



METADATA

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Abstract

This textbook serves as the primary aid for the course "Body Composition" within the curriculum of the Department of Nutrition and Dietetics. The main objective of the course/textbook is to solidify the principles underlying the major methods of measuring human body composition and to understand their advantages and disadvantages, as well as the proper selection of the appropriate method for each clinical case. For example, a graduate who will work in a hospital, where certain methods may be available, should be able to make the appropriate method choice, taking into account the patient's condition, the purpose of the measurement, accuracy, etc. Additionally, students practice on practical problems of estimating body composition (e.g., fat percentage, muscle mass, hydration, etc.) using various measurement data of body composition. Among the many applications of body composition

measurement, we can mention determining the patient's health risk associated with excessively low or high fat levels, monitoring changes in body composition associated with certain diseases, evaluating the effectiveness of diet and exercise programs in improving the patient's body composition, assessing ideal body mass for specific individuals and athletes, documenting necessary dietary guidelines, monitoring the development and maturation of children's body composition, and more. The estimation of Basal Metabolic Rate (BMR) is a key priority for a dietitian and is achieved through the measurement of fat-free mass using body composition equations or through the patient's spirometry. All these topics are covered in the proposed book, as well as real-life examples of applying various methods. Apart from the first chapter, each subsequent chapter focuses on a category of methods.

