

FAT TO FIT

New technology is making it easier than before to lose body fat.
Find out how these advancements work...



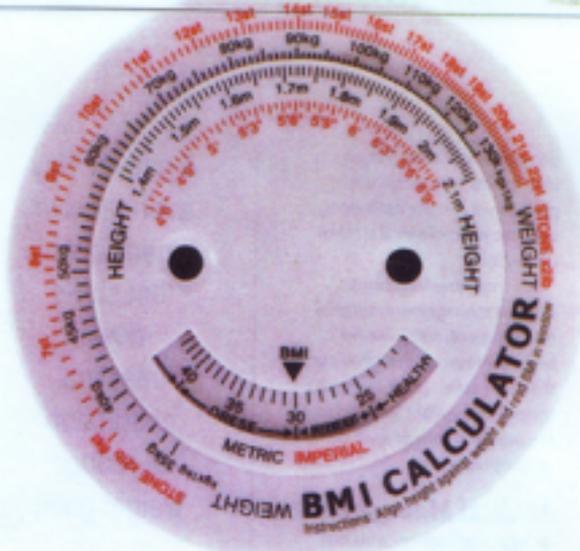
Once considered as a marker of well-being, being overweight is now a red carpet to a constellation of diseases. In the current era, when the world is tackling the epidemic of diabetes, obesity is indeed posing a parallel threat.

Let's get to the bottom of the problem right away to truly understand it.

First, calculate your BMI

The BMI calculator can be used for determining obesity. Here, a person's weight in kilograms is divided by the square of his or her height in meters. A result of over 24 is cause for serious concern. Obesity is a disease and thus medical management of obesity is of great importance and must be used as a remedy along with commonly suggested diet plans and lifestyle changes. When a person's BMI exceeds 32, he or she is diagnosed as morbidly obese. In such a situation, bariatric surgery is often recommended.

Various diseases like heart disease and diabetes are linked with obesity. With every kilogram lost, an obese person gains an advantage in the fight over diabetes and blood pressure problems amongst other chronic conditions. In order to truly and effectively control obesity, one needs to sustain the weight loss achieved by an individual. This management is as vital as any treatment method itself.



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Advances in Treatment Modalities for Weight Loss and Obesity

When we talk about clinical advancements in the treatment of obesity, it is important to tackle the problem thoroughly. The first step in obesity management is to identify the causes using patient history, clinical examination, laboratory tests and imaging. One should also identify the complications associated with obesity through the same method.

Once we know the cause, it becomes easier to tackle the condition. The obvious first step includes dietary modification, exercise promotion and lifestyle changes. After these, come medical and surgical management. The last two options are aimed at moderate to serious cases of obesity where the disease has overtaken the life of the individual. As doctors, we focus

on weight loss as well as on inch loss to help tackle the problem of obesity itself along with the psychological state of the patient.

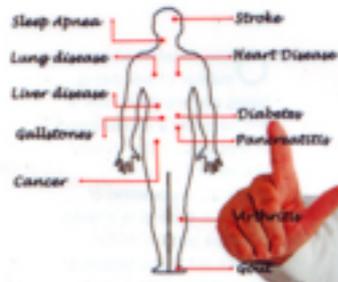
We shall now talk about medical management, surgical management, non-invasive body contouring, the advances that have taken place in obesity control and weight loss and also the pros and cons of each of most options.

Medical Management

- Appetite suppressants are now increasingly available in the market.
- One can also use medications to boost the resting metabolic rate of the patient.
- Medications that improve insulin sensitivity help with blood sugar control and weight control.
- Hormone medication may also be used to iron out any imbalances that might be triggering weight gain.
- A patient may even receive medication that slows down

A patient may even receive medication that slows down intestinal absorption to reduce weight gain.

Complications of Obesity



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- Similarly, medicines that provide a feeling of fullness help reduce the intake of food in the first place.

Pros: There are several advantages to choosing medical management of obesity.

- The process is affordable and non-surgical, and hence does not require hospitalisation.
- The patient benefits from the positive lifestyle changes which also help him or her manage the complications associated with obesity.
- Less risky and can be easily repeated.

Cons: However, there are disadvantages when choosing medical bariatrics.

- This method involves absolute motivation, compliance and active participation of the patient.
- The use of medication often means that the patient has to consume pills at regular intervals which may be cumbersome.
- Dietary plans have to be followed strictly. These plans tend to be less effective over time as the body weight comes closer to normal.



- Patients have to follow a restricted diet plan which often promotes drop-outs followed by rebounds in weight gain.
- Side effects or nutritional deficiencies may occur.

Surgical Management

Through bariatric surgery, the size of the patient's stomach is reduced. The gastrointestinal tract is also reduced in length. Hormonal changes tend to reduce one's appetite and the patient will usually feel full quite quickly after the procedure is complete.

Pros: The advantages of bariatric surgery lie in the speed and extent of the weight loss experienced by the individual.

- The chances of the patient rebounding in weight are also lowered.
- Patients often do not need to actively participate in the post-care process and will also have to consume fewer medicines.
- Bariatric surgery is most effectively applied to morbidly obese individuals who often may not be able to exercise because of their sheer weight.

Patients have to follow a restricted diet



Bariatric surgery has its disadvantages as well. They include high costs and the need for hospitalisation. All surgeries carry the risks associated with anaesthesia and the procedures themselves.

Cons: As with most medical procedures, bariatric surgery has its disadvantages as well.

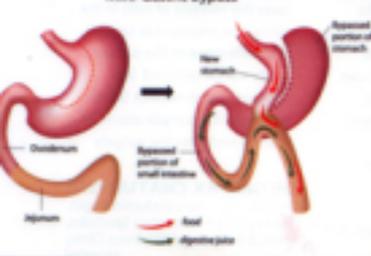
- These include high costs and the need for hospitalisation.
- All surgeries carry the risks associated with anaesthesia and the procedures themselves.
- Some patients do suffer from post-operative complications.
- Strict dietary protocols are applied to patients within the first three months of recovery.
- Finally, patients often suffer from hair loss, nutritional deficiencies and sagging skin.
- Furthermore, weight loss may occur disproportionately across the body.

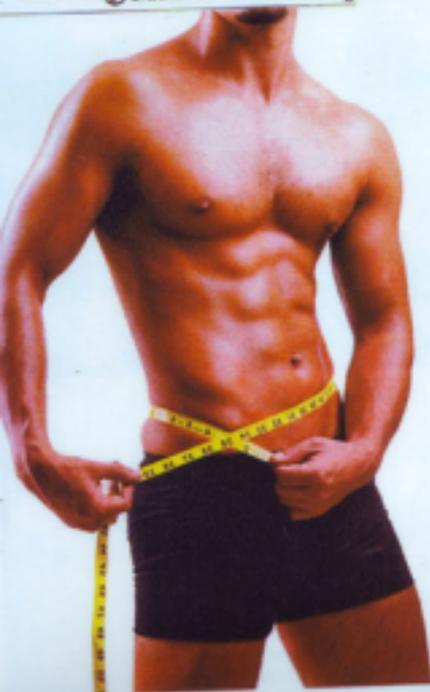
Inch Loss or Body Contouring

The science behind body contouring is related to adipocytes or fat cells, fat cell storage through triglycerides and the relation between these and the bulges across the body.

- Adipocytes are extremely important in the body's functions of energy storage, hormone regulation and other endocrinal functions.

Mini-Gastric Bypass





The first mechanism uses heat which increases the localised metabolic rate, allowing for a natural exit of triglycerides out of the fat cells. This results in the reduction of bulging or distention of the fat cells.

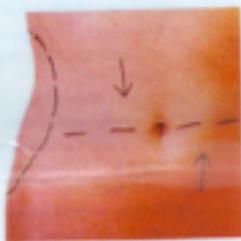
- Adipose cells store energy for intermediate or long-term periods and are thus vital.
- When a person consumes more calories than he or she uses, adipocytes get swollen with triglycerides. As these cells continue to bulge, convex distensions occur in the soft tissue of the body.
- This creates undesired contours on the body. In women, bulges or distensions occur in the hips, lower abdomen, outer thighs, inner knees, arms and bra-line. In men, common distensions occur around the breast area, the abdomen area, around the flanks and the submentum.

Methods of Body Contouring

There are several mechanisms involved in non-invasive modulation of the body. The modification of adipocytes can be done by any of these methods.

- The first mechanism uses heat which increases the localised metabolic rate, allowing for a natural exit of triglycerides out of the fat cells. This results in the reduction of bulging or distention of the fat cells.
- The second mechanism uses either high-voltage radio frequency or high-frequency ultra-sound energy to destroy fat cells through permanent membrane damage. This leads to release of all the contents of the fat cell.

- The third and most advanced method involves the use of a low-level laser therapy. In this procedure, the cell membrane gets temporarily disrupted allowing for fat cells to exit. However, the membrane is not destroyed and it repairs itself, thus restoring the cell. As mentioned above, adipocytes do help in many endocrine and physiological functions. The third option is therefore the most advanced method in dealing with weight loss and obesity. Apparently, it is the most desired method of body contouring.



Using any of these methods results in the reduction of the size of fat cells, or their quantity. When we apply this over the millions of cells in the body, the measurable fat and circumference of the patient's body will be reduced. But the possible drawback is the potential for complications during and after the surgery.

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