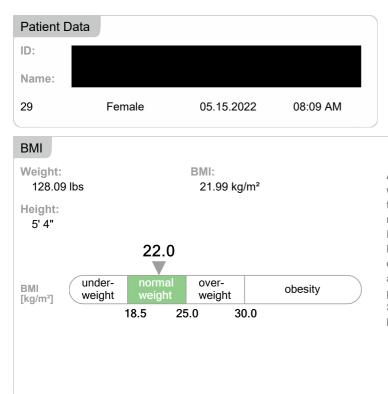
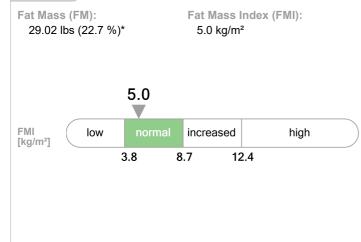
seca Results



A person's state of nutrition is initially assessed by measuring and weighing the subject. The ratio between weight and height is indicated by the **Body Mass Index (BMI)**. The more accurately weight and height are measured, the more accurate the BMI will be. According to the World Health Organization (WHO) an adult is considered to be overweight with a BMI of 25 kg/m^2 or more, and obese as of 30 kg/m^2 . A person with a BMI of below 18.5 kg/m^2 is considered to be underweight. The BMI does not allow any conclusions to be drawn about body composition or the proportions of body weight accounted for by muscle, fat and water. Sports people, in particular, are often categorized as overweight due to high muscle mass, which increases their weight.

Fat Mass



Fat Mass (FM) is the total amount of fat in the body. In addition to storage or depot fat, it also includes structural fat. Depot fat stores energy and heat for the body. Structural fat is vital to life and plays a role at various locations in the body. For example, it helps in the development of somatic cells and protects the organs. If, however, FM is elevated on a long-term basis, the risk of diabetes and cardiovascular disease is increased. The individual FM value is interpreted in the form of a graph with the help of the BMI. In contrast to the classical BMI graph, it is not body weight that serves as the basis here but FM.

Fat-Free Mass

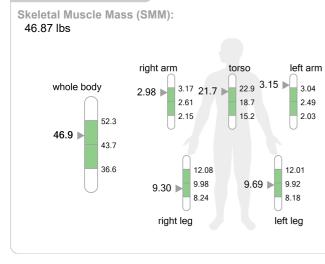


Fat-Free Mass (FFM) is the difference between weight and Fat Mass. Averaging 73.2%, body water accounts for the largest share of FFM. Muscles, bones, organs, cartilage, tendons and ligaments are also part of FFM. FFM can be increased by developing muscle mass. The ratio between FFM and height is indicated by the Fat-Free Mass Index (FFMI). An FFMI of less than 15 for women and less than 17 for men is a criterion for malnutrition.

seca Results

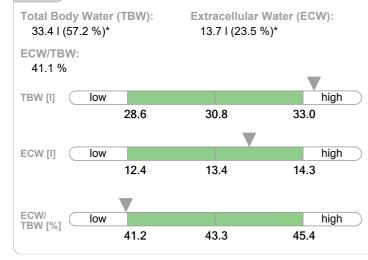


Skeletal Muscle Mass



The Skeletal Muscle Mass (SMM) comprises the mass of all the muscles that move the body and are responsible for posture. Skeletal Muscle Mass is also involved in thermogenesis (heat production). Skeletal muscles account for a significant proportion of the body's energy expenditure. If skeletal muscle mass is increased, this also increases Resting Energy Expenditure. Normal muscle mass can help avoid problems with the locomotor system. Skeletal Muscle Mass can in addition influence the immune system, the metabolism and the development of diabetes mellitus by means of messenger substances.

Water



Total Body Water (TBW) accounts for around 60% of the body weight of a healthy adult. The proportion of body water decreases from birth to old age. In a healthy person, two-thirds of Total Body Water is found within the somatic cells and is known as Intracellular Water (ICW), while a third of Total Body Water is found outside the cells and is known as Extracellular Water (ECW). The distribution of Total Body Water in percent is indicated by the ratio of ECW to TBW.