Obesity and Weight Loss

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Abstract

The entire world is becoming overweight. Most people are motivated to try to lose weight for cosmetic reasons. Weight loss can decrease health risk factors and possibly improve prognosis. Weight loss can be difficult in people who are trying to stop smoking, as they tend to gain weight. Many weight loss systems are available and are not inexpensive. Athletes who are obese and fit must lose weight after retirement or suffer the consequences related to risk factors. Bariatric surgery seems to be the best way for morbidly obese patients to lose weight, assuming that they adhere to principles of risk factor modulation. Weight-loss medications work in most patients who also comply with lifestyle changes, but these drugs have a number of side-effects.

Keywords

Obesity, weight loss, bariatric surgery, fatness and fitness, weight loss systems, risk factors

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There is no question that Americans are more obese than they were 50 years ago. However, this is also true of the entire world.¹

Why Lose Weight?

Unfortunately, for most people, the main motivation for losing weight seems to be cosmetic. Everyone wants to look like a movie star. Most (but not all) individuals want a slimmer body. For the most part, the individual who wishes to lose weight is focused on weight loss over the next several months, not years, and seems more concerned about today than future prognosis. However, I will admit that some do care about the future.

Weight loss advertisements indicate that people may improve their appearance and confidence if they stay slim. One needs only to turn on the TV to see ads featuring people who say they have lost weight and now look and feel better. In contrast, physicians' concerns related to weight loss are to prevent or at least slow down major risk factors for adverse cardiac events, such as systemic hypertension, left ventricular hypertrophy, diabetes, dyslipidaemia, sleep-disordered breathing, diastolic dysfunction and others, and, by doing this, possibly decrease morbidity and mortality in the long term.

Food Products and Diet Plans

There are many examples of food products and diet plans that claim weight loss benefits, including SlimFast, South Beach, Slimming World, and many other systems that work – so long as the person stays

on the diet recommendations (and these products, by the way, are not cheap). There is no question that these and many other weight loss systems can result in a loss of abdominal fat and, in the view of many, a more attractive appearance than before they started the programme. However, to reduce the unwanted consequences of obesity, a multimodal approach to weight loss is required (alter eating habits and exercise) to slow down development of risk factors and the progression of cardiovascular disease.

In my view, it is relatively easy to lose weight on any diet plan. The problem is keeping the weight from returning.

Smoking Cessation and Weight

Cigarette smoking is a well-known risk factor for cardiovascular and other disease, but many ignore the advice of physicians to stop smoking because people who quit smoking tend to gain weight – 5 kg, on average. Therefore, it is difficult to convince a lifelong smoker who wants to lose weight to stop smoking. Smoking cessation is not easy, no matter the circumstances, and is especially difficult in someone who wishes to lose weight. It is important to point out to the patient that smoking cessation is a lifelong process, but they will achieve their goal of smoking cessation and weight loss if they persist with a prudent diet.

Fatness and Fitness

The average weight of an offensive lineman in the US National Football League is 141.5 kg in a 195.5 cm person, while sumo wrestlers can

weigh up to 270 kg, although they are generally about 150 kg. During their sporting careers, they have a BMI which indicates they are obese (the lineman would have a BMI of 37), but they must be fit to compete with others who are also heavy and fit. After they retire, they may not stay as fit, but do not reduce their weight, so are exposed to all of the cardiovascular risk factors of overweight people.

Bariatric Surgery

Bariatric surgery is not for the person who wants to lose a few pounds, but needs to be considered as an option for many reasons for the morbidly obese patient. Many morbidly obese patients have cardiac disease and need risk factor modulation to improve prognosis, and weight loss will help with this in the long term.

I do not doubt that much of their weight is related to fluid retention, but many of these patients are obese as well as being in heart failure. They often need to lose around 45–135 kg and there is no easy way to lose this amount of weight. Granted, it can be done with dietary management, but it is very difficult and most patients who try do not achieve the goal. However, in morbidly obese patients who are usually refractory to lifestyle modification including diet and exercise, lifestyle modification may work and must be tried.

I personally believe that bariatric surgery along with lifestyle modification may be an answer to some of these patients' problems. However, some bariatric surgeons insist that patients show evidence of attempted weight loss and be motivated to continue on a weight reduction programme both before and after bariatric surgery. For

example, the UK's NHS has a number of criteria which must be fulfilled before bariatric surgery is considered.²

Bariatric surgery may play a role in these particular patients, since these procedures produce marked weight loss as well as a reduction in risk factors such as hypertension, diastolic dysfunction, diabetes, dyslipidaemia and sleep-disordered breathing, which overall probably decrease cardiac morbidity and mortality.³

Weight-loss Drugs

The US Food and Drug Administration has approved five drugs for weight loss and maintenance – orlistat, naltrexone/bupropion, liraglutide, lorcaserin and phentermine/topiramate. However, the European Medicines Agency has only given marketing authorisations to three of these – orlistat, liraglutide and naltrexone/bupropion. Phentermine/topiramate was declined due to concerns about side-effects, including its possible long-term effects on the heart and blood vessels, while the manufacturer of lorcaserin withdrew the application as indications were that it would not receive a marketing authorisation, again due to side-effects (tumours, psychiatric disorders and valvulopathy). These medications have a number of other side-effects, including oily stools, nausea, diarrhoea, vomiting, depression, anxiety and cognitive effects.

Many patients using weight-loss drugs along with lifestyle modifications lose weight. However, the risk factors return if the weight is gained back. Patients should be advised to alter eating and exercise habits to maintain the weight loss. ■

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1. Lavie CJ, Laddu D, Arena R, et al. Healthy weight and obesity prevention: JACC Health Promotion Series. *J Am Coll Cardiol* 2018;**72**:1506–31. <https://doi.org/10.1016/j.jacc.2018.08.1037>; PMID: 30236314.
 2. NHS. Overview: Weight-loss surgery. Available at: www.nhs.uk/conditions/weight-loss-surgery (accessed 13 November 2018).
 3. Benraouane F, Litwin SE. Reductions in cardiovascular risk after bariatric surgery. *Curr Opin Cardiol* 2011;**26**:555–61. <https://doi.org/10.1097/HCO.0b013e32834b7fc4>; PMID: 21934498.