Body Composition Monitor

HBF-255T

Thank you for purchasing the OMRON Body Composition Monitor.
Before using this unit, please be sure to read this Instruction Manual carefully to understand the safe and proper use.
Please store this Instruction Manual carefully for future reference.

All for Healthcare

HBF-255T
Body Composition Monitor

This unit can measure and display the following parameters.

- Body Weight
- Visceral Fat (up to 30 levels)
- Resting Metabolism (in kcal)
- Body Age

- Body Fat (in %)
- Skeletal Muscle (in %)
- BMI (Body Mass Index)

This unit is intended to be operated by adults who can understand this instruction manual. It is not for professional use in hospitals or other medical facilities. It is intended for home use only.

:i: Please read this instruction manual carefully before use and for further information on the individual functions.

Contents

Notes on Safety

Symbols and definitions are as follows:

⚠ **Danger**	Improper use may cause danger resulting in death or serious injury.
⚠ **Warning**	Improper use may result in possible death or serious injury.
⚠ **Caution**	Improper use may result in injury or property damage.

⚠ Danger

• Never use this unit in combination with medical electronic devices such as:
(1) Medical electronic implants such as pacemakers.
(2) Electronic life support systems such as an artificial heart/lung.
(3) Portable electronic medical devices such as an electrocardiograph.
This unit could cause these devices to malfunction, posing a considerable health risk to users of these devices.

⚠ Warning:

• Keep the unit out of the reach of infants, toddlers and children. Contains small parts that may cause a choking hazard if swallowed by infants.
• Do not use the unit on slippery surfaces, such as a wet floor.
• Do not jump onto the unit, or bounce on the unit.
• Do not use this unit when your body and/or feet are wet, such as after taking a bath.
• Stand on the unit bare-footed. Standing on the unit with socks on may cause you to slip and injure yourself.
• Do not step on the edge or display area of the unit.
• Don't place the unit against the wall.
• People with disabilities, or who are physically frail, should always be assisted by another person when using this unit.
• If battery fluid should get in your eyes, immediately rinse with plenty of clean water. Consult a physician immediately.
• This product emits radio frequencies (RF) in the 2.4 GHz band. Do not use this product in locations where RF is restricted, such as on an aircraft or in hospitals.
• As this unit is a precision instrument, do not drop, vibrate, or apply strong shocks.

⚠ Caution:

• Do not disassemble, repair, or remodel the unit.
• Do not begin a weight reduction or exercise program without consulting a physician or healthcare specialist first. Self-diagnosis could injure your health.
• During measurement, make sure that no mobile phone or smartphone is near this device. This may result in incorrect operation of the device and/or cause an inaccurate reading.
• Use batteries specified for this unit. Do not insert the batteries with the polarities in the wrong direction.
• Replace worn batteries with new ones immediately.
• Do not use batteries of different manufacturers or brands together.
• Do not use new and worn batteries together.
• Do not use batteries which have passed the recommended use-by date.
• Remove the batteries from this unit when you are not going to use it for a long period of time (approximately three months or more).
• If battery fluid should get on your skin or clothing, immediately rinse with plenty of clean water.
• Do not dispose of batteries in fire.
• Always wash your feet before using the unit. If you are suffering from a foot infection or other skin disease, you may cause infection to other people.
• When the unit will be used by several people, wipe the unit with a damp cloth moistened with mild detergent after using it. Then wipe it dry.
• Do not use this unit for purposes other than described in this manual.
• This unit is not for professional use in hospitals or other medical facilities. It is intended for home use only.

Data Transmission

- Do not replace the battery while your measurement result is being transferred to your smart device. This may result in the incorrect operation of your monitor and failure to transfer your measurement result.
- Do not place integrated circuit cards, magnets, metal objects, or other devices that emit electromagnetic fields near this monitor while your measurement result is being transferred to your smart device. This may result in the incorrect operation of your unit and failure to transfer your measurement result.

Incorrect Measurement

Incorrect measurement might occur to the following users:
Elderly people (over 81 years old) / People with a fever / Body builders or highly trained athletes / Patients undergoing dialysis / Patients with osteoporosis who have very low bone density / Pregnant women / People with swelling.
- Because the body composition such as body water might greatly deviate from the average value.
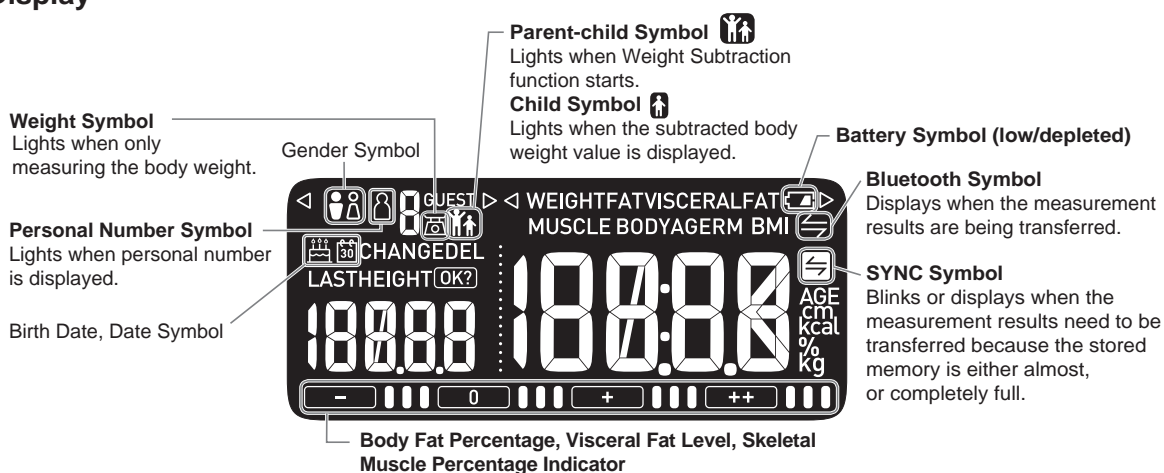
1. Know Your Unit

Main Unit

Display

Foot Electrodes

Foot Electrodes
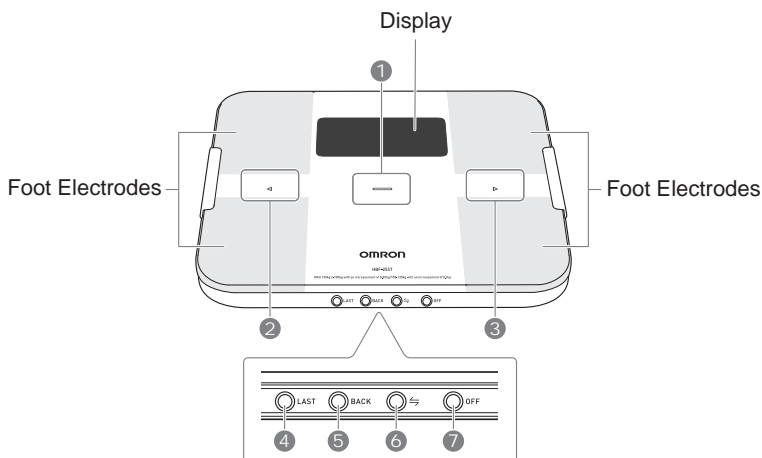
❶	⟐	**Power Touch Button** • Touch this button to turn on the power and confirm the value and turn off the power (3 seconds or longer).
❷	◁	**Back Touch Button** • Touch this button to confirm the result, select a personal number and set your personal data.
❸	▷	**Advance Touch Button** • Touch this button to select a personal number, confirm the result and set your personal data.
❹	◯LAST	**Last Button** • Press this button to check the last value.
❺	◯BACK	**Back Button** • Press this button to change or delete the personal data.
❻	◯⇋	**Transmission Button** • Press this button to pair the unit with your smart device.
❼	◯OFF	**OFF Button** • Press this button to turn off the power.

Display

Parent-child Symbol 👫
Lights when Weight Subtraction function starts.

Child Symbol 🧍
Lights when the subtracted body weight value is displayed.

Weight Symbol
Lights when only measuring the body weight.

Gender Symbol

Battery Symbol (low/depleted)

Bluetooth Symbol
Displays when the measurement results are being transferred.

Personal Number Symbol
Lights when personal number is displayed.

Birth Date, Date Symbol

SYNC Symbol
Blinks or displays when the measurement results need to be transferred because the stored memory is either almost, or completely full.

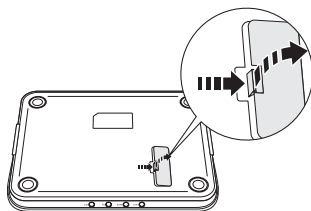**Body Fat Percentage, Visceral Fat Level, Skeletal Muscle Percentage Indicator**
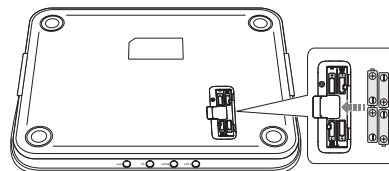
2. Insert and Replace the Batteries

1. **Open the battery cover on the back of the unit.**

Push the clasp and remove the battery cover.

2. **Install the batteries in correct polarity as marked inside the battery compartment.**

3. **Close the battery cover.**

Battery Life and Replacement

■ **Approximately 6 months (When AAA batteries are used with four measurements, two data transfers in BLE and two data transfers in manual BLE per day at a room temperature of 23°C)**
 • The supplied batteries are for trial use only, they may have a shorter life.

■ **When the depleted battery symbol ▭ appears on the display, replace all four batteries with new ones.**
 • It uses 4 single alkaline batteries.
 • Please do not use manganese dry batteries or rechargeable batteries, due to very short use times, become the cause of wrong operation.
 • Replace all four batteries with new ones (same type) at the same time.
 • When the low battery symbol ▭ blinks, recommend to replace the batteries with new ones ahead of time.

Depleted Battery symbol

■ **Replace the batteries after turning off the power.**
 • Personal data stored in the unit are retained even if the batteries are removed.
 • Disposal of used batteries should be carried out in accordance with the national regulations for the disposal of batteries.

■ **When the batteries are replaced, you need to reset the date and time. (Refer to Section 4.)**

About the Power OFF Function

■ **Press the ◯ OFF button to turn off the power.**

■ **Touch the ━ button (3 seconds or longer) to turn off the power.**

■ **The power automatically turns off if the unit is not used for 1 minute when setting-up the date and time.**

OFF

3. Pair the Unit with Your Smart Device

1. **Turn on the Bluetooth of your smart device.**

2. **Download and install the "OMRON connect" app onto your smart device.**

You can choose one of the following 2 methods.

■ **Scan the code image to get access to the following address.**

code image

www.omronconnect.com/setup

■ **Search the "OMRON connect" app from "App Store" or "Google Play".**

3. **Open the app on your smart device and follow set-up and pairing instructions.**

If you already have the OMRON connect app, go to: Menu>Device>Add Device

NOTES
- One smart device manages the data of one user.
- If an app other than "OMRON connect" is used, data might not be transferred correctly.
- Please read the utilization method and usage instruction within the app for details.

4. Set the Date and Time

Setting the date and time is necessary before taking a measurement for the first time or after replacing the batteries.

• Date and time can be set from "OMRON connect" app as well.

1. Touch the ⎓ button to turn on the power.

The year blinks on the display.

2. Select and confirm the year.

Touch the ◁ and ▷ button to select the year and touch the ⎓ button to confirm.

• Setting range of year: 2014 to 2045.

Year

3. Set the unit to the correct date and time.

Touch the ◁ and ▷ button to adjust and touch the ⎓ button to confirm.

• Time is 24-hour system.

Month

Day

Hour

After all the settings for the year, month, day, hour and minute are displayed in that sequence, the power automatically turns off.

Minute

NOTES

• If any mistake is made during the setting, press the ◎ OFF button to turn off the power and start from "Step 1" again.
• If, when setting-up the date and time, this monitor is not used for 1 minute, the power will automatically turn off. Set the date and time anew.
• To modify the date or time, remove the batteries and wait for at least 20 seconds. Then insert the batteries and reset again.

5. Register the Personal Data

For the measurement of body composition, it is necessary to register your personal data (birth date, gender, height). The registered data can be stored for up to 4 persons.

• The personal data can be registered from "OMRON connect" app as well.

1. Touch the ⎯ button to turn on the power.

The power turns on. Personal number "1" blinks. Birth date (**- / - -**) is displayed.

2. Select and confirm your personal number.

Touch the ◁ and ▷ button to select your personal number and touch the ⎯ button to confirm.

3. Set the birth date.

Touch the ◁ and ▷ button to set the birth date and touch the ⎯ button to confirm.

• Setting range of year:1900 to 2045.

Year

Month

Day

4. Set the gender

Touch the ◁ and ▷ button to set the gender ▯ (MALE) or ▯ (FEMALE) and touch the ⎯ button to confirm.

5. Set the height.

Touch the ◁ and ▷ button to adjust the height and touch the ⎯ button to confirm.

• After all the settings are displayed for your confirmation, "0.00 kg" appears on the display.

6. Step onto the unit to take a measurement when "0.00 kg" is displayed.

The data of body weight and body composition are recorded in the unit to support automatic recognition.

After a while, the measurement results are indicated as follows.

Please confirm the correct measurement method before your measuring.

7. Step off the unit after the measurement results are displayed.

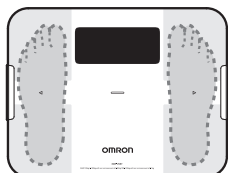The personal data registration is completed.

8. Press the ◎ OFF button or touch the ⎯ button (3 seconds or longer) to turn off the power.

• To add new personal data, start from the "Step 1".

6. How to Take a Measurement Accurately

6.1 Correct postures during the measurement

Step onto the unit with your bare feet.
Place the arches of your feet onto the center of the unit.

Note
• Stepping onto the unit with socks or footwear on will result in an inaccurate measurement.

Do not bend your knees during measurement.

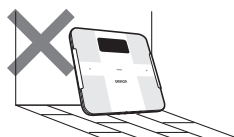Take a measurement on a hard and level floor.

Note
• A cushioned floor surface, such as a mat or carpet, may result in an inaccurate measurement.

6.2 About the "0 kg correction" (Caution for storing)

The unit regularly corrects accuracy automatically when it is not in use.
• If the unit is placed as shown below this accuracy correction function does not work, implement the "0 kg correction" before taking measurement.

The unit is leaning against the wall or other objects
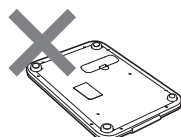
The unit is placed upside down
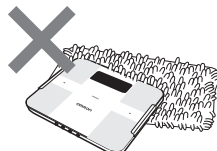
The unit is placed on an object

An object is placed on the unit

6.3 How to implement the "0 kg correction"

1. **Place the unit on a hard and level floor.**

2. **Touch the ⎯ button to turn on the power.**

3. **When the "0.00 kg" is displayed, press the ◎ OFF button or touch the ⎯ button (3 seconds or longer) to turn off the power.**

This completes the "0 kg correction". Wait for 5 seconds, and then take a measurement.

7. Take a Measurement

When person steps onto the unit, it will be powered on to recognize the personal number automatically and start the measurement.

Wrong personal number may be displayed in the following cases.

• Users of similar body type and body weight are measured.

A 70.10 kg   B 70.15 kg

no 1

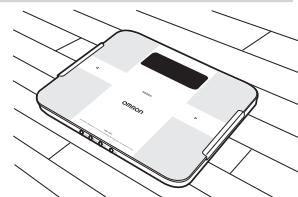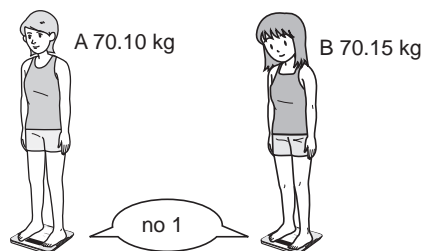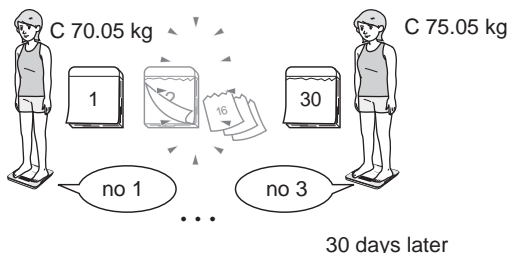• Your body weight has changed since last measurement.

C 70.05 kg   C 75.05 kg

1   30

no 1   no 3

· · ·

30 days later

If inaccurate recognition continues, select your personal number to take a measurement. (Refer to Section 10.)

1. Take a measurement when the power of the unit is off.

- • If the unit is not on a hard and level floor, please implement the "0.00 kg" correction before taking measurement. (Refer to Section 6.)
- • When you step onto the unit, the power automatically turns on, Estimated personal number and measurement results are displayed.

Please confirm the correct measurement method before your measuring.

Estimated personal number

4/ 6   **70.15** kg
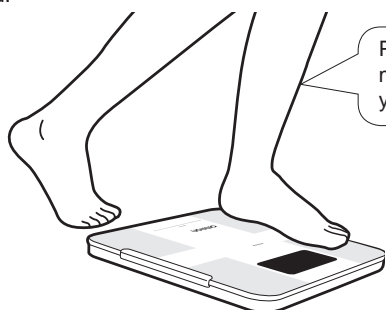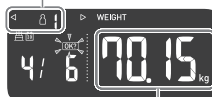
Measurement result
Weight is displayed in 50 grams.

2. When personal number and measurement results are displayed, the measurement is completed.

Step off the unit.

3. Confirm your personal number.

■ If your personal number is correct…

Touch the ⎓ button to confirm your personal number.

Estimated personal number

4/ 6   **70.15** kg

70.25   **70.15** kg

OK? disappears, and last value is displayed.

■ If your personal number is incorrect…

Before the power turns off, select your personal number with the ◁ and ▷ button, and then touch the ⎓ button to confirm.

Estimated personal number

4/ 6   **70.15** kg

no.2

■ If you confirmed your personal number incorrectly…

Before the power turns off, press the ◯ Back button and then touch the ◁ and ▷ button so that you can select your personal number again.

4. Check the measurement results.

The results display rotates automatically as shown below.

Once you confirm your personal number, you can switch it to a measurement result you want to view with the ◁ and ▷ button.

> **Note**
> - Use Body Fat Percentage, Visceral Fat Level, Skeletal Muscle Percentage, and BMI classification indicator as a guide to measurement.
> - To better understand your measurement results, refer to the information and diagrams in Section 19 and 20.

WEIGHT

```
4/ 6   70.15 kg
```

BMI

```
4/ 6   22.4   BMI
```

BMI Classification

BODY FAT PERCENTAGE

```
4/ 6   19.6 %   FAT
```

Body Fat Percentage Classification

RESTING METABOLISM

```
4/ 6   1645 kcal   RM
```

VISCERAL FAT LEVEL

```
4/ 6   6   VISCERAL FAT
```

Visceral Fat Level Classification

BODY AGE

```
4/ 6   31 AGE   BODYAGE
```

SKELETAL MUSCLE PERCENTAGE

```
4/ 6   37.1 %   MUSCLE
```

Skeletal Muscle Percentage Classification
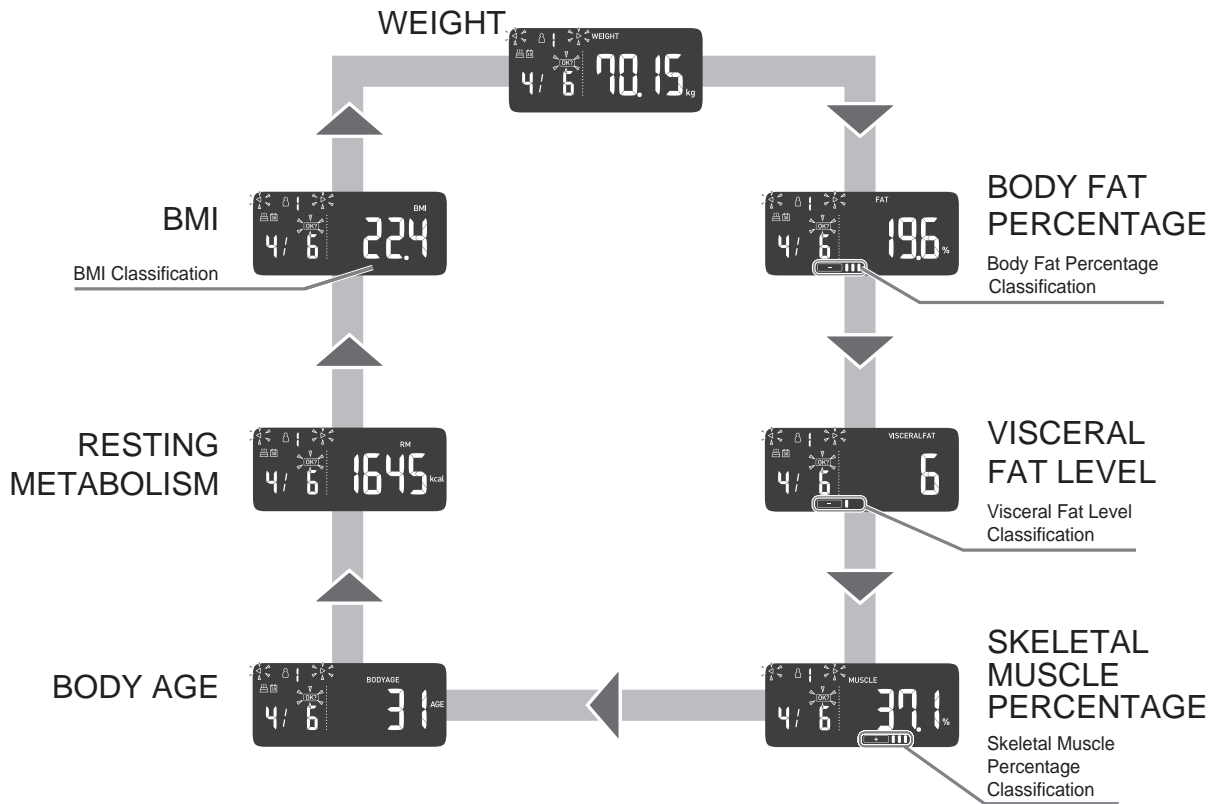
5. Press the ◎ OFF button or touch ═ button (3 seconds or longer) to turn off the power.

8. View the Measurement Results on the unit

- This unit automatically stores up to 30 measurement results per user. On the unit, only the last measurement result can be seen. Other measurement results can be seen on the smart phone.

1. **Press the ◎ LAST button and turn on the power.**

2. **Select your personal number.**

- Touch the ◁ and ▷ button to select the personal number you want to view.

3. **Touch the ▭ button to confirm the personal number.**

- The last value is displayed.

4. **Confirm the last value.**

- Touch the ◁ and ▷ button to switch the measurement result you want to view.

Note

- When the measurement result exceeds 30 times, it is deleted from the older measurement result in turn.

9. View the Measurement Results on Your Smart Device

This unit can transmit measurement results to your smart phone. You can confirm weight and body composition changes simply with your smart phone.

1. **Open the "OMRON connect" app on your smart device. (Refer to Section 3.)**

2. **After taking a measurement the result will be transmitted to your smart phone through "OMRON connect" app.**

3. **Follow the instructions from the "OMRON connect" app to view your measurement results.**

Then you can confirm the variation of your weight and body composition parameters on your smart device.

10. Select Your Personal Number and Take a Measurement

If your personal number is not recognized frequently, you can select your personal number and take the measurement as follows.

1. **Touch the ▭ button to turn on the power.**

The power turns on. Personal number "1" blinks.

2. **Select your personal number.**

Select your personal number with the ◁ and ▷ button.

3. **Touch the ▭ button to confirm your personal number.**

"0.00 kg" is displayed.

4. **Take a measurement when "0.00 kg" is displayed.**

Please confirm the correct measurement method before your measuring. (Refer to Section 6.)
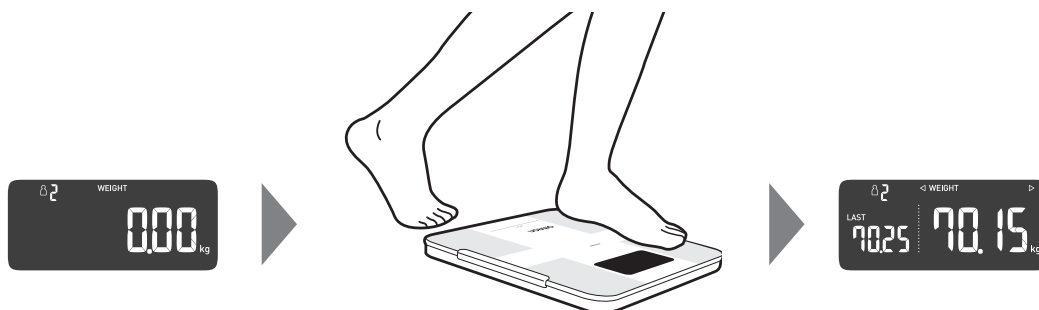
5. **Check the measurement results.**

The results display rotates automatically.

6. **Press the ◎ OFF button or touch the ▭ button (3 seconds or longer) to turn off the power.**

11. Guest Mode (Unrecorded Mode)

When this mode is used, your measurement results will not be recorded.
When you use this mode, please set the birth date, gender, height before taking measurement.

1. Touch the ⎯ button to turn on the power.

The power turns on. Personal number "1" blinks.

2. Select the "GUEST (no.- -)" with the ◁ and ▷ button.

Every time you touch the ▷ button, "no.1" → "no.2" → "no.3" → "no.4" → "GUEST (no.- -)" →
"⛨ (no.0)" → "no.1" ⋯ appear in sequence on the display.
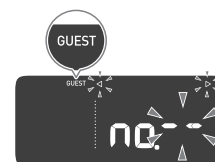
3. Touch the ⎯ button to confirm the personal number.

"0.00 kg" is displayed.

4. Enter personal data.

4.1 Set the birth date

Touch the ◁ and ▷ button to set the birth date and touch the ⎯ button to confirm.

• Setting range of year: 1900 to 2045

Year

Month

Day

4.2 Set the gender

Touch the ◁ and ▷ button to set the gender ♂ (MALE) or ♀ (FEMALE) and touch the ⎯
button to confirm.
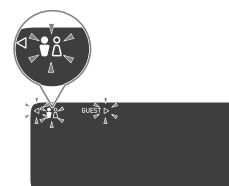
4.3 Set the height

Touch the ◁ and ▷ button to set the height and touch the ⎯ button to confirm.

After all the settings are displayed for your confirmation, "0.00 kg" appears on the display.

5. **Start Measurement when "0.00 kg" is displayed.**

Please confirm the correct measurement method before your measuring. (Refer to Section 6.)

6. **Check the measurement results.**

The results display rotates automatically.

7. **Press the ◎ OFF button or touch the ▬ button (3 seconds or longer) to turn off the power.**

Operating instructions

12. Measure Weight Only

When this mode is used, your measurement result will not be recorded.

1. **Touch the ▬ button to turn on the power.**

The power turns on. Personal number "1" blinks.

2. **Select "⚖ (no.0)" with the ◁ and ▷ button.**

Every time you touch the ▷ button, "no.1" → "no.2" → "no.3" → "no.4" → "GUEST (no.- -)" → "⚖ (no.0)" → "no.1" ⋯ are displayed in sequence.

3. **Touch the ▬ button to confirm the personal number.**

"0.00 kg" is displayed.

4. **When the "0.00 kg" is displayed, step onto the unit.**

• Please confirm the correct measurement method before your measuring. (Refer to Section 6.)
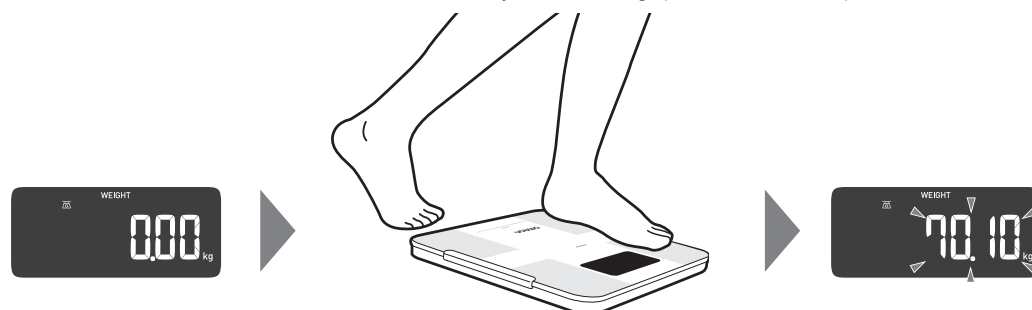
5. **Check the measurement result.**

Your weight is displayed and blinks to indicate that measurement is completed.

6. **Press the ◎ OFF button or touch the ▬ button (3 seconds or longer) to turn off the power.**

13. Weight Subtraction Function

- This product has a function that displays the 1st and 2nd body weight differences. The measurement value that is measured with the weight subtraction function is not recorded on the unit.
- Convenient for measuring the weight of your baby or pet.

Back Touch Button

Advance Touch Button
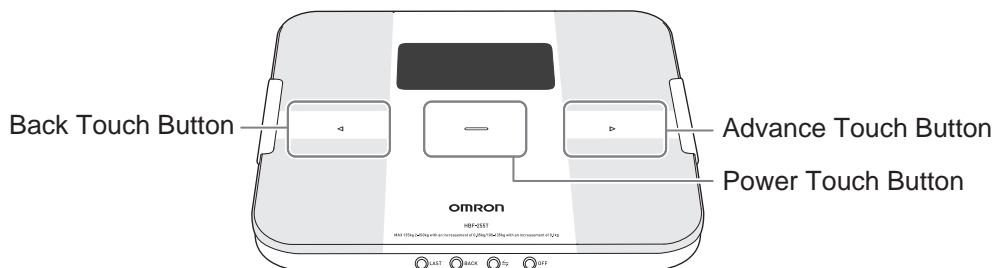
Power Touch Button

1. **Touch the ⟿ button to turn on the power.**

- The power turns on. Personal number "1" blinks.

2. **Touch ◁ and ▷ button to select "⊿ (no.0)".**

- Every time you touch the ▷ button, "no.1" → "no.2" → "no.3" → "no.4" → "GUEST (no.- -)" → "⊿ (no.0)" → "no.1" ⋯ are displayed in sequence.

*3.* **Touch the ⟿ button to confirm the personal number.**

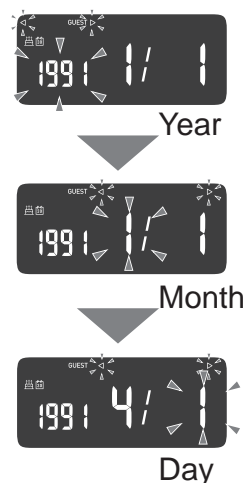- "0.00 kg" is displayed.

4. **When the "0.00 kg" is displayed, step onto the unit and take the 1st measurement.**

- Please confirm the correct measurement method before your measuring. (Refer to Section 6.)

The 1st measurement
result is displayed.

5. **When the measurement result is displayed, step down from the unit.**

6. **Touch the ⎯ button.**

  • The following screen appears after you hear the "Pi" sound.

7. **When the "0.00 kg" is displayed, step onto the unit for the 2nd measurement.**

  • Please confirm the correct measurement method before your measuring. (Refer to Section 6.)

The 2nd measurement
result is displayed.
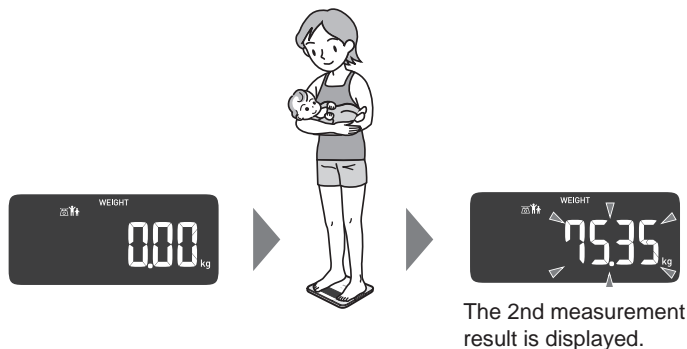
8. **When the measurement result is displayed, step down from the unit.**

  • The 1st and 2nd body weight difference is displayed after the 2nd measurement result is displayed.

  • When the body weight difference is displayed, the child mark appears.

The 2nd measurement   body weight difference is displayed
result is displayed.

child mark
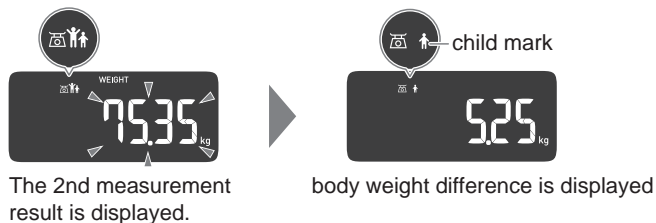
Note
• The 1st and 2nd measurements show the same body weight difference regardless of which one is heavier. Take measurement in the order you feel comfortable in when stepping onto the unit.

14. Change or Delete Your Personal Data

1. **Touch the ⚊ button to turn on the power.**

The power turns on. Personal number "1" blinks.

2. **Select your personal number.**

Touch the ◁ and ▷ button to select the personal number you want to change or delete.

3. **Touch the ⚊ button to confirm the personal number.**

"0.00 kg" is displayed.

4. **Press the ◎ Back button.**

"CHANGE" and "DEL" blink.

5. **Select "CHANGE" or "DELETE" the personal data.**

• Even if the personal data are changed, the measurement results will not be changed or deleted. When using the personal number which has been used by another person, delete the personal data and then register the personal data again.

Change your personal data (The measurement results will not be deleted)	**Delete your personal data** (The measurement results will also be deleted)
1. **Touch the ◁ and ▷ button to select "CHANGE"**	**1.** **Touch the ◁ and ▷ button to select "DEL"**
2. **Touch the ⚊ button** The year blinks.	**2.** **Touch the ⚊ button** OK? blinks.
3. **Change "birth date", "gender" and "height" with reference to Step 3 ~ Step 5 of Section 5.** • To stop any change halfway, press the ◎ OFF button to turn off the power. • The untransferred measurement results will not be changed.	**3.** **Touch the ⚊ button again** • After "Clr" is displayed, you have successfully deleted your personal data.

15. Delete the Communication Setting

If you want to stop the use of the "OMRON connect" app or delete the communication settings from your smart device, please operate as follows. All the communication settings recorded in the unit will be deleted.

1. **Press and hold the** ◯ BACK **and** ◯ ⇋ **button more than 3 seconds.**

The screen below is displayed.

2. **Touch the ═ button to confirm.**

If you see "OK" as shown below, it is complete.

"Pi Pi"
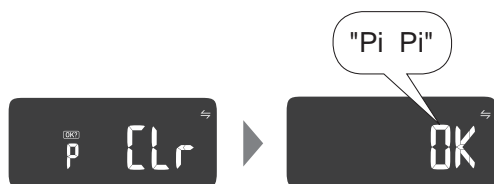
16. Maintenance and Storage

How to Clean the Unit

• Always keep the unit clean before use.
• Wipe the unit with a soft dry cloth. If necessary, use a cloth moistened with water or detergent and squeeze it well before wiping the unit, then wipe off with a dry cloth.
• Do not use benzene or thinner, or other volatile solvents to clean the unit.
• Do not wash the unit with water.

Care and Storage

• Do not store the unit in the following conditions:
  - Humidity, where moisture or water may get into the unit
  - High temperatures, direct sunlight or dusty places
  - Places with the risk of sudden shocks or vibrations
  - In places where chemicals are stored or where corrosive gas is present
• Do not carry out repairs of any kind by yourself. This product is calibrated at the time of manufacture. If at any time you question the accuracy of measurements, please contact your authorized OMRON distributor.

17. Troubleshooting

In case of any of the below problems occur during the measurement, first check that no other electrical device is within 30cm. If the problem persists, refer to the table below.

Error Display	Cause	Correction
Err1	You stepped off the unit during a measurement of body composition.	Do not step off the unit until the measurement of body composition is completed. (Refer to Section 6.)
	Your soles are not in firm contact with the electrodes.	Make sure that you are standing on the unit correctly by placing your soles firmly on the electrodes when taking a measurement. (Refer to Section 6.)
Err2	The posture for measurement is incorrect, your soles are not in firm contact with the electrodes or your soles were dry.	Stand with your knees and back straight. Keep your feet firmly placed on the electrodes and do not move your feet when taking a measurement. (Refer to Section 6.) Slightly moisten your soles with a wet towel and try again.
Err5	Abnormal operation.	Remove and then re-insert the battery. Once this is complete, please restart the device. If this error continues to display, consult the OMRON service representative.
Err6	Communication failure.	Turn off the power and try to communicate again. If this error is displayed again, contact the OMRON service representative.
Err	You moved the unit before the "0.00kg" was displayed.	Don't move the unit until a measurement is completed.
	You moved during a measurement.	Stand still during a measurement.
	Your body weight was out of the measurable range (2 ~ 135kg).	
Err	Communication failure.	Confirm the display of your smart device and follow the instructions in "OMRON connect" app. Refer to "Help" from "OMRON connect" app.
no. 1	Personal data is not registered.	Register your personal data when your personal number blinks after displaying weight.
2020 1/ 1	Personal data is not registered.	If "year" blinks when you select personal number, please register your personal data.
▰	Batteries are low.	Recommend to replace the batteries with new ones ahead of time. (Refer to Section 2.)
▭	Batteries are depleted.	Replace the batteries. (Refer to Section 2.)

Problem	Cause	Correction
⇆ blinks	24 sets of measurement results or more have been stored.	Transfer the measurement results to "OMRON connect" app, then the symbol will disappear.
⇆	30 sets of measurements results have been stored.	If the number exceeds 30, the oldest results are deleted. Transfer the measurement results to "OMRON connect" app, then the symbol will disappear.
P	You pressed and held the ◎⇆ button more than 2 seconds.	This is displayed when you pair your unit with your smart device. Follow the instructions on the "OMRON connect" app. Press the ◎ OFF button to stop the pairing.
0	You pressed the ◎⇆ button.	This is displayed when the data is transferred to your smart device. Follow the instructions on the "OMRON connect" app. Press the ◎ OFF button to stop the transmission.
P ILr	You pressed and held the ◎⇆ and ◎ OFF button more than 2 seconds when " P " and the Bluetooth symbol was blinking.	This is displayed when you delete the communication setting. (Refer to Section 15.) Press the ◎ OFF button to stop the operation.
Even if you turn on the power, nothing is displayed. Even if you step onto the unit, nothing is displayed.	No batteries are inserted.	Insert the batteries.
	The batteries are inserted in the wrong direction.	Insert the batteries in the correct direction.
	The batteries are worn out.	Replace all four batteries with new ones.
Only the weight and BMI are displayed. Visceral Fat Level and Body Age aren't displayed.	People below 6 years old: weight and BMI can be measured.	Check whether your personal data is correct.
	People below 18 years old: Visceral fat level and body age cannot be measured.	Remove the battery and then re-inset it after about 20 seconds or more, check whether the date is correct.
"- - - - -" is displayed for some results.	The registered data or body composition values were out of the measurable range.	Check whether the settings of birth date, gender, and height are correct. Even if these settings are correct, "- - - - -" is displayed if they are out of the displayable or supported age range.
The measurement result is higher or lower than the actual result. The result varies widely for each measurement.	Your posture is wrong during a measurement.	Take a measurement with a correct posture.
	You take a measurement on a carpet or cushioned floor surface, or an uneven floor.	Take a measurement on a hard and level floor.
	Your soles and body are cold, impairing blood circulation.	Warm your body to get blood circulation back to normal before taking a measurement.
	The foot electrodes are very cold.	Leave the unit in a warm room for a while before taking a measurement.
	Your soles are dry.	Slightly moisten your soles with a wet towel before taking a measurement.
	The "0 kg correction" was not implemented correctly.	Implement the "0 kg correction". (Refer to Section 6.3.)
You are not recognized correctly.	Your body weight has changed widely since the last measurement.	Select personal number before taking a measurement. (Refer to Section 10.)
	Your body type is similar to another registered person.	
	The measurement results of another user has been registered.	
You want to measure the body composition, but only the body weight is displayed.	Personal number or GUEST is not selected. (Personal number or GUEST is not displayed.)	Select personal number or GUEST before taking a measurement.
A button does not respond.	You pressed a button when you stood on the unit.	Step off the unit, and then press a button.
	The button is wet or contaminated.	Wipe off the water or stain before taking a measurement.
	You pressed two or more buttons simultaneously.	Press one button at a time.
Failure to send data.	Refer to "Help" in "OMRON connect" app.	

If the above corrections are not effective, contact the OMRON service representative.

There is a possibility that there may be an error on the constitution rarely.

When the product is damaged or repaired, the measurement record is erased.

18. Technical Data

Product Description	OMRON Body Composition Monitor	
Model	HBF-255T	
Display*1	Body Weight:	2.0 to 100.0 kg with an increment of 0.05 kg 100 to 135 kg with an increment of 0.1 kg
	Body Fat percentage:	5.0 to 50.0% with an increment of 0.1%
	Skeletal Muscle percentage:	5.0 to 60.0% with an increment of 0.1%
	BMI:	2.5 to 90.0 with an increment of 0.1
	Resting Metabolism:	385 to 3999 kcal with an increment of 1 kcal
	Body Age:	18 to 80 years old with an increment of 1 year
	Visceral Fat Level:	30 levels with an increment of 1 level
	Body fat percentage, Skeletal muscle percentage classification: – (Low) / 0 (Normal) / + (High) / ++ (Very High) 4 levels with 3 sublevels each	
	Visceral fat level classification: 0 (Normal) / + (High) / ++ (Very High) 3 levels with 3 sublevels each *1 The age range for the Body Fat percentage, Body fat percentage classification, Skeletal Muscle percentage, Skeletal Muscle percentage classification, Resting Metabolism is Over 6 years old. *1 The age range for the Visceral Fat level, Visceral Fat level classification and Body Age is Over 18 years old.	
Transmission Protocol	Bluetooth® low energy technology	
Wireless communication	Frequency range: Modulation: Effective radiated power:	2.4 GHz (2400 - 2483.5 MHz) GFSK <20 dBm
Setting Items*2	The following information can be stored for up to 4 persons.	
	Measurement unit	kg&cm
	Birth date	January 1st, 1900 to December 31st, 2045
	Gender	Male / Female
	Height	100.0 to 199.5 cm with an increment of 0.5 cm
	*2 When the height of a person is less than 100.0 cm or more than 199.5 cm, BMI and body composition measurement results are for reference.	
Weight Accuracy	2.0 kg to 40.0 kg: ± 0.4 kg	
	40.0 kg to 135.0 kg: ± 1%	
Accuracy (S.E.E.*3)	Body Fat percentage:	3.5%
	Skeletal Muscle percentage:	3.5%
	Visceral Fat Level:	3 levels
Durable Period	5 years	
Power Supply	4 AAA alkaline batteries (LR03)	
Battery Life	Approximately 6 months (When AAA alkaline batteries are used in four measurements, two data transfers in BLE and two data transfers in manual BLE per day at a room temperature of 23°C)	
Operating Temperature/ Humidity/Air Pressure	+5°C to +40°C, 30% to 85% RH (no-condensing), 860 hPa to 1060 hPa	
Storage and Transport Temperature/Humidity/ Air Pressure	-20°C to +60°C, 10% to 95% RH (no-condensing), 860 hPa to 1060 hPa	
Weight	Approx. 1.7 kg (including batteries)	
External Dimensions	Approx. 327(W) x 30(H) x 249(D) mm	
Contents	Body composition monitor, 4 AAA alkaline batteries (LR03), Setup Instructions, Instruction Manual, Caution Sheet, Quick Start Guide	

*3 S.E.E: standard error of estimation

| Note | • Subject to technical modification without prior notice. |

*Below 6 years old: Only Body weight and BMI can be measured.
 Below 18 years old: Visceral fat level and body age cannot be measured.
 Over 81 years old: Body composition is for reference value.

This Product operates in the unlicensed ISM band at 2.4GHz. In case this Product is used around the other wireless devices including microwave and wireless LAN, which operate same frequency band of this Product, there is a possibility that interference occurs between this Product and such other devices. If such interference occurs, please stop the operation of other devices or relocate this Product before using this Product or do not use this Product around the other wireless devices.

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Description of symbols that, depending on a model, can be found on the product itself, product sales package or IM.			
⎓	Direct current	SN	Serial number
(icon)	This product should not be used by persons with medical implants, e.g. heart pacemakers, artificial heart, lung or other electronic life support systems.	(icon)	Temperature limitation
(icon)	Atmospheric pressure limitation	(icon)	Humidity limitation
(icon)	Need for the user to consult the instructions for use		
Product production date is integrated in a Serial number, which is placed on the sales package: the first 4 digits mean year of production, the next 2 digits - month of production.			

Information on body composition

19. Information on Body Composition

Principle of body composition calculation

Body fat has low electric conductivity

HBF-255T measures the body fat percentage by the Bioelectrical Impedance (BI) method. Muscles, blood vessels and bones are body tissues with a high water content that conducts electricity easily. Body fat is tissue that has little electric conductivity. The unit sends an extremely weak electrical current of 50 kHz and less than 500 µA through your body to determine the amount of fat tissue. This weak electrical current is not felt while operating the unit.
In order for the scale to determine your body composition, it uses the electrical impedance, along with your height, weight, age and gender information to generate results based on OMRON's data of body composition.

Recommended measurement times

Understanding the normal changes in your body fat percentage can help you in preventing or reducing obesity. Being aware of the times when the body fat percentages shift within your own daily schedule will assist you in obtaining an accurate trending of your body fat. It is recommended to use this unit in the same environment and daily circumstances. (See chart)

Daily activities

Waking up	
Recommended time	After waking up
Breakfast	
2 hours	
Recommended time	Before lunch and about 2 hours or more after breakfast
Lunch	
2 hours	
Recommended time	In the afternoon about 2 hours or more after lunch and before taking a bath or eating dinner
Taking a bath or eating dinner	Avoid measurement immediately after eating or bathing.
2 hours	
Recommended time	Before going to bed and about 2 hours or more after dinner or bath
Going to bed	

Avoid Taking Measurements Under the Following Conditions:

- Immediately after vigorous exercise, after a bath or sauna.
- After drinking alcohol or a large amount of water, after a meal (about 2 hours).

If a measurement is taken under these physical conditions, the calculated body composition may differ significantly from the actual one because the water content in the body is changing.

What is BMI (Body Mass Index)?

BMI 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 HBF-255T uses the height information stored in your personal number or when entering information in the Guest Mode to calculate your BMI classification.

If the fat level revealed by BMI is higher than the international standard, there is an increased likelihood of common diseases. However, not all types of fat can be revealed by BMI.

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.

$$\text{Body fat percentage (\%)} = \{\text{Body fat mass (kg)} / \text{Body weight (kg)}\} \times 100$$

HBF-255T uses the BI method to estimate your body fat percentage.
Depending on where the fat is distributed in the body, it is classified as visceral fat or subcutaneous fat.

What is Visceral Fat Level?

### *Visceral fat = fat surrounding internal organs*

Too much visceral fat is thought to be closely linked to increased levels of fat in the bloodstream, which can lead to common diseases such as hyperlipidemia and diabetes, which impairs the ability of insulin to transfer energy from the bloodstream and using it in cells. In order to prevent or improve conditions of common diseases, it is important to try and reduce visceral fat levels to an acceptable level. People with high visceral fat levels tend to have large stomachs. However, this is not always the case and high visceral fat levels can lead to metabolic obesity. Metabolic obesity (visceral obesity with normal weight) represents fat levels that are higher than average, even if a person's weight is at or below the standard for their height.

Visceral Fat
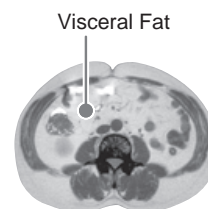
What is Subcutaneous Fat?

Subcutaneous fat = fat below the skin

Subcutaneous Fat

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. Subcutaneous fat is not displayed in this unit, but is included in the body fat percentage.
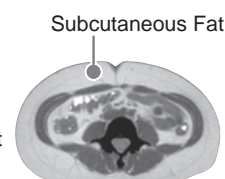
What is Skeletal Muscle?

Muscle is divided into two types, muscle in internal organs, such as the heart, and skeletal muscle attached to bones that is used to move the body. Skeletal muscle can be increased through exercise and other activity. Increasing the ratio of skeletal muscle means that body can burn energy more easily, which means that it is less likely to turn to fat, and makes it easier to lead an energetic lifestyle.

What is Resting Metabolism?

Regardless of your activity level, a minimum level of caloric intake is required to sustain the body's everyday functions. Known as the resting metabolism, this indicates how many calories you need to ingest in order to provide enough energy for your body to function.

What is Body Age?

Body age is based on your resting metabolism. Body age is calculated for you as a guide that indicates whether your overall body composition profile (based on weight, body fat percentage and skeletal muscle percentage) is above or below the average for your actual age. To know your body age is useful to improve your health condition.

20. Measurement Results Interpretation Diagrams

Interpreting the Body Fat Percentage Result

Body Fat Percentage		Classification		
Male	**Female**	**4 Level**	**12 Level**	**Display**
5.0 ~ 6.6%	5.0 ~ 9.9%	– (Low)	1	
6.7 ~ 8.3%	10.0 ~ 14.9%		2	
8.4 ~ 9.9%	15.0 ~ 19.9%		3	
10.0 ~ 13.2%	20.0 ~ 23.2%	0 (Normal)	4	
13.3 ~ 16.5%	23.3 ~ 26.5%		5	
16.6 ~ 19.9%	26.6 ~ 29.9%		6	
20.0 ~ 21.6%	30.0 ~ 31.6%	+ (High)	7	
21.7 ~ 23.3%	31.7 ~ 33.3%		8	
23.4 ~ 24.9%	33.4 ~ 34.9%		9	
25.0 ~ 33.3%	35.0 ~ 39.9%	++ (Very High)	10	
33.4 ~ 41.7%	40.0 ~ 44.9%		11	
41.8 ~ 50.0%	45.0 ~ 50.0%		12	

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

Interpreting the Visceral Fat Level Result

Visceral Fat Level	Level Classification		
	3 Level	**9 Level**	**Display**
1 ~ 6	0 (Normal)	1	
7		2	
8 ~ 9		3	
10 ~ 11	+ (High)	4	
12		5	
13 ~ 14		6	
15 ~ 16	++ (Very High)	7	
17		8	
18 ~ 30		9	

According to OMRON HEALTHCARE figures

Interpreting the Skeletal Muscle Percentage Result

Skeletal Muscle Percentage		Classification		
Male	Female	4 Level	12 Level	Display
5.0 ~ 14.2%	5.0 ~ 11.8%	– (Low)	1	[−] ▮
14.3 ~ 23.5%	11.9 ~ 18.8%	– (Low)	2	[−] ▮▮
23.6 ~ 32.8%	18.9 ~ 25.8%	– (Low)	3	[−] ▮▮▮
32.9 ~ 33.7%	25.9 ~ 26.5%	0 (Normal)	4	[0] ▮
33.8 ~ 34.7%	26.6 ~ 27.2%	0 (Normal)	5	[0] ▮▮
34.8 ~ 35.7%	27.3 ~ 27.9%	0 (Normal)	6	[0] ▮▮▮
35.8 ~ 36.2%	28.0 ~ 28.2%	+ (High)	7	[+] ▮
36.3 ~ 36.7%	28.3 ~ 28.6%	+ (High)	8	[+] ▮▮
36.8 ~ 37.3%	28.7 ~ 29.0%	+ (High)	9	[+] ▮▮▮
37.4 ~ 41.5%	29.1 ~ 36.0%	++ (Very High)	10	[++] ▮
41.6 ~ 45.7%	36.1 ~ 43.0%	++ (Very High)	11	[++] ▮▮
45.8 ~ 60.0%	43.1 ~ 60.0%	++ (Very High)	12	[++] ▮▮▮

According to OMRON HEALTHCARE figures

Interpreting the RM Result

AGE (Years old)	Male			Female		
	Resting Metabolism Base Value (kcal/kg Body Weight/Day)	Reference Body Weight (kg)	Resting Metabolism (kcal/Day)	Resting Metabolism Base Value (kcal/kg Body Weight/Day)	Reference Body Weight (kg)	Resting Metabolism (kcal/Day)
1 ~ 2	61.0	11.5	700	59.7	11.0	660
3 ~ 5	54.8	16.5	900	52.2	16.1	840
6 ~ 7	44.3	22.2	980	41.9	21.9	920
8 ~ 9	40.8	28.0	1,140	38.3	27.4	1,050
10 ~ 11	37.4	35.6	1,330	34.8	36.3	1,260
12 ~ 14	31.0	49.0	1,520	29.6	47.5	1,410
15 ~ 17	27.0	59.7	1,610	25.3	51.9	1,310
18 ~ 29	24.0	63.2	1,520	22.1	50.0	1,110
30 ~ 49	22.3	68.5	1,530	21.7	53.1	1,150
50 ~ 69	21.5	65.3	1,400	20.7	53.0	1,100
70	21.5	60.0	1,290	20.7	49.5	1,020

* Ministry of Health, Labor and Welfare: Dietary Reference Intakes of Japanese people (2015 version)

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