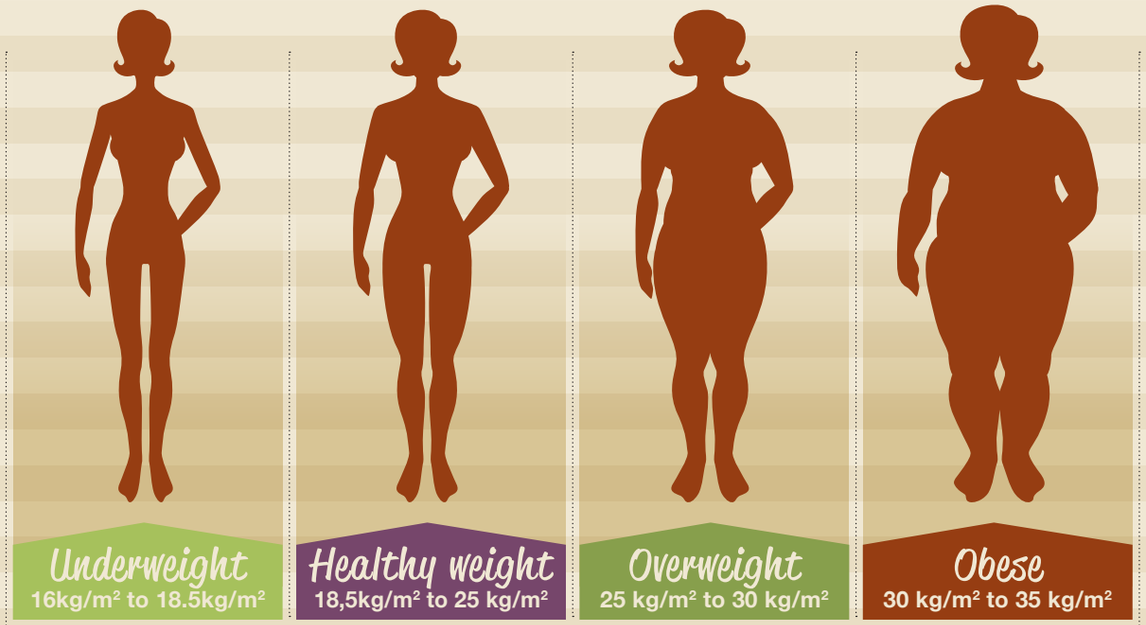
Is BMI Accurate ?



AT SOME POINT IN OUR LIVES WE HAVE ALL TRIED TO LOSE WEIGHT. MANY OF US ARE STILL STRUGGLING DOWN THIS MEANDERING WEIGHT LOSS PATH FILLED WITH OBSTABLES, DETOURS AND ILL-INFORMED ADVICE THAT NEVER SEEMS TO GET US TO THAT ULTIMATE WEIGHT LOSS GOAL. IN ORDER FOR US TO HAVE A CLEAR OBTAINABLE GOAL, WE SHOULD START BY ASKING THE RIGHT QUESTIONS. "HOW MUCH SHOULD I WEIGH?" AND "IS WEIGHT REALLY THE CORRECT INDICATOR OF A HEALTHY LIFESTYLE?" THE ANSWER TO THIS QUESTION IS GOING TO BE VERY DIFFERENT FROM INDIVIDUAL TO INDIVIDUAL BUT IN ORDER TO CALCULATE A "HEALTHY WEIGHT" IT IS USUALLY DONE WITH A FORMULA EXAMINING YOUR HEIGHT TO WEIGHT RATIO. THIS IS KNOWN AS YOUR BODY MASS INDEX (BMI). BUT IS BMI REALLY THE MOST ACCURATE WAY FOR MEASURING WHETHER OR NOT YOU ARE OVERWEIGHT? **By Anna Wood**

BMI is a way of measuring the amount of fat in a person's body. The BMI sum outcome is then used to decide whether a person is overweight or underweight by looking at a chart. To calculate your BMI, take your body mass divided by the square of your height, this will give you your BMI in kg/m2. e.g.:

$$= \frac{\text{mass (kg)}}{(\text{height (m)})^2}$$

Ok, so you nearly fell off your chair when you saw the equation that seems to be something taken from an Einstein journal. Don't fret too much about it before we take a look at two real life examples.

Ruth weighs 64kg and is 1.68m tall. For her to work out her BMI she takes her height and multiplies it by itself (1.68 x 1.68 = 2.8224) she then takes her weight and devides it by this new value (64/2.8224 = 22,67). This means her BMI will be 22.67kg/m2. Ruth is pleased to she falls within the "healthy weight" category according to the BMI chart.

Then on the other hand we have Jason. Jason weighs a sturdy 80kg and is only a tad taller than Ruth at 1.69 m. Jason is a fitness addict who works out 5 times a week and follows a very healthy diet to accompany his rigourous exercise regime. But there is a problem with Jason's BMI measurement. According to the BMI chart Jason's 28kg/m2 reading means he is overweight, when in fact he is the exact opposite.

The Problem in Only Using BMI

As I said previously each individual's weight loss goals will differ depending on a couple of variables. This is exactly why BMI is not the be all and end all of weight loss measurement.

BMI only takes your weight (kg) and height (m) into consideration, but individuals vary in bone density and muscle weight. In the fitness industry we divide individuals into different catogories dependant on exactly these variables. For instance a body type known as Ectomorph describes a typical skinny guy. Ecto's have a light build with small joints and lean muscle. Usually Ectomorphs have long thin limbs with stringy muscles while on the other side of the spectrum, Mesomorphs have large bone structures, large muscles and naturally athletic physiques. This is just one of the many other ways that fitness professionals categorise and examine an individual's health and fitness levels.

As you can see, a person who is more muscular would tend to be classified as overweight, as in Jason's case, or obese according to their BMI due to their excess amount of muscle and bone density. The same counts for weighing more on the scale. Weighing in at more than someone who is the same height does not automatically mean that you have more body fat than they do. That is why BMI might not be the most accurate way to determine if you are under- or overweight.

BMI also tells you nothing about where your body's fat storage lies and when it comes to measuring certain health risks, especially heart disease, it is more important to look at areas you store fat than at the absolute amount of fat you are carrying.

More Accurate Measurement Methods

A more accurate way to measure your under- or overweight status is to do a body fat percentage test. This is done using a skin fold test whereby your skin/fat is pinched by a calliper at certain standardised points on the body to determine the thickness of your fat layer. These measurements are then used with standard formulas to give you an estimated body fat percentage.

This is simply the percentage of fat your body contains, and it can be a powerful indicator of your health. Too much body fat on the outer layer is a good indication of organ fat (fat surrounding your organs) that is linked to chronic health problems such as high blood pressure, high cholesterol, heart disease, diabetes, and cancer. Too little body fat is also not good and can cause your body to enter a catabolic state, where muscle protein is used as fuel.

The only downfall of the body fat percentage test is that the accuracy of the measurement is very important. It is dependent on a person's fat distribution, the technique and type of calliper used and a particular person's ability to take the measurements properly as this can also influence the outcome of the correct measurement. For best results it is therefore highly recommended that the test be carried out by the same experienced professional, using the same technique and same calliper each time.

What your body fat % should be:

- For woman below 30 years a body fat % of 12- 23% is ideal.
- For woman between 30 and 50 years a body fat % of 16-23% is ideal.
- For woman over 50 years a body fat % of 16-25% is ideal.

What to do if your body fat % is too high?

If you find that your BMI falls in the "overweight" zone or that your fat percentage is too high, the best approach would be to follow a calorie controlled diet together with an exercise program that consists of both cardio and weight training. This should be done at least 3 to 5 times a week to help shed those extra kilos.