

Dose Body Mass Index (BMI) Fit to Muscular Individual?

Nasim Habibzadeh^{1,*}

¹PhD in Sport Science, Department of Sport Science, Teesside University, UK

Abstract

Body mass index (BMI) seemingly is an important scale for the body types determination in individual with different ethnicity. Accordingly, individual with BMI < 18.5 are classified as slim or underweight and people with BMI between 18.5 -24.9 are called normal body types. Subsequently, those individual with BMI between 25-29.9 are categorized as overweight and people with BMI > 30 are classified as obese people. **Nonetheless, important question is where the muscular individual are located in this BMI scale ?** Muscular individual also called overweight or obese in BMI scale which can create kind of confusion for individual because they might try to lose weight whilst they do not actually need it. Thus, it seems BMI measure is not a sensible measure for muscular individual as otherwise they can be at risk of health problems in various ways. Uses of another apparatus such as an ordinary weight scale or computational devices which could estimate the body type according to the BMI more accurately can be helpful.

Corresponding author: Nasim Habibzadeh, PhD in Sport Science, Department of Sport Science, Teesside University, UK, Email: nasimhabibzadeh@yahoo.com

Keywords: BMI, Obese, Slim, Muscular, Body type

Received: Dec 11, 2018

Accepted: Dec 11, 2018

Published: Dec 12, 2018

Introduction

Quetelet index or body mass index (BMI) is a value which is derived from body weight (or body mass) and height measures from different individuals which was

introduced in the 19th century. More specifically, BMI is defined according to the body mass index in kilogram (Kg) that is divided by the height square in meter (m²) at which is shown through formula below [1].

Formula for body mass index (BMI):

$$BMI = \frac{\text{weight}}{\text{height}^2}$$

Write a Python Program that asks the user for weight and height and then displays **weight class** based on BMI (use the table below for this).

BMI	Weight class
below 18.5	underweight
18.5 - 24.9	normal
25.0 - 29.9	overweight
30.0 and up	Very overweight

Body mass scale is an important risk assessment measure for different weight ranges and it seemingly kind of determination of body fat in different people. Correspondingly, individuals who have the BMI < 18.5 are classified as slim or underweight and people who have BMI between 18.5 -24.9 are called normal body types. Subsequently, those individuals who have BMI between 25-29.9 are categorized as overweight and ultimately the people who have BMI > 30 are classified as obese people.

Nonetheless, the important question is where the muscular individual are located in this scale? The Body mass index scale shows all people with high level of muscles also overweight or obese! This is because the BMI scale is designed in accordance to the body fat levels not body muscles mass levels. Thus, a question will appear that whether the BMI scale is an accurate measure for muscular individuals [2]?

This BMI measure can create some confusions for individuals with higher level of muscle mass regarding their appearances since it can disturb their diet types or the amount of the movement they do in overall. The people can do extra attempts through over activities in their daily workouts or eat less of their real needs to lose weight that physiologically can put their health at major risks. They may lose their body water, minerals and more importantly their real body mass and as a result the states of being too weak and frail to deal with daily tasks [3, 4].

Thus, it seems the people with high level of muscle mass require to stop to use the BMI scale to measure their body types and alternatively to choose more healthy scale to avoid health associated problems as it sounds BMI measure is not good scale for people with muscular body types. Utilizing another apparatus for example an ordinary weight scale is more rational

instruments for people with greater level of muscle mass for their general health information. Other computational devices which could estimate the body type according to the BMI more accurately may could assist individual with different ethnics.

References

1. National Obesity Observatory. Body Mass Index as a Measure of Obesity. London, England: Public Health England; 2009
2. Adab P, Pallan M, Whincup PH. Is BMI the best measure of obesity? *BMJ*. 2018 Mar 29;360:k1274
3. Cruz P, Johnson BD, Karpinski SC, et al. Validity of weight loss to estimate improvement in body composition in individuals attending a wellness center. *Obesity (Silver Spring)*. 2011;19(11):2274-2279
4. Booth HP, Prevost AT, Gulliford MC. Impact of body mass index on prevalence of multimorbidity in primary care: cohort study. *Fam Pract*. 2013;Epub ahead of print