

# Does this plug-in make me look fat? And does it matter anyway?

*"I found there was only one way to look thin: hang out with fat people."* **Rodney Dangerfield**

A lot has been made of the BMI, or Body Mass Index, the supposed arbiter of whether we are fat or thin and, by extension, whether we will live to a ripe old age or succumb to a hoard of obesity-related ailments.

The BMI is sort of an historical anomaly (think "Tradition" from *Fiddler on the Roof*). It was developed in the mid-1800s by a Belgian mathematician named Quetelet, who took the body's surface area and divided it by height to arrive at ideal body configurations.



Already you can see that this is beyond the ordinary mortal's capacity to calculate, so convenient "plug-ins" abound on the Internet where you can enter your height and weight and get your BMI.

Trouble is, the BMI isn't a very good tool for assessing the *metabolic risk* associated with obesity.

Take two individuals with an identical BMI based on the height/weight equation. One may be well-muscled and strong, the other flabby and weak. An example might be an NFL running back at 5'10 and 220 pounds versus the statistically-matched six-pack swigging fan who watches him on weekends from the sofa. Guess which one is more likely to run a sub-six second forty yard dash? And, oh, incidentally, plug in 5'10"/220 pounds and both will be told unceremoniously they're overweight!

According to a recent University of Iowa study, BMI mis-categorizes at least 20 percent of individuals. It may tell a healthy individual that they're in trouble or, alternatively, reassure a metabolically unfit person that they're fine.

The problem is, like those who got stuck with 8-track stereo players, we bet wrong on a technology that is now heavily embedded in our current systems. Multimillion dollar taxpayer-funded studies rely on BMI to yield meaningful statistics on obesity; insurance companies base risk-assessment and actuarials on BMI, affecting premiums; under the new health law, your doctor, or even your children's school principal, may send you a "fat note" based on the obsolete BMI.

And now there's this: "Metabolically Healthy Women Have Same Cardiovascular Risk Regardless of BMI" (<http://www.sciencedaily.com/releases/2013/09/130902101848.htm>). In this landmark study of 261,000 Scandinavian women "The researchers found that being overweight (BMI $\geq$ 25 kg/m<sup>2</sup>) but metabolically healthy was not associated with an increased risk of a heart attack, stroke or a combination of heart attack/stroke/death in comparison with normal weight, metabolically healthy women."

So what are preferable alternatives to the dumbed-down BMI? We at the Hoffman Center prefer body composition analysis, which electronically breaks down fat versus lean percentage. Ideally, women should be less than one-third body fat, men less than one-fourth. At a recent "weigh-in" I was pleased to find that I was down to 12 percent, which is considered athletic fitness. While professional units such as the one at our office cost thousands of dollars, the tech revolution has now enabled consumers to buy these devices—albeit slightly less accurate—at a reasonable price

point.

Caution needs to be applied to body comp measurements because they can be influenced by dehydration, diuretics, water retention or recent food intake.

When it comes to calculators, I like the new "ABSI," short for "a new body shape index." In recent studies, ABSI was found to be superior to BMI as a predictor of overall risk for death. ABSI factors in waist circumference to augment the prognostic value of BMI. Find a handy ABSI calculator at <http://absi.nl.eu.org>.

If you plug in your numbers, you'll get ABSI, BMI, ABSI + BMI and "new" BMI, each with a relative risk where 1.0 is average risk; anything below is a fraction of average risk; anything above is a multiple of average risk.

What you'll find is that if you have a slim waist despite a borderline or elevated BMI your risk is mitigated. Conversely, if you have an OK BMI but flab around your midsection, your risk correspondingly rises.

Try it, it's fun. Let ABSI help guide you to your dietary and exercise goals.

Additionally, you might calculate your waist to hip ratio: in men it should be less than 1.0, in women less than 0.8.

Or, simply divide your height in inches by your waist circumference: Your ratio should be greater than 2:1.

As we count down to a major upgrade to our website at [www.drhoffman.com](http://www.drhoffman.com) this month, look for new "widgets" that can help you assess your optimal body configuration using all these helpful tools.