



### 'Skinny fat' label shows the vagaries of obesity

People's appearance colors how others perceive them. But, of course, looks can be deceiving. This turns out to be true even with regard to healthy body weight. If body weight is appropriate for a person's height, it seems logical to assume that he/she is in good health.

However, researchers from the Mayo Clinic, Karolinska Institute in Sweden and the Istituto Auxologico Italiano in Italy caution that this assumption can be incorrect. Their research indicates that a person can be skinny and fat at the same time. They call the condition "normal weight obesity." We have been calling it the "skinny fat" condition.

**Question:** Is normal weight obesity associated with health problems?

**Answer:** Yes. Researchers led by Dr. Francisco Lopez-Jimenez found that people with normal body weight can be "metabolically obese" when their body comprises a high percentage of body fat. These individuals are more likely to have high blood glucose along with elevated blood pressure and blood triglycerides, as well as other cardiovascular disease risk factors. The researchers found that women

with normal weight obesity also are more likely to have heart attacks and strokes than similar women with lower body fat level.

**Q:** How is normal weight typically determined?

**A:** For practical reasons, normal weight, as measured in your physician's office, is determined by a weight for height calculation called Body Mass Index, or BMI. It is assumed that BMI is an indirect indicator of body fat level, but it is not a measure of body fat. BMI is specifically calculated by determining a person's weight in kilograms and then dividing this number by a person's height in meters squared. BMI between 18.5 and 24.9 is considered normal weight. For a quick calculation of your BMI, go to [www.nhlbisupport.com/bmi](http://www.nhlbisupport.com/bmi).

**Q:** What is obesity and how is it determined?

**A:** Obesity is the condition of having an excessive amount of body weight in the form of fat. Even with a normal body weight and appearance, someone can still have a high proportion of their body weight in the form of fat.

Again, for practical reasons, obesity is typically determined by BMI. The BMI cutoff for a diagnosis of overweight is 25, and the

BMI for obesity is 30 or greater. In most cases the BMI value reflects the amount of body fat. However, this is not always the case as the normal weight obesity condition demonstrates.

**Q:** How is body fat measured?

**A:** There are several ways to estimate body fat, and no single technique is perfect. However, even a rough estimate from one of the popular "body fat" scales that use bioelectric impedance to estimate body fat can indicate the likelihood of normal weight obesity.

**Q:** What causes normal weight obesity?

**A:** It most likely results from a combination of low levels of physical activity needed to maintain adequate muscle and eating habits that don't meet the body's need for essential nutrients like protein. Normal weight obesity also can be self-perpetuating since a low level of muscle mass results in a lower than normal resting metabolic rate. A low metabolic rate lowers calorie needs, making it more difficult to lose the excess body fat without proper exercise and adequate nourishment.

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