KNOW YOUR NUMBERS

WHO CAN USE A BODY COMPOSITION MONTIOR

This Body Composition Monitor is intended for adults aged 18-99 years. Children aged 7-17 years can use the monitor weight and body fat percentage readings and Healthy Range Indicator only; the other features are not applicable to children.

Your monitor is also equipped with an athlete mode for adults with athletic body types. Tanita defines an athlete as a person involved in intense physical activity of approximately 10 hours per week and has a rest heart rate of 60 beats per minute or less. Individuals who have been an athlete for a number of years but currently exercises less than 10 hours per week can also use athlete mode.

Pregnant women should use the weight function only.
All other functions are not intended for pregnant women.

WHY MONITOR BODY COMPOSITION?

Body composition monitors are designed for healthier living by giving you an insight into key health indicators that will enable you to monitor the impact of changes to your lifestyle.

- See the impact of a change in diet on the body to make sure you are dieting the healthy way
- Fine – tune your fitness programme by monitoring progress of muscle mass and Basal Metabolic Rate
- Monitor the level of visceral fat, which has been linked as a possible risk factor for developing Type 2 diabetes and/or heart disease
- Set a target for your physique and monitor your progress towards it

HOW DOES A BODY COMPOSITION MONITOR WORK?

Tanita Body Composition Monitor calculates your body composition using Bio-electrical impedance Analysis (BIA). Safe, low-level electrical signals are passed through the body via the patented Tanita footpads on the monitor platform. It is easy for the signal to flow through fluids in the muscle and other body tissues but meets resistance as it passes through body fat, as it contains little fluid. This resistance is called impedance. The impedance readings are then entered into medically researched mathematical formulas to calculate your body composition.

WHEN IS THE BEST TIME TO USE MY THE BODY COMPOSITION MONITOR?

Your body water levels naturally fluctuate throughout the day and night. Any significant changes in body water may affect your body composition readings; for example, the body tends to be dehydrated after a long night sleep so if you take a reading first thing in the morning your weight will be lower and your body fat percentage higher. Eating large meals, drinking alcohol, menstruation, illness, exercising and bathing may also cause variations in your hydration levels.

To get the most reliable reading it is important to use the Body Composition Monitor at a consistent time and day under consistent conditions.

WHAT IS BODY FAT PERCENTAGE?

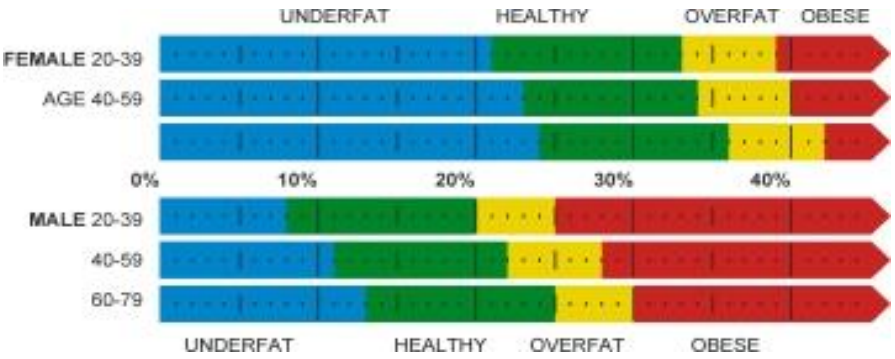
(Applicable age 7-99)

Body fat percentage is the amount of body fat as a proportion of your body weight.
Reducing excess levels of body fat has shown to reduce the risk of certain conditions such as high blood pressure, heart disease, diabetes and cancer.

The chart below shows the healthy range for body fat.

Healthy Body Fat % Ranges

1 Based on NIH/WHO BMI Guidelines



Healthy Range Indicator
Your Body Composition Monitor automatically compares your body fat percentage reading to the Healthy Body Fat Range chart. After your body fat percentage has been calculated, a black bar will flash along the bottom of the display, identifying where you fall within the B ody Fat Ranges for your age and gender.

1	**0**	**+**	**++**
Under	Healthy	Over	Obese

(-) Under-fat: below the healthy body range. Increased risk for health problems.

(O) Healthy: within the healthy body fat percentage range for your age/gender.

(+) Over-fat: above the healthy range. Increased risk for health problems.

(++) Obese: high above the healthy body fat range.
Generally increased risk of obesity – related health problems.

Note:

- Range of user age is between 18-99

WHAT IS TOTAL BODY WATER PERCENTAGE?

(Applicable age 18-99)

Total Body Water Percentage is the total amount of fluid in a persons body expressed as a percentage of their total weight.

Water plays a vital role in many of the body's processes and is found in every cell, tissue and organ. Maintaining a healthy total body water percentage will ensure the body functions efficiently and will reduce the risk of developing associated health problems.

Your body water levels naturally fluctuate throughout the day and night. Your body tends to be dehydrated after a long night and there are differences in fluid distribution between day and night. Eating large meals, drinking alcohol, menstruation, illness, exercising and bathing may cause variations in your hydration levels.

Your body water percentage reading should act as a guide and should not be used to specifically determine your absolute recommended total body water percentage. It is important to look for long-term changes in total body water percentage and maintain a consistent, healthy total body water percentage.

Drinking a large quantity of water in one sitting will not instantly change your water level. In fact, it will increase your body fat reading due to the additional weight gain. Please monitor all readings over time to track the relative change.

Every individual varies but as a guide the average total body water percentage ranges for a healthy adult are:

Female: 45 to 60%
Male : 50 65%
Source: Based on Tanita's Internal Research

Note: The total body water percentage will tend to increase as the percentage of body fat increases. A person with a high percentage of body fat may fall below the average body water percentage. As you lose body fat the total body water percentage should gradually move towards the typical range given above.

WHAT IS VISCERAL FAT RATING?

(Applicable age 18-99)

This feature indicates the rating of visceral fat in your body.

Visceral fat is the fat that is in the internal abdominal cavity, surrounding the vital organs in the trunk (abdominal area). Research shows that even if your weight and body fat remains constant, as you get older the distribution of fat changes and is more likely to shift to the trunk area especially post menopause. Ensuring you have healthy levels of visceral fat may reduce the risk of certain diseases such as heart disease, high blood pressure, and the onset of type 2 diabetes.

The Tanita Body Composition Monitor will provide you with a visceral fat rating from 1 – 59.

Rating from 1 – 12

0

Indicates you have a healthy level of visceral fat. Continue monitoring your rating to ensure that it stays within the healthy range.

Rating from 13 – 59

+

Indicates you have an excess level of visceral fat. Consider making changes in your lifestyle possibly through diet changes or increasing exercise.

Source: Date from Columbia University (New York) & Tanita Institute (Tokyo)

Note:

- Even if you have a low body fat rate, you may have a high visceral fat level.
- For medical diagnosis, consult your doctor.

WHAT IS BASAL METABOLIC RATE (BMR)?

(Applicable age 18-99)

WHAT IS BMR?

Your Basal Metabolic Rate (BMR) is the minimum level of energy your body needs when at rest to function effectively including your respiratory and circulatory organs, neural system, liver, kidneys, and other organs. You burn calories when sleeping.

About 70% of calories consumed every day are used for your basal metabolism. In addition, energy is used when doing any kind of activity however; the more vigorous the activity is the more calories are burned. This is because skeletal muscle (which accounts for approximately 40% of your body weight) acts as your metabolic engine and uses a large amount of energy. Your basal metabolism is greatly affected by the quantity of muscles you have, therefore increasing your muscle mas will help increase your basal metabolism.

By studying healthy individuals, scientists have found that as people age, their metabolic rate changes. Basal metabolism rises as a child matures. After a peak at the age of 16 or 17, it typically starts to decrease gradually.

Having higher basal metabolism will increase the number of calories used and help to decrease the amount of body fat. A low basal metabolic rate will make it harder to lose body fat and overall weight.

HOW DOES A TANTIA BODY COMPOSITION MONITOR CALCULATE BMR?

The basic way of calculating Basal Metabolic Rate BMR is a standard equation using weight and age. Tanita has conducted in-depth research into the relationship of BMR and body composition giving you a much more accurate and personalised reading for the user based on the impedance measurement. This method has been medically validated using indirect calorimetry (measuring the breath composition).

WHAT IS DAILY CALORIE INTAKE (DCI)?

(Applicable age 18-99)

'Daily Calorie Intake (DCI)' is the sum of calories for basal metabolism, daily activity metabolism (activities including daily household chores), and a diet induced thermogenesis (energy used in connection with digestion, absorption, metabolism, and other eating activities). It is an estimate of how many calories you can consume within the next 24 hours to maintain your current weight.

HOW DOES A TANTIA BODY COMPOSITION MONITOR CALCULATE DCI?

The basic way of calculating Basal Metabolic (BMR) Rate is a standard equation using weight and age. Tantia has conducted in-depth research into the relationship of BMR and body composition giving a much more accurate and personalised reading for the user based on the impedance measurement. This method has been medically validated using indirect calorimetry (measuring the breath composition)

DCI = BMR x Activity Level

Activity Level

	1	2	3
Female	1.56	1.64	1.82
Male	1.55	1.78	2.10

Source: World Health Organisation (WHO)

WHAT IS YOUR METABOLIC AGE?

(Applicable age 18-99)

This feature calculates your BMR and indicates the average age associated with that type of metabolism.

If your BMR Age is higher than your actual age, it is an indication that you need to improve your metabolic rate. Increased exercise will build healthy muscle tissue, which will improve your metabolic age.

You will receive a reading between 12 and 90. Under 12 will be displayed as "12" and over 90 displayed as "90".

WHAT IS MUSCLE MASS?

(Applicable age 18-99)

This feature includes the weight of muscle in your body. The muscle mass displayed includes the skeletal muscles, smooth muscles (such as cardiac and digestive muscles) and the water contained in these muscles.

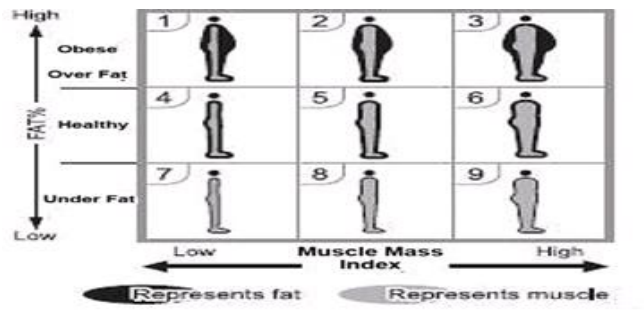
Muscles play an important role as they act as an engine in consuming energy. As your muscles mass increases, your energy consumption increases helping you to reduce excess body fat levels and lose weight in a healthy way.

WHAT IS PHYSIQUE RATING?

This feature assesses your physique according to the ratio of body fat and muscle mass in your body. As you become more active and reduce the amount of body fat, your physique rating will also change accordingly. Even though your weight may not change, your muscle mass and body fat levels may be changing making you healthier and at low risk of certain diseases. Each person should set their own goal of which physique they would like and follow a diet and fitness programme to meet that goal.

Result	Physique Rating	Explanation
1	Hidden obese	**Small Frame Obese**
		This person seems to have a healthy body type based on physical appearance, however, they have a high body fat % with low muscle mass level
2	Obese	**Medium Frame Obese**
		This person has a high body fat percentage, with a moderate muscle mass level.
3	Solidly built	**Large Frame Obese**
		This person has both a high body fat % and a less than average muscle mass level.
4	Under exercised	**Low Muscle & Average Body Fat %**
		This person has an average body fat % and a less than average muscle mass level.
5	Standard	**Ave. Muscle & Ave. Body Fat %**
		This person has average levels of both body fat and muscle mass.
6	Standard Muscular	**High Muscle & Ave. Body Fat % (Athlete)**
		This person has an average body fat % and higher than normal muscle mass level.
7	Thin	**Low Muscle & Low Fat**
		This person has both a lower than normal body fat % and muscle mass level.
8	Thin and Muscular	**Thin and Muscular (Athlete)**
		This person has lower than normal body fat % while having adequate muscle mass.
9	Very Muscular	**Very Muscular (Athlete)**
		This person has lower than normal body fat % while having above average muscle mass.

Source: Data from Columbia University (New York) & Tanita Institute (Tokyo)



Index of amount of muscle against height = Muscle mass (Kg) / height (cm)^2

WHAT IS BONE MASS?

(Applicable age 18-99)

This feature indicates the amount of bone (bone mineral level, calcium or other materials) in the body.

Research shows that exercise and the development of muscle tissue are related to stronger, healthier bones. While bone structure is unlikely to make noticeable changes in a short period, it is important that you develop and maintain healthy bones by having a balanced diet and plenty of exercise. People worried about bone disease should consult their doctor. People who suffer from osteoporosis or low bone densities due to advanced age, young age, pregnancy, hormonal treatment or other causes, may not get accurate estimations of their bone mass.

Below is the result of estimated bone masses of persons age 20 to 40, who are said to have the largest amounts of bone masses, by weight. (Source: Tanita Body Weight Science Institute).

Please us the below chart as a guide to compare your bone mass reading.

Woman: Average of estimated bone mass

Weight (lb)		
Less than 110 lb	110 lb – 165 lb	165 lb and up
4.3 lb	5.3 lb	6.5 lb

Weight (kg)		
Less than 50 kg	50 kg – 75 kg	75 kg and up
1.95 kg	2.40 kg	2.95 kg

Men: Average of estimated bone mass

Weight (lb)		
Less than 143 lb	143 lb – 209 lb	209 lb and up
5.9 lb	7.3 lb	8.1 lb

Weight (kg)		
Less than 65 kg	65 kg – 95 kg	95 kg and up
2.65 kg	3.29 kg	3.69 kg

Note:
*Persons described below may obtain varying readings and should take the values given for reference purposes only.

- Elderly persons
- Woman during or after menopause
- People receiving hormone therapy

“Estimated bone mass” is a value estimated statistically based on its correlation with the fat-free amount (tissue other than the fat). “Estimated bone mass” does not give a direct judgement on the hardness or strength of the bones or the risks of bone fractures. If you have concerns over your bones, you are recommended to consult your doctor.