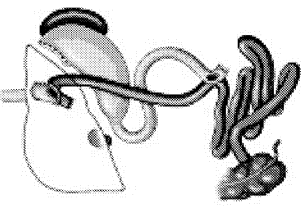
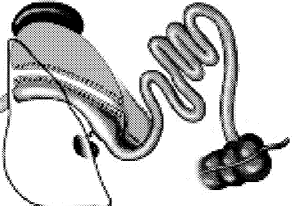
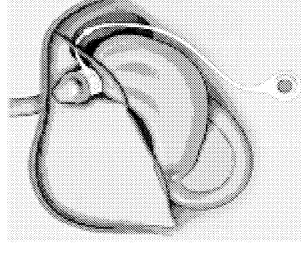


# Surgical Weight Loss Educational Manual

# **Weight Loss Surgery**

## EMMC Weight Loss Surgery Comparison Chart

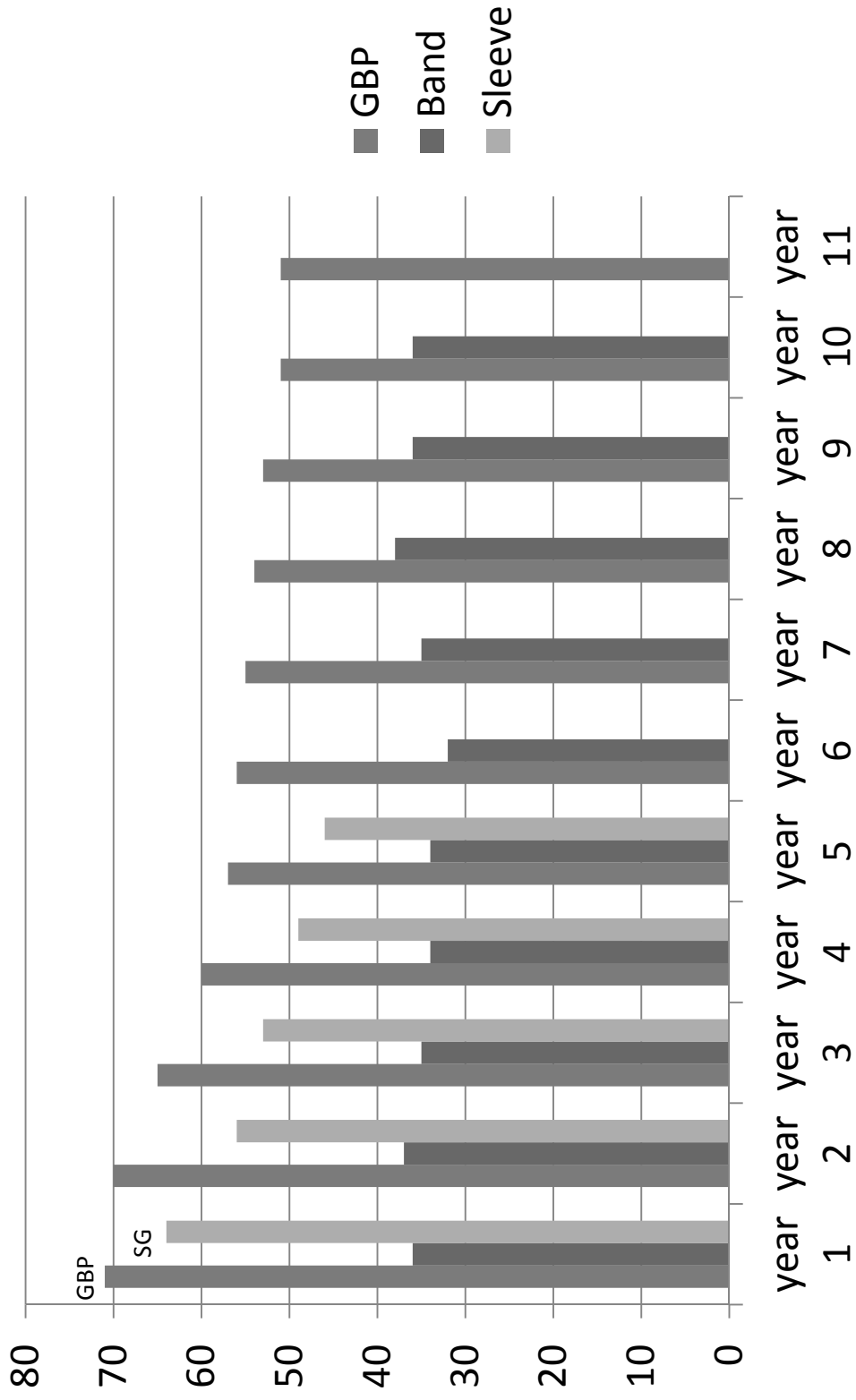
Mode of Weight Loss	Restrictive and Malabsorptive (involving the stomach and intestines)		Restrictive (involving the stomach only)	
<b>Type of Operation</b>	<b>Roux-en-Y Gastric Bypass (GBP)</b>	<b>Sleeve Gastrectomy</b>	<b>Adjustable Laparoscopic Gastric Band</b>	
<b>Anatomy</b>	<p>Small 1 ounce pouch (20-30cc) connected to the small intestine. Food and digestive juices are separated for 3-5 feet.</p> 	<p>Long narrow vertical pouch measuring 3 oz (100cc). No intestinal bypass performed.</p> 	<p>An adjustable silicone ring (band) is placed around the top part of the stomach creating a small 1-2 ounce (15-30cc) pouch.</p> 	
<b>Mechanism</b>	<ul style="list-style-type: none"> <li>• <b>Significantly</b> restricts the volume of food that can be consumed. Weight loss is over an 18-month period.</li> <li>• Mild malabsorption</li> <li>• "Dumping Syndrome" when sugar or fats are eaten</li> <li>• Delays emptying of the stomach pouch</li> <li>• Vomiting may occur if too much food is eaten or eaten too quickly</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Significantly</b> restricts the volume of food that can be consumed. Weight loss over an 18-month period.</li> <li>• NO malabsorption</li> <li>• NO dumping</li> <li>• Does offer some hormonal benefit to hunger/fullness</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Moderately</b> restricts the volume and type of foods able to be eaten. Weight loss over a 3-5 year period</li> <li>• Only procedure that is adjustable where saline is added to the band to create a tighter band. Adjustments done every 6 weeks until appropriate level of weight loss and fullness reached.</li> <li>• Delays emptying of pouch</li> <li>• Creates sensation of fullness</li> </ul>	
<b>Weight Loss</b> United States Average statistical loss at 10 years	<ul style="list-style-type: none"> <li>• 70% loss of excess weight at 2 years and 60% excess weight loss at 5 years</li> <li>• 70% of patients lose at least 1/2 of their excess weight at the 5-year mark</li> </ul>		<ul style="list-style-type: none"> <li>• 60% excess weight loss at 2 years</li> <li>• Long term results not available at this time.</li> </ul>	
			<ul style="list-style-type: none"> <li>• 35-50% excess weight loss at 5 years.</li> <li>• Requires the most effort of all procedures to be successful.</li> </ul>	

<p><b>Long Term Dietary Modification</b> (Excessive carbohydrate/high calorie intake will defeat all procedures)</p>	<ul style="list-style-type: none"> <li>• 3 small high protein meals per day</li> <li>• Must avoid sugar and fats to prevent "Dumping Syndrome"</li> <li>• Vitamin deficiency/protein deficiency usually preventable with supplements</li> <li>• No drinking with meals</li> </ul>	<ul style="list-style-type: none"> <li>• 3 small high protein meals per day with no drinking with meals</li> <li>• Should not cause dumping though some patients report dumping like symptoms when they eat too quickly: no diarrhea</li> <li>• Weight regain may be more likely than in other procedures if dietary modifications not adopted for life</li> </ul>	<ul style="list-style-type: none"> <li>• 3 small high protein meals per day</li> <li>• Certain foods can get "stuck" if eaten (rice, bread, dense meats, nuts, popcorn) causing pain and vomiting.</li> <li>• No drinking with meals</li> </ul>
<p><b>Nutritional Supplements Needed</b> (Lifetime)</p>	<ul style="list-style-type: none"> <li>• Multivitamin</li> <li>• Vitamin B12</li> <li>• Calcium with vitamin D</li> <li>• Iron (menstruating women)</li> </ul>	<ul style="list-style-type: none"> <li>• Multivitamin</li> <li>• Calcium/Vit D</li> <li>• Vitamin B12</li> </ul>	<ul style="list-style-type: none"> <li>• Multivitamin</li> <li>• Calcium with vitamin D</li> </ul>
<p><b>Potential Problems</b></p>	<ul style="list-style-type: none"> <li>• Dumping syndrome</li> <li>• Stricture</li> <li>• Ulcers</li> <li>• Bowel obstruction</li> <li>• Anemia</li> <li>• Vitamin/mineral deficiencies (Iron, Vitamin B12, folate)</li> <li>• Leak</li> </ul>	<ul style="list-style-type: none"> <li>• Nausea and vomiting</li> <li>• Heartburn</li> <li>• Inadequate weight loss</li> <li>• Weight regain</li> <li>• Additional procedure may be needed to obtain adequate weight loss</li> <li>• Leak</li> </ul>	<ul style="list-style-type: none"> <li>• Slow weight loss</li> <li>• Slippage</li> <li>• Erosion</li> <li>• Infection</li> <li>• Port problems</li> <li>• Device malfunction</li> </ul>
<p><b>Hospital Stay</b></p>	<p>2-3 days</p>	<p>2-3 days</p>	<p>0-1 day (most patients going home the same day)</p>
<p><b>Time off Work</b></p>	<p>2-3 weeks</p>	<p>2-3 weeks</p>	<p>2-3 weeks</p>
<p><b>Operating Time</b></p>	<p>1.5-3 hours</p>	<p>1.5 hours</p>	<p>1-1.5 hours</p>
<p><b>Our Recommendation</b></p>	<p>Most effective for patients with a BMI of 35-65 kg/m<sup>2</sup> Virtually all insurance companies will authorize this procedure. May be most effective procedure for those with type 2 diabetes.</p>	<p>Most effective for patients with BMI of 35-50. Very low complication rate due to quicker OR time and no intestinal bypass performed.</p>	<p>Most effective for patients with a BMI of under 50.  Best for patients who enjoy participating in an exercise program and are more disciplined in following dietary restrictions.</p>

# EMMC Surgical Weight Loss Excess Weight Loss

2002-2018

# Excess Weight Loss by Procedure EMMC 2002- 2018



## **Gastric Bypass Surgery: How The Surgery Works:**

The Roux-en-Y gastric bypass surgery works in three ways to help you to lose weight and improve your health and quality of life:

- **Restriction**: The stomach is changed from the size of a football into the size of a small plastic Easter egg or a lime. This “pouch” will initially hold only 1-2 ounces of food. The small pouch will limit your food intake, make you feel full quicker and stay full for a longer period of time.
- **Malabsorption**: The normal flow of food is changed so that the upper part of the small intestine (duodenum and upper jejunum) is bypassed. This will cause incomplete absorption and digestion of calories, including fat, protein and carbohydrate. Your body will recognize fewer of the calories that you eat. Vitamin and mineral absorption will also be affected and consequently you will be asked to take supplements for the rest of your life.
- Some foods that tend to be high in sugar and/or fat may not be well tolerated after the surgery and may need to be avoided. Examples are sweets, fried foods, and red meat. Eating them may cause you to have nausea, vomiting, diarrhea, sweating and/or pain.
- **Hormonal**: Surgery may alter the hormones that control your sense of hunger and fullness. One such hormone is ghrelin which normally goes up when you have decreased caloric intake yet with gastric bypass and sleeve gastrectomy this hormone does not elevate, possibly helping to ease hunger after surgery.

*Will surgery by itself guarantee your long-term success?*

**NO !!**

## **Success Rates:**

- There is approximately a 60-70% success rate with the surgery.
- “Success” means you should be able to keep off at least ½ or 50% of your **excess** body weight even after 5 or more years. Many lose 70% of their excess body weight over a period of 12-18 months after surgery.
- There is the potential to gain back 5-10% (usually 10-20 pounds) body weight between the 2<sup>nd</sup> and 4<sup>th</sup> year after surgery. We find this is minimized in those who regularly exercise. It is possible to defeat the surgery by ignoring program guidelines and suggestions by drinking high calorie liquids, continuous snacking and sedentary living. This surgery is only a **tool** to help you feel full and choose a healthy lifestyle.

## **Adjustable Gastric Band Surgery: How The Surgery Works:**

The band is a less invasive surgery compared to gastric bypass and sleeve gastrectomy. A silicone band is placed around the upper part of the stomach creating **restriction** with:

1. A smaller upper pouch
2. An early feeling of fullness
3. A limited volume in which to hold food.

The band is adjustable and placed around the upper part of the stomach creating a new small pouch which limits the amount of food allowed in the new stomach. The band is also composed of a hollow ring that can be adjusted (inflated or deflated) to alter the opening between the upper and lower portion of your stomach.

*Will surgery by itself guarantee your long-term success? NO*

*Unlike the gastric bypass there is no malabsorption to decrease the calories of the food you eat. Unlike the gastric bypass and sleeve gastrectomy there is no hormonal control of obesity assisting with control of appetite, hunger and fullness.*

*The average weight loss is 35-50% of your excess weight (compared to 60-70% with bypass or sleeve) and it takes about 5 years to lose the weight (compared to 1-2 years for bypass and sleeve).*

*The surgery is a TOOL to help you lose weight. Weight loss is often around a pound per week when you are properly adjusted. Ultimately you are responsible for your success and success will hinge on your being properly adjusted which means visits to your surgeon for the addition or removal of saline (sterile fluid) from your band.*



## **Sleeve Gastrectomy Surgery: How The Surgery Works:**

The Sleeve Gastrectomy surgery works in two ways to help you to lose weight and improve your health and quality of life:

- **Restriction**: The stomach is changed from the size of a football into the size of a small plastic Easter egg or a lime. This “pouch” will initially hold only 1-2 ounces of food. The small pouch will limit your food intake, make you feel full quicker and stay full for a longer period of time.
- **Hormonal**: Surgery may alter the hormones that control your sense of hunger and fullness. One such hormone is ghrelin which normally goes up when you have decreased caloric intake yet with gastric bypass and sleeve gastrectomy this hormone does not elevate, possibly helping to ease hunger after surgery.

*Will surgery by itself guarantee your long-term success?*

**NO !!**

## **Success Rates:**

- There is approximately a 60-70% success rate with the surgery. Most patients lose 60-65% of their excess body weight by 1-year to 18-months post-surgery.
- Long term “success” means you should be able to keep off at least ½ or 50% of your **excess** body weight even after 5 or more years. The sleeve gastrectomy was not covered by most insurers in Maine until 2010-2012 so we don’t have long term data in our program yet on what 5-yr average weight loss is for the sleeve gastrectomy.
- There is the potential to gain back 5-10% (usually 10-20 pounds) body weight between the 2<sup>nd</sup> and 4<sup>th</sup> year after surgery after any weight loss surgery. We find this is minimized in those who regularly exercise. It is possible to defeat the surgery by ignoring program guidelines and suggestions by drinking high calorie liquids, continuous snacking and sedentary living. This surgery is only a **tool** to help you feel full and choose a healthy lifestyle.