

**Patient data**

ID:

Name:

34                      Male                      03.06.2024                      17:13

**BMI**

**Weight:**  
82.20 kg

**BMI:**  
24.82 kg/m<sup>2</sup>

**Height:**  
1.820 m

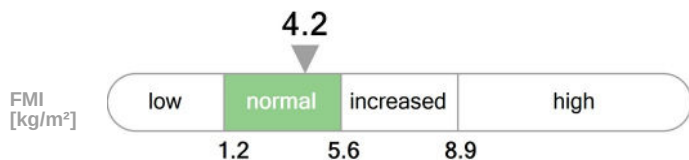


A person's state of nutrition is initially assessed by measuring and weighing the subject. The ratio between weight and height is indicated by the **Body Mass Index (BMI)**. The more accurately weight and height are measured, the more accurate the BMI will be. According to the World Health Organization (WHO) an adult is considered to be overweight from a BMI of 25 kg/m<sup>2</sup>, and obese from 30 kg/m<sup>2</sup>. A person with a BMI of below 18.5 kg/m<sup>2</sup> 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. Athletes, in particular, are often categorized as overweight due to high muscle mass, which increases their weight.

**Fat Mass**

**Fat Mass (FM):**  
14.07 kg (17.1 %)\*

**Fat Mass Index (FMI):**  
4.2 kg/m<sup>2</sup>



The Fat Mass (FM) is the total amount of fat in the body. In addition to storage or depot fat, it also includes structural fat. The depot fat stores energy and heat for the body. The structural fat is vital for life and plays a role in various locations in the body. For example, it helps in the development of somatic cells and protects the organs. But the risk of diabetes and cardiovascular disease increases when there is a sustained increase in the FM. The individual FM is interpreted in the graphical representation with the help of the BMI. Unlike the classic BMI graph, the FM is used instead of the weight.

**Fat-Free Mass**

**Fat-Free Mass (FFM):**  
68.13 kg (82.9 %)\*

**Fat-Free Mass Index (FFMI):**  
20.6 kg/m<sup>2</sup>



The Fat-Free Mass (FFM) is produced from the difference between the weight and the fat mass. Water accounts for the largest proportion of FFM at 73.2% on average. Muscles, bones, organs, cartilage, tendons and ligaments are also part of FFM. FFM can be increased by developing muscle mass. The Fat-Free Mass Index (FFMI) shows the relationship between FFM and height. An FFMI less than 15 for women and less than 17 for men is considered a criterion for malnutrition.

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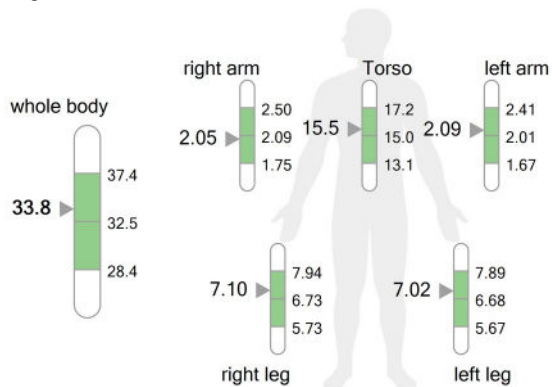
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## Skeletal Muscle Mass

**Skeletal Muscle Mass (SMM):**  
33.77 kg

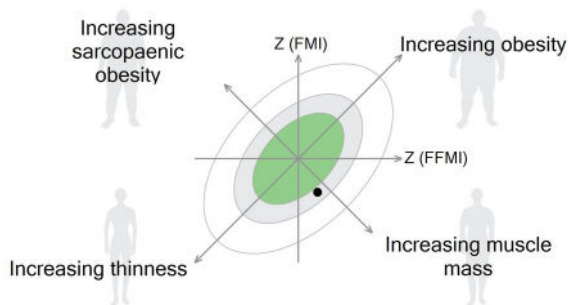


Skeletal Muscle Mass (SMM) comprises the mass of all the muscles which move the body and are responsible for posture. Skeletal Muscle Mass is also involved in thermogenesis (heat production). Skeletal muscles account for a significant proportion of the body's energy expenditure. If skeletal muscle mass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

## Body Composition Chart

**Fat Mass Index (FMI):**  
4.2 kg/m<sup>2</sup>

**Fat-Free Mass Index (FFMI):**  
20.6 kg/m<sup>2</sup>



The Body Composition Chart (BCC) gives a graphical representation of Fat Mass (FM) in relation to Fat-Free Mass (FFM) in a two-axis system. FM is shown on the vertical axis, and FFM on the horizontal. The ellipses show the measuring ranges of a comparison group of healthy people. A measuring point outside the ellipses merely indicates a difference from the comparison group. It is thus possible to determine for example whether an increased BMI is due to a high proportion of fat or muscle.

## Water

**Total Body Water (TBW):**  
50.1 l (60.5 %)\*

**Extracellular Water (ECW):**  
19.9 l (24.1 %)\*

**ECW/TBW:**  
39.8 %

Total Body Water (TBW) constitutes around 60 % of a healthy adult's body. 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 (technical term: Intracellular Water (ICW)), while a third of Total Body Water is found outside the cells (technical term: Extracellular Water (ECW)). The distribution of Total Body Water in percent is indicated by the ratio of ECW to TBW.



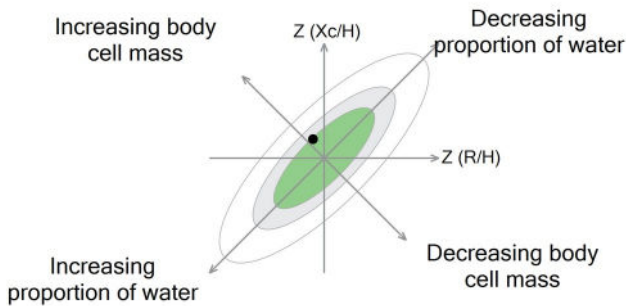
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**BIVA**

Resistance (R): 534.7  $\Omega$  Reactance (Xc): 60.4  $\Omega$

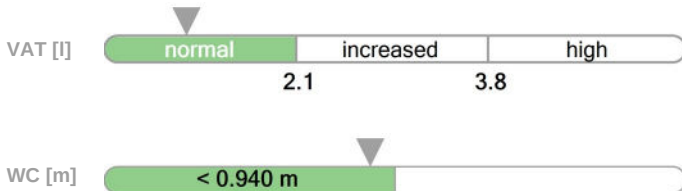
Bioelectrical Impedance Vector Analysis (BIVA) analyses the body's Fat-Free Mass. The graph makes a distinction between the cellular axis (which runs diagonally from the bottom right to the top left) and the water axis (which runs diagonally from the top right to the bottom left). The individual measurement point indicates the number and quality of the somatic cells as well as the body's water balance. The ellipses show the measuring ranges of a comparison group of healthy people. A measuring point outside the ellipses merely indicates a difference from the comparison group.



**Visceral Adipose Tissue & Waist Circumference**

Visceral Adipose Tissue (VAT): Waist Circumference (WC):  
0.9 l 0.86 m

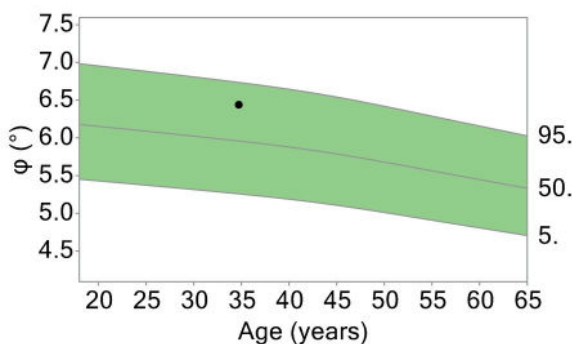
Waist Circumference (WC) allows conclusions to be drawn about the amount of body fat in the abdominal cavity. This abdominal fat, also known as Visceral Adipose Tissue, is a risk factor for vascular disease (arteriosclerosis) and diabetes mellitus type 2, both of which can result in heart attacks and strokes. Women with a Waist Circumference of 80 cm or more and men with a Waist Circumference of 94 cm or more have an increased risk. Women with a Waist Circumference of 88 cm or more and men with a Waist Circumference of 102 cm or more have a greatly increased risk.



**Phase Angle**

Phase Angle ( $\varphi$ ): 6.4° Percentile: 85.

The Phase Angle ( $\varphi$ ) is a measure of the quantity and quality of the somatic cells.  $\varphi$  allows conclusions to be drawn about a person's nutritional condition and state of health. A high Phase Angle indicates a person is in good physical condition. Generally speaking, the Phase Angle decreases from birth to old age. Women have a lower Phase Angle than men.



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Energy

**Total Energy Expenditure:**  
2826 kcal/day

**Recommended Energy Intake:**

Resting Energy Expenditure (REE) is the amount of energy a body needs to maintain normal vital functions such as respiration, digestion and the cardiovascular system, etc. REE depends on a person's age, height, weight and gender and accounts for around 60-70% of Total Energy Expenditure. Total Energy Expenditure (TEE) is the amount of energy a person requires every day, taking into account physical activity, in addition to Resting Energy Expenditure (REE). This level of activity varies widely from person to person. TEE can be boosted by increasing physical activity.

**Physical Activity Level:**  
1.6

**Duration:**

**Resting Energy Expenditure:**  
1766 kcal/day

**Therapy Goal:**