

OBESITY

If your doctor tells you that you are obese, it is important that you understand the implications of that term.

First and foremost, you must realize that use of the term “obese” is not intended as a patronizing or demeaning insult, but is a specific medical diagnosis. It identifies a condition, the presence of excessive body fat, that is associated with several medical complications which can not only impair quality of life but result in premature death.

There are a number of basic measurements that scientists and physicians can use to identify obesity in adults such as total body weight, subcutaneous fat thickness, abdominal circumference or waist-hip ratios, but the body-mass index is the most common. An individual's BMI represents his weight (in kilograms) divided by the square of his height (in meters). Large epidemiological studies around the world have confirmed that the best long-term health outcomes are associated with a BMI of under 25.0 (even lower for some Pacific rim racial groups). Obesity, with clearly identified increased morbidity and mortality, correlates to a BMI of over 30.0. For reference, a man who was 1.78 meters tall (5 foot 10 inches) would be at ideal weight at 79 kilograms (174 pounds) or less, and obese if 95 kilograms (209 pounds) or more. Clearly, an allowance has to be made for body composition. Those numbers would be inaccurate for a muscular athlete. The goal is to identify the individual with excess abdominal fat. This adipose tissue is associated with worse health outcomes.

Over the last 20 years, the worldwide prevalence of obesity has increased steadily, to reach epidemic proportions. With over 250 million affected adults in the world, obesity is now felt to be the foremost major global health hazard, exceeding even cigarette smoking. Annually, three hundred thousand North American deaths can be attributed to obesity.

Most of this added burden of disease is attributed to the effects of the “metabolic syndrome” which recognizes the inter-relationship of abdominal obesity, hypertension,

dyslipidemia, and insulin resistance which leads to Type 2 diabetes and doubles the rate of premature macrovascular disease including heart attacks, stroke, peripheral vascular disease and death. An elevated BMI is also associated with higher death rates due to cancers of the esophagus, stomach, colon, liver, gall bladder, breast, uterus, cervix, ovary, pancreas and kidney. Indeed, being overweight or obese could account for 14% of all cancer deaths in men and perhaps 20% in women. Nevertheless, on a national scale, the increase in death due to malignancy is small compared to the cardiovascular mortality linked to obesity.

Over 80% of the cases of Type 2 diabetes in our society can be attributed to obesity. As mentioned, this common form of diabetes (also known as non-insulin dependent diabetes) has a death rate from vascular disease which is double the rest of our society. The magnitude of the excess mortality attributable to obesity is so dramatic and widespread through society that one wonders why it has lacked the same government and media attention that was garnered by SARS. Although SARS was a frightening and dangerous illness, it actually affected a small minority of our society, mainly health care workers, and the total number of deaths overall, nationally and worldwide, was minimal compared to the international implications of obesity and Type 2 diabetes.

Furthermore, government and scientific energies will be spent to find a quick antidote or prevention for an acute illness that attacks society abruptly, like SARS, but it will be up to the individual citizen and his family to grapple with obesity. Perhaps this is appropriate as approximately 40% of obesity is attributable to genetics and 60% to lifestyle.

Our North American lifestyle in the 21st century is not appropriate for a body metabolism which was developed to help our very ancient ancestors survive as hunters and gatherers who were on the move continuously.

A thrifty metabolism that enabled our ancient tribes to survive harsh winters, with minimal food, thousands of years ago, now punishes our sedentary contemporaries. We store energy, as fat, for a season of starvation which never arrives. Unfortunately, we did not inherit

any mechanism or metabolic skill that enables us to lose weight without effort or “naturally”. Furthermore, our society provides numerous cues to promote the consumption of excess calories as “comfort” foods.

Weight loss must be a deliberate goal. The object is to consume foods with less total energy than is needed on a daily basis for metabolism and activity. Since hunger is the metabolic safeguard to prevent us from accidentally losing weight, it is important to realize that some hunger is to be accepted or even embraced as a reminder that we are in a negative energy balance and, therefore, losing weight.

For the overweight or obese individual, weight loss and exercise are crucial for protection of long-term health and longevity. A recent study revealed that middle aged individuals at high risk of developing diabetes were able to reduce their chance of developing that disease by 58% by dropping their body weight by 7% in combination with 150 minutes per week of moderate exercise, i.e., walking just fast enough to raise the rate of breathing or create sweat. This data was exciting, but not surprising, as physicians have known for decades that a 5% drop in total body weight had profound positive health implications for the obese individual.

Regular exercise and reduced fat and calorie intake are good prescriptions for all of us. However, the out of shape, sedentary, middle aged individual is advised to visit with his family doctor for an assessment of his cardiac risk profile prior to any major change in lifestyle. This review, another valuable skill of the comprehensive primary care physician, will identify if any precautionary testing is required prior to embarking upon a new, vigorous, exercise campaign.

And remember, if you are identified as obese, it is not an insult, but a diagnosis to guide treatment for improved health and longevity.

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