COMMENTARY

Factors that influenced body weight

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Human body weight refers to a person's mass or weight. Body weight is measured in kilograms, a measure of mass, throughout the world, although in some countries such as the United States it is measured in pounds, or as in the United Kingdom, stones and pounds. Most hospitals, even in the United States, now use kilograms for calculations, but use kilograms and pounds together for other purposes Body weight may be measured with clothes on, but without shoes or heavy accessories such as mobile phones and wallets, and using manual or digital weighing scales. Excess or reduced body weight is regarded as an indicator of determining a person's health, with body volume measurement providing an extra dimension by calculating the distribution of body weight.

There are a number of methods to estimate weight in children for circumstances such as emergencies when actual weight cannot be measured. Most involve a parent or health care provider guessing the child's weight through weight-estimation formulas. These formulas base their findings on the child's age and tape-based systems of weight estimation. Of the many formulas that have been used for estimating body weight, some include the APLS formula, the Leffler formula, and Theron formula. There are also several types of tape-based systems for estimating children's weight, with the most well-known being the Broselow tape. The Broselow tape is based on length with weight read from the appropriate color area. Newer systems, such as the PAWPER tape, make use of a simple two step process to estimate weight: the length-based weight estimation is modified according to the child's body habitus to increase the accuracy of the final weight prediction.

Ideal body weight was initially allow estimation of drug clearances in obese patients researchers have since shown that the metabolism of certain drugs relates more to IBW than total body weight. The term was based on the use of insurance data that demonstrated the relative mortality for males and females according to different height-weight combinations. The most common estimation of IBW is by the Devine formula; other models exist and have been noted to give similar results. Other methods used in estimating the ideal body weight are body mass index and the Hamwi method. The IBW is not the perfect fat measurement as it does not show the fat or muscle percentage in one's body. For example, athletes' results show that they are overweight when they are actually very fit and healthy. Machines like the dual-energy X-ray absorptiometry can accurately measure the percentage and weight of fat, muscle, and bone in a body.

Participants in sports such as boxing, mixed martial arts, wrestling, rowing, judo, Olympic weightlifting, and powerlifting are classified according to their body weight, measured in units of mass such as pounds or kilograms. Human height varies greatly between individuals and across populations for a variety of complex biological, genetic, and environmental factors, among others. Due to methodological and practical problems, its measurement is also subject to considerable error in statistical sampling.

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