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**In Depth**

# Cut to Size

**Do you need Obesity Surgery? Four people share their stories on why they chose to go under the knife to get rid of the flab.**

**W**hen you think about it, all the weight loss advice in the world boils down to just four words – eat less, exercise more. Now if that dictum were as easy to follow as to utter, there wouldn't be any overweight people around, we'd all be thin as ramp models, the ever burgeoning billion rupee weight loss industry would fold up and we'd be living happily ever after. But since we exist in the real world where the perversity of human nature will not allow the tidiness of a mathematical formula to attain weight loss nirvana, we have numerous diets, pills, exercise plans, gadgets.

And yet, with all this assistance, there are more weight loss failures than there are triumphs. Even those who have succeeded will be the first to admit that it wasn't easy.

Given this bleak scenario imagine the plight of those individuals who are doing all the right things – eating moderately, exercising daily – and are still unable to make a dent in their extra large frames. That was the case with Mitesh Thakker, a software consultant who runs a firm in Mumbai. "I was only 13 when my weight topped the century mark," says Thakker. "For ten years I tried everything – exercise, crash diets. I'd drop 4 to 5 kg and within few weeks get it all back. I wasn't even looking for anything drastic – just an attempt to keep my weight below the 100-kilo mark."

After college Thakker joined a Canadian software firm which required frequent overseas travel and surviving on junk food on

an almost regular basis. By 25 he'd touched an incredible 147kg. To his credit Thakker did try to stick with an exercise regimen and surprised Talwalkar's Thane branch by dropping 12 kg in one month.

Although the loss didn't show up much on his extra large frame, Thakker got a charge out of this triumph: "For the first time I felt energized. Throughout school I used to be so lethargic that I hardly ever played with the other kids. A 5-min walk tired me out. I fretted that the inertia would start affecting my productivity at work."

Driven by this fear – and the initial success – Thakker drove himself harder at the gym, and sweated away 35 kilos over one and half years.

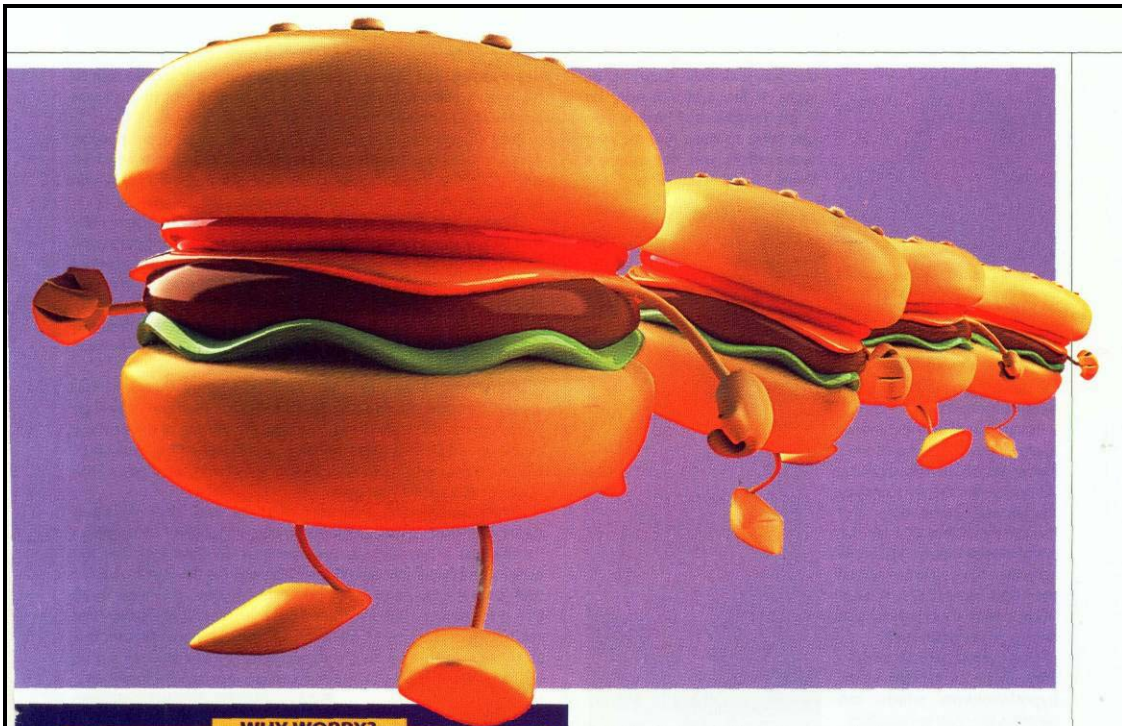
And then he plateaued at 104 kg. "No matter how hard I exercised I couldn't get my weight below the century mark – which had been my goal for nearly a decade." He kept pushing his limits ("I was doing 12 KPH at one point") till he collapsed on the treadmill. Together with a sprained knee it put him out of action — and out of the gym (which he has not entered since).

The hiatus from all activity saw the software consultant balloon back to his old self and with it came mood swings and sluggishness. "Within the first few weeks of recovery I'd packed on 8 kilos. It was as if my body was joyfully regaining lost territory." The incident signaled that Thakker had crossed over to obesity.



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#### WHY WORRY?

Excess body fat has serious consequences for the body's metabolism, including:

- Higher levels of triglycerides
- Higher levels of LDL ("bad") cholesterol
- Lower levels of HDL ("good") cholesterol
- Decreased tissue responsiveness to insulin and higher insulin levels
- Higher blood sugar levels.

Ugly numbers are more worrisome than an unflattering profile, for they cause an enormous burden of death and disability, including:

- Coronary artery disease and heart attacks
- High blood pressure and strokes
- Diabetes mellitus
- Many forms of cancer
- Fatty liver, which may progress to cirrhosis
- Osteoarthritis
- Depression and social isolation

Obesity is a major cause of premature death. The damage is evident in all age groups and with all degrees of overweight, but the toll is heaviest in the heaviest people, and obesity has a greater impact the earlier it occurs. For example, a very obese 25-year-old man can expect to lose 13 years of life – 22% of his life expectancy – due to obesity. A 40-year-old man who is obese may lose nearly six years.

#### WEIGHTY ISSUES

Doctors differentiate mere overweight from obesity by deeming the latter as a more severe condition. According to the WHO, obesity is a chronic progressive life threatening disease that requires aggressive and perhaps lifelong treatment.

Obesity is described as anyone who has a body mass index (BMI) of more than 30. Scientists still don't fully understand the many genetic, biological and behavioral factors involved in generating the condition.

"Lifestyle factors like poor diet and lack of physical activity, can cause a person to become overweight," explains Dr. Shashank Shah, Bariatric Surgeon attached to the Dr. L.H.Hiranandani Hospital in Powai. "However it is usually a kink in the genes that puts some individuals on the track to obesity."

Studies by the WHO paint a grim picture of obesity in India. One study on children indicates that at a given weight Indian kids are likely to have a higher fat percentage and lower muscle mass and bone density. And this holds true even if the child appears to be normal weight. "Doctors refer to this phenomenon as the 'thin-fat' Indian," says Dr. Shah. "A genetic glitch puts us at higher risk for obesity than any other population in this world." A study by the Diabetes Epidemiology Study group of India (DESI) suggests that approx 43 million Indians have type II diabetes (detected or undetected). A full eighty percent of these adults are either overweight or obese (doctors tend to include people with only abdominal fat also into this high risk category).

Shah gloomily foresees an explosion of obesity cases together with the numerous lifestyle diseases that the condition puts one at risk for (See *Why Worry?*) in the coming decades.

But what does all this scientific gobbledygook mean for the average Indian? Say you weigh 85 kg and with a lot of sweat and sacrifice you hit your goal of 75 kilos. "You simply cannot sit back and take it easy after you've achieved your target," warns Dr. Raman Goel, Metabolic Surgeon attached to Wockhardt Hospital. "Your body's desire to slip back to its former self is so much more alluring than your desire to continue exercising and dieting that it undermines all your best efforts. That's why it is so difficult to remain at the healthy weight. It's as if your



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Geeta Joshi in her new skin (right) and (top) before the surgery

Goel, "But when it's a matter of shedding 50 kilos and keeping them off, it becomes a monumental task."

It's not as if obesity causes a slow down in the body's metabolism that makes making it burn fewer calories. Contrary to general perception, and the funda dished out by the weight loss industry, fat people actually have *higher* basal metabolic rates (BMR). A large body needs to expend more energy to maintain itself.

However, sometimes obesity may exist in tandem with hypothyroidism which can create a sluggish metabolism.

For Geeta Joshi, management lecturer, this proved to be the humdinger.

Recalls Joshi: "There was never a summer vacation when I wasn't trying out some diet or the other. I was constantly fighting the flab." She'd drop about 5 to 6 kilos, and that would leave her feeling deprived. Thoughts of food filled her brain just when she couldn't have it. "There's a limit to how much you can cut back on your eating. I'd give in to the urge to splurge and all the extra pounds would bounce back with double figure vengeance."

The constant battle with the bulge left Joshi spent and traumatized. "Maybe I was oversensitive but there was always this feeling that people were gawking at my size, as if I'm not quite human. I was embarrassed to pillion ride with my husband for fear that a flat tire would draw snickers. Even at the tutorial where I worked I got the sense that I wasn't being taken seriously. A colleague could be expounding on the same topic as me, but where he or she would be listened to carefully, with me, my 129-kilo frame was always a distraction. People who swear that looks don't matter should see things from my end," says Joshi with some bitterness.

#### GRAVE ISSUES

Joshi had legitimate psychological concerns.

But "when you are about 20 per cent above your ideal weight there is much more at stake than cosmetic issues and fitness," says Dr. Shah.

Ask Nizar Thanawala who runs a soft drinks manufacturing unit in Silvassa. Thanawala knew he was in trouble when he found himself dozing off at traffic signals while he was at the wheel. "In the night my snoring created such a racket that the ground floor resident put in several complaints." Thanawala was being treated for high blood pressure (190/145) for some years and the doctor had warned that he was at a high risk for

body is jealously guarding its store of fat, and will only let it go reluctantly." When you just have to drop 4 kilos, with some effort you can prevent them from returning, says



heart attack. But the sleep apnea diagnosis put a new spin to his health risks. Apparently it was his 157-kilo girth that was aggravating the condition.

Poor sleep impairs the body's ability to metabolize glucose, which causes the pancreas to churn out extra insulin which in turn dulls the insulin receptors in the cells, leading to Insulin Resistance Syndrome and eventually, diabetes.

There's more: Research from the University of Chicago reveals that lack of sleep causes the body's hunger stimulating hormone *ghrelin* to go on overdrive at the cost of *leptin*, the appetite regulating hormone. The result: Voracious appetites, overeating and thereof, overweight. Nizar admits to polishing off a whole *tandoori* chicken and then settling down for dinner and dessert.

Thanawala was not alone in his overweight misery. Wife Parin was in the same boat.

With Parin, it was marriage and pregnancy that sent her weight through the roof. "I was so lethargic I couldn't even do basic household chores. If my maid took a couple of days off my house would be in a mess. My BP levels matched my husband's which isn't something to rave about," says Parin, who tipped the scales at 135 kilos a year ago.

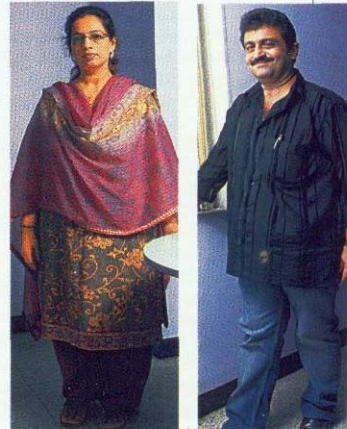
Nizar's sleep tests indicated that he was severely sleep deprived. "The prospect of going to bed with a CPAP contraption for the rest of my life was unappealing." Weight loss was the other remedy which would also address his BP. But how? On their own the duo had failed miserably. "Parin and I have been trying to shed the flab ever since our marriage," says Nizar. "We cut back on the use of oil, avoided desserts and *farsan*. But all these measures would only work for a week and we'd give up," says Parin. Sciatica made exercise impossible for Nizar.

#### CUT & DRIED

So what option do people for whom conventional methods of weight loss – diet and exercise – failed have? Some may try weight loss pills (*Ed: We will look into this in a future issue*) or they may choose to go under the knife.

There are several variations of obesity surgery, but in most, a normal stomach that can stretch to the size of a football is reduced to the size of an egg that can hold only a few tablespoons of food. In Vertical banded Gastroplasty and Laparoscopic Gastric banding, staples or a plastic band are used to close off much of the stomach, and the smaller pouch can accommodate only tiny, well-chewed bites eaten very slowly. Solid food makes the person feel full, whereas liquids tend to pass through much more easily.

Unfortunately a common problem with VBG and Gastric banding is vomiting because food does not pass easily through



COUPLING EFFECT: The Thanawala's (top) before the surgery; smiling their way to thinness



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the small opening and therefore backs up. Another possible complication is a disruption or opening up of the staple line, so that food empties into the main stomach without passing through the banded opening.

Furthermore, overtime, a stapled stomach has the potential to stretch, and if old eating habits resume, lost weight can return. So more and more surgeons are now incorporating a technique called Roux-en-Y, which combines stomach reduction with closing off a part of the small intestine. Since absorption of calories takes place in the small intestine, forcing food to bypass part of that organ means "getting" fewer calories absorbed. The diameter of the intestine is also made narrower, so food moves through the digestive tract more slowly, and you feel full longer. According to Dr Goel, a few studies also suggest that a smaller stomach produces less ghrelin (the hunger stimulating hormone).

On November 15 2006, Nizar underwent a Roux-en-Y aka as gastric bypass at Wockhardt. A year later Parin opted for a

#### WHO'S ELIGIBLE?

If you are simply looking to shake off a few pounds for cosmetic reasons, this procedure is not for you. The surgery is a possible option only for those who are morbidly obese which generally means at least 40 kg overweight or a body mass index (BMI) of 40 or more (BMI is calculated by dividing your weight in kgs by your height in square metres). For a 5-foot, 2-inch woman, that means weighing more than 100 kg. For a 5-foot, 7-inch man, it translates to more than 120 kg. Those with BMIs as low as 35 may qualify if they have health problems as a result of their weight, which most do.

sleeve gastrectomy where her stomach is divided into 2 and only one half is used to perform the functions of processing food. Joshi too went the gastric bypass way in October 2008, while Thakker settled for the less invasive banded gastroplasty two years back.

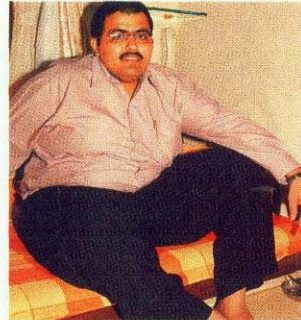
#### POST-OP BLUES

So what is the immediate aftermath like? As soon as possible after waking up from the 2- to 3 hour operation – but no later than the following morning – you are required to get out of bed to prevent blood clots from forming in your legs. The prescribed diet on day one consists only of sips of water. By day three, which is when you get to go home, and for the next 2 to 3 weeks, you can dine on creamed soups, fat- and sugar-free pudding, and shakes made from skim milk.

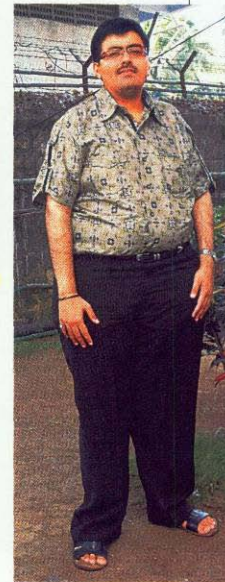
With the doctor's permission, the next stage is initiated. Everything is blended to baby food consistency – chicken moistened with fat-free gravies, sugar-free fruit based desserts, vegetables – with servings no bigger than a couple of tablespoons at a time.

You can lose as much as 25 pounds in the first several weeks, says Dr Goel. But you can also be left without energy. A 20-minute walk can feel like a marathon run 3 weeks after the operation. It can take months to get back lost vigour. Gradually, you transition to regular foods. But that does not mean resuming normal eating habits. Obesity surgery is a life-altering procedure, and taking tiny bites, chewing very well. "I am shocked at how drastically my intake has dropped," says Joshi, "From a platefull, I'm down to a few teaspoonfuls, of rice and even that makes me full."

Giving up certain foods must become a way of life in order to



Status Quo: Thakker poses (below); a heavier one (left)



avoid suffering severe stomach pains, vomiting, or diarrhoea.

As for which foods to avoid, they vary from person to person. For many, it's sweets. High-sugar foods can move quickly from the stomach into the small intestine, and that fast transit time can cause sweating, nausea, faintness, and diarrhoea – together referred to as the "dumping syndrome." In some people, just one bite of a sweet or other offending food will cause dumping. "I was warned about this but have never experienced it till date," says Joshi. The Thanawalas still follow their custom of dessert after dinner. Only "we have to wait for an hour after the dinner for the stomach to settle and then too, just a small bite satiates," rues Parin.

Some people find they can no longer tolerate red meat. That's because all food must be chewed until it is essentially liquid, and the meat gets tasteless halfway through chewing. Often, people even have trouble with soft breads, rice, and pasta because they tend to get chewed into a ball.

Are they happy with the results, I asked Thakker *et al.* The answers were mixed. There were some positives and some negatives. Thakker has found more energy to start his own software company AdoRoi but is unhappy that the banded gastroplasty that has failed to get his weight below the 100-kilo mark. (He's 116kg today.)

The Thanawalas still fall in the overweight category but are thrilled with their improved lifestyles. Nizar has been able to avoid the CPAP. Both, his blood pressure and sleep apnea conditions have been brought under control. "Even business is picking up because I'm now able to personally supervise it," he adds.

Joshi, at 79 kg, has had the best outcome so far. "I can finally run to catch a bus, sit crosslegged on the floor, do the washing without tiring." She's also planning to take up swimming.

"A gastric bypass patient will see maximum results in the first few months," says Dr Goel. Then the losses become slower and it ceases when the body reaches its ideal number. "After that, it's up to the individuals. Surgery may offer results that can be empowering and can put the individual back on the lifestyle modifications path. But it is never the final solution." As always it is a moderate diet that aids weight loss, and exercise that helps maintain it.

#### OBESITY ISN'T RISK FREE

The biggest danger – intestinal fluid leaking into the abdominal cavity in the weeks after the operations. Other life-threatening complications include blood clots traveling to the lungs, heart attack, or respiratory failure.

DEBJANI SENGUPTA