

OMRON



KaradaScan™

BODY COMPOSITION MONITOR **HBF-375**

Full Body Sensing Technology for a more accurate and precise body composition measurement.



Weight management made easy with:

- ❖ Segmental (Full Body, Trunk, Legs and Arms) Subcutaneous and Skeletal Muscle Percentage
- ❖ Progress Chart display
- ❖ Same Age Comparison



All for Healthcare

Information on Body Composition

BMI

Everybody is concerned about their weight. But what is the basis for determining your ideal weight?

The key is BMI.

BMI is short for Body Mass Index. This index uses the following simple formula to indicate the ratio between weight and height of a person.



$$\text{BMI} = \text{weight (kg)} / \text{height (m)} / \text{height (m)}$$

The OMRON Body composition monitor uses the Height information stored in your personal profile number to calculate your BMI.

Interpreting the BMI Result

BMI	Classification (by the WHO)
Less than 18.5	Underweight
18.5 or more and less than 25	Normal
25 or more and less than 30	Overweight
30 or more	Obese

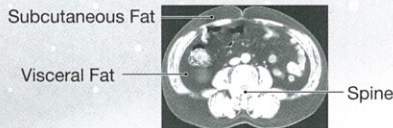
VISCERAL FAT

Visceral fat is found in the abdomen and surrounding vital organs. It is different from fat found directly underneath the skin, which is referred to as subcutaneous fat. Visceral fat can go largely unnoticed because it's not visible to the naked eye. One way visceral fat can be seen is through Magnetic Resonance Imaging (MRI).



Visceral fat level classification

MRI Cross Section at the Navel Level



Too much visceral fat is thought to be closely linked to increased levels of fat in the bloodstream, which may lead to conditions such as high cholesterol, heart disease and type 2 diabetes. In order to prevent or improve these conditions, it is important to try to reduce the amount of visceral fat levels to an acceptable level.

Interpreting the Visceral Fat Level Result

Visceral Fat Level	Level Classification
0.5 - 9.5	0 (Normal)
10.0 - 14.5	+ (High)
15.0 - 30.0	++ (Very High)

* The data referenced by OMRON Healthcare.

NOTE: Visceral fat levels are relative and not absolute values.

What is Subcutaneous fat?

Subcutaneous fat = fat below the skin

Subcutaneous fat not only accumulates around the stomach but also around the upper arms, hips and thighs, and can cause a distortion of the body's proportions. Although not directly linked to increased risk of disease, it is thought to increase pressure on the heart and other complications.



BODY FAT

Body fat serves a vital role in storing energy and protecting internal organs. We carry two types of fat in our bodies: 1) essential fat which is stored in small amounts to protect the body and 2) adipose tissue (stored fat) provides cushion and insulation to internal organs, covers the nerves, moves vitamins throughout the body and is the largest reserve of stored energy available for activity. While too much body fat may be unhealthy, having too little fat can be just as unhealthy. Also, the distribution of body fat in men and women is different, so the basis for classifying the body fat percentage is different between the genders.



Body fat classification

What is Body Fat Percentage?

Body fat percentage refers to the amount of body fat mass in regards to the total body weight expressed as a percentage.

Male	Classification	Female
25% or more	Very High	35% or more
20% or more and less than 25%	High	30% or more and less than 35%
10% or more and less than 20%	Normal	20% or more and less than 30%
Less than 10%	Low	Less than 20%

Based on the obesity values proposed by Lohman (1986) and Nagamine (1972).

SKELETAL MUSCLE

What is skeletal muscle ... Muscle is divided into two types, muscle in internal organs, such as the heart, and muscle attached to bones that is used to move the body. Skeletal muscle can be increased through exercise and other activity.

What is skeletal muscle ratio ... Refers to the amount of skeletal muscle mass in regards to the total body weight expressed as a percentage.

$$\text{Skeletal muscle ratio (\%)} = \left\{ \frac{\text{Skeletal muscle mass (kg)}}{\text{Body weight (kg)}} \right\} \times 100$$

This product uses BI (Bioelectrical Impedance) to calculate your skeletal muscle mass.

Keep skeletal muscle and strengthen it to make corporeity not easily become fat. This product feature is the measurement of skeletal muscle ratio. If you strengthen skeletal muscle and improve basal metabolism, you will not get fat easily.

Interpreting the Skeletal Muscle Percentage Result

Gender	Age	-(Low)	0 (Normal)	+(High)	++ (Very High)
Female	18-39	<24.3%	24.3 - 30.3%	30.4 - 35.3%	≥ 35.4%
	40-59	<24.1%	24.1 - 30.1%	30.2 - 35.1%	≥ 35.2%
	60-80	<23.9%	23.9 - 29.9%	30.0 - 34.9%	≥ 35.0%
Male	18-39	<33.3%	33.3 - 39.3%	39.4 - 44.0%	≥ 44.1%
	40-59	<33.1%	33.1 - 39.1%	39.2 - 43.8%	≥ 43.9%
	60-80	<32.9%	32.9 - 38.9%	39.0 - 43.6%	≥ 43.7%



RESTING METABOLISM

Regardless of your activity level, a minimum level of energy is required to sustain the body's everyday functions. Resting metabolism, the amount of calories needed to supply the body with the minimum level of energy, differs between individuals depending on variables such as age, weight, body composition, and energy expenditure.

Resting metabolism	Energy required to maintain vital functions.
Daily activity metabolism	Energy used for daily activities such as commuting to work, household chores, hobbies etc.
Diet-induced thermogenesis	Energy emitted after eating a meal.



BODY AGE

Body age is based on your resting metabolism. Body age is calculated by using your weight and body fat percentage to produce a guide to judge whether your body age is above or below the average for your actual age. To know your body age is useful to improve your health condition.



Body age varies according to Body composition and resting metabolism, even if your height and weight is the same

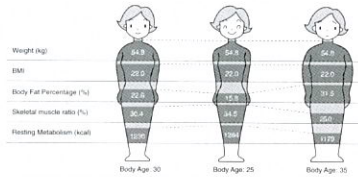
The figures below shows some examples of body age.

The example on the left has a body age of 30, or average body composition for the actual age.

The example in the middle has a lower body fat percentage than average and higher resting metabolism, which results in a body age of 25 that is younger than the actual age.

The example on the right has a higher body fat percentage than average and lower resting metabolism, which results in a body age of 35 that is older than the actual age.

Example:
Actual age: 30 years old
Height: 1.58 m

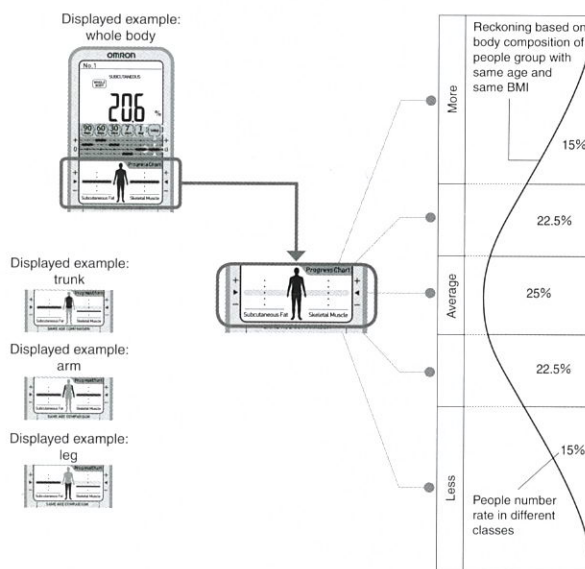


• For children under 18 years old: Visceral fat level, body age and same age comparison will not be displayed.

Same Age Comparison

Understand body condition through same age comparison

Result of same age comparison



Subcutaneous fat and skeletal muscle at different parts are displayed. Its level is displayed through comparison with same age and same BMI.

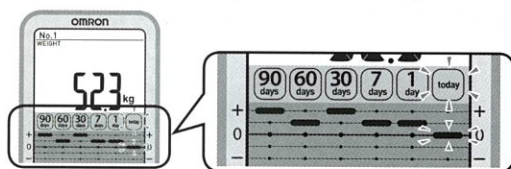
The average is investigation result of our company. Please do not judge health condition in accordance with it.

* The monitor cannot display same age comparison for users under 18 years old.

Progress Chart

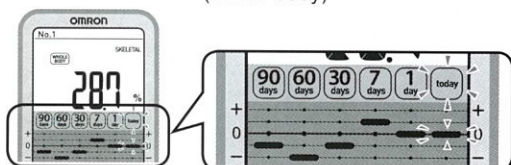
Track the progress of your weight reduction plan up to 90 days ago.

Example of Progress Chart of weight



You can confirm if reduction in weight is correct or not by viewing variation of other body conditions except weight.

Example of Progress Chart of skeletal muscle (whole body)



As the example on the left, because of reduction in weight, the skeletal muscle increases. This is the correct method of reduction in weight but can not be detected easily.



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SPECIFICATIONS

PRODUCT	BODY COMPOSITION MONITOR HBF-375		
DISPLAY	Display of Body Weight	0 to 100 kg with an increment of 100 g 100 to 135 kg with an increment of 200 g	Object age : Over 9 years old
	BMI	2.5 to 90.0 with an increment of 0.1	
	Body Fat Percentage	5.0 to 50.0% with an increment of 0.1%	
	Body Fat Percentage Classification	- (Low) / 0 (Normal) / + (High) / ++ (Very High)	
	Segmental Subcutaneous Fat Percentage (Whole Body, Trunk, Legs, Arms):	5.0 to 60.0% with an increment of 0.1%	
	Segmental Skeletal Muscle Percentage		
	Whole Body	5.0 to 60.0% with an increment of 0.1%	
	Trunk	5.0 to 50.0% with an increment of 0.1%	
	Legs	5.0 to 70.0% with an increment of 0.1%	
	Arms	5.0 to 60.0% with an increment of 0.1%	
Resting Metabolism	385 to 3999 kcal with an increment of 1 kcal	Object age : Over 17 years old	
Visceral Fat Level	0.5 to 30 levels with an increment of 0.5 level		
Visceral fat Classification	0 (Normal) / + (High) / ++ (Very High)		
Body Age	18 to 80 with an increment of one year		
Same Age Comparison	Subcutaneous Fat percentage: 5 levels Skeletal Muscle percentage: 5 levels		
Progress Chart	5 levels		
Memory	Today / 1 day ago / 7 days ago / 30 days ago / 60 days ago / 90 days ago		
SET ITEMS	Date	January 1, 2012 to December 31, 2030	
	Time	0:00 ~ 23:59 (24-hour display)	
	Setting Personal Data (the following items can accommodate date of 4 people)		
	Date of Birth	January 1, 1900 to December 31, 2030	
	Gender	Male / Female	
	Height	100.0 to 199.5 cm with an increment of 0.5 cm	
	Age (when using "GUEST" mode)	10 to 99 with an increment of one year	
* When using Guest mode, personal data should be set before measurement.			
WEIGHT ACCURACY	0.0 kg to 40.0 kg:	±400 g	
	40.1 kg to 135.0 kg:	±1%	
POWER SUPPLY	4 AA batteries (R6) (You may also use AA alkaline batteries (LR6).)		
BATTERY LIFE	About 1 year (using 4 AA manganese batteries at room temperature of 23°C, measured 4 times a day)		
WEIGHT	Approximately 2.6 kg (including batteries)		
EXTERNAL DIMENSIONS	Approx. 329 (L) × 304 (W) × 54 mm (H)		
ACCESSORY	4 AA manganese batteries (R6), Instruction manual		



Subject to technical modification without prior notice.

* For children under 10 years old: Only weight and BMI are displayed.

For children over 9 and under 18 years old: All results except for Visceral Fat Level, Body Age and Same Age Comparison are displayed.

For people 81 years old or older: measured body composition can only be used for reference.

For 18 - 80 years old, all results are displayed.

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