

The Last Resort

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My son is probably one of the very few people who actually lost weight this past holiday season. In fact, he lost approximately eight pounds in a mere six days. Soaking wet, my twelve year old weighs 110 pounds at 5 feet 4 inches. At least that is what he used to weigh. While many people would love to know the secret to his success, the reality is it was not a good thing or even healthy. You see, he had a tonsillectomy. This surgery left him in pain and the prescribed codeine gave him a horrible stomachache. He likened the act of swallowing to the equivalent of swallowing shaved razor blades (his own words). Although I, as a nutrition specialist, am not ashamed to say, I bribed him with milkshakes and high-calorie smoothies. He refused the bait. It wasn't until I threatened him (with the help of his physician) with an IV and a feeding tube, that he began to eat again. However, time also proved to be helpful as his throat began to heal. Today, I am happy to report that he is slowly regaining the weight. This experience made me realize, how easy weight loss is if you just stop eating. If pain were associated with eating, that would immediately limit the intake of food and therefore, calories. One would think this is an unpleasant and undesirable method, yet, every year, thousands of people choose this extreme option of weight loss.

Many of us know that being obese puts you at risk for cardiovascular disease, diabetes, high blood pressure, joint pain, and even certain cancers. It can be said, obesity is not healthy and increases your risk for early death. However, to what extent should the obese individual go to achieve weight loss (and better health)? For more and more people, who cannot achieve long-term weight loss, the ultimate solution is bariatric surgery.

To be eligible for bariatric surgery, most physicians require that you have a body mass index of 40 or more. A body mass index is a simple formula to assess how proportional your weight is for your height. It is calculated by taking your weight in kilogram (= weight in pounds x 2.2) and divided by your height in meters squared. There are many BMI calculators available on the Internet or you can use the following table below:

BMI (kg/m²)	19	20	21	22	23	24	25	26	27	28	29	30	35	40
Height (in.)	Weight (lb.)													
58	91	96	100	105	110	115	119	124	129	134	138	143	167	191
59	94	99	104	109	114	119	124	128	133	138	143	148	173	198
60	97	102	107	112	118	123	128	133	138	143	148	153	179	204
61	100	106	111	116	122	127	132	137	143	148	153	158	185	211
62	104	109	115	120	126	131	136	142	147	153	158	164	191	218
63	107	113	118	124	130	135	141	146	152	158	163	169	197	225
64	110	116	122	128	134	140	145	151	157	163	169	174	204	232
65	114	120	126	132	138	144	150	156	162	168	174	180	210	240
66	118	124	130	136	142	148	155	161	167	173	179	186	216	247
67	121	127	134	140	146	153	159	166	172	178	185	191	223	255
68	125	131	138	144	151	158	164	171	177	184	190	197	230	262
69	128	135	142	149	155	162	169	176	182	189	196	203	236	270
70	132	139	146	153	160	167	174	181	188	195	202	207	243	278
71	136	143	150	157	165	172	179	186	193	200	208	215	250	286
72	140	147	154	162	169	177	184	191	199	206	213	221	258	294
73	144	151	159	166	174	182	189	197	204	212	219	227	265	302
74	148	155	163	171	179	186	194	202	210	218	225	233	272	311
75	152	160	168	176	184	192	200	208	216	224	232	240	279	319
76	156	164	172	180	189	197	205	213	221	230	238	246	287	328

Body weight in pounds according to height and body mass index.

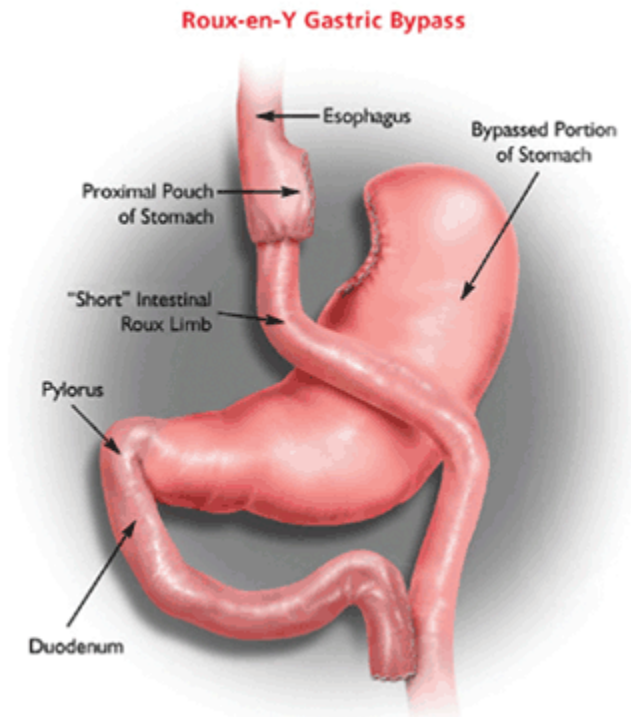
<http://www.consumer.gov/weightloss/bmi.htm>

Based on this table, a person who is 5 foot 7 inches (or 67 inches tall) and weighs 159 pounds, whether male or female has a BMI of 25. Other candidates considered for surgery include individuals whose weight is severely affecting their health (e.g., those with uncontrolled diabetes). Because of the seriousness of this surgery, many doctors will only perform it if the individual has not been successful in losing weight through a non-surgical route. People with a current history of alcohol abuse, depression or other major psychiatric disorders, or those under the age of 18 or over the age of 65 are not considered good candidates for the surgery.

The surgery promotes drastic weight loss in two ways, first, it reduces the stomach size and second, this minimizes the digestion and absorption of the nutrients (and calories). A normal sized stomach can hold about 4-6 cups of food. Gastric bypass reduces the size of the stomach to less than two ounces or the capacity of a shot glass. With such a drastic reduction, the patient will feel fuller faster, often after only two or three bites of food. As a result, the procedure will reduce the total amount of

food consumed. In addition, this surgery bypasses an important part of the small intestine where absorption of the foods (its nutrients and its calories) takes place.

A common type of gastric bypass is the Roux-en-Y gastric bypass (see diagram below).



http://www.gastric-bypass-surgery.info/gastric_bypass_surgery.aspx

Notice the reduced size of the stomach from the surgery. The surgery bypasses the majority of the stomach and the first part of the small intestine (called the duodenum). And, although the remaining stomach and duodenum still receive blood supply; they are no longer functional.

The original length of the digestive tract is such to maximize digestion and the absorption of nutrients. These nutrients support health and growth. However, shortening the digestive tract and inhibiting the body's ability to digest and absorb all the nutrients can lead to severe nutritional deficiency. Anemia (the lack of and/or the inability to absorb iron and vitamin B12) is the most common consequence and occurs in approximately one-third of all individuals who have gone through the surgery. Osteoporosis is another condition found more commonly in individuals that have had the surgery. The increased incidence of gallstones can also be an issue. The gallbladder stores bile that is released into the duodenum to assist in the digestion of fat. With bariatric surgery, the gallbladder no longer contracts and releases bile. Therefore, the bile remains in the gallbladder and painful stones can form. To prevent this, the gall bladder is quite often removed during bariatric surgery. If it is not, medication is usually prescribed to prevent the formation of gallstones.

As with any surgery, there is always a risk of death. The number of deaths related to bariatric surgery is 1.5%. Other risks associated with this type of surgery

include infections. Leakage can also occur at the site of the incisions/staples. This situation can be fatal if immediate medical attention is not sought, but occurs in only 1-2% of patients. Blood clots are another side effect but their severity is dependent on where in the body they occur. Blood clots near the heart or lungs are of the most concern.

There are many different types of bariatric surgery. As mentioned above, the Roux-en-Y bypass is most common and is typically performed laparoscopically. Laparoscopic surgery is less invasive and usually only requires a few days in the hospital. However, recovery from any type of bariatric surgery can take 3-5 weeks. Tubes will be inserted in the gastrointestinal tract for drainage. These tubes are typically removed a week or so after surgery. Many patients complain of pain from the surgery and this also hinders intake. One other rather unpleasant side-effect is called dumping syndrome. Since the gastrointestinal tract is shortened, the food that is consumed moves through the intestines quickly. In fact, it moves so quickly the body is unable to digest and absorb the nutrients. The food then leaves the body (ah-hum...thus, its name, dumping syndrome). It can bring on bouts of nausea, sweating, and diarrhea. Certain foods, particularly sweets, can trigger a dumping syndrome episode so patients are advised to limit their intake of sweets. Since the size of the stomach and length of the intestine are decreased, many experience nausea and vomiting after eating especially if they eat more than advised.

However drastic, bariatric surgery is only the beginning of a complete lifestyle change. The person must commit to a life of follow-up and regular monitoring with his/her physician. In addition, they must also change their eating habits. Individuals who undergo the surgery will be placed on a special postoperative feeding regimen. For six weeks after the surgery, they will consume **small** frequent feedings composed of a pureed or liquid diet. The foods must be high in nutrient density to maximize the amount of nutrients provided to the body. In addition, vitamin and mineral supplements are required. The amount of food allowed at each feeding is variable. However, 2-3 tablespoons is the average. Meats and dairy may be a problem for many individuals to digest for the rest of their lives. The meat needs to be chopped up or chewed up so that the pieces do not block the reduced opening of the stomach. In addition, the protein in meats is difficult for the redirected digestive tract to process. The lactose (milk sugar) in dairy products may be difficult to digest since the bypass also bypasses the site where lactose is normally digested. Therefore, cramping, bloating, gas can occur.

With the reduced stomach size, the effects of overeating can be unpleasant. Overfilling the stomach with food can pull the staples loose. As mentioned earlier, it can also cause nausea and vomiting. The resized stomach can also eventually stretch and enlarge. Since it's a muscle, it can stretch with time and (over)use. This means that in some cases, the stomach can ultimately enlarge to hold more food than the body can absorb more nutrients and calories. Yes, that is right; the individual who had bariatric surgery to reduce the stomach size can actually expand their stomach to eat regular food with the family again. Not surprisingly, they can regain the weight more quickly because of the increased caloric intake and also as a consequence of the reduced metabolism (that resulted from eating so little the past few months). This also means that this last resort may not be the last resort. Weight gain can occur—even after this surgery.

In most cases, bariatric surgery can promote weight loss. Typically, individuals can lose up to half of their body weight after this surgery and lose it in a short amount of time. This quick weight loss can cause skin sagging. Even individuals who exercise cannot prevent the sagging of the skin. Those who can afford to may opt for plastic surgery to remove the excess loose skin while others who cannot pay would have to live with the excess skin.

It's not surprising that the most common New Year's resolution is to lose weight. And, weight loss can occur without surgery. However, you have to be committed to making the change in your eating habits and increase your level of physical activity for the rest of your life in order to be successful. Bariatric surgery is an option only for those who are morbidly obese. However, for this surgery to be successful, it too, requires a lifetime commitment.

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