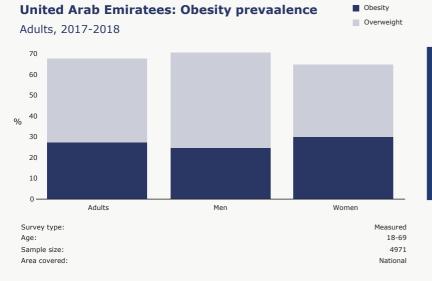
# **Bariatric Surgery**



**Weight loss surgery** is also known as bariatric and metabolic surgery. It is used to describe the effect of operations on patients' weight and metabolic health (relating to the breakdown of food into energy). In addition to their efficacy in treating obesity, these operations are highly effective in treating diabetes, high blood pressure, sleep apnea, high cholesterol, and many other conditions. Additionally, these operations can prevent future health problems. The benefits allow patients with obesity who choose to undergo treatment to enjoy a better quality of life and a longer lifespan.

Some procedures limit intakes of food. Other procedures work by reducing the body's ability to absorb nutrients. Some procedures do both.



The United Arab Emirates (UAE) is one of the six Middle Eastern countries with the highest rates of overweight and obesity. The prevalence of obesity along with overweight is **27%** and **16%** respectively in the UAE.

### The trend of Bariatric Surgery:

Bariatric surgeries are the most effective long-term therapy for extreme obesity. **Obesity** is defined as a BMI of 30 or higher. Few doctors and patients discuss these treatments, because of the fear that the short- and long-term hazards of surgery exceed the benefits. Almost three decades have passed since the National Institutes of Health (NIH) consensus meeting determined that bariatric surgery is the sole long-term therapy for morbid obesity. Since then, bariatric surgery has grown at an exponential rate, displaying superior long-term results when compared to other procedures, earning widespread recognition, and establishing itself as a specialty.



# **Indications for Bariatric Surgery**

Body mass index (BMI) and the existence of comorbidities are used to determine who should undergo bariatric surgery:

- Patients with a BMI of 40 kg/m2 or more, no concurrent medical conditions BMI > 40
- BMI ≥ 35 and at least one or more obesity-related co-morbidities such as type II diabetes (T2DM), hypertension, sleep apnea and other respiratory disorders, non-alcoholic fatty liver disease, osteoarthritis, lipid abnormalities, gastrointestinal disorders, or heart disease.



• Patient with a BMI of 30 – 34.9 with recent-onset type 2 diabetes (Uncontrolled)

# BMI

# **Types of Bariatric Surgery**

### **Gastric sleeve**

The surgical procedure permanently reduces the size of the stomach by approximately 80%. It promotes weight loss by limiting food intake and decreasing the sensation of hunger; it doesn't involve intestinal rerouting or food malabsorption.

### **Pros:**

- Rapid weight loss first year after surgery on average 60-70% of people can lose their excess weight
- The hormones responsible for stimulating hunger are removed
- Maintenance of >50% weight loss for 3-5 years

### Cons:

- Non-reversible procedure
- Gastric bleeding
- Has the potential for long-term vitamin deficiencies
- Has a higher early complication rate than others



### 2 Intragastric Balloon

Intragastric balloon placement is a weight-loss procedure that involves placing a saline-filled silicone balloon in the stomach. This helps in losing weight by limiting how much you can eat and accelerating satiety.

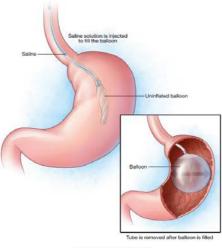
#### **Pros:**

- Avoidance of invasive surgery and the risks associated with surgery
- Takes 15 minutes under a mild sedation
- It is only temporary

#### Cons:

• Most people don't experience any complications at all, but there are some risks involved. When a balloon is inserted or removed, bleeding or perforation can occur.

• During the first few days, nausea, vomiting and heaviness of the abdomen are common symptoms. In addition, back pain, gastro-esophageal reflux, and indigestion.



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# 3 Gastric Bypass

A surgical procedure in which the stomach is divided into a small upper pouch and a much larger lower "remnant" pouch and the small intestine is rearranged to connect to both.

The rerouting of the food stream produces changes in gut hormones that promote satiety, suppress hunger, and reverse one of the primary mechanisms by which obesity induces type 2 diabetes.

#### **Pros:**

- Long-term weight loss (60 to 80 % weight loss).
- Restricts the amount of food that can be consumed.
- Produces favorable changes in gut hormones that reduce appetite and enhance satiety.

**Cons:** 

 Can lead to long-term vitamin/mineral deficiencies, such as vitamin B12, iron, calcium, and folate deficiency.



- Dumping syndrome, stomal stenosis, pouch stretching (back to the normal size).
- Requires adherence to dietary recommendations, life-long vitamin/mineral supplementation, and follow-up compliance.



Gastric Pypass

# Adjustable Gastric Band

A surgeon places an inflatable band around the top part of the stomach, creating a small pouch with an adjustable opening.

### **Pros:**

- Can be adjusted and reversed.
- Short hospital stays and low risk of initial surgery-related problems.
- No changes to intestines.
- Lowest risk of vitamin shortage.

### Cons:

- Less weight loss than other types of weight-loss surgery.
- Frequent follow-up visits to adjust band; some people may not adapt to band.
- Possible future surgery to remove or replace all or part of the band system.



Adjustable Gastric Band

Each of the procedures discussed above is endorsed by the American Society for Metabolic and Bariatric Surgery and is an option to achieve healthy, long-term weight loss and improve medical conditions caused by obesity.

Although all operations have risks, Bariatric procedures performed at accredited hospitals are safe and have few complications. To achieve successful Bariatric surgery, the surgeon, dietitian, psychologist, nurse, and obesity medicine specialist need to work togather to achive the best results.

Healthy eating, regular exercise, and taking vitamins and minerals as recommended by the obesity medicine provider will help patients to lose weight. Patients are required to undergo periodic blood tests and have yearly checkups at their comprehensive Metabolic and Bariatric Surgery care centres.

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