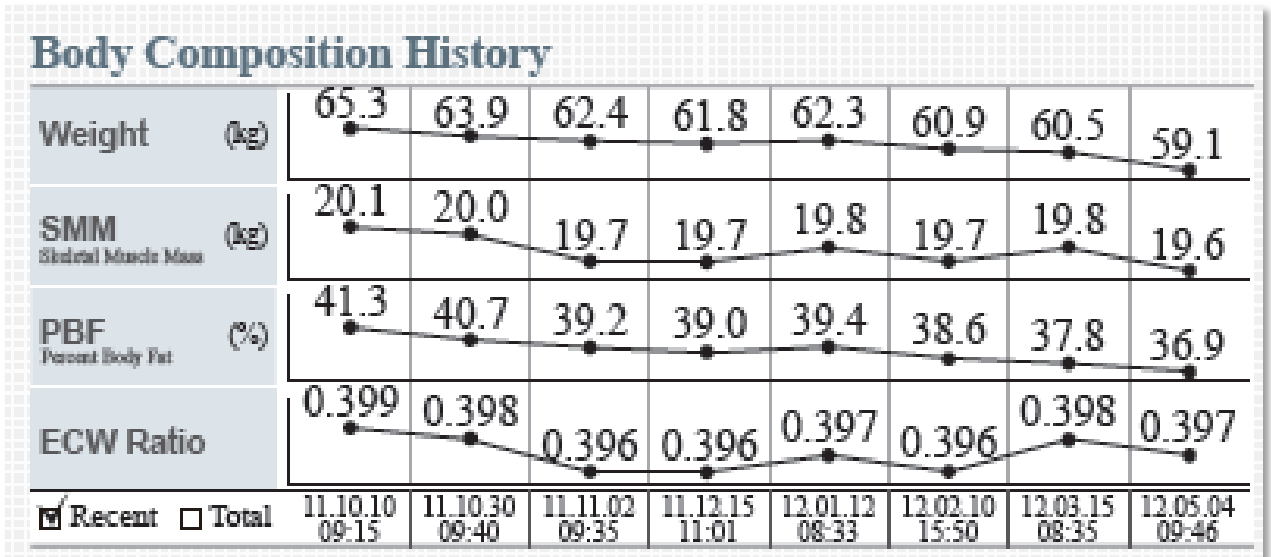# InBody770

Premium solution for your health

See What You're Made of

Reveal the efficiency of your consultation throughout the InBody Test

Body Composition History

		1	2	3	4	5	6	7	8
Weight	(kg)	65.3	63.9	62.4	61.8	62.3	60.9	60.5	59.1
SMM Skeletal Muscle Mass	(kg)	20.1	20.0	19.7	19.7	19.8	19.7	19.8	19.6
PBF Percent Body Fat	(%)	41.3	40.7	39.2	39.0	39.4	38.6	37.8	36.9
ECW Ratio		0.399	0.398	0.396	0.396	0.397	0.396	0.398	0.397
☑ Recent ☐ Total		11.10.10 09:15	11.10.30 09:40	11.11.02 09:35	11.12.15 11:01	12.01.12 08:33	12.02.10 15:50	12.03.15 08:35	12.05.04 09:46

The InBody Test clearly visualize internal change of the body. Weight alone does not accurately reflect the effects of improved nutritional status of individual. However, increased Skeletal Muscle Mass and Percent Body Fat is indicating a positive aspect of the body's change. Keeping Extracellular Water Ratio within the normal range is also indicating one's nutritional status.

The graph above is showing a body's change of a man who had about a half a year of well organized nutritional supplement and work out plan after his surgery. And the InBody Test is showing a positive progress of his body's change.

Accuracy and Reliability of the InBody are Proven
by the World's Top Journals and Scholars

More than 500 articles have been published by renowned journals

Clinical reliability was proved by the world's medical professionals in numerous articles.
The InBody has 98.4% of correlation with the device DEXA(Golden standard method to analyze the body composition) and the InBody's own technologies hold patents in numerous countries throughout the world.

Validation Studies

Kriemler, S., Puder, J., Zahner, L., Roth, R., Braun-Fahrländer, C., & Bedogni, G. (2008). Cross-validation of bioelectrical impedance analysis for the assessment of body composition in a representative sample of 6-to 13-year-old children. *European journal of clinical nutrition*, 63(5), 619-626.

Ling, C. H., de Craen, A. J., Slagboom, P. E., Gunn, D. A., Stokkel, M. P., Westendorp, R. G., & Maier, A. B. (2011). Accuracy of direct segmental multi-frequency bioimpedance analysis in the assessment of total body and segmental body composition in middle-aged adult population. *Clinical Nutrition*, 30(5), 610-615.

Lim, J. S., Hwang, J. S., Lee, J. A., Kim, D. H., Park, K. D., Jeong, J. S., & Cheon, G. J. (2009). Cross-calibration of multi-frequency bioelectrical impedance analysis with eight-point tactile electrodes and dual-energy X-ray absorptiometry for assessment of body composition in healthy children aged 6–18 years. *Pediatrics International*, 51(2), 263-268.

Utter, A. C., & Lambeth, P. G. (2010). Evaluation of multifrequency bioelectrical impedance analysis in assessing body composition of wrestlers. *Med Sci Sports Exerc*, 42(2), 361-7.

Capture the single moment of your body via SMF-BIA

*Another innovative achievement for BIA technology*

SMF-BIA (Patent registration number: US 8271079);
Simultaneous Multi-Frequency Bioelectrical Impedance Analysis

The shift of body composition and the change in water distribution of the body causes inaccurate measurements when the body composition was analyzed by former technology. InBody with its exclusive technology overcomes this limitation by flowing the multi-frequencies instantly at the same time. The innovative technology called SMF-BIA which guarantees high accuracy of measurement is proudly introduced by the InBody770 with its new generation.

When taking a photo of a moving subject with low shutter speed, the photos will be blurred. On the other hand, the photos will be crystal clear if the shutter speed is high and the exposure time of the subject is short. SMF-BIA technology has the same principle with the characteristics of photograph. When exposure time is long, then the measurement will be done even during the body moves. But with the SMF-BIA, it can capture the single moment of your body.
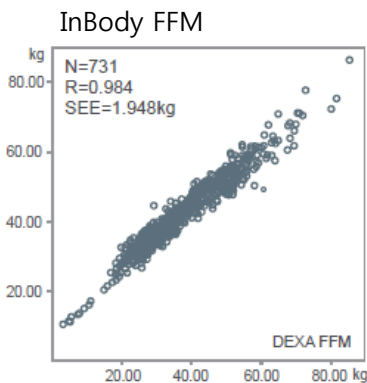
With the technological advancement, the InBody proved itself as the most accurate BIA device to measure the body composition.
The study shows that InBody has high correlation with DEXA.

InBody Technology
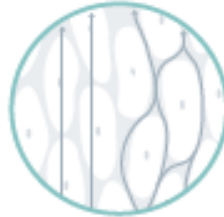
Experience the Exclusive InBody Technology

Technical Improvement for Achieving High Accuracy and Reproducibility

98.4% Accuracy Validated with DEXA		99% of Reproducibility

Direct Segmental Measurement   **Wide Ranged Multi-Frequencies**   **8-Point Tactile Electrodes**

(DSM-BIA)   **(SMF-BIA)**   **(With Thumb Electrodes)**

No Use of Empirical Estimation

Conventional BIA devices factor body type, age, and gender into their results. The InBody only uses impedance directly acquired from each subject allowing the InBody to always produce correct results regardless of gender, age, and particularly, body type.

Direct Segmental Measurement (DSM-BIA)

One of the assumptions generally taken in BIA is that the measure body is one cylinder. The InBody uses direct segmental measurement bioelectric impedance analysis (DSM-BIA), a patented technology, to precisely measure the body as 5 separate cylinders: four limbs and the trunk.

Wide Ranged Multi-Frequencies

InBody uses multi-frequencies to penetrate the cell membrane and accurately analyze intracellular water and extracellular water. By using simple frequencies, InBody accurately measures total body water, hence, is useful in analyzing individuals with imbalanced body water distribution. Especially, InBody770 uses simultaneous multi-frequencies and it makes higher accuracy of the results.

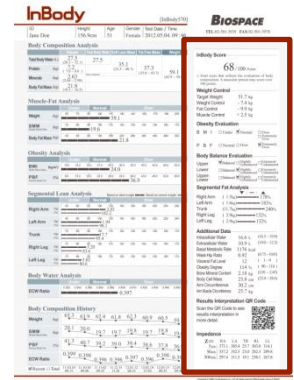### 8-Point Tactile Electrodes with Thumb electrodes

Exclusive Tetra-polar 8-point electrodes allow measurements to repeatedly start at a fixed point – regardless of where electrodes are placed – to increase accuracy and reproducibility.

InBody 770, Performing for Experts

InBody770 is developed based on professional's experience

User friendly interface with voice guidance lets anyone can easily take the InBody Test.

Monitor progressive change of your body composition.

Customize InBody Results Sheet with your favorable parameters.

Medically Approved Body Composition Analysis

InBody770 is certified by numerous certification such as NAWI and CE to provide research level results. These certifications are approved almost every countries throughout the world.

for numerous medical application

Cardiology

Pulmonology

Hepatology

Nephrology

Internal Medicine

Oncology

Endocrinology

| Body Water Analysis, ECW Ratio Analysis	Min-Hui Liu, et al. Edema index established by a segmental multifrequency bioelectrical impedance analysis provides prognostic value in acute heart failure. Journal of Cardiovascular Medicine 2012; 13: 299-306.
Fat Free Mass, ECW Ratio Analysis	Takahiro Yoshikawa, et al. Association of plasma adiponectin levels with cellular hydration state measured using bioelectrical impedance analysis in patients with COPD. International Journal of COPD 2012; 7: 515-521.
Visceral Fat Area, ECW Ratio Analysis Body Cell Mass	Nagisa Hara, et al. Value of the extracellular water ratio for assessment of cirrhotic patients with and without ascites. Hepatology Research 2009; 39:1072-1079.
Body Water Analysis ECW Ratio Analysis Body Cell Mass	Andrew Davenport. Does peritoneal dialysate affect body composition assessments using multi-frequency bioimpedance in peritoneal dialysis patients? European Journal of Clinical Nutrition 2012:1-3.
Phase Angle, Fat Free Mass	Kazumasa Torimoto, et al. The effects of androgen deprivation therapy on lipid metabolism and body composition in Japanese patients with prostate cancer. Japanese Journal of Clinical Oncology 2011; 41: 577-581.

Extend Range of InBody Application

Smart application of InBody770 with various features
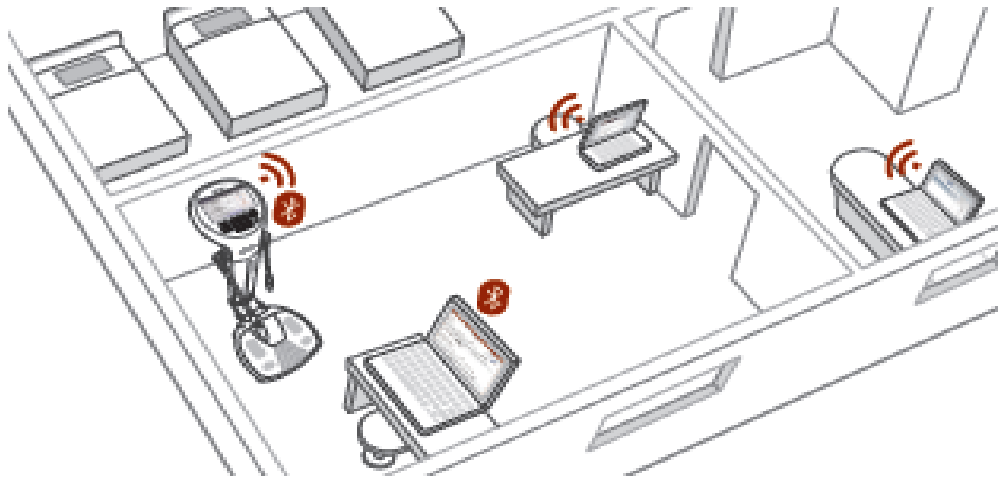
Connect your InBody770 with various features via Wi-Fi or Bluetooth.

User data will be listed up in your Lookin'Body data management software and by using it, you can remotely control the InBody770, save personal information, and manage appointments with email service.

Also, features such as BPBIO320, BSM170 and Barcode Scanner can possibly extend usage of InBody770 and apply InBody770 to various fields.
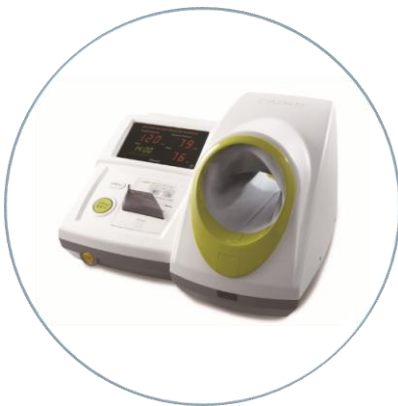
BPBIO320 Blood Pressure Monitor

Upload-pressurized automatic blood pressure monitor gives more accurate results and it is less painful.

BSM170 Stadiometer

Precise height and weight measurement is given along with touch bar and detailed measurement sensor.
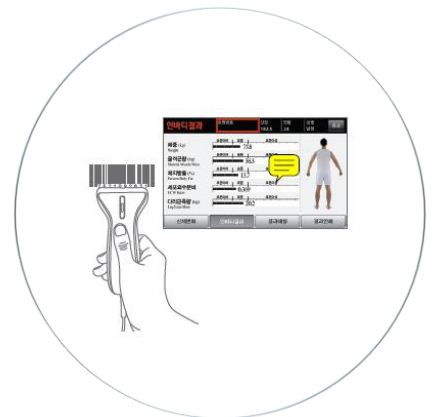
Barcode Scanner

Simply input your client's data by scanning the barcode with the scanner. Save your time for the next InBody Test.

* Software and devices above are optional.

InBody

[InBody770]

ID	Height	Age	Gender	Test Date / Time
SM2008	156.9cm	51	Female	2012.05.04. 09 : 46

① Body Composition Analysis

	Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight
Total Body Water (L)	27.5 (26.3 ~ 32.1)	27.5	35.1 (33.3 ~ 40.7)	37.3 (35.8 ~ 43.7)	59.1 (43.9 ~ 59.5)
Protein (kg)	7.2 (7.0 ~ 8.6)				
Minerals (kg)	2.63 (2.44 ~ 2.98)				
Body Fat Mass (kg)	21.8 (10.3 ~ 16.5)				

② Muscle-Fat Analysis

		Under	Normal	Over	
Weight	(kg)			59.1	
SMM Skeletal Muscle Mass	(kg)		19.6		
Body Fat Mass	(kg)			21.8	

③ Obesity Analysis

		Under	Normal	Over	
BMI Body Mass Index	(kg/m²)			24.0	
PBF Percent Body Fat	(%)			36.9	

④ Segmental Lean Analysis

Based on ideal weight ▬▬ Based on current weight ▬▬

		Under	Normal	Over	ECW Ratio
Right Arm	(kg) (%)			2.02 / 102.2	0.380
Left Arm	(kg) (%)			1.94 / 98.1	0.381
Trunk	(kg) (%)		17.7 / 95.4		0.398
Right Leg	(kg) (%)		5.20 / 83.6		0.401
Left Leg	(kg) (%)		5.02 / 80.6		0.403

⑤ Body Water Analysis

		Under	Normal	Over	
ECW Ratio				0.397	

⑥ Body Composition History

Weight	(kg)	65.3	63.9	62.4	61.8	62.3	60.9	60.5	59.1
SMM Skeletal Muscle Mass	(kg)	20.1	20.0	19.7	19.7	19.8	19.7	19.8	19.6
PBF Percent Body Fat	(%)	41.3	40.7	39.2	39.0	39.4	38.6	37.8	36.9
ECW Ratio		0.399	0.398	0.396	0.396	0.397	0.396	0.398	0.397
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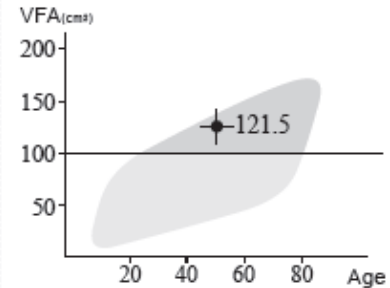## ⑦ InBody Score

68 / 100 Points

• Total score that reflects the evaluation of body composition. A muscular person may score over 100 points.

⑧ Visceral Fat Area

VFA (cm²)

121.5

⑨ Weight Control

Target Weight	51.7 kg
Weight Control	- 7.4 kg
Fat Control	- 9.9 kg
Muscle Control	+ 2.5 kg

⑩ Segmental Fat Analysis

	▼ — ▲	
Right Arm	(1.5 kg)	178.0%
Left Arm	(1.6 kg)	183.0%
Trunk	(11.7 kg)	240.0%
Right Leg	(2.9 kg)	132.0%
Left Leg	(2.9 kg)	132.0%

⑪ Research Parameters

Intracellular Water	16.6 L	(16.3 ~ 19.9)
Extracellular Water	10.9 L	(10.3 ~ 12.2)
Basal Metabolic Rate	1176 kcal	(1254 ~ 1451)
Waist-Hip Ratio	0.92	(0.75 ~ 0.85)
Body Cell Mass	23.8 kg	(23.4 ~ 28.6)

⑫ Results Interpretation QR Code

Scan the QR Code to see results interpretation in more detail.

⑬ Whole Body Phase Angle

⌀ 50 kHz | 15°

⑭ Impedance

Z(Ω)		RA	LA	TR	RL	LL
	1 kHz	379.6	392.7	26.8	306.8	316.1
	5 kHz	373.1	385.4	25.7	303.0	314.1
	50 kHz	337.2	352.5	23.0	282.3	289.8
	250 kHz	307.9	322.9	20.4	263.3	272.7
	500 kHz	297.4	311.5	19.1	258.1	267.8
	1000 kHz	286.4	297.4	17.0	254.5	264.0

The InBody Results Sheet

Body composition analysis and nutritional information at a glance

1 **Body Composition Analysis**

Body weight is the sum of Total Body Water, Protein, Minerals, and Body Fat Mass. Maintain a balanced body composition to stay healthy.

2 **Muscle-Fat Analysis**

Compare the bar lengths of Skeletal Muscle Mass and Body Fat Mass. The longer the Skeletal Muscle Mass bar is compared to the Body Fat Mass bar, the stronger the body is.

3 **Obesity Analysis**

BMI is an index used to determine obesity by using height and weight. PBF is the percentage of body fat compared to body weight.

4 **Segmental Lean Analysis**

Evaluates whether the muscles are adequately developed in the body. The top bar shows the comparison of muscle mass to ideal weight while the bottom bar shows that to the current weight.

5 **ECW Ratio Analysis**

ECW Ratio, the ratio of Extracellular Water to Total Body Water, is an important indicator whether the body water is balance.

6 **Body Composition History**

Track the history of the body compositional change. Take the InBody Test periodically to monitor your progress.

7 **InBody Score**

Total score that reflects the evaluation of body composition. A muscular person may score over 100 points.

8 **Visceral Fat Area**

Visceral Fat Area is the estimated area of fat surrounding internal organs in the abdomen. Maintain a Visceral Fat Area under 100cm2 to stay healthy.

9 **Weight Control**

See how your body measures up to the recommended Weight, Muscle Mass, and Body Fat Mass for a good balance. The '+' means to gain and the '-' means to lose.

10 **Segmental Fat Analysis**

Evaluates whether the amount of fat is adequately distributed in all parts of the body. Each bar shows fat mass in comparison to the ideal.

11 **Research Parameters**

Various nutritional outputs are provided such as Intracellular Water, Extracellular Water, Basal Metabolic Rate, Waist-Hip Ratio, Visceral Fat Level, Obesity Degree, and more. To see a complete list, please scan the results interpretation QR code.

12 **Results Interpretation QR Code**

Scan the QR Code to see results interpretation in more detail.

13 **Whole Body Phase Angle**

Whole Body Phase Angle is the resistance value measured in the cellular membrane when electrical currents are applied throughout the body.

14 **Impedance**

Impedance is the resistance value measured when electrical currents are applied throughout the body. Based on the measured data, key body composition outputs can be analyzed. Impedance is also used for many research purposes.
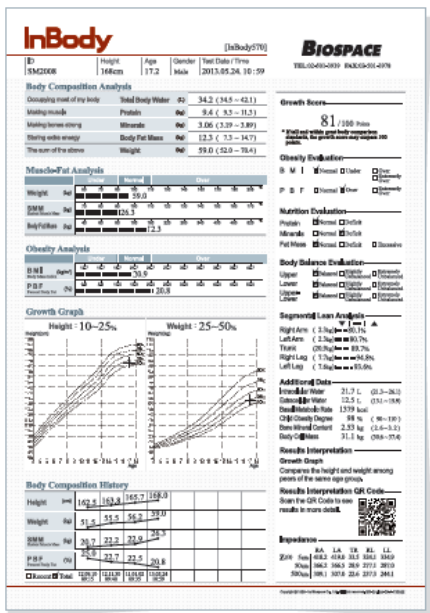
The InBody Results Sheet for a Child

Specially designed results sheet with Growth Graph is available for a Child

InBody Body Water

[InBody770]

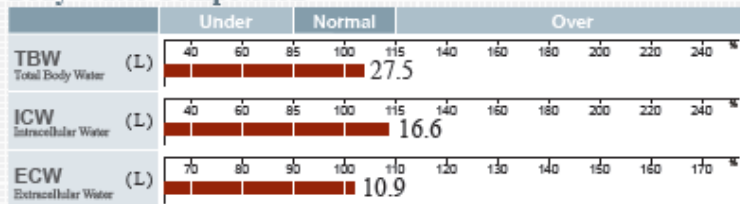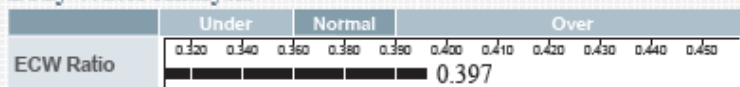| ID	Height	Age	Gender	Test Date / Time
SM2008	156.9cm	51	Female	2012.05.04. 09 : 46

❶ Body Water Composition

		Under	Normal	Over
TBW (L) Total Body Water				27.5
ICW (L) Intracellular Water				16.6
ECW (L) Extracellular Water				10.9

❷ Body Water Analysis

	Under	Normal	Over
ECW Ratio			0.397

❸ Segmental Body Water Analysis

		Under	Normal	Over
Right Arm (L)				2.02
Left Arm (L)				1.94
Trunk (L)				17.7
Right Leg (L)				5.20
Left Leg (L)				5.02

❹ Segmental ECW Ratio Anaylsis

	Right Arm	Left Arm	Trunk	Right Leg	Left Leg
Over					0.403
Slightly Over			0.398	0.401	
Normal	0.380	0.381			
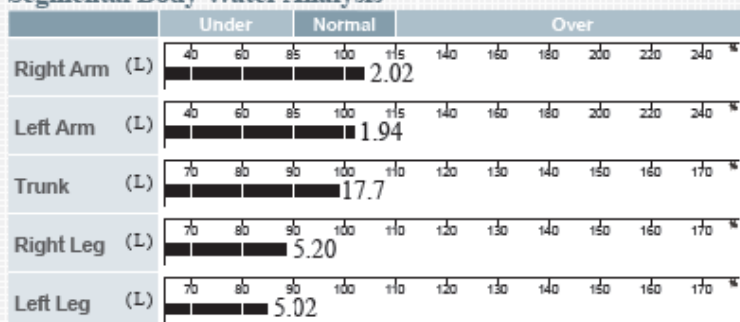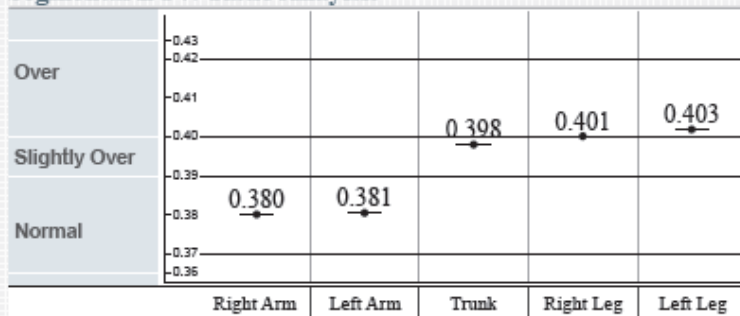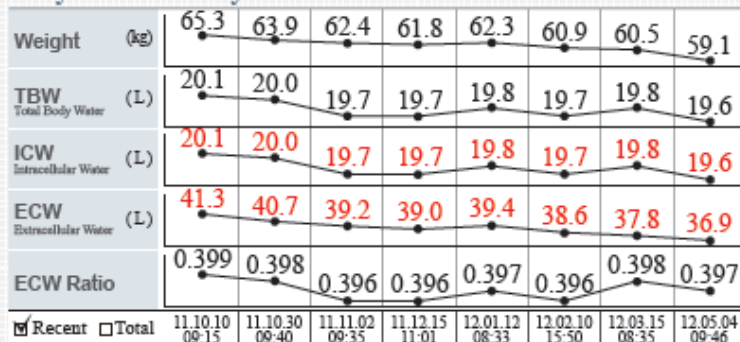
❻ Body Water Composition

Total Body Water	27.5 L	(26.3~31.4
Intracellular Water	16.6 L	(16.3~19.9
Extracellular Water	10.9 L	(10.0~12.2

❼ Segmental Body Water Analysis

Right Arm	2.40 L	(1.22~1.49)
Left Arm	2.40 L	(1.22~1.49)
Trunk	18.8 L	(11.1~13.5)
Right Leg	6.25 L	(3.85~4.71)
Left Leg	6.27 L	(3.85~4.71)

❽ Body Composition Analysis

Protein	7.2 kg	(7.0~8.6)
Minerals	2.63 kg	(2.44~2.98)
Body Fat Mass	21.8 kg	(10.3~16.5)
Fat Free Mass	37.3 kg	(33.3~40.7)
Bone Mineral Content	2.18 kg	(2.01~2.45)

❾ Muscle-Fat Analysis

Weight	59.1 kg	(43.9~59.5)
Skeletal Muscle Mass	19.6 kg	(19.5~23.9)
Soft Lean Mass	35.1 kg	(35.8~43.7)
Body Fat Mass	21.8 kg	(20.0~23.0)

❿ Obesity Analysis

BMI	24.0 kg/m²	(18.5~25.0
PBF	36.9 %	(18.0~28.0

⓫ Research Parameters

Basal Metabolic Rate	1176 kcal	(1254~1451
Waist-Hip Ratio	0.92	(0.75~0.85
Waist Circumference	72 cm	
Visceral Fat Area	121.5 cm²	(1~99
Obesity Degree	114 %	(90~110
Body Cell Mass	23.8 kg	(23.4~28.6
Arm Circumference	30.2 cm	
Arm Muscle Circumference	25.7 %	
TBW/FFM	74.1	
FFMI	12.2 kg/m²	
FMI	6.8 kg/m²	

Reactance

	RA	LA	TR	RL	LL
Xc(Ω) 5 kHz	12.0	11.6	2.1	9.0	8.8
50 kHz	26.2	25.0	2.3	19.8	19.1
250 kHz	23.3	21.6	2.4	13.3	13.9

⓬ Whole Body Phase Angle

ϕ 50 kHz	15°

⓭ Impedance

	RA	LA	TR	RL	LL
Z(Ω) 1 kHz	379.6	392.7	26.8	306.8	316.1
5 kHz	373.1	385.4	25.7	303.0	314.1
50 kHz	337.2	352.5	23.0	282.3	289.8
250 kHz	307.9	322.9	20.4	263.3	272.7
500 kHz	297.4	311.5	19.1	258.1	267.8
1000 kHz	286.4	297.4	17.0	254.5	264.0

❺ Body Water History

	11.10.10 09:15	11.10.30 09:40	11.11.02 09:35	11.12.15 11:01	12.01.12 08:33	12.02.10 15:50	12.03.15 08:35	12.05.04 09:46
Weight (kg)	65.3	63.9	62.4	61.8	62.3	60.9	60.5	59.1
TBW (L) Total Body Water	20.1	20.0	19.7	19.7	19.8	19.7	19.8	19.6
ICW (L) Intracellular Water	20.1	20.0	19.7	19.7	19.8	19.7	19.8	19.6
ECW (L) Extracellular Water	41.3	40.7	39.2	39.0	39.4	38.6	37.8	36.9
ECW Ratio	0.399	0.398	0.396	0.396	0.397	0.396	0.398	0.397

☑ Recent ☐ Total

The InBody Body Water Results Sheet

For more detailed body water analysis

1 Body Water Composition

The body weight is the sum of Total Body water, Protein, Minerals, and Body Fat Mass. Maintain a balanced body composition to stay healthy.

2 Body Water Analysis

Compare the bar lengths of Skeletal Muscle Mass and Body Fat Mass. The longer the Skeletal Muscle Mass bar is compared to the Body Fat Mass bar, the stronger the body is.

3 Segmental Body Water Analysis

Evaluates whether the amount of body water is adequately distributed throughout the body.

4 Segmental ECW Ratio Analysis

Segmental ECW Ratio is the ratio of Extracellular Water to Total Body Water.

5 Body Water History

Track the history of the body compositional change. Take the InBody Test periodically to monitor your progress.

6 Body Water Composition

Total Body Water is the sum of Extracellular Water and Intracellular Water.

7 Segmental Body Water Analysis

Evaluates whether the amount of body water is adequately distributed in all parts of the body.

8 Body Composition Analysis

The body weight is the sum of Total Body Water, Protein, Minerals, and Body Fat Mass. Maintain a balanced body composition to stay healthy.

9 Muscle-Fat Analysis

Compare the bar lengths of Skeletal Muscle Mass and Body Fat Mass. The longer the Skeletal Muscle Mass bar is compared to the Body Fat Mass bar, the stronger the body is.

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BMI is an index used to determine obesity by using height and weight. PBF is the percentage of body fat compared to body weight.

11 Research Parameters

Various nutritional outputs are provided such as Intracellular Water, Extracellular Water, Basal Metabolic Rate, Waist-Hip Ratio, Visceral Fat Level, Obesity Degree, and so on.

12 Whole Body Phase Angle

Whole Body Phase Angle is the resistance value measured in the cellular membrane when electrical currents are applied throughout the body.

13 Impedance

Impedance is the resistance value measured when electrical currents are applied throughout the body. Based on the measured data, key body composition outputs can be analyzed. Impedance is also used for many research purposes.