

# BODY MASS INDEX

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## ABSTRACT

BMI is derived from a simple maths formula. It was devised in the 1830's by LAMBERT ADOLPHE JACQUES QUETELET , a Belgian astronomer , mathematician , statistician and sociologist . It aims to estimate whether a person has a healthy weight by dividing their weight in kilograms and its meters squared. But in recent years more researchers argue that its not the most accurate way to measure body weight . For years scientists have said that BMI cannot distinguish between fat and muscles , which tends to be heavier and can tip more toned individuals into overweight status even if their fat levels are low.

### 1. BMI MEASUREMENTS

under 18.5 mean you are under weight , and could put on a few pounds . If you fall between Body mass index provides an easy way to measure obesity but more doctors are questioning it's accuracy and usefulness BMI is supposed to estimate the amount of body fat a person carries based on height and weight and categorizes people based on what is appropriate for their size. 18.5 and 24.9,you are considerd normal ,while a BMI of 30 or higher qualifies as overweight .

In the journal science , the latest data from University of Pennsylvania shows that BMI also doesnot tease apart different types of fat , each of which can have different types metabolic effects on health . BMI cannot takes into consideration ,for example , where the body holds fat .BELLY FAT ,which is knowns as visceral fat ,is more harmful than fat that simply sitting under the skin . visceral fat develops deep among muscles and around organs like the liver and by releasing certain hormones and other agents disrupts the body's ability to balance its energy needs . Even

releasing thin people can have high levels of visceral fat , which means they might be considered healthy by BMI standard ,but internally they may actually be at higher risk of developing health problems related to weight gain .



### 2. WHY IS BMI STILL THE PREFERRED WAY TO MEASURE WEIGHT AND EVALUATE OBESITY?

For one , it's a relatively easy measurements for doctor to take during an office visit . Taking a person's height and weight and plugging it into an equation produces a number that informs doctors

about whether their patients are at high , low or no risk when it comes to weight -related health problems . But there are better ways to measure body fat that provide more useful readings on how likely a person’s weight will contribute to chronic health problems . CT scans and MRI’ S can provide a clearer glimpse at bodies are used to measure bone density , can also distinguish between fat from bone and muscle mass but are also costly

**3. HEALTH RISK OF A LOW BMI**

**a. BONE LOSS**

Having a low BMI is strongly associated with low bone mineral density .

**b. DECREASED IMMUNE FUNCTION**

An underweight BMI is also associated with decreased immune function .Underweight individuals often don’t take in enough protein , fat or other nutrients to support a healthy immune system .

**c. CARDIAC ABNORMALITIES**

underweight individual’s are at risk for cardiac abnormalities ,such as mitral valve prolapse ,arrhythmias and heart failure . Regular heart rhythm depends on a proper balance of minerals .

**d. IRON -DEFICIENCY ANEMIA**

Iron -deficiency anemia occurs when your body doesn’t have enough iron to make haemoglobin ,a protein in red -blood cells that carries oxygen from the lungs to tissues throught the body .

**4. HEALTH RISK OF HIGH BMI**

- High blood pressure (hypertension)
- high blood cholesterol or triglycerides.
- high blood glucose (sugar), a sign of type 2 diabetes.

**FOR A HEALTHY WEIGHT GAIN THE FOLLOWING TIPS CAN HELP**

1. Add healthy calories.
2. Go nutrient dense
3. Snack away
4. Eat mini meals
5. Bulk up

**CONCLUSION**

On the more practical level , some researchers have been pushing for using waist circumferences or even wrist circumference to gauge potentially harmful weight gain and fat depots , but the evidence supporting this measurements and it’s ability to predict future health problems isn’t definitive enough yet .So without a viable way to change how we measure body fat , for now , BMI is the best option . The study author argue that perhaps doctors should reply on not just assessing body composition but measuring hormones and biomarkes in the blood or urine ,for examples to get a better handle on abnormal processes that may contribute to obesity and chronic disease . And until such tests become available , BMI may still prove useful yet -if doctors combine BMI with a comprehensive evaluation of their patient’s medical history and lifestyle habits to get a meaningful ,if not yet perfectly precise picture of their weight-related health

