



Body Fat Is More Important Than Body Mass Index

The obesity epidemic may be much worse than even the dismal statistics describe. Body mass index under-measures obesity; body fat is more important than body mass index.

Among white men over the age of 20, the combined rate of overweight (body mass index, or BMI ≥ 25) and obesity (BMI ≥ 30), is 75%. ([ref.](#))

But that statistic is based on Body Mass Index, a flawed measure of obesity.

Why is it flawed? Because [the health effects of obesity and overweight are due to increased fat, not weight itself.](#)

BMI can be flawed in the direction of overdiagnosing obesity when someone carries a lot of muscle and little fat. For example bodybuilders and athletes in sports where body weight is an advantage may have a BMI putting them into the overweight/obese category, when in reality they're perfectly healthy. How many people are overdiagnosed with obesity that way? My guess is a small, single-digit percent.

BMI is quite a bit more flawed in the other direction, that is, it often under-diagnoses obesity. The reason is that many people have little muscle, so while they may technically have a normal weight, they have too much body fat. They're [skinny-fat](#). This is the condition of [normal-weight obesity](#).

How often does BMI under-diagnose obesity?

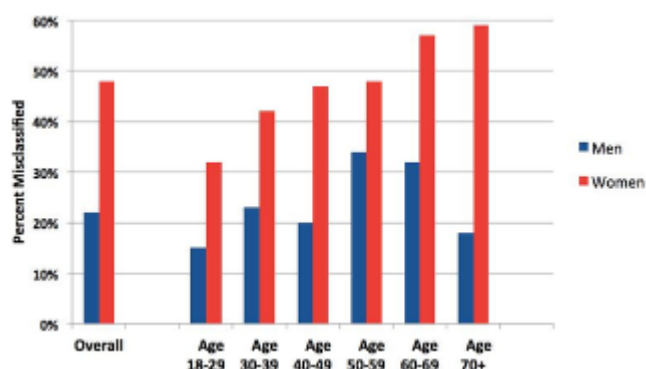
To discover how often BMI diagnoses obesity, we need to know what true obesity is. That must be defined in terms of body fat.

The American Society of Bariatric Physicians, a group that specializes in weight loss, [defines obesity as \$\geq 25\%\$ body fat for men, and \$\geq 30\%\$ for women](#). At that level, this doctors' group considers you eligible for medical obesity treatment.

Body fat can be measured by the DEXA scan. Since it requires special equipment, it's more difficult than measuring BMI, which requires only height and weight.

When body fat is measured and compared to BMI, a large number of people are seen to be misclassified as non-obese based on BMI.

The following chart shows how many were underdiagnosed with obesity, by age and sex. Older women were especially likely to be underdiagnosed.



For the age group of men who read this site, somewhere between 15 and 35% are obese with a BMI of <30 .

The researchers who did this study suggest that obesity in men be defined at a cut-off point of a BMI of 28, rather than 30. For women, they suggest 24. That means that a whole lot more people are obese than thought, and that the obesity epidemic is even worse than thought.

It's difficult to arrive at an exact number, but if we use a ballpark figure of about 30% underdiagnosis for both men and women, we might get the following:

Non-obese for both sexes and all ages above 20 is about 65%. If 30% of them are in reality obese, then only about 50% of the population is non-obese, and 50% are obese.

It gets worse when we add in the merely overweight. In that case, the combined rate of overweight and obesity is 67%. Whether those with a normal BMI would be diagnosed as being overweight via DEXA body fat measurement at the same rate as the obese is unknown. The rate could be lower, or higher. Let's use the same.

Combined non-overweight and non-obese percentage is 33%. If 30% are underdiagnosed, then only about 25% are in reality non-overweight and non-obese. For men over the age of 20 alone, it might be under 20%.

The combined overweight and obese fraction of the population may be 75%. For men, that figure may be 80%.

A healthy weight means a healthy body composition

Unfortunately, ideal body fat percentages are unknown, and must be guessed.

[The American Council on Exercise](#) suggests the following:



The category “average” probably corresponds to a BMI of overweight. So to be lean and healthy, a man would want a body fat percent of 17 or under.

[A site that specializes in being lean](#) suggests that the ideal body fat for a 20-year-old man is 8.5%, but rises to 20.9% at age 55. I have to call BS on that. The relation between body fat and health doesn't change with age. Leaner is, other things equal, better. The idea that higher body fat is acceptable on older men just assumes that they either can't or won't lower their body fat, and that this must be accepted. That does not make it healthy.

To see how you're really doing in terms of body composition and weight requires a DEXA scan or other decent measure of body fat.

[In normal weight people with a BMI below 25, body fat strongly predicted cardiometabolic risk.](#) Subjects were divided into tertiles (thirds) of body fat percentage; for men, the tertiles were:

- low, $\leq 15.2\%$
- medium, 15.3–20.7%
- high, $\geq 20.8\%$

The high tertile had nearly triple the prevalence of metabolic risk as the low. The medium had about 60% higher risk prevalence.

So even at a normal weight, body fat predicts health risk, a risk that weight or BMI alone does not predict.

Conclusion

Body composition, including body fat percentage, matters a lot. Indeed, actual weight or body mass index doesn't matter at all; they are only proxies for body composition, and they appear to be rather poor ones. BMI is used so much primarily because it's easy to measure.

Even if you're of normal weight, you should have some idea of your body fat percentage. [Measuring your waist circumference](#) is one quick way to know whether you need to lose fat.

As with so many of life's problems, this one is solved by cutting carbohydrates, and lifting weights.

PS: Lose fat and gain muscle. Read my book, [Muscle Up](#).

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