



WEIGHT LOSS

The *never-ending* story

DR HARISHA KARPATH discusses the stigma, struggle and shame associated with being overweight, as well as the reasons why some people fail miserably in their quest to shed those extra kilos. In most cases, patients require a complete multi-dimensional approach in order to achieve a healthy, ideal weight for the rest of their lives.

In theory; energy in equates to energy out. Yet for some people, weight loss is an arduous task. So, what propels a desire to eat more than our bodies require? Why are some people able to maintain their energy equilibrium with such ease and others fail miserably? The answer lies in our biology.

It's in your genes

The predisposition to gain weight is influenced by several factors, such as:

- Genetics
- Hormone imbalances
- Medications
- Medical conditions
- Environmental elements

Obesity in urban settings, on the other hand, is largely related to two environmental factors:

- 1 The vast abundance of unhealthy food options available - especially foods with trans-fatty acids and refined sugars
- 2 An imbalance of energy in versus energy out of the body

Taking point 2 above into account, energy intake is controlled by the brain, mainly by the hypothalamus. A metabolic set point allows this area of the brain to regulate the intake of food for energy. Once this requirement is fulfilled, the individual reaches satiety and stops eating. But this set point differs amongst individuals due to genetics. It can further experience alterations due to external environmental factors leading to weight gain.

A glutton for punishment

Added to this is the impact of the hedonic system - the

consumption of food for pleasure. Historically, human beings had to hunt and forage for food to survive. Its consumption was seen as the reward. Today, because food is readily available, this reward system has shifted, so having dessert after dinner is purely for pleasure. This stimulates the release of dopamine, endocannabinoids and opiates, ensuring the persistence of the hunger signals of the hypothalamus and satiety is subdued. The urge to continue eating persists and more food is consumed, despite the already fulfilled need for energy.

A weighty issue

Understanding the complexities of weight gain affords the health professional a collection of resources to assist with weight loss, as well as sustaining and maintaining ideal weight over long periods.

This is by far the most challenging component of

weight loss management. Fad diets and overzealous exercise routines fail due to the lack of sustainability. Adopting a nutritious diet and healthy lifestyle which includes moderate exercise and activity, good sleep patterns, improved mental health, reduced stress levels, cessation of smoking and reduced alcohol intake ensures the sustainability of weight loss.

First things first

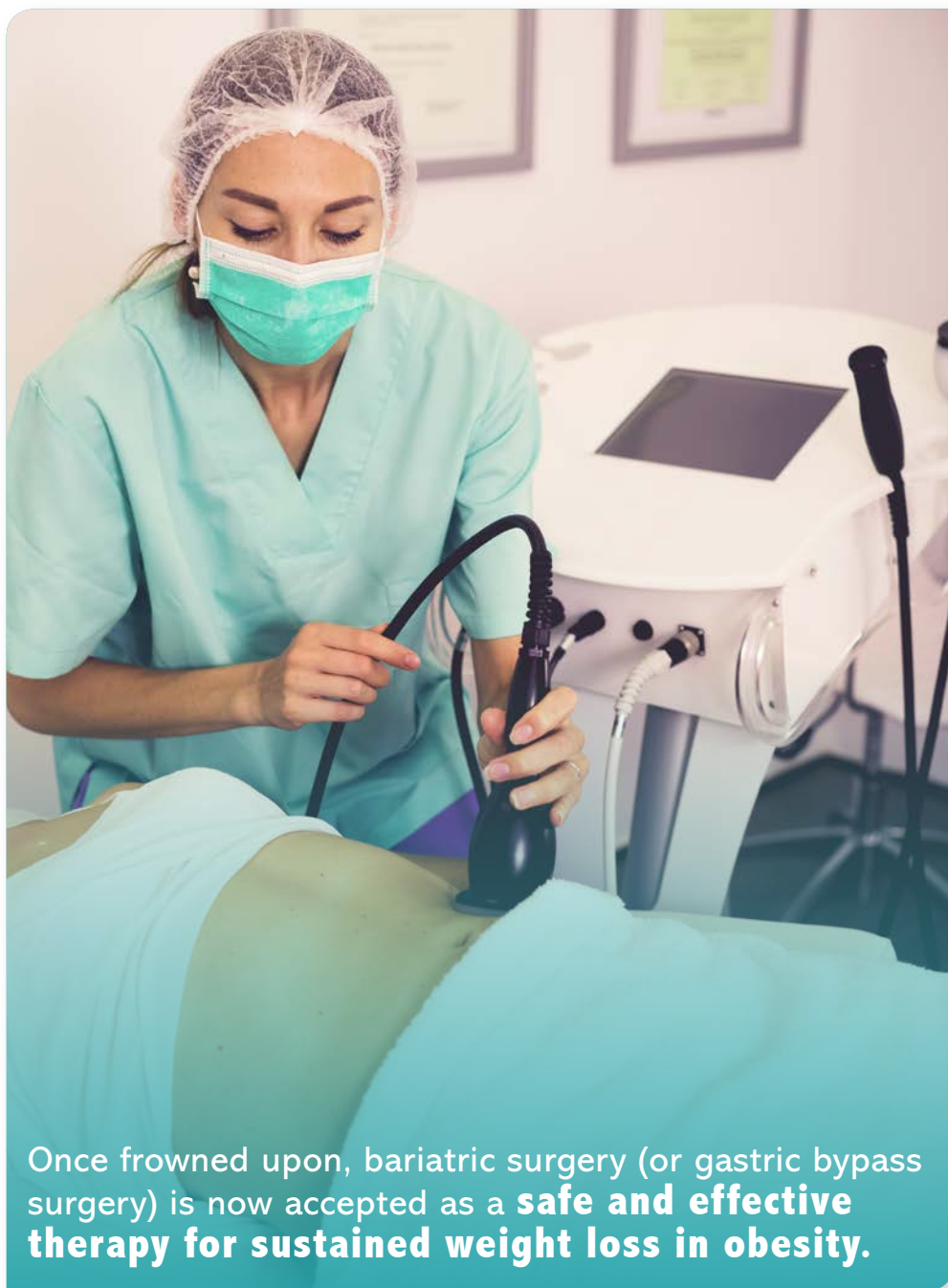
So, as much as we can blame our biological makeup for the unwanted weight gain, the onus lies within the individual: taking the first step to identify that there is a problem. The problem is not just related to aesthetics – i.e. how you look in a bikini or gym shorts - but also because of the negative impact it has on one's quality of life, such as the possible development of comorbid conditions like diabetes and hypertension, strokes, heart attacks, and even mortality.

A helping hand

The next step would be seeking out health professionals with the ability to help on the weight loss journey. Apart from the professional's knowledge and advice, one needs to be surrounded by unbiased, non-judgemental attitudes and assistance from family and friends. Help can also be acquired from psychologists, life coaches, dieticians, nutritionists, gym trainers, physiotherapists and biokineticists. Everyone has a role to play.

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The drug deal

Modern medicine also plays a significant role in treating weight gain and obesity when all else fails. That said however, compelling data confirms that modern medical interventions are merely adjuncts to lifestyle changes. They all fit together like puzzle pieces to solve the bigger picture of weight management. Drug therapy is so varied, ranging from appetite suppressants, lipase inhibitors

(fat blockers) and the latest diabetic drugs which are used to control insulin release and to regulate glucose levels. As with all medication, initiation of these drugs is done slowly and under close medical supervision. Recurrent blood tests monitor the effect of the medicine on organ systems like the liver, pancreas and kidneys.

What's more, the treatment periods vary too, depending on the side effect profile and long-

term complications associated with these drugs. Often drugs like psychotropics, diuretics, thyroid medication, and others are used for their side effect of weight loss. When used appropriately in individuals with the pre-existing condition it is licenced to treat, these drugs are beneficial. Conversely, strong caution is raised in the misuse of such drugs for the mere effect of weight loss. Polypharmacy is also not advised due to side effects, drug interaction effects and high complication risk.

A cut above the rest

Once frowned upon, bariatric surgery (or gastric bypass surgery) is now accepted as a safe and effective therapy for sustained weight loss in obesity. It has been shown to enhance metabolic status by improving blood lipid biochemistry, hypertension, and type 2 diabetes mellitus – which, in turn, decreases cardiovascular risk. These operations are recognised as “metabolic” gastrointestinal procedures because they demonstrate a broader physiological role than that of weight loss. They are even being applied to patients with less severe obesity with successful outcome – BUT - there are several pre-requisites to be met prior to being accepted as a candidate for such surgery. And again, sustained lifestyle changes both pre- and post-surgery is emphasised.



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A softer touch

Meanwhile, technological advances have provided us the benefit of treating localised fat. Safe options in perfecting the human form with cinched in waists and clearly visible abs are achieved by several methodologies, such as;

- Cryolipolysis
- Injection lipolysis
- Radiofrequency
- High-intensity focused ultrasound and liposuction with tumescent technique

Each has its limitations, side effects, complications and results, with their results being highly dependent on the individual and the health professional performing the procedure.

Furthermore, it's important to note that with all these treatment

modalities, informed consent with an adequate understanding of the plan, possible hurdles and costs between patient and doctor on all fronts is essential in attaining optimal treatment outcomes.

Last word

There is a huge hiatus between the reality of people becoming more and more obese, and the theory of how this epidemic should be stopped. To take the lead in solving this problem, we have to acknowledge that the healthcare professional and modern medicine can only be part of a broader approach in addressing weight gain issues. This monster must be tackled though, for we owe it to ourselves to have a life

worth living and to leave an unburdened legacy for future generations. **A2**

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