

# THE ANSWERS TO YOUR QUESTIONS

8 questions to explore Body Partner

## #1 | Weight vs figure

Thanks to its sensors, Body Partner can weigh up to 180 kg with graduations of 100 g.

The measurement of weight is important but insufficient because it does not provide an exact indication about a person's figure. It does not make a difference between fat mass and muscle mass, yet 1 kg of muscle occupies less space than 1 kg of fat:

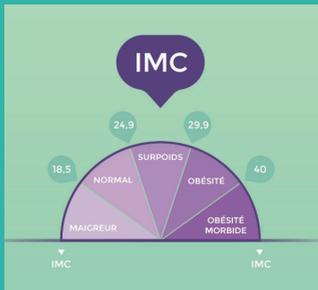
- > 1 kg of muscle occupies 900 ml.
- > 1 kg of fat occupies 1,111 ml (+23%).

Two people of an identical weight do not automatically have the same fat mass/lean mass distribution and, therefore, will have different builds.

## #2 | What is BMI?

**BMI is an international index defined by WHO in 1997.**

BMI identifies your level of body mass and, thus, the risk related to being overweight. It is measured as follows: weight in kilos / (height x height) in metres. BMI is very general and not very personalised. It does not determine the value of fat mass or muscle mass.



## #3 | Body composition

Our body comprises two large compartments: **lean mass and body fat**. Distribution differs between men and women and according to age.

## #4 | What is bioelectrical impedance analysis?

**Our scales use bio-electrical impedance analysis (BIA).**

A low sinusoidal current is sent through your body. This current easily passes through tissue that is rich in water (*lean mass: muscle, skin, etc.*), however, it encounters greater resistance with tissue that has little water (*body fat mass*).

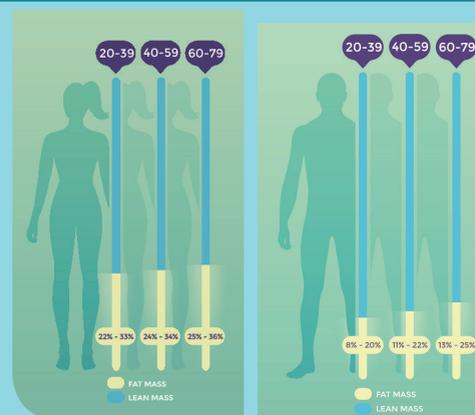
The resistance obtained, combined with equations that take account of gender and age, allows us to calculate your lean mass.

Body fat mass is obtained by subtracting the lean mass from your total weight.

## #5 | What is fat mass?

The % of fat mass is an index that estimates the proportion of adipose tissue in the body. Fat mass is the complement to the body's non-fat mass, which comprises muscles, internal organs and bones. The quantity of fat is different for men and women.

Normal values for fat mass are as follows:



AGE	WOMEN	MEN
20-39	22 % - 33 %	8 % - 20 %
40-59	24 % - 34 %	11 % - 22 %
60-79	25 % - 36 %	13 % - 25 %

In general, fat tends to accumulate on the hips and thighs for women (*referred to as gynoid obesity*) and around the abdomen for men (*referred to as android obesity*).

Fat mass serves:

- > To store a large quantity of energy for later use (*physical activity, decrease in food intake*)
- > To provide immunity and protection against the cold (*subcutaneous fat*)
- > To support internal organs



A large accumulation of fat in the organism (obesity) is a major problem that is linked to many pathologies, such as diabetes, arteriosclerosis, heart attacks and high blood pressure.

## #6 | What is lean mass?

Lean mass is the body's total muscle mass and fluid mass.

### The normal values of lean mass are:

AGE	WOMEN	MEN
20-39	63% - 75.5%	75% - 89%
40-59	62% - 73.5%	73% - 86%
60-79	60% - 72.5%	70% - 84%



The % of muscle mass is an index that estimates the proportion of muscle in your body. Muscle mass comprises three types of muscle: skeletal muscle, smooth muscle and cardiac muscle.

- › **Skeletal muscle** is also called striated muscle. It is controlled voluntarily. The biceps are a skeletal muscle.
- › **Smooth muscle** is non-striated muscle that contracts of its own accord. The intestine is an example of smooth muscle.
- › **Cardiac muscle** is a mixture between skeletal and smooth muscle: it is a striated muscle that contracts automatically. The heart is a cardiac muscle.



## #7 | What is the hydration level?

Hydration represents the total amount of fluid in the body. It comprises intracellular water and extracellular water, namely the quantity of water contained in the cells and tissue.

Overall, our body is made up of **60 to 70%** water, but the water is mainly present in the lean mass (*muscle, vital organs, blood, etc.*).

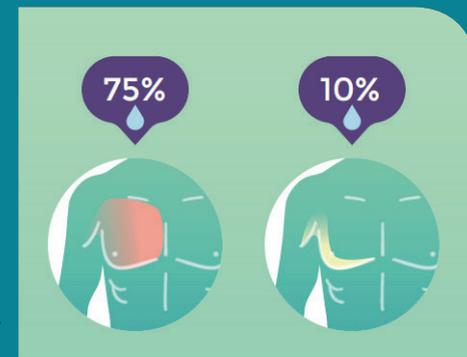
For example, body fat contains approximately **10%** water, whereas muscle contains about **75%** water.



Thanks to bioelectrical impedance analysis technology, Body Partner measures your hydration level in order to alert you in case of dehydration. Water is vital for the good functioning of our organs and our metabolism. A 2 to 3% decrease in our hydration level reduces, in particular, our concentration and our physical performance.



NB: Do not measure your hydration level after an intensive workout because the water loss is temporary and is a result of your activity.



## #8 | What are personalised limits?

The body composition limits (fat mass, lean mass) provided in the dashboard (deficit/balance/surplus) are established scientifically in order to be personalised according to your gender, age and BMI.

