Androscoggin Valley Hospital: A Bariatric Satellite Site of Catholic Medical Center

Surgical Weight Loss Options For a Healthier Tomorrow

MBSAQIP
METABOLIC AND BARIATRIC SURGERY ACCREDITATION AND QUALITY IMPROVEMENT PROGRAM
ACCREDITED CENTER

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Are you where you want to be?
What is Obesity?

Body Mass Index (BMI) = kg/m²

- **NORMAL**
  - BMI 18.5 – 24.9
- **OVERWEIGHT**
  - BMI 25 – 29.9
- **OBESE**
  - BMI 30 – 34.9
- **SEVERE OBESE**
  - BMI 35 – 39.9
- **MORBIDLY OBESE**
  - BMI ≥ 40
- **SUPER MORBIDLY OBESE**
  - BMI ≥ 50
Body Mass Index

BMI = (Weight in Pounds / (Height in inches x Height in inches)) x 703
Obesity Increasing in United States

Obesity Trends* Among U.S. Adults
BRFSS, 1990, 2000, 2010
(*BMI ≥30, or about 30 lbs. overweight for 5’ 4” person)

Source: Behavioral Risk Factor Surveillance System, CDC.
World Health Organization
BMI: “Globesity”
Obesity affects health in many ways

- Pulmonary disease
  - abnormal function
  - obstructive sleep apnea
  - hypoventilation syndrome

- Nonalcoholic fatty liver disease
  - steatosis
  - steatohepatitis
  - cirrhosis

- Gall bladder disease

- Gynecologic abnormalities
  - abnormal menses
  - infertility
  - polycystic ovarian syndrome

- Osteoarthritis

- Skin

- Gout

- Idiopathic intracranial hypertension

- Stroke

- Cataracts

- Coronary heart disease

- Diabetes

- Dyslipidemia

- Hypertension

- Severe pancreatitis

- Cancer
  - breast, uterus, cervix
  - colon, esophagus, pancreas
  - kidney, prostate

- Phlebitis
  - venous stasis
And this is why we worry!

Exponential Increase in Risk of Dying with increasing BMI

Causes of Obesity

- Genes
- Metabolism
- Culture
- Socioeconomic Status
- Behavior
- Lack of sleep
- Medications
- Gut flora
- Obesogens
- Environment
Treating Obesity

- Diet
- Exercise
- Weight-loss programs
- Medications
- Hypnosis
- Counseling
- Surgery
Best Practices to Transform Your Future: The Multidisciplinary Approach to Obesity at CMC
# Evaluation

<table>
<thead>
<tr>
<th>Health status</th>
<th>OTC health care provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eating habits</td>
<td>OTC nutritionist</td>
</tr>
<tr>
<td>Exercise habits</td>
<td>OTC exercise physiologist</td>
</tr>
<tr>
<td>Psychological status</td>
<td>Mental health provider</td>
</tr>
<tr>
<td>Applicability of surgery</td>
<td>OTC health care providers</td>
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</tbody>
</table>
## Education

<table>
<thead>
<tr>
<th>Topic</th>
<th>Provider</th>
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</thead>
<tbody>
<tr>
<td>Health status</td>
<td>OTC health care provider</td>
</tr>
<tr>
<td>Individualized nutrition plan</td>
<td>OTC nutritionist</td>
</tr>
<tr>
<td>Individualized exercise plan</td>
<td>OTC exercise physiologist</td>
</tr>
<tr>
<td>Best behavioral habits</td>
<td>Mental health provider</td>
</tr>
<tr>
<td>Details of weight loss surgery</td>
<td>OTC staff and surgeons Support group members</td>
</tr>
</tbody>
</table>
Education: Lifestyle Changes

- Mindful eating
- Staples of change
- Food and emotions
- Dealing with ‘high-risk’ eating situations
- Bridging social support
- Development of a personal lifestyle change plan
Requirements for Weight Loss Surgery

- BMI > 40 or
- BMI 35 - 39 with other co-morbidities
- Prior weight loss attempts
- Payor source
- Ability to meet payor qualifications
Weight Loss Surgeries at CMC

- Gastric Bypass
- Sleeve Gastrectomy
- Adjustable Gastric Banding
Gastric Bypass
Sleeve Gastrectomy
Adjustable Gastric Banding
Benefits of Minimally Invasive Surgery versus Open Surgery

- Smaller incisions
- Less pain
- Quicker recovery
- Better wound healing
- Decreased risk of hernia
Initial post-surgery course

- General anesthesia
- Telemetry
- Usually no tubes
- Specific oral intake progression
- 2 night hospitalization
- Return to work in 2 weeks
Which procedure is BEST?
It depends...
Health issues to improve

- Diabetes
- Obstructive sleep apnea
- Polycystic ovarian syndrome
- Heartburn/hiatal hernia
Health issues present

- Previous abdominal or intestinal surgery
- Reflux
- Hiatal hernia
- Inflammatory bowel disease
- Heart disease with stents
<table>
<thead>
<tr>
<th>Potential Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death</td>
</tr>
<tr>
<td>Bleeding</td>
</tr>
<tr>
<td>Leakage</td>
</tr>
<tr>
<td>Blood clots</td>
</tr>
<tr>
<td>Infection</td>
</tr>
<tr>
<td>Heart issues</td>
</tr>
<tr>
<td>Nausea/vomiting</td>
</tr>
<tr>
<td>Need for additional surgery</td>
</tr>
<tr>
<td>Strictures</td>
</tr>
<tr>
<td>Nutritional deficiencies</td>
</tr>
<tr>
<td>Change in bowel habits</td>
</tr>
<tr>
<td>Dehydration</td>
</tr>
<tr>
<td>Ulcers</td>
</tr>
<tr>
<td>Hair loss</td>
</tr>
<tr>
<td>Hernias</td>
</tr>
<tr>
<td>Unlisted complications</td>
</tr>
</tbody>
</table>
Bariatric Surgery Reduces 5 YEAR MORTALITY RATES BY 89%

<table>
<thead>
<tr>
<th>SURGERY</th>
<th>NO SURGERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.68%</td>
<td>6.17%</td>
</tr>
</tbody>
</table>

Ann Surg 2004; 240(3)416-23
Original Article

Perioperative Safety in the Longitudinal Assessment of Bariatric Surgery

The Longitudinal Assessment of Bariatric Surgery (LABS) Consortium

N Engl J Med
Volume 361(5):445-454
July 30, 2009

Male
History of DVT
BMI > 50
Sleep apnea
Unable to walk 61 meters
Modifiable risk factors
Pre-op Optimization

- Diagnosis and treatment of medical issues
  - Sleep apnea/CPAP
  - Diabetes/optimization of HA1c
  - Coronary artery disease
  - Thyroid disease
  - H.pylori
- Tobacco free/Drug free
- Best nutrition practices
  - Mindful eating
  - Weight loss
  - Prehabilitation/conditioning
  - Liver shrinkage
- Support groups
Zumba by Melissa

Tuesdays
5 PM at the OTC
Post-Op Back on Track
Shopping Tours

• Struggling with losing excess weight?
• Hit a weight loss plateau?
• Looking for diet and meal planning inspiration?

*Free Monthly Shopping Tours facilitated by an OTC Registered Dietitian are available for you!*
Total Bariatric Cases

1640
Bariatric Cases by Type

- Band: 603 cases
- Bypass: 852 cases
- Sleeve: 185 cases
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Center of Excellence Status
Outcomes

- Excess weight loss
- Resolution of medical issues
- Complications
Post-Bariatric Diet Progression

**Fluids**
- Water

**Protein**
- Phase 1: Clear liquids
- Phase 2: Full liquids and protein shakes
- Phase 3: Pureed
- Phase 4: Ground
- Phase 5: Regular

**Vitamins**
Pregnancy After Bariatric Surgery
# Maternal and Neonatal Complications

<table>
<thead>
<tr>
<th></th>
<th>Morbidly Obese</th>
<th>Post-Bariatric Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gestational diabetes</strong></td>
<td>22.1-27%</td>
<td>0-8%</td>
</tr>
<tr>
<td><strong>Preeclampsia</strong></td>
<td>3.1%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Premature delivery</strong></td>
<td>7.1%</td>
<td>7.7%</td>
</tr>
<tr>
<td><strong>Low birth weight</strong></td>
<td>10.6%</td>
<td>7.7%</td>
</tr>
<tr>
<td><strong>Macrosomia</strong></td>
<td>14.6%</td>
<td>7.7%</td>
</tr>
<tr>
<td><strong>Internal hernia</strong></td>
<td></td>
<td>8.3%</td>
</tr>
<tr>
<td><strong>C-section</strong></td>
<td>28%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Post-bariatric surgery complications were similar to non-obese controls. 

NEXT STEPS

- OTC form
- PCP referral
- Check insurance coverage/requirements