

Why are you big and I am not?

Understanding the obese patient



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Obesity is invading our society and all our practices. In obstetrics and gynaecology, obese patients may present with primary infertility, complications of pregnancy and pelvic floor problems, such as prolapse and stress incontinence. The usual response from the medical profession is the advice: 'Lose weight and then I will treat your problem. Why don't you just eat less and exercise more?'

We are then judgemental and accusing when our patients are unable to do this. I would like to help you understand why your patients struggle with weight loss, the better to help them.

We all experience life from within our own brains. Whilst we are obviously aware that there are differences

between the way people think, some basic assumptions we make never reach consciousness simply because there is no reason for them to. There is evidence that the smell of certain index chemicals is perceived differently by different genetic groups. Socially, we know that 'there is no accounting for taste'. However, it has only been in the last two years that I have understood that we all experience different and varying pressures to eat. Most doctors are not obese, although some will expend a lot of energy controlling their weight. Our need to eat is controllable. We assume that other people have the same need to eat, and therefore, if they overeat, it must indicate a lack of self-control. In reality, there is a spectrum of the pressure to eat across society, ranging from very little desire to an overwhelming and persistent hunger that can never be satiated. Obese patients describe a constant nagging at their brain, an obsession with food and very rarely feeling full. These feelings can be heightened by emotions, sounds, sights and smells. Once desires are initiated they are impossible to resist.

While environmental and cultural factors would appear to play a large part, I suspect that genes are the most important factor. There is increasing evidence that factors can cause delayed expression of genes, such as the genes that cause depression and schizophrenia. Clinically, this can also be seen in obese people and expresses as a true addiction to food. They behave exactly the same way as those that are addicted to cigarettes, alcohol, drugs and gambling. In these patients, the levels of neurotransmitters in the pleasure centre of the brain (nucleus accumbens) are inappropriately high. Not only does this cause a constant seeking of stimulants, in this case food, but it also diminishes the enjoyment of other pleasures. For patients like this, to stop using food is to deprive them of their central source of pleasure. Short-term diets will be met with a subconscious increasing deprivation. Finally, the patient will give out and usually return to a weight greater than where they started ('yo-yo dieting').

Another potentially confounding issue is that adipose tissue is metabolically active. Intra-abdominal fat, in particular, secretes interleukins and tumour necrosis factor, systemic indicators of

inflammation, both of which sap any motivation to perform physical activity. This results in the downward spiral of decreasing activity and increased eating. To break out of this spiral demands a huge amount of willpower, support and understanding. In my morbidly obese patients, this is impossible to achieve as the pressure to eat is just too strong.

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When we first started performing obesity surgery, we believed that the effects were all at a gut level. We thought that the physical restriction was what the operation was all about, therefore, we were at a loss to explain the wide range of results that could be obtained with the varying operations, or even with each operation. Once I realised that patients were feeling an incredible urge to eat before surgery, I asked them what happened to that urge after surgery. To my surprise, most of them reported that their addiction was 'switched off'! In other words, they were no longer plagued by thoughts of food, and even, for the first time in their lives, could forget to eat. This is an incredibly releasing phenomenon that we who have never been obese will never understand. This 'switching off' is probably mediated by vagal nerve afferents from around the gastric cardia. In addition, in bypass patients, there is also the possibility of hormonal influence.

However, it is apparent that although we 'switch off' their food addiction, we don't necessarily 'switch off' many years of compulsive behaviours that have arisen because of the food addiction. These habits are mediated by the limbic system, are usually subconscious and are often triggered by events and situations. This is the same area of the brain that allows us to drive to work without being conscious of the familiar roads we are taking. We drive safely on automatic pilot. Unfortunately for my patients, their brains often try to take them eating again on the same automatic pilot. This explains the big variation in response after surgery. Those that have mature healthy ways to cope with stress already available and other ready sources of endorphins will do well. Conversely, those who never learned good coping mechanisms in life (they never needed to – food was always available) are more likely to 'comfort graze'.

We now realise that we need to have a holistic approach to obesity surgery. There are three equally important elements to a successful outcome:

1. The operation, to switch off the addiction.
2. Teaching patients healthy adult ways to cope with stress.
3. The patient needs to find other sources of endorphins that aren't 'immoral, illegal or make you fat'! They need to have something else to obsess about.

To achieve this requires much more patient education, understanding and insight than we previously offered, with close follow-up and support. We also need a highly motivated patient who is fed up, realises that they need help and that they need to work with us to get a good result. This is not an operation that you do to people. It is an operation you do for people, to help them to help themselves.

The benefits of weight loss in the gynaecological patient include improvement in infertility, particularly related to polycystic ovary syndrome (PCOS); a decrease in complications of pregnancy; and a significant improvement in stress incontinence. Obese patients presenting with any of these problems should be assessed and given sensible dietary advice. If they have already tried a number of diets, obesity surgery is the only treatment that has been shown to give long-term success.

There are three operations that are popular in New Zealand:

1. Laparoscopic gastric banding

In this operation a silastic ring with an inflatable inner balloon is placed around the top of the stomach. The balloon is attached to a port (like a portacath) that sits under the skin of the abdominal wall. This means that the volume in the balloon can be adjusted to the point where patients are 'switched off' with minimal restriction. Average weight loss is around 50 per cent of excess weight at two years. As it is so safe, we offer this to patients with body mass indexes (BMI) of 30 kg/m² and above.



Figure 1. Laparoscopic gastric banding.

2. Laparoscopic sleeve gastrectomy

This operation arose as the first stage of two operations for very obese patients, but because it is easy and relatively safe to perform, it has become the primary operation of choice for many surgeons, even though there is minimal evidence that the operation is effective long-term. Weight loss at two years is around 60 to 70 per cent. We perform this operation when we cannot guarantee follow-up (for example, a patient from overseas) or when the small bowel is not available due to adhesions.

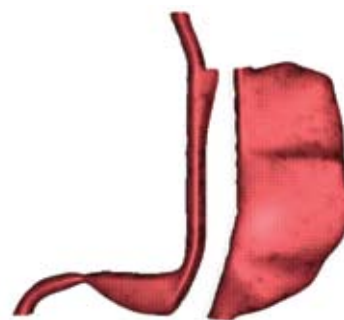


Figure 2. Laparoscopic sleeve gastrectomy.

3. Roux-en-Y gastric bypass

In this operation a small 20 ml pouch of stomach is stapled off from the rest of the stomach. A Roux limb of small bowel is created and the stomach sutured to the Roux limb. As the duodenum and upper 50 cm of small bowel are completely bypassed, patients need to take supplements of the vitamins and minerals normally absorbed there. The operation has a higher complication rate but loss of excess weight of up to 78 per cent results in our patients. The operation has been in practice for 35 years, so we have a good idea of the long term complications and outcomes. We prefer to offer this operation to diabetics and those with a BMI of 35 kg/m² and above, because of the dramatic weight loss.



Figure 3. Roux-en-Y gastric bypass.

In our series, there have been no operative deaths from any of the three operations and one late death from a bowel obstruction under a Roux limb (a preventable death).

We have seen a high rate of resolution of stress incontinence and had a number of pregnancies in previously infertile couples. There have been no birth defects or complications of pregnancy.

Our recommendation then is that obese patients are assessed in regard to their attitude, symptoms and desire to make a major change in their lives. If patients are suitable, they may be better served by obesity surgery rather than attacking the presenting complaint.

For more information about the various operations described here, please visit our website: www.obesitysurgery.co.nz