Accredited Center

The Bariatric and Metabolic Institute at West Penn Hospital is a multidisciplinary team of experienced, minimally invasive bariatric surgeons, physician assistants, nurses, dietitians, and psychologists dedicated to the care and treatment of patients with severe obesity.

George Eid, MD, Kellen Hayes, MD, and Brendan Marr, MD, and the bariatric care team at West Penn Hospital, part of the Allegheny Health Network, have been designated as an MSBAQIP accredited center by the American Society for Metabolic and Bariatric Surgery (ASMBS) and the American College of Surgeons.

This designation was awarded to our Institute at West Penn Hospital after an extensive review process by the ASMBS, verifying our record of high-quality patient care and favorable outcomes for weight-loss surgery.

The Bariatric and Metabolic Institute of Allegheny Health Network has also been recognized by a number of health insurances as Bariatric Surgery Center of Excellence. These include: Blue Cross/Blue Shield (Blue Distinction Centers for Bariatric Surgery), Health America, United Resource Networks, and Cigna.

Introduction

The physicians and staff of the Bariatric and Metabolic Institute wish to extend a warm welcome to you and your family. This information booklet is provided to patients considering surgical treatment for severe obesity. You are highly encouraged to read this booklet prior to your scheduled visit in order to be fully prepared. It is recommended that you and your family review the entire booklet thoroughly. We hope that the answers to most of your questions can be found by reviewing the contents of the booklet. Please feel free to bring any additional questions and ask them at the time of your new patient visit.

More information discussing obesity and its surgical treatment can be found on the following websites:

- ahn.org/weightloss
  This is the Bariatric and Metabolic Institute website and contains similar information to what is found in this booklet.
- asmbs.org
  This is the website of the American Society for Metabolic and Bariatric Surgery.

Information Sessions*

We have regularly scheduled information sessions throughout each month. We invite you and your family to attend these free information sessions to enhance your understanding of weight loss surgeries and services offered by our Institute. The presentations include an informational talk given by our bariatric surgical staff and a question-and-answer period. These sessions are open to the public and are held at various locations and times in your local community. Locations include West Penn Hospital-Mellon Pavilion, Wexford Health + Wellness Pavilion, Forbes Hospital, Peters Township Health + Wellness Pavilion, Jefferson Hospital, and Saint Vincent Hospital. Please click the » Attend Free Information Sessions link on our website at ahn.org/weightloss for a complete listing or to register for an upcoming session. Please check back regularly for up-to-date information, including dates, times, and locations.

*Patients considering surgical treatment of obesity are strongly encouraged to attend one of our Bariatric Surgery Information Sessions prior to making their first appointment.
Overview

- These supplements help decrease the risk of anemia (low blood counts) and bone loss or serious nerve or brain problems.

Surgery is a tool which provides a huge "jump start" on weight loss and helps to maintain your weight loss.

- Weight loss is not guaranteed long-term. Weight regain can occur if you fail to follow all of the guidelines. Follow-up visits will help you keep the weight off.

- Average weight loss at one year after the gastric bypass is about 75% of excess body weight, though 1 out of 10 will lose almost all of their excess weight. One out of 10 will lose less than 50% of their excess weight.

- Weight loss after the sleeve gastrectomy is about 60–70% of excess body weight.

- You are encouraged to begin exercising soon after surgery and maintain an exercise program to achieve better weight loss outcomes.

- "Dumping syndrome" describes the side effects which occur after eating too much sugar or greasy foods for those patients who had a gastric bypass or sleeve surgery. You may feel light-headed, nauseated, experience palpitations, and feel sweaty a few minutes after consuming foods that are high in sugar or fat.

- Females of child-bearing age should wait at least 18 months after surgery before becoming pregnant to decrease the potential risk of nutritional problems for both the mother and the fetus.

- If you are experiencing any problems related to your surgery (including nausea, abdominal pain, difficulty tolerating foods), you should call your surgeon's office.

- Certain pain medications, including NSAIDs, aspirin, Motrin, Advil, Narproyn, ibuprofen, indocet, etc., should be avoided after surgery. NSAIDs can cause stomach ulcers, increase the risk of bleeding, abdominal pain, or nausea especially in gastric bypass patients. Acid reducer medications (Zantac, Pepcid, Prilosec, Protonix, and Nexium) are needed to prevent ulcers and must be used in conjunction with any NSAID intake. In general, NSAIDs should not be used for pain relief if you have a gastric bypass. Smoking increases your risk for ulcers as well and must be stopped prior to surgery.

- The risk of stomach ulcers after the sleeve gastrectomy is not increased with these medications.

Bariatric Surgery Overview

- Treatments for obesity include diet, behavioral modification, exercise, medications and surgery. Most severely obese people do not experience successful weight loss with dieting alone.

- The best long-term result for the treatment of morbid obesity is surgical treatment. Options include: Roux-en-Y Gastric Bypass, and Sleeve Gastrectomy.

- After surgery, conditions such as high blood pressure, type 2 diabetes, sleep apnea, and arthritis may improve dramatically, and in many cases, resolve completely.

- Most insurance companies require a physician-supervised low-calorie diet. This can be completed with your primary care physician or at the Bariatric and Metabolic Institute. Insurance authorization cannot be completed until we have monthly notes.

- Bariatric surgeries involve some risk of complications that could result in intensive care treatment and possible re-operation. The major surgical risks include blood clots in the lungs, leaks, obstructions, bleeding, strictures, and death.

- Bariatric Surgery Centers of Excellence average risk of death (due to a patient's health problems or complications from surgery) is less than 1 out of 1,000 patients (0.01%).

- After bariatric surgery, you should eat 3 small meals per day and avoid grazing. Consume the protein portion of the meal (chicken, meat, fish) first, followed by the vegetables, and starchy carbohydrates last (if at all).

- After surgery, you cannot eat as much of any kind of food as you want and still lose weight.

- Important vitamins and minerals after bariatric surgery may include multivitamins, B12, calcium, iron, and Vitamin D.

- These supplements help decrease the risk of anemia (low blood counts) and bone loss or serious nerve or brain problems.

Prior to Initial Evaluation

There are a number of things you can do prior to your initial office visit and evaluation. This time can be used to your benefit. Please review your bariatric information booklet and complete the handouts in your folder pockets.

1. Information Session – Attendance at a free Information Session is strongly encouraged prior to scheduling an initial office visit. This is also a good time for family members or friends to come and ask questions as well.

2. Diet – Verify your BMI and begin a low-calorie diet and exercise program (if possible) with your primary care physician (PCP).

- Insurance companies require a documented diet history.

- Monthly, supervised diets are required by most insurance companies. Some are 6 consecutive months; others are 3 consecutive months (totaling 90 Days). Your specific insurance company's requirements will be discussed at your first visit.

- Some insurance companies require proof of your history of obesity for at least 2 or 5 years.

3. Patient Information Sheet

- Included along with this informational booklet is a Patient Information Sheet. Please fill this out completely prior to your visit and bring it with you to your initial appointment.

4. Quit smoking: you must quit 3-4 months prior to surgery.

- The goal of bariatric surgery is to improve your health. Begin to improve your health by not smoking.

- Smoking impairs wound healing and increases the risk of leaks, pneumonia, pulmonary embolism (blood clots), and other lung problems after surgery (including prolonged ventilator support).

- Call your primary care physician if you need medication patches, gum, or medications to help you quit smoking.

5. Health Insurance

- Call your health insurance company to determine if you have coverage for the surgical treatment of morbid obesity (see the attached handout).

- Some insurance plans cover only specific weight loss surgical procedures or do not cover them at all. Self-pay plans and financing options are also available.

- Our insurance specialist will review your insurance coverage with you during the initial office visit, if necessary.

6. Exercise

- An exercise program should be started, if possible. This should be documented in your PCP's notes.

- Increased levels of activity before surgery improve your health and decrease risks of surgery.

- You can start by daily walking. Swimming is a good exercise if you have joint pain. A pedometer is a useful tool to monitor your activity level.

- If you are unable to walk or swim, lifting hand weights or any other type of physical activity can be beneficial.

- People who are physically fit to "workout" should increase their heart rate for 30-45 minutes 3-5 times per week. Some popular methods to accomplish your goal include using a treadmill, or "Gazelle," or attend a Curves program.

7. Prior to Weight-Loss Surgery

- Patients who have had previous weight-loss surgery and are having complications, poor weight loss, or weight gain can be evaluated for possible revisional surgery.

- If you have had prior stomach or weight-loss surgery, we will need a copy of your operative report and any recent testing, including the films of any recent upper GI X-ray series.

- You may be asked to get a GI X-ray study prior to being seen by the surgeon.

- We also welcome patients who have had previous weight-loss surgery elsewhere and would like to follow-up with our program.

8. Primary Care Visit

- If you have not had a recent visit with your Primary Care Physician (PCP), please schedule one to update your medical history and inform them you are interested in surgery. Please have your PCP send us a summary letter of your medical history.

- Routine screening tests, including colonoscopy, mammogram, or PAP test may be needed.

9. Forms & Questionnaires

- Demographic sheet

- Confidentiality form

- Office policy

- Insurance requirements

- Sample diet progress note for your PCP

- Epworth sleep apnea evaluation

- For patients who are 50 years or older, a mammogram is strongly recommended due to the potential risk of nutritional problems for both the mother and the fetus.

- If you are unable to walk or swim, lifting hand weights or any other type of physical activity can be beneficial.

- People who are physically fit to "workout" should increase their heart rate for 30-45 minutes 3-5 times per week. Some popular methods to accomplish your goal include using a treadmill, or "Gazelle," or attend a Curves program.

- You may be asked to get a GI X-ray study prior to being seen by the surgeon.

- We also welcome patients who have had previous weight-loss surgery elsewhere and would like to follow-up with our program.

10. After reviewing this entire packet of information, write down any questions that you or your family may have and bring them with you to your first visit.
Health Effects of Obesity

Individuals affected by severe obesity are often affected by many other obesity-related conditions and diseases, such as type 2 diabetes, hypertension, and sleep apnea. Severe obesity can damage the body and affect nearly every organ in the body in some way. Life expectancy decreases as weight increases, especially in the severely obese. Young women with BMIs above 45 have an 8-year reduction in life expectancy compared to women with a healthy BMI. Young men with a BMI above 45 have a 20-year decrease in life expectancy than men with a healthy BMI.

Diabetes: Patients with obesity are 400 times more likely to develop diabetes than patients with a healthy BMI. Overtime, obese individuals develop resistance to insulin, which regulates blood sugar levels. A diagnosis of type 2 diabetes is reported to reduce longevity by as much as 35 percent and is a major cause for amputations, cardiovascular disease, stroke, and blindness. Diabetes can also lead to a number of other complications, including kidney disease, hypertension, lipid abnormalities, circulatory and nerve defects, chronic infections, impotence, and more.

Cardiovascular disease: Cardiovascular disease accounts for the loss of nearly 700,000 lives per year in the US. The American Heart Association considers obesity a major risk factor for heart disease. Large studies have shown that as the level of obesity increases, so does the risk for heart disease and associated mortality. Individuals affected by severe obesity have a high incidence of coronary artery disease and are at a considerable risk for a heart attack.

Obesity also leads to an enlargement of the left side of the heart which may result in congestive heart failure. Approximately 10 percent of individuals with severe obesity have congestive heart failure. In addition, severe obesity is associated with a greater incidence of arrhythmias (irregular heartbeats) resulting in a three-fold increased risk of cardiac arrest.

Hypertension: Obesity is a major contributor to hypertension (high blood pressure). Hypertension affects the majority of individuals with severe obesity.

Respiratory Disorders: Individuals affected by obesity have reduced respiratory capacities, are more susceptible to respiratory infections, and have a far greater incidence of asthma. Studies find that approximately 25 percent of individuals with severe obesity have asthma and the majority of those affected by severe obesity have a serious breathing disorder known as obstructive sleep apnea (OSA). This condition occurs when excess fat in the neck, throat, and tongue obstructs air passages during sleep, causing apnea (a temporary cessation of breathing). An individual with OSA may have hundreds of apneic episodes each night. These episodes cause exceptionally low oxygen levels in tissue and blood, which may contribute to systemic and pulmonary hypertension, heart failure, sudden cardiac death and stroke, as well as fatigue and drowsiness.

Cerebrovascular Disease and Stroke: Obesity puts a strain on the entire circulatory system, increasing the risk for stroke. Obesity also is responsible for the development of other stroke risk factors including heart disease, hypertension, lipid abnormalities, type 2 diabetes, and obstructive sleep apnea.

Accidents: Severe obesity contributes to the development of a number of musculo-skeletal issues that increase the risk for accidents, including aggravated joint diseases (osteoarthritis, gout), disc herniations, spinal abnormalities, and pseudo tumor cerebri, a condition associated with disorientation and visual impairment.

Other Conditions:

- Alzheimer’s disease: Studies find that obesity during middle-age may contribute to hormonal and metabolic conditions that increase the risk for dementia and Alzheimer’s disease later in life.
- Kidney disease: Hypertension, Type 2 diabetes and congestive heart failure (all conditions caused or worsened by obesity) are major contributors to kidney disease and kidney failure.
- Suicide: Reduced quality of life, depression, and societal discrimination caused by obesity may increase the risk for suicide. The incidence of suicide for those affected by obesity is approximately two-fold higher than for patients with a healthy BMI.
- Septicemia: The condition is a serious infection that rapidly progresses to septic shock and death. Studies have shown that individuals affected by obesity, particularly those affected by severe obesity, are at higher risk of septicemia than individuals who are normal weight.
- Liver disease: Obesity is the major cause for fatty liver and non-alcoholic fatty liver disease. The majority of individuals with severe obesity have non-alcoholic fatty liver disease. Fatty liver disease can cause progressive fibrosis of the liver, resulting in impaired liver function, and eventually can progress to cirrhosis and liver failure.

Other conditions associated with obesity that could become life-threatening: maternal gestational diabetes and preeclampsia during pregnancy, increased incidence of miscarriages and stillbirths, gallbladder disease, pancreatitis, and more.

Body Mass Index (BMI)

<table>
<thead>
<tr>
<th>BMI Range</th>
<th>Healthy</th>
<th>Overweight</th>
<th>Obese</th>
<th>Morbidly Obese</th>
</tr>
</thead>
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<td>19-24</td>
<td>UNDERWEIGHT</td>
<td>IDEAL</td>
<td>OVERWEIGHT</td>
<td>Morbidly Obese</td>
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<tr>
<td>25-29</td>
<td>UNDERWEIGHT</td>
<td>IDEAL</td>
<td>OVERWEIGHT</td>
<td>Morbidly Obese</td>
</tr>
<tr>
<td>30-34</td>
<td>UNDERWEIGHT</td>
<td>IDEAL</td>
<td>OVERWEIGHT</td>
<td>Morbidly Obese</td>
</tr>
<tr>
<td>35-40</td>
<td>UNDERWEIGHT</td>
<td>IDEAL</td>
<td>OVERWEIGHT</td>
<td>Morbidly Obese</td>
</tr>
<tr>
<td>OVER 40</td>
<td>Morbidly Obese Qualifies for surgery with selected health problems</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Overview

Obesity is a serious medical condition that can decrease your lifespan by 10 to 15 years. It is a complex medical condition in which excess body fat has accumulated to the extent that it can have an adverse effect on health with genetic, environmental, cultural, and psychological causes. Morbidly obese patients are usually 100 pounds over their ideal body weight.

Obesity is commonly measured by using the Body Mass Index, or BMI. It is a measurement of height versus weight and is a reliable indicator of body fat for most people. To determine your BMI, please refer to the BMI table included in this packet or use the calculator on our website.
Overview

Criteria for Bariatric Surgery

To be a candidate for bariatric surgery, patients should meet all of the criteria below, as established by the National Institutes of Health (NIH):

1. Have a Body Mass Index (BMI) of 40 or higher – or 35 or more with obesity-related diseases such as type 2 diabetes, sleep apnea, or high blood pressure. Please see the BMI chart in this booklet or go to our website ahn.org/weightloss to determine your BMI.

2. Have attempted (and failed) previous weight loss efforts with diet, exercise, lifestyle changes, or medications.

3. You must be knowledgeable about the possible risks, benefits, and side effects of the procedures.

4. You must understand and be committed to the necessary lifestyle changes.

5. You should be committed to long-term follow up care.

6. You must be willing to make the lifestyle changes required postoperatively and after surgery. Most insurance companies will approve the weight-loss surgery only if it is performed at an established Bariatric Surgery Center of Excellence.

7. You must be motivated and have realistic expectations of the surgical outcomes.
   - In addition to the criteria established by the NIH, each health insurance company has their own criteria for bariatric surgery. This includes documented diet history, dietitian and psychiatric evaluation, and compliance with the weight-loss surgery program recommendations before and after surgery. Most insurance companies will approve weight-loss surgery only if it is performed at an established Bariatric Surgery Center of Excellence.
   - Our staff at the Bariatric and Metabolic Institute plans for your regular follow-up visits and request that you call to cancel any scheduled appointments.
   - Patients must complete all of their required testing prior to being submitted and approved by their insurance company.

Surgical Weight Loss Options

Bariatric surgery is recommended as a treatment for patients with a BMI of 40 and above or BMI of 35 with obesity related diseases, including high blood pressure, sleep apnea, or diabetes. Surgery has been proven to be the most successful long-term treatment option for severe obesity.

Weight-loss surgery is major surgery and, like all surgeries, there are inherent risks. For many patients, the risk of death from their obesity-related diseases is greater than the possible complications from having the procedure. You need to be well informed and consider all aspects of this surgery before making your decision.

**Laparoscopic Roux-En-Y Gastric Bypass**

The gastric bypass consists of two different components. In this procedure, a small stomach pouch, approximately 20 cc, or thumb-sized is created. Next, the small intestine is divided and reconnected to the newly created small stomach pouch. The other end of the small intestine is connected to the side of the Roux limb of the intestine, creating the Y-shape that gives the procedure its name. Food passes into the small stomach pouch, then into the first 3-5 feet of the intestine where very little food is absorbed. Food then passes through the Y where the existing portion of the stomach and small intestine join. It is here where more effective digestion begins. The remnant stomach still continues to produce acid and digestive juices and eventually mixes with the food further down in the intestines.

Gastric bypass offers restriction, malabsorption, and hormonal changes to optimize both weight loss and improve health conditions. The newly created stomach pouch is considerably smaller and facilitates smaller meal volumes. Also, rerouting the food stream produces changes in gut hormones that produce satiety, suppress hunger, and improves blood sugar control.

**Laparoscopic Sleeve Gastrectomy**

This procedure involves stapling, cutting, and removing 70-80% of the stomach, turning the remaining stomach into a slender tube, resembling a “skinny banana.” It has become the most commonly performed bariatric surgery in the United States. Average weight loss is about 66% of excess weight. The sleeve works by reducing the amount of food that you are able to eat. The remaining stomach is very narrow and holds much less than a normal stomach; patients get full fast and eat less. Production of ghrelin, which is a hormone that increases appetite, is reduced after the sleeve and patients are not as hungry as they were before surgery.

**Advantages:**
- No intestinal re-routing
- No foreign objects inserted
- Weight loss approaches that of the gastric bypass

**Disadvantages:**
- Is a non-reversible procedure
- Has the potential for vitamin deficiencies

**Advantages:**
- Produces significant long-term weight loss (60–80% excess weight loss)
- Improvement in obesity-related health problems is achievable for most patients. However, it is dependent on dietary compliance, exercise, and behavioral changes.

**Disadvantages:**
- Is technically a more complex operation than the others, potentially resulting in greater complication rates
- Can lead to long term vitamin and mineral deficiencies, including Vitamin B12, iron, calcium, and folate

**Advantages:**
- No intestinal re-routing
- No foreign objects inserted
- Weight loss approaches that of the gastric bypass

**Disadvantages:**
- Is a non-reversible procedure
- Has the potential for vitamin deficiencies
Revisional Bariatric Surgery

Some patients who have undergone a previous surgical procedure for obesity may desire to have their surgery revised or ‘fixed.’ This may be done because of weight regain, inadequate weight loss, poor tolerance of solid food, persistent vomiting, gastroesophageal reflux, ulcers, or other problems. Revisional bariatric surgery is complicated and should only be undertaken after evaluating the risks and benefits. Not every patient with poor surgical weight loss is a candidate for revisional surgery.

All patients being evaluated for a revision of bariatric surgery will need:
- Original operative reports (if possible)
- Upper GI X-ray series (call our office to arrange)
- Upper endoscopy (call our office to arrange)
- Evaluation by our bariatric team

Revision of VGB to Roux-en-Y gastric bypass

The VGB is also referred to by many patients as “stomach stapling.” Although vertical banded gastroplasty was commonly performed in the 1980s and 1990s for the treatment of morbid obesity, this procedure has largely been abandoned in the United States in favor of other operations.

Revision of VBG to RYGBP should be considered if a patient has any of the following conditions or complications:
- Poor weight loss or weight regain
- Solid food intolerance, frequent vomiting, protein malnutrition
- Gastroesophageal reflux symptoms and complications
- Band erosion

Revision of previous gastric bypass

Patients who have had a previous bariatric surgery elsewhere are welcome to follow up with our program. Some patients can be helped by just having guidance and involvement in our organized bariatric program. Some patients may benefit from additional surgery to help with weight loss.

Laparoscopic revisional surgery is possible in some patients that have symptoms of pain and food intolerance after gastric bypass. This involves a very thorough evaluation by our bariatric team and typically carries higher risks than the original surgery.

Revision of laparoscopic adjustable band

The laparoscopic adjustable band is purely a restrictive surgical weight-loss procedure. The weight loss achieved with the band is, on average, not as much as seen with the gastric bypass or sleeve gastrectomy. Some patients interested in more weight loss may consider converting to another weight-loss surgery. Complications of laparoscopic gastric banding that may require revision include band slippage, early pouch dilation, perforation, infection of the port or band, erosion of the band, and band tube problem. Some of these can be fixed and the band can stay in place. Some adjustable bands may need to be removed and converted to a gastric bypass or sleeve gastrectomy.

Endoluminal Surgery

Endoluminal surgery is performed when an endoscope is placed into the hollow organs of gastrointestinal tract such as the esophagus, stomach, and small bowel through the mouth. The types of surgical procedures that can be completed include dissection, suturing, stapling, and stenting. Compared to traditional open and laparoscopic, these advanced techniques reduce the invasiveness of surgery, reduce surgical risks, and have quicker recover with minimal pain. Gastric endoluminal surgery has benefited patients with severe GERD and ulcers, non-healing leaks from previous stapling procedures, and gastro-gastric fistulas from staple line breakdown. Endoluminal surgery may also benefit patients with weight regain after prior bariatric surgeries. Endoluminal procedures are not always covered by medical insurance unless medical necessity is determined.

Improvement in Health Conditions

- **Diabetes:** remission of type 2 diabetes occurs in about 70–85% of patients. Most patients are able to completely discontinue their medications soon after surgery, even before dramatic weight loss. Some patients may be discharged from the hospital on insulin for the first week after surgery. No medical treatment can achieve as complete and profound effect as surgery.
- **High blood pressure:** resolves completely in about 75% of patients and improves in an additional 10%. Some patients still may need medications, but fewer and at a lower dose.
- **High cholesterol:** 80% of patients will develop normal cholesterol and triglycerides a few months after surgery.
- **Heart Disease:** the improvements in the major risk factors for heart disease (high blood pressure, diabetes, cholesterol) improve the risk of heart disease after surgery. Weight loss can improve cardiac function as the heart does not have to work as hard.
- **Respiratory Disorders:** improvements of exercise tolerance and breathing ability usually occur within the first few months after surgery. More than 85% of patients with sleep apnea requiring a CPAP are able to be symptom-free without their machines at one year after surgery. Asthmatics find they have fewer or less severe attacks.
- **Heartburn:** relief of heartburn occurs soon after surgery in about 90% of gastric bypass patients.
- **Joint pain:** patients often notice dramatic improvement in mobility within a few months after surgery. Some patients who were not candidates for joint replacement before surgery often become candidates due to weight loss.
- **Survival Benefits:** Patients who undergo surgery decrease their risk of dying from heart disease, diabetes, and cancer.

Improvement in Quality of Life

- **Patients find that after surgery, meeting the challenges (social, emotional, and psychological) that they faced before surgery becomes much easier, including:**
  - Improvement in self esteem
  - Feeling more confident in public situations
  - New hobbies, a new lease on life
  - Ability to wear clothes you want to wear
  - Improved energy levels
  - Ability to exercise and participate in sports
  - Spend more leisure time with family and friends, go on amusement park rides, enjoy everyday activities
  - The biggest regret a patient has is that they did not do it sooner!

Survival Benefits

- **Patients who undergo surgery decrease their risk of dying from heart disease, diabetes, and cancer.**
Risks and Complications

Death: At experienced surgery centers, the risk of death is less than 0.2%. Death can be related to health problems, such as heart or lung disease. Patients with a very high BMI, males, and patients with severe medical conditions are at highest risk, but death can occur in any patient.

Pulmonary Embolism: This condition occurs when a blood clot in the leg breaks off and travels to the lung. Sometimes this causes sudden death, but most times, patients develop sudden shortness of breath and chest pain. This occurs in less than 1% of patients. To help prevent this, blood thinners are started after surgery, and patients are given compression stockings. Patients are encouraged to get out of bed and walk as soon as possible after surgery. Before surgery, patients are encouraged to stop smoking and to decrease the risk. Patients who are at a higher risk may need a preoperative evaluation by a hematologist.

Leak: Leaks can occur where the bowel and stomach are connected or stapled. If a complete seal does not form, bowel contents can leak into the abdomen and cause a serious infection. This occurs in about 1% of patients. Symptoms include an increased heart rate, abdominal pain, fever, shortness of breath, or “just feeling sick.” Patients may need to be in the ICU, require additional surgery, or need nutrition through a vein or tube while the leak heals.

Bowel Obstruction: Blockages can be caused by scar tissue or by kinking of the bowel in gastric bypass patients. This can occur in up to 2% of patients. They can occur shortly after surgery, but also months or years afterwards. Symptoms may be abdominal pain, nausea, or vomiting. Surgery may be necessary.

Stricture: Excessive scarring can form where the stomach pouch is connected to the bowel or the sleeve can occur in about 2% of patients. Symptoms usually occur within the first 2 months after surgery and include vomiting and progressing intolerance to solids and eventually liquids. Strictures can be connected or stapled. If a complete seal does not form, patients may require a feeding tube or IV nutrition to support their nutrition. Very rarely patients may require reversal of the surgery.

Body Image/Emotional Loss/Depression: Patients may experience psychological turmoil the first year after surgery. Rapid weight loss may cause body image distortion. They may have a hard time adjusting to the new body image and develop anxiety or depression. Body image distortion may become a serious stress factor in someone’s life causing anxiety and depression. About 1% of patients may find they are depressed after surgery, even if they have good weight loss and have not suffered complications. Dramatic changes can occur, including changes in personal relationships, divorce, new partners, and starting families. Our Institute offers post-operative psychological support meetings.

Low Blood Sugars (Hypoglycemia): Symptoms can include shakiness, nervousness, tremors, palpitations, increased heart rate, sweating, clamminess, nausea, vomiting, abdominal discomfort, confusion, fainting, and seizures. This can occur if the patient has not eaten for a few hours.

Kidney Stones: They may develop after gastric bypass due to decreased calcium intake by mouth. Oxalate may build up in the body and precipitate as calcium oxalate in the urine, causing kidney stones.

Gallstones: Approximately 1 out of 3 patients who undergo rapid extreme weight loss will develop gallstones. Patients are given a medication to help decrease the risk of gallstone formation.

Infections: Patients have a very low risk of developing infections. The different types of infection that can occur are pneumonia, abscess, urinary tract infections, wound infections, and C difficile. Most infections can be treated with antibiotics.

Failure of Optimal Weight Loss & Weight Gain: Some patients may have unrealistic expectations and goals for themselves in terms of the degree of weight loss expected. Preoperative counseling is essential regarding realistic goals. About 1 in 10 patients may fail to lose adequate weight. Most of these failures are due to patient noncompliance with their diet or lack of exercise. Patients must be motivated and committed to their new lifestyle changes. Surgery is only a tool to help lose weight; it is not an “easy fix.” It is important to follow up with our program even years after surgery.

Too Much Weight Loss: Excessive weight loss occurs very rarely. In the majority of patients, body metabolism reaches equilibrium at the end of the first year, and the weight loss stops before reaching a very low BMI. Few patients may develop excessive weight loss due to poor food intake by mouth due to depression, food fear, anorexia, chronic abdominal pain, chronic nausea, or an untreated chronic condition. Some patients may require a feeding tube or IV nutrition to support their nutrition. Very rarely patients may require reversal of the surgery.

Kidney stones: They may develop after gastric bypass due to decreased calcium intake by mouth. Oxalate may build up in the body and precipitate as calcium oxalate in the urine, causing kidney stones.

Heartburn and Reflux: Heartburn and reflux can occur anywhere in the stomach or upper small intestine. Symptoms can include pain, nausea, or vomiting. Acid reflux can cause inflammation of the esophagus. This condition is called Barrett’s esophagus.

• Risks and Complications

Ulcer:

• Risks and Complications

Bleeding:

• Risks and Complications

Kidney stones:

• Risks and Complications

Dehydration:

• Risks and Complications

Lactose Intolerance:

• Risks and Complications

Constipation:

• Risks and Complications

Transient Hair Thinning:

• Risks and Complications

Excess Skin:

• Risks and Complications

Infections:

• Risks and Complications

Diabetes:

• Risks and Complications

Kidney stones:

• Risks and Complications

Bone Loss:

• Risks and Complications

Acid reflux:

• Risks and Complications

Excess skin:

• Risks and Complications

Hypoglycemia:

• Risks and Complications

Gallstones:

• Risks and Complications

Side-Effects & Issues after Weight Loss Surgery

Potential Problems

Causes

Nausea and Vomiting

Nausea and vomiting may occur commonly within the first 2–3 months after surgery and is usually due to:

- Eating too quickly, too large of bites, consuming too large of a volume at a time, eating foods that are too dry or tough

- If occurring after trying a new food, wait a day or two before trying it again. It may be necessary to return to liquid or pureed foods temporarily. Avoid cold beverages and those with caffeine or carbonation.

- Avoid all high-sweetened foods and beverages, and high fat and greasy foods. If dumping occurs, lying down for 30–60 minutes may help slow the transit to the small bowel.

- This occurs most commonly with the gastric bypass, but may also occur with the sleeve gastrectomy. Occurs in response to the presence of digested food and simple carbohydrates. Symptoms include abdominal fullness, nausea, weakness, rapid pulse, cold sweat, or diarrhea.

- Stop eating if pain occurs during eating and try to eat later after pain has resolved.

- Contact your doctor if symptoms persist or worsen as they may be related to other conditions.

- Dehydration can occur with inadequate fluid intake, persistent nausea, vomiting, or diarrhea.

- It is important to drink at least 64 ounces of fluid a day, especially during the first few months of rapid weight loss.

- Use lactase-treated milk and lactase enzyme tablets. Try Lactaid 100% or Dairy Ease 100%.

- Occurs commonly especially if taking an iron supplement.

- Drink plenty of water daily. Eating fruits and vegetables reduces the risk of recurrent constipation. Daily use of Miralax may be required.

- About half of female patients notice hair thinning after surgery. This most commonly occurs during the rapid weight loss period, between months 2–10.

- Taking daily multivitamins, maintaining adequate protein intake, and additional zinc and biotin supplements may help prevent this. The important thing to remember is that this is temporary and hair usually returns to normal.

- Occurs in response to the presence of digested food and simple carbohydrates. Symptoms include abdominal fullness, nausea, weakness, rapid pulse, cold sweat, or diarrhea.

- Stop eating if pain occurs during eating and try to eat later after pain has resolved.

- Contact your doctor if symptoms persist or worsen as they may be related to other conditions.

- It is important to drink at least 64 ounces of fluid a day, especially during the first few months of rapid weight loss.

- Use lactase-treated milk and lactase enzyme tablets. Try Lactaid 100% or Dairy Ease 100%.

- Occurs commonly especially if taking an iron supplement.

- Drink plenty of water daily. Eating fruits and vegetables reduces the risk of recurrent constipation. Daily use of Miralax may be required.
Insurance Issues

1. Health Insurance:
   - Please review your company coverage and requirements. Not all insurance packages include bariatric surgery as a covered benefit and each plan has different requirements and extent of benefits. Please check with your specific insurance company to verify bariatric coverage. Requirements change often, and clients are not always notified of these changes until we submit for authorization.
   - Please notify our office if you have any changes to your insurance during the process.

2. Monthly Visits:
   - Most insurance companies require a low-calorie (approximately 800-1,200 calories/day) supervised diet and exercise program to be documented monthly by your primary care physician (PCP). These visits can be done at our Institute or with your primary care physician. Your office visits should be 1 visit per calendar month and there should be no less than 3 weeks between the office visits. The number of required office visits varies by insurance company.
   - Some insurance programs require a letter from your PCP stating that he/she has personally supervised a low-calorie diet. It should include specific dates and what success, if any, you have had. This letter should be written and typed on the office's official letterhead.
   - For your PCP's convenience, we provide template letters and office notes.
   - In order to obtain insurance authorization, we need all of the notes, clearances, and testing results.

3. Psychological consult
   - All patients are required to be evaluated by a psychologist. This can be done at our Institute.
   - This evaluation will cover the realizations and expectations of the surgery that have been discussed to determine if you are capable and competent to comply with the post-operative regimen and life changes.

4. Screening blood tests
   - Blood tests are required by some insurance companies to evaluate for:
     • Helicobacter pylori (H. Pylori) – bacteria that cause stomach ulcers
     • Thyroid stimulating hormone (TSH) – to evaluate for hypothyroidism

Pre-Operative Visits

Most insurance companies require physician supervised notes. We like to use this time period and “window of opportunity” to help patients get as healthy as possible prior to surgery. It is important to keep these appointments; skipping these appointments is a sign you are not committed to the surgery and the lifestyle changes that are necessary.

Food diaries
At the first office visit and subsequent visits, patients are given food diaries to complete. Honest and complete food diaries are necessary before surgery to help patients identify their eating habits and help the dietitian ensure understanding of the nutrition guidelines.

Weight loss
For many patients, the best way to improve their health before surgery is to achieve some weight loss. This is especially true in patients with central (abdominal) obesity, sleep apnea, heart disease, and other life-threatening health problems. Between the initial visit and pre-operative visits, it is necessary for patients to not gain any weight. Some patients may have pre-operative weight loss; this improves a patient’s health and breathing, decreases the risk of surgery and anesthesia and makes the surgery easier to perform by decreasing the amount of fat within the abdomen and liver.

Smoking Cessation
It is very important that you quit smoking before surgery — the sooner, the better. This improves health and helps decrease life-threatening complications. Smoking can increase risk of dying, blood clots, pneumonia, and being on a ventilator (breathing machine), poor wound healing, ulcers and leaks.

Sleep study evaluation
Included in the initial patient information packet is a test (Epworth sleep scale) for patients to help screen for sleep apnea, which is a life-threatening condition that is often undiagnosed (see Health Risks of Obesity). It is important to treat this prior to surgery. If the sleep study demonstrates that you have sleep apnea, you will most likely need treatment, including nasal continuous positive airway pressure (CPAP) at night when sleeping.

Primary Care Physician (PCP) visits and screening studies
We recommend that patients schedule an appointment with their PCP to undergo a full history and physical. We also recommend that patients undergo appropriate screening exams as recommended by their PCP, which may include a colonoscopy, mammogram, and/or PAP smear.

Clearances/Consultations
Depending on your medical history, certain clearances and consultations may be required. These will all be discussed at your initial evaluation and may include cardiology, pulmonology, hematology, and endocrinology. All patients will need blood work and an EKG prior to surgery. Additional testing, such as an echocardiogram, chest x-ray, stress test, pulmonary function tests, upper GI x-ray series, gastric emptying study, and an upper endoscopy may be required depending on your medical history and insurance requirements.
Day of Surgery & Expected Hospital Stay

Prior to surgery, you will receive a phone call regarding your expected arrival time and hospital location. You will arrive and report to ambulatory surgery on the 4th floor of the Mellon Pavilion at West Penn Hospital. After check-in, you will change into a hospital gown and slippers. You will be asked to remove your dentures, hearing aids, and corrective lenses. Females of childbearing age will take a urine pregnancy test.

You will have an intravenous line (IV) placed in your arm while you are in the preoperative area. Your surgeon and anesthesia team will meet with you and your family to answer any last-minute questions.

You will be wheeled back to the operating room and be connected to a variety of monitors. Our anesthesiologist will give you medications through your IV to help you relax and put you to sleep. Once you are asleep, an endotracheal tube will be placed through your mouth into your windpipe to help you breathe. This will still be in place when you wake up. The endotracheal tube will be removed when you are discharged from the hospital to maintain your hydration.

You will begin a liquid diet the day after surgery, and you should sip fluids very slowly throughout the day in order to maintain good hydration. This diet consists of G2, water, diet iced tea, broth, Jell-O, and sugar-free popsicles. Remember to follow the specific instructions given to you by your nurse. Your IV will be in place until you are discharged from the hospital to maintain your hydration.

Your discharge from the hospital will be determined by your surgical team. Prior to discharge, you will be given specific post-operative instructions and prescriptions, unless you have received them at your pre-operative appointment. You will also receive a list of medications that you were given before surgery. Your IV will be placed through your mouth into your windpipe to help you breathe. This diet consists of G2, water, diet iced tea, broth, Jell-O, and sugar-free popsicles. Remember to follow the specific instructions given to you by your nurse. Your IV will be in place until you are discharged from the hospital to maintain your hydration.

It is important to note that some pain is completely normal after surgery. Once you are able to tolerate liquids, you will be transitioned to oral pain medication. The nursing staff will monitor your post-operative pain and provide ordered medications. Inform your nurse and physician if you are having uncontrolled pain. Gas pain or discomfort is common the first few days after surgery.

While in the hospital, you will be encouraged to walk several minutes per day and do breathing exercises to help speed up initial recovery is completed and your vital signs are stable, you may start immediately. Do not sit for longer than 1 hour at a time. Get up and walk. You may drive again when you are no longer taking narcotic pain medication.

Call the office
If you have any questions or concerns, including abdominal pain, fever, bleeding, shortness of breath, or frequent vomiting, call the office. Make a follow-up appointment for about 1-2 weeks from the day of surgery, if this has not already been done. At this appointment, we will evaluate your progress, check your incisions, and review any questions you may have. We will schedule further follow-up appointments at this time.

Support Group
Long-term success after weight loss surgery depends on a life-long commitment to behavioral changes and follow-up visits with your bariatric team. Research shows that those who combine healthy eating with regular exercise and lifestyle changes after their surgery decrease the health risks associated with obesity. To assist you in that life-long journey, join our Facebook community (facebook.com/BMastAHN) for updated information, healthy recipes, and online support. Or attend one of our support classes in person. For more information on dates and times, visit our Classes and Events section at ahn.org/weightloss.

Section Four: A new beginning

Informational Booklet about Weight Loss Surgery

Caring for Yourself after Surgery

Patients with high blood pressure should check and record their blood pressure daily. If your blood pressure is running low or high, please call us or your primary care physician, as your medication may need to be adjusted.

Pills & medications
Your medications will be reviewed with you prior to your discharge from the hospital. You will be able to swallow pills, but make sure to wait 10-15 minutes between each pill. Start taking the antacids (Prilosec or Nexium). You will need to take them for a few months to protect your stomach from ulcers or irritation.

Vitamins
You will begin taking chewable multivitamins upon discharge. Additional vitamins will be added as you progress your diet and must be taken consistently for life. See your nutritional guidelines booklet for more information.

Activity
Resume your usual activities, including walking, lifting, and bending, as tolerated. Exercise is encouraged; you may start immediately. Do not sit for longer than 1 hour at a time. Get up and walk. You may drive again when you are no longer taking narcotic pain medication.

Diet
Please see your nutritional guidelines booklet for more details regarding your post-operative diet. Drink lots of water and liquids—at least 2 liters each day. Don’t gulp; take frequent (every few minutes) small sips throughout the day. Remember, liquids only. This includes broth, diet drinks, sugar-free popsicles, sugar-free Jell-O, skim or 1% milk and protein drinks. Your dietician will give you specific directions on choices. You may have decaffeinated drinks sparingly (limit 2 per day). Carbonated beverages should be avoided.

Care of your incisions
If you have bandages over your incisions, these may be removed when you arrive home. You may take a shower, washing the incisions with warm water and soap and pat dry. If you have steri-strips, they can be removed after 5–6 days.

Medical problems
Patients with diabetes should check and record their blood sugar multiple times each day. If your blood sugars are running too low (below 70) or too high (consistently over 200), please call us or your diabetes doctor, as your medication may need to be adjusted.
Post-Operative Diet

Upon your return home, you will be put on the Phase I Diet. Below is just a summary of your diet after surgery. A detailed booklet with specific instructions will be provided to you at your visit with our dietitian. Briefly, your post-operative diet will be progressed by your surgeon and dietitian and will gradually transition to whole foods. It is important that you follow the progression and adhere to the specific instructions in order to maximize healing and minimize the risk of complications.

Your post-operative diet is divided into three phases: Liquids (Phase I), Softs (Phase II), and “Regular” Bariatric (Phase III).

Diet Phases

Phase I Diet:
Phase I consists of a full liquid diet. The most important aspects of the first months after surgery is proper hydration and protein. Aim for 64 ounces (8 cups) of water and other fluids daily by constantly sipping liquids. Do not gulp! Do not consume carbonated or high-calorie sugary beverages. Get in the habit of carrying a beverage with you. You should never go a few hours without drinking anything. Constantly sip to avoid becoming dehydrated. Avoid fluids high in caffeine as they can increase your risk for dehydration. Milk and liquid protein supplements will be included to ensure proper healing. Your long-term protein goal is 60–80 grams per day; however, during Phase I, a more realistic and obtainable goal is 30–40 grams per day. Please refer to your nutrition guidelines booklet for a more comprehensive list.

You will be on this phase for about the first 7–10 days after surgery, depending on your type of surgery and surgeon’s instructions.

Phase II Diet:
Phase II diet includes, soft, easily digestible foods. Expect to be on this phase for about four weeks. These foods may be slowly introduced into your diet. You must chew your food well. Choose soft meats/fish, soups, cooked vegetables, and canned fruit (in juice or water). Remember to choose low-fat or fat-free dairy products, vegetables, and fruit. Begin by eating 3 small meals per day. Do not snack throughout the day. Eat the protein portion of your meals first and get in the habit of eating at least 2 ounces of protein-rich food at each meal (refer to the nutrition guidelines booklet for protein-rich foods). Eat slowly, take small bites and put down your spoon or fork while chewing. It is important to stop eating as soon as you feel full — this may occur after only 3 bites of food! If you experience difficulty with thicker foods, return to liquids for 1–2 days and try again.

Everyone’s tolerance is unique, and you may have more difficulties with some foods than others. Moist, well-cooked foods are initially tolerated better. Please see the nutrition guidelines booklet for specific meal plans and suggested foods. If at any time you experience difficulty, call our office!

Phase III Diet:
Phase III diet is a “regular” bariatric diet. You will be able to eat foods of regular consistency. However, this does not mean you should go back to your old eating habits. Continue to eat nutrient-rich foods such as lean meats, poultry, pork, low-fat dairy products, vegetables, and fruit.

Post-Operative Diet

At your first office visit, you will be given the booklet Nutrition Guidelines for Weight Loss Surgery that will provide greater detail on each phase of your post-operative options. You may also download the book from our website (ahn.org/weightloss).
Bariatric and Metabolic Institute

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Visit our website
ahn.org/weightloss

Find us on
facebook.com/BMI/atAHN

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ATTENTION: If you speak English, language assistance services, free of charge, are available to you. (412) 330-2400

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al (412) 330-2400

注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 (412) 330-2400

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