Orientation Class Slides
Northern Light Surgical Weight Loss

Lynn Bolduc, MS, RD, CDE
Manager, Northern Light Surgical Weight Loss
207-873-4644 / lbolduc@northernlight.org
Dana Fitzpatrick, MS, RD
Dietician, Northern Light Surgical Weight Loss
tfitzpatrick@northernlight.org

Medical Director: Michelle Toder, MD, FACS

- Board Certified
- Fellow, American College of Surgeons
- ASMBS member
- Weight loss surgery since 1997
- Performs bypass, band, sleeve gastrectomy and revisions of prior weight loss surgeries
- Pioneer in performing and teaching robotic weight loss surgery to surgeons from all over the world

Bariatric Surgeon: Henry Lin, MD, FACS

- Board Certified
- Fellow, American College of Surgeons
- ASMBS member
- ASMBS Committee: Quality Initiative and Patient Safety
- Weight loss surgery since 2009
- Performs bypass, band, sleeve gastrectomy

Our Multidisciplinary Team

1. You
2. Family / Support
3. PCP
4. Surgeon
5. Nursing
6. Dietitian
7. Psychologist
8. Physical Therapist
9. Program Coordinator

We may also schedule pulmonologist (sleep study) and other sub-specialties such as cardiology, hematology, etc. as needed.

Definition of Obesity

Body Mass Index (BMI) = \text{Weight} / \text{Height}^2 \text{ kg/m}^2

- Healthy: 18.5 – 24.9
- Overweight: 25 – 29.9
- Obese Type I: 30 – 34.9
- Obese Type II: 35 – 39.9
- Morbidly Obese: \geq 40
- Super Morbidly Obese: \geq 50

To determine your BMI, visit our website: northernlighthealth.org/Services/Surgery/Surgical-Weight-Loss
Medical Indications for Surgery

- BMI >40 (may be insurance specific)
- BMI >35 with significant health issue
- Failed attempts at weight loss
- Adequate comprehension and support
- No unstable heart disease or severe lung disease
- No active substance use including tobacco, marijuana (salves, tinctures or joints)
- No poorly controlled psychological disorder
- Ages 18-65
- Willingness for long-term follow-up

Who May Not Be Eligible?

- Use of tobacco or marijuana products
- Those on methadone or suboxone
- Recent history of drug or alcohol abuse
- Recent history of purging/vomiting behavior
- Poor/no dentition (teeth)
- History of noncompliance with medical treatments/appointments
- Those with excessive medical risks

Weight Loss Options

- Diet
- Diet and Exercise
- Prescription weight loss medications
- Balloon—not covered by insurance or offered at Northern Light EMMC
- Surgery*

*In 1991 the NIH endorsed surgery as the best long-term solution to combat morbid obesity. This position statement remains true today.

Success Through Weight Loss Surgery

- Keep an open mind to surgical options to be decided between you and your surgeon
- Understanding the procedure & complications
- Having the right expectations
- Diet and Exercise
- Compliance: Vitamins, follow-up appointments, lab maintenance, not smoking
- Team approach at an Accredited Bariatric Surgery Center

Surgical Options

Gastric Bypass
Sleeve Gastrectomy
Gastric Band
Principles of Surgery

- Malabsorption
- Restriction
- Hormonal
- Combination

Sleeve Gastrectomy

- Works through restriction and hormonal efforts
- Weight loss over 1-year period
- Weight loss above band but below GBP
- Best for: BMI 35-50
- Concern with those who have Acid Reflux/Barrett’s
- Over 1K cases at EMMC since 2008
- Most common weight loss procedure in the world
- 60-65% of cases now are sleeve at NL EMMC

Possible Complications After Sleeve Gastrectomy

Short Term
- Leaks
- Bleeding
- Blood Clots
- Stricture
- Obstructions
- Death

Long Term
- Sleeve dilation
- Acid reflux: 20-30% occurrence

Gastric Bypass

Gastric Bypass Surgery
Gastric Bypass Surgery

- Works through restriction, malabsorption, and hormones
- Weight loss over 1 to 2 year period
- Best weight loss of all 3 procedures
- Most effective and complicated

- Best for BMI 35-65 with other medical problems
- May offer best long term resolution of Type 2 diabetes compared to other procedures
- Need to consider for those with medication intolerance issues
- Caution for those who require life-long steroid or NSAID use
- Nearly 3K performed here since 2002

Possible Complications After Gastric Bypass

Short Term
- Leaks
- Bleeding
- Blood clots
- Obstruction/Blockage
- Reoperation
- Readmission
- Death

Long Term
- Strictures
- Ulcers
- Dumping Syndrome
- Gallstones
- Obstruction
- Hernias (internal or external)
- Malnutrition
- Medication Complications
- Hypoglycemia

Adjustable Gastric Band

- Works through restriction only
- Slower and less weight loss than bypass and sleeve
- Best for: BMI under 50 without major medical issues
- Needs multiple adjustments: Consider: travel, child care, SS, gas $, time out of work)
- Best for those who are highly motivated, mobile with BMI less than 50. Less effective in higher BMI’s
- At EMMC 9% of our bands have been removed due to erosion, slippage, intolerance and acid-reflux.

Possible Complications After Gastric Banding

Short Term
- Gastric wall perforation
- Erosion
- Esophagus injury
- Blood clots
- Pouch dilatation
- Outlet obstruction
- Hardware problems

Long Term
- Erosions
- Ulcers
- Slippage
- Hardware problems
- Gallstones
- Esophageal dilatation/dysfunction
Surgery Complications: Why Do They Occur?

- Surgeon Factors
  - Technical Problems During Surgery
  - Surgeon Experience
- Patient Factors
  - Overall Health, Age, and Sex
  - Body Shape and Size
  - Psychological Factors
  - Inappropriate Behaviors
  - Unexplained Factors

OK But How Safe Is It?

- Gallbladder surgery 0.52 WLS 5X safer
- Hip replacement 0.93 WLS 9X safer
- CABG 3.3 WLS 33 X safer
- Pancreatic surgery 8.0 WLS 80 X safer
- Bariatric surgery 0.1 (for all surgeries combined)

0.1 is the equivalent of 1 death per every 1000 patients.

Risks are increased for patients who are male, older, heavier or have significant health issues

Expected Weight Loss @ 5-Years

- Band: 30-35 lbs. per 100 excess lbs.
- Sleeve: 40-50 lbs. per 100 excess lbs.
- Gastric Bypass: 50-60 lbs. per 100 excess lbs.

These are averages

Long-term diet and exercise compliance are the greatest influence to these numbers

Surgical Approach: Robotic/ Laparoscopic

- All procedures completed minimally invasive
- 5 to 7 small incisions
- General anesthesia
- Time of surgery:
  - Band: 1 hour
  - Sleeve: 1.5 hours
  - Bypass: 1.5-1.75 hours
- Hospital stay:
  - 2 days bypass/sleeve; 0-1 day band
- Recovery:
  - 2 to 4 weeks: lifting restriction

Percent of Excess Weight Loss in our program:

Northern Light Surgical Weight Loss Complications: 2014 through 2017

<table>
<thead>
<tr>
<th>Procedure</th>
<th>30-Day Complications</th>
<th>Readmission %</th>
<th>Return to OR %</th>
<th>Leaks</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bypass</td>
<td>0.8% (4.6%)</td>
<td>2.8% (1.9%)</td>
<td>0% (0.3%)</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Band</td>
<td>1.9% (1.0%)</td>
<td>1.0% (4.3%)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Sleeve</td>
<td>0.7% (1.8%)</td>
<td>0.2% (0.5%)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

The red numbers in parenthesis represent benchmarks from other Bariatric Accredited programs
**Risks:**
- Morbidly obese individuals may die 10-15 years sooner
- Poor/decreased quality of life
- Increase in the number and severity of health conditions
- Other surgeries needed due to obesity: gallbladder, joints, heart
- Need for more medications to treat other health issues

**Benefits of Weight Loss Surgery**
- Weight loss (50-75% excess body weight)
- Improvement in blood pressure, blood sugar, and cholesterol levels (80-95% resolved)
- Improved sleeping/breathing
- Enriched quality of life
- More energy/self-esteem
- Increased fertility/libido

**Risks: Pregnancy**
- Increased risk of pregnancy due to changes in hormonal levels
- Pregnancy is best avoided for 12-18 months postop. Check with your surgeon for specific time frame.
- [New 10/2018] Birth Control Recommendations:
  - Avoid oral contraceptives after gastric bypass—unreliable absorption and may increase the risk of clotting in the early postop period
  - IUD may be the most effective form as its effectiveness is unchanged by your changing BMI
  - Though other forms exist many have an unintended side effect of weight gain which we want to help you to avoid

**Risks: Nutritional**
- Dumping (bypass and sleeve)
- Nausea and or vomiting
- Lactose intolerance
- Excess gas
- Vitamin and mineral deficiency (Iron, B-12)
- Changes in bowel habits (diarrhea or constipation)
- Dehydration

**Dietary Changes**
- No alcohol—it is absorbed much quicker after GBP surgery and is a high source of calories; increased risk of cirrhosis of the liver with drinking after GBP
- Surgery may help control appetite but will not prevent poor food choices and bad eating habits
- Some food choices may not be well-tolerated such as beef, sweets and starches, dairy products, fried foods
- No drinking with meals or for 1/2 hour before and after meals
- Avoid calorie rich beverages, including energy drinks and coffee with many additives
- No carbonation or chewing gum
Getting Ready

• Eliminate all fried foods and fast food
• Eat breakfast each day
• Eliminate all soda, high calorie beverages and juice
• Abstain from alcohol, nicotine and marijuana
• Lose weight (weight gain or failure to lose weight will slow your process to surgery)
• Stop eating after your evening meal
• Talk with family members about how eating will change
• Preventable health screenings (colonoscopy, mammogram, etc.) must not be overdue

Getting Ready: Weight Loss

• BMI 35-41.9: weight maintenance focus
• BMI 42-49.9: must lose 5% excess body weight
• BMI 50+: must lose 10% excess body weight
• BMI above 65, additional help may be needed and will be available to get BMI closer to 60
• Dietitian can help you calculate excess body weight
• Weight loss to occur before last program dietitian visit in order to schedule with surgeon

Sleep Apnea Testing

• Please make sure you turn in your Sleep Disorder Screening Questionnaire before leaving
• Untreated sleep apnea poses increased surgical risk
• EMMC treats all sleep apnea
• >80% sleep apnea is resolved after weight-loss surgery
• Bring your CPAP/BiPAP machine to the hospital
• We will ask for a download of your machine to look at compliance. If you are currently treated, contact your company to have them send a download to us

Appointments: Bariatric Dietitian

• First visit we will weigh and measure you (BMI)
• Weight loss assignment at the first visit
• Diet and weight history
• Review of postoperative diet changes
• Discuss vitamin/mineral recommendations
• Discuss realistic expectations for weight loss
• Advance diet and vitamins postoperatively
• Assist with weight loss surgery support group
• Available by phone or e-mail with questions

Appointments: Psychologist

• Assess your ability to handle major life decisions
• Assess your coping mechanisms and support system
• Recommendations to the surgeon for your success
• Lengthy standardized test taken during the visit
• Depression common in surgical candidates
• May indicate need for pre or post-op counseling requirement
• 2-2.5 hour visit is the norm
**Appointments: Physical Therapist**

- Online class or 1:1 Physical therapy appointment depending upon your needs
- Assess ability to perform activities of daily living
- Getting started with a safe exercise program

**Surgeon Consultation**

- Verify height and weight (any weight gain will require a follow up surgeon visit slowing the process down)
- Expect weight loss since the last dietitian appointment
- Bring your support person with you if possible
- Review specific procedures/answer questions
- Complete a history and a physical
- Surgeon staff begins precertification with insurance

**Surgery Preparation: No tobacco or marijuana products**

After surgery, smokers are at very high risk for these complications:
- Bleeding, vomiting and passing blood in stools
- Constant pain
- Perforations
- Strictures
- Death
- May require a reversal of your gastric bypass

**Surgery Preparation: NSAIDS and More**

- You must be on the lowest dose possible of narcotics with a note from your prescribing physician. The overall goal is to be off them if possible. Methadone and suboxone affect bowel function and must be stopped before your surgeon visit.
- No NSAIDS for 2 weeks before surgery for any weight loss surgery.
- After surgery, band and sleeve patients may resume NSAID use, but bypass patients can NEVER take again.
- Discuss alternatives with your physician. Beware of NSAIDS hidden in OTC meds (i.e. Alka Seltzer) and injectables such as Toradol

**Benefits of a Pre-Surgery Weight Loss**

- Lower weight = lower surgical risk
- Fatty liver common in bariatric patients
- Weight loss shrinks size of the liver making movement during surgery easier
- May allow for better viewing of stomach during surgery
- Reinforces your confidence and commitment to surgery
- Does not make insurers deny surgery due to belief you don’t need it because you lost a few pounds
- What if your BMI is just 40 now?

**Your Hospital Stay**

- Phone call from anesthesiologist at home before surgery
- Length of stay varies: Bypass - 2 nights
  - Band - 0 to 1 nights
  - Sleeve - 2 nights
- No eating 12 hours prior to surgery
- May take one shift to get your pain under control
- Early ambulating and breathing exercises
- Liquid diet on discharge (high protein liquids)
- Discharge medications
- First days home - lifting restrictions 10-20 lbs first 6 weeks
Follow Up

Surgeon:
• 2 weeks post-op, 6 weeks, 6 months, 12 months, 18 months, then annually

Team Support:
• 2 weeks, 6 weeks, 3 months, 6 months, 9 months, 12 months, 18 months, then annually
• Psychologists who specialize in disordered eating and weight loss surgery as needed after surgery

Support Groups available statewide and online

How Do I Get To Surgery?

• Get a referral from your Primary Care Physician
• After this class, attend at least one support group in the next few months
• Northern Light Surgical Weight Loss will set up appointments and mail to you in <2 weeks if your referral is here already
• Time to surgery is usually 5-8 months after this class and varies greatly with insurance

Next Steps For You:

• Support Group attendance at one required (times/dates in your red binder):
  ✓ In-Person: EMMC – Bangor
  ✓ Inland – Waterville
  ✓ TAMC - Presque Isle
  ✓ Online
• Read your education binder
• Focus on diet and exercise behaviors
• Contact Lynn Bolduc, RD, Manager for questions at 973-4940; email: Lbolduc@northernlight.org
• For more information about Northern Light Non-Surgical Weight loss contact 275-4440

Thank you for attending today’s information session