestive juices mix where the Roux limb and Y limb meet (“A”)

Albany Medical Center
Expectations for the Gastric Bypass

• Operation approximately 2-3 hours

• Hospital stay 2-3 days

• 12-18 months 60-70% EWL
## Vitamins for Life!

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<td>2 children’s chewable OR 1 adult chewable vitamin</td>
<td>1 adult MVI</td>
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<td>Calcium</td>
<td>1200 mg Chewable Calcium/day</td>
<td>1200 mg Calcium with Vitamin D/day</td>
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<td>Iron</td>
<td>Ferrex Forte Chromagen Forte</td>
<td>Ferrex Forte Chromagen Forte</td>
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Because your body is unable to absorb all the nutrients from what you eat, you must take vitamin/mineral supplements every day, forever, permanently.

Vitamin/mineral deficiencies are serious and can result in permanent problems.
Potential Complications of the Gastric Bypass Procedure

- **Mortality** 1%
- **Bleeding** 1%
- **Leak** 1%
- **Wound infection or abscess** 1%
- **Malnutrition** 15% -- MVI, Iron, Calcium
- **Stricture** - Narrowing of one of the intestinal connections 2%
- **Blood clot** in the leg veins 2% (DVT)
- **Pulmonary embolus** (PE) – (blood clot in the artery of the lungs) 1%
- **Bowel Obstruction or Intestinal Blockage** 2%
Types of Surgery

Restrictive

Laparoscopic Sleeve Gastrectomy
Laparoscopic Sleeve Gastrectomy
Complications of the Sleeve

- Leak 1%
- Mortality 1%
- Malnutrition — minimal
- Increased Reflux
- Ulcerations
- Stricture needing dilation
- Blood clots 2%, Pulmonary Embolism 1%
- Bleeding 2%
Facts About the Sleeve

• Newest Procedure

• 3-5 yr follow-up data shows good results

• EWL 60%
Follow up

• LIFE LONG COMMITMENT to your health
  – Healthy eating behavior
  – Exercise
  – Take vitamins and supplements
  – Regular follow up

This is the first step!!!
Exercise is *critical* to long-term weight loss! (regardless what Bariatric surgery you have)
Predictors of long term success with weight loss surgery

- Regular physical activity!!
- 3 daily balanced meals
- Adequate protein intake
  - 60 grams or more per day
- NO grazing and snacking
- Regular follow-up with the Bariatric Team so we can help you!!
What we want from you
COMMITMENT

This program requires many follow-up visits (before AND after surgery)

If: finances (co-pays)
    time off from school and work
    gas
    distance

are problems/concerns, then maybe this isn’t the time to pursue weight loss surgery
INSURANCE

- Please call your health insurance provider to verify that WLS is covered in your policy and
- Verify that they will cover WLS at Albany Medical Center
- We don’t seek insurance approval until you complete all presurgical requirements
PREGNANCY AFTER SURGERY

• Women have to stop all estrogen containing medications 6 weeks before surgery and 6 weeks after surgery

• CAUTION!!! You may become more fertile after weight loss surgery (MEN AND WOMEN) - you need use alternate forms of birth control

• If you desire to become pregnant after surgery you need to wait 18 months – some insurances will not pay for the pregnancy if you become pregnant before that time!
Nonsteroidal Anti-Inflammatories (NSAIDS)

- Are irritants to the pouch
- Can cause ulcers or perforations of the pouch (holes in pouch)
- Can cause GI bleeding
Nonsteroidal Anti-Inflammatories (NSAIDS)

- These include but are not limited to:
  - Motrin, Advil, Aleve
  - Celebrex
  - Mobic
  - Naproxen

- ASK BEFORE TAKING ANY OF THESE MEDICATIONS
Beginning Questions

• What is obesity?
• How does obesity affect my health?
• Who qualifies for surgery?
• What do I need to do to prepare for surgery?
• What type of surgery is right for me?
• What do I need to do after surgery and for the rest of my life?
Thank you!

- For more information please call 518-262-0942
- Or visit our web page:
  - http://www.amc.edu/Patient/services/Surgery/bariatric_surgery/index.cfm