

Water content in the human body or: Why the sum of all body components is over 100 % when doing the body impedance analysis (BIA)

The BIA analysis of a man with 80 kg results, for example, in the following components:

Fat	19%
Water	57%
Muscles	42%
Sum	118%

The total water content of the body is around 60%.

Since muscles consist of approximately 80% water and even body fat comprises of up to 10% water, the total sum of the measured components fat, water and muscles during BIA will show a value significantly over 100%. Therefore, water is indicated in more than one component.

Body according to the chemical components for a man with body weight of 70 kg:

Water	60%
Protein	17%
Fat	17%
Mineral nutrients	4%
Others	2%

Water distribution in the different tissues at adults

	Man	Woman
Muscles	43	36
Bones	15	12
Total fat	15	26
Essential fat	3	15
Depot fat	12	11
Other tissues	27	26
Total	100%	100%