

InBody



InBody580

High Accuracy

Accurate measurements derived from InBody Technology

High Reproducibility

Ergonomic Electrodes designed for ensured reproducibility

Wide Application

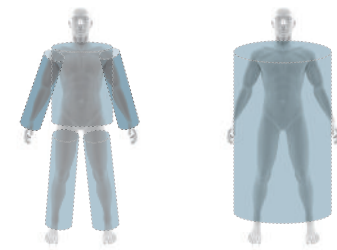
In-depth InBody Parameters for versatile applications

InBody Technology

InBody uses Bioelectrical Impedance Analysis (BIA) technology to measure human body composition. Impedance is the resistance of the human body generated when a micro alternating current flows through the human body. The human body is made of water that conducts electricity well, and the resistance varies depending on the amount of water. BIA is a technology that quantitatively measures body water through impedance that occurs when an electric current flows through the human body. InBody provides diverse information on body composition based on the measured body water.

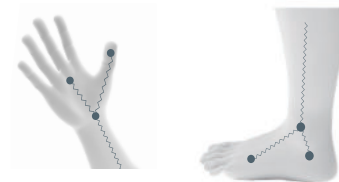
Direct Segmental Measurement-BIA

The human body exhibits varying lengths and cross-sectional areas for each body segments. Arms and legs, characterized by narrow cross-sectional areas and length, exhibit higher impedance values and lower muscle mass. Conversely, the trunk, with its broader cross-sectional area, yields lower impedance values and higher muscle mass. Even the slightest change in trunk impedance can significantly influence the total muscle mass. Therefore, it is essential to separately measure trunk impedance for precise total muscle mass assessment. InBody conducts separate measurements for arms, legs, and the trunk, ensuring the utmost accuracy in the analysis.



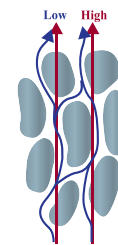
8-Point Tactile Electrodes utilizing Thumb Electrodes

Using the structural features of the human body, InBody pioneered '8-Point Tactile electrode with Thumb Electrodes'. This ensures InBody measurements start at the same location on the wrists and ankles, guaranteeing reliable and reproducible results.



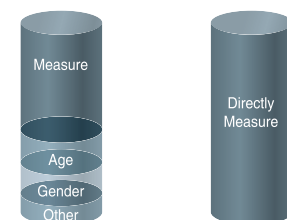
Simultaneous Multi-Frequency Impedance Measurement

InBody introduced a technology in body composition analyzers to transmit multiple frequencies at once, obtaining specific impedance data for each for the first time. This reduces measurement time and error, leading to more accurate body water and fluid balance measurements.



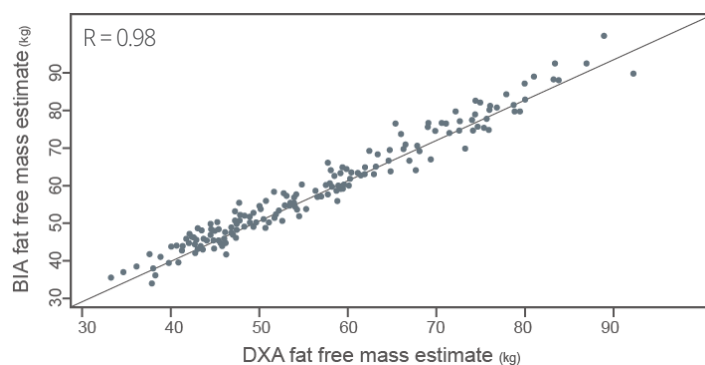
No Estimations or Empirical Equations on Measured Values

InBody does not rely on empirical estimations based on age, gender, and more to ensure the accuracy of the measured data. In the past, empirical estimations were applied to the equations to ensure accuracy due to technological limitations. However, this resulted in lower accuracy when the measured population group changes. InBody overcame these limitations with technological developments such as direct segmental measurement-BIA to measure and analyze accurate body composition without applying empirical estimation. Therefore, InBody devices can provide data regardless of population and can reflect changes in the body with higher sensitivity.



Over 98% Correlation to DEXA on Accuracy

InBody precisely detects changes in body composition using impedance alone, showing a correlation over 0.98 with the gold-standard DEXA device.



Ryan T Hurt et al., The Comparison of SMF-BIA and DEXA for Estimating Fat Free Mass and Percentage Body Fat in an Ambulatory Population, *J Parenter Enteral Nutr.* 2021 Aug;45(6):1231-1238

Enhanced User Experience

Quick Measurement

Experience quick and precise body composition assessment within just 30 seconds, available for immediate consultation.

Convenient Measurement

Obtain accurate measurements by holding anywhere on the ergonomically designed 3-way hand electrode.

User Friendly Interface

The InBody features a generous 10.1-inch touch display and keypad for a seamless and user-friendly operation.

Smart Recognition

QR code recognition with mobile phones simplifies member data entry for enhanced efficiency.



Comprehensive Parameters for Professionals

Segmental Body Water Balance

Imbalances in body water can signal various diseases. Therefore, maintaining a body water balance is crucial for health management. InBody provides the Body Water Balance (Whole & Segmental) for professional-grade screening and monitoring of the body water balance which is applicable for a detailed health assessment.

Segmental Cellular Integrity Check

Phase Angle is a vital measure that signifies cellular health by revealing Cellular Integrity and overall physiological function. InBody's Segmental Phase Angle serves as a precise tool for healthcare professionals to assess cellular health and guide necessary actions.

Sarcopenia Assessment

Sarcopenia can be easily assessed and evaluated using the Skeletal Muscle Mass Index (SMI) and Hand Grip Strength*, allowing for comprehensive evaluation and personalized consultations. *Hand Grip Strength is available with connection to the InBody Handgrip Dynamometer (IB-HGS).

InBody Result Sheet

Provides reference parameters to thoroughly evaluate patients' conditions across various medical practices.

InBody

[InBody580]

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Customized Logo

www.customized.com

ID	Height	Age	Gender	Test Date / Time
Jane Doe	156.9cm	51	Female	03.15.2023 14:51

1 Body Composition Analysis

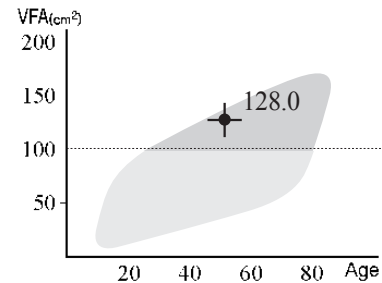
	Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight
Total Body Water (L)	27.6 (27.0 ~ 33.0)	27.6	35.2 (34.7 ~ 42.3)	37.4 (36.7 ~ 44.8)	59.1 (45.0 ~ 60.8)
Protein (kg)	7.1 (7.2 ~ 8.8)				
Minerals (kg)	2.65 (2.49 ~ 3.05)	non-ossseous			
Body Fat Mass (kg)	21.7 (10.6 ~ 16.9)				

8 InBody Score

67/100 Points

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

9 Visceral Fat Area



2 Muscle-Fat Analysis

	Under	Normal	Over
Weight (kg)	55 70 85 100 115 130 145 160 175 190 205 %		
SMM (kg)	70 80 90 100 110 120 130 140 150 160 170 %		
Body Fat Mass (kg)	40 60 80 100 160 220 280 340 400 460 520 %		

3 Obesity Analysis

	Under	Normal	Over
BMI (kg/m²)	10.0 15.0 18.5 21.5 25.0 30.0 35.0 40.0 45.0 50.0 55.0		
PBF (%)	8.0 13.0 18.0 23.0 28.0 33.0 38.0 43.0 48.0 53.0 58.0		

4 Segmental Lean Analysis

	Under	Normal	Over	ECW Ratio	Phase Angle ϕ
Right Arm (kg)	40 60 80 100 120 140 160 180 %			0.380	4.1°
Left Arm (kg)	40 60 80 100 120 140 160 180 %			0.381	5.7°
Trunk (kg)	70 80 90 100 110 120 130 140 %			0.399	4.0°
Right Leg (kg)	70 80 90 100 110 120 130 140 %			0.402	3.8°
Left Leg (kg)	70 80 90 100 110 120 130 140 %			0.403	4.3°

10 Weight Control

Target Weight 53.0 kg
 Weight Control -6.1 kg
 Fat Control -9.5 kg
 Muscle Control +3.4 kg

11 Body Balance Evaluation

Upper Balanced Slightly Unbalanced Extremely Unbalanced
 Lower Balanced Slightly Unbalanced Extremely Unbalanced
 Upper-Lower Balanced Slightly Unbalanced Extremely Unbalanced

12 Segmental Fat Analysis

Right Arm (1.5 kg) 173.8%
 Left Arm (1.6 kg) 179.1%
 Trunk (11.6 kg) 233.5%
 Right Leg (2.9 kg) 138.9%
 Left Leg (2.9 kg) 138.1%

5 ECW Ratio-Phase Angle

	Under	Normal	Over	Phase Angle ϕ
ECW Ratio	0.320 0.340 0.360 0.380 0.390 0.400 0.410 0.420 0.430			4.0°

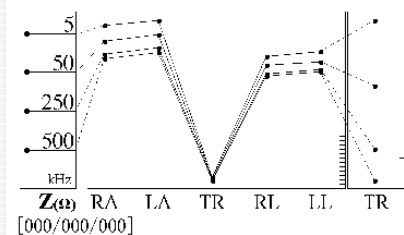
6 Body Composition History

	02.21.22	03.27.22	04.20.22	06.23.22	07.21.22	10.19.22	02.20.23	03.15.23
Weight (kg)	65.3	63.9	62.4	61.8	62.3	60.9	60.5	59.1
SMM (kg)	20.1	20.0	19.7	19.7	19.8	19.7	19.8	19.7
BFM (kg)	23.5	23.1	22.7	22.4	22.9	22.3	22.2	21.7
PBF (%)	41.3	40.7	39.2	39.0	39.4	38.6	37.7	36.7
ECW Ratio	0.399	0.398	0.396	0.396	0.397	0.396	0.399	0.398

13 Research Parameters

Intracellular Water 16.6 L (16.7 ~ 20.5)
 Extracellular Water 11.0 L (10.3 ~ 12.5)
 Basal Metabolic Rate 1178 kcal (1255 ~ 1451)
 Waist-Hip Ratio 0.97 (0.75 ~ 0.85)
 Visceral Fat Level 12 (1 ~ 9)
 Bone Mineral Content 2.20 kg (2.05 ~ 2.51)
 Body Cell Mass 23.7 kg (23.9 ~ 29.3)
 SMI 5.8 kg/m²

14 Impedance



Result Sheet Interpretation

1 Body Composition Analysis

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

2 Muscle-Fat Analysis

The balance between Skeletal Muscle Mass and Body Fat Mass is a key health indicator. Muscle-Fat Analysis shows this balance by comparing the length of the bars for Weight, Skeletal Muscle Mass, and Body Fat Mass.

3 Obesity Analysis

For a more accurate evaluation of obesity, BMI alone is not sufficient. Opt for a more precise assessment using Percent Body Fat for clinical obesity analysis. The InBody can detect hidden health risks like Sarcopenic Obesity, in which a person appears slim on the outside but has a high percent body fat.

4 Segmental Lean Analysis

Analyzing the lean mass in each segment helps identify imbalances and insufficiently developed lean mass, which can be used to develop targeted exercise programs. The lean mass of the arms, trunk, and legs are represented by two bars. The top bar shows how much lean mass there is in a segment compared to the ideal weight, and the bottom bar shows how sufficient the lean mass is to support your current weight.

5 ECW Ratio-Phase Angle

The Extracellular Water Ratio shows the balance status of body water. The ratio between intra- and extracellular water remains consistent at about 3:2 ratio in healthy individuals, and when this balance is disrupted edema may occur. Phase Angle is a parameter that **reflects the health status of the cell membrane**. Strengthening of the cellular membrane and structural function will increase the Phase Angle. On the other hand, impairments to the cellular membrane can cause a decrease in the Phase Angle.

6 Body Composition History

Customize your user's journey by selecting from 19 parameters to track the Body Composition History, including Body Weight, Skeletal Muscle Mass, Body Fat Mass, Body Fat Percentage, and ECW Ratio. Assessing regularly on InBody to monitor progress is a great step toward a healthier life.

7 Logo Customization

The Customized Logo can be applied on the Result Sheet. URL can also be applied at the bottom of the Result Sheet as well.

8 InBody Score

The InBody Score is a unique index created by InBody to provide a snapshot of one's overall body composition health. The standard range is between 70-90 points, and points will be added or subtracted depending on the need of control of fat and muscle mass.

9 Visceral Fat Area

Visceral Fat Area is the estimated area of the fat surrounding internal organs in the abdomen. It is advisable to maintain a Visceral Fat Area under 100cm² to minimize the risk of diseases related to visceral fat.

10 Weight Control

Weight Control shows the recommended weight, fat, and muscle mass for a healthy body. A '+' signifies a need to gain, and a '-' indicates a need to lose weight. This metric is useful for setting personal health goals.

11 Body Balance Evaluation

Evaluate the balance of the body based on Segmental Lean Analysis.

12 Segmental Fat Analysis

Evaluate whether the amount of fat is adequately distributed in segments of the body. Each bar shows fat mass in comparison to the ideal amount.

13 Research Parameters

Various research parameters are provided such as Basal Metabolic Rate, Waist-Hip Ratio, Obesity Degree, Skeletal Muscle Mass Index (SMI), Body Cell Mass, and more.

14 Impedance

Impedance is the resistance that occurs when micro-alternating current is applied to the human body. InBody visualizes the impedance with the graph. You can easily detect if there is reversed impedance error by checking crossed lines in the impedance graph. Below the impedance graph, you can also check the error codes.

* Research Parameters can be customized in the settings. Please refer to the Specifications page for available options.

InBody Result Sheet for Children

With the InBody Result Sheet for Children, you can assess and track a child's growth progress.



[InBody580]



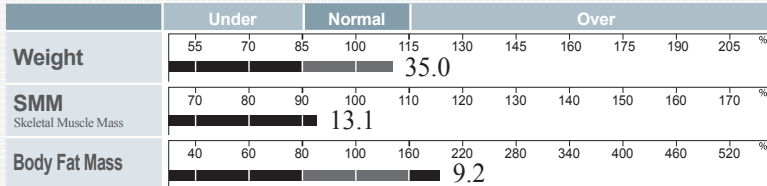
inbody.com

ID	Height	Age	Gender	Test Date / Time
John Doe	139.3cm	10	Male	03.15.2023 14 : 51

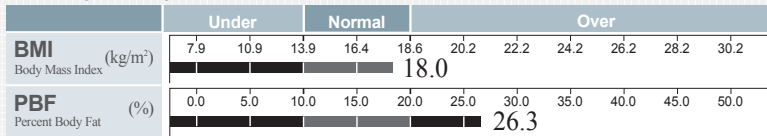
Body Composition Analysis

Total amount of water in my body	Total Body Water (L)	18.9 (18.0 ~ 22.0)
What I need to build muscles	Protein (kg)	5.0 (4.9 ~ 5.9)
What I need to build muscles	Minerals (kg)	1.91 (1.66 ~ 2.04)
Where my excess energy is stored	Body Fat Mass (kg)	9.2 (3.8 ~ 7.7)
Sum of the above	Weight (kg)	35.0 (27.2 ~ 36.8)

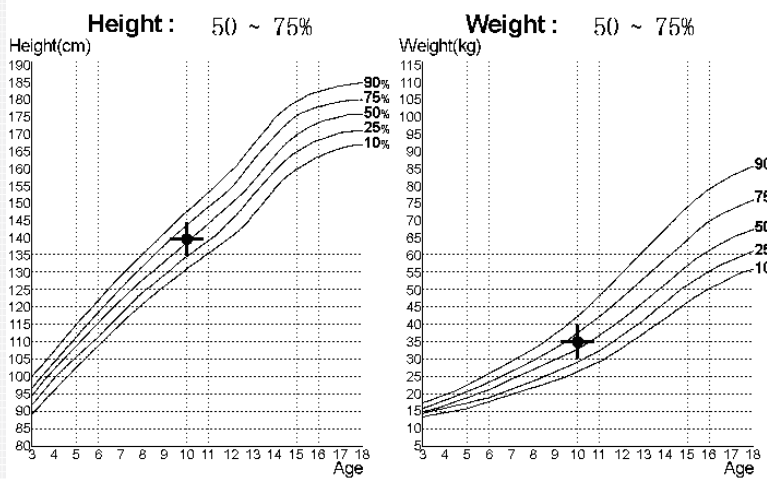
Muscle-Fat Analysis



Obesity Analysis



Growth Graph



Body Composition History

	06.23.22 15:23	07.21.22 15:00	10.19.22 14:52	02.20.23 15:12	03.15.23 14:51
Height (cm)	134.4	136.5	137.2	138.6	139.3
Weight (kg)	33.2	35.1	35.6	37.3	35.0
BMI (kg/m ²) Body Mass Index	19.5	19.5	19.6	20.1	18.0
SMM (kg) Skeletal Muscle Mass	13.4	13.3	13.0	12.9	13.1
PBF (%) Percent Body Fat	25.8	26.2	26.5	26.0	26.3

Recent Total

Growth Score

85/100 Points

* If tall and within great body comparison standards, the growth score may surpass 100 points.

Nutrition Evaluation

- Protein Normal Deficient
- Minerals Normal Deficient
- Body Fat Normal Deficient Excessive

Obesity Evaluation

- BMI Normal Under Slightly Over Over
- PBF Normal Slightly Over Over

Body Balance Evaluation

- Upper Balanced Slightly Unbalanced Extremely Unbalanced
- Lower Balanced Slightly Unbalanced Extremely Unbalanced
- Upper-Lower Balanced Slightly Unbalanced Extremely Unbalanced

Segmental Lean Analysis

- Right Arm 0.94 kg
- Left Arm 0.93 kg
- Trunk 10.7 kg
- Right Leg 3.35 kg
- Left Leg 3.32 kg

Research Parameters

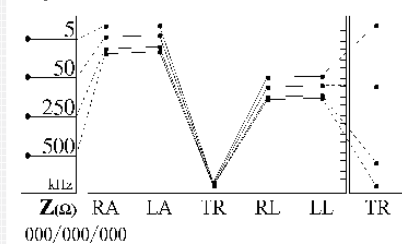
- Intracellular Water 11.6 l. (11.2 ~ 13.6)
- Extracellular Water 7.3 l. (6.8 ~ 8.4)
- Basal Metabolic Rate 927 kcal (918 ~ 1077)
- Child Obesity Degree 109 % (90 ~ 110)
- Bone Mineral Content 1.55 kg (1.37 ~ 1.67)
- Body Cell Mass 16.6 kg (16.0 ~ 19.6)
- FFMI 13.3 kg/m²
- FMI 4.7 kg/m²

QR Code



Scan the QR Code to see results on the website.

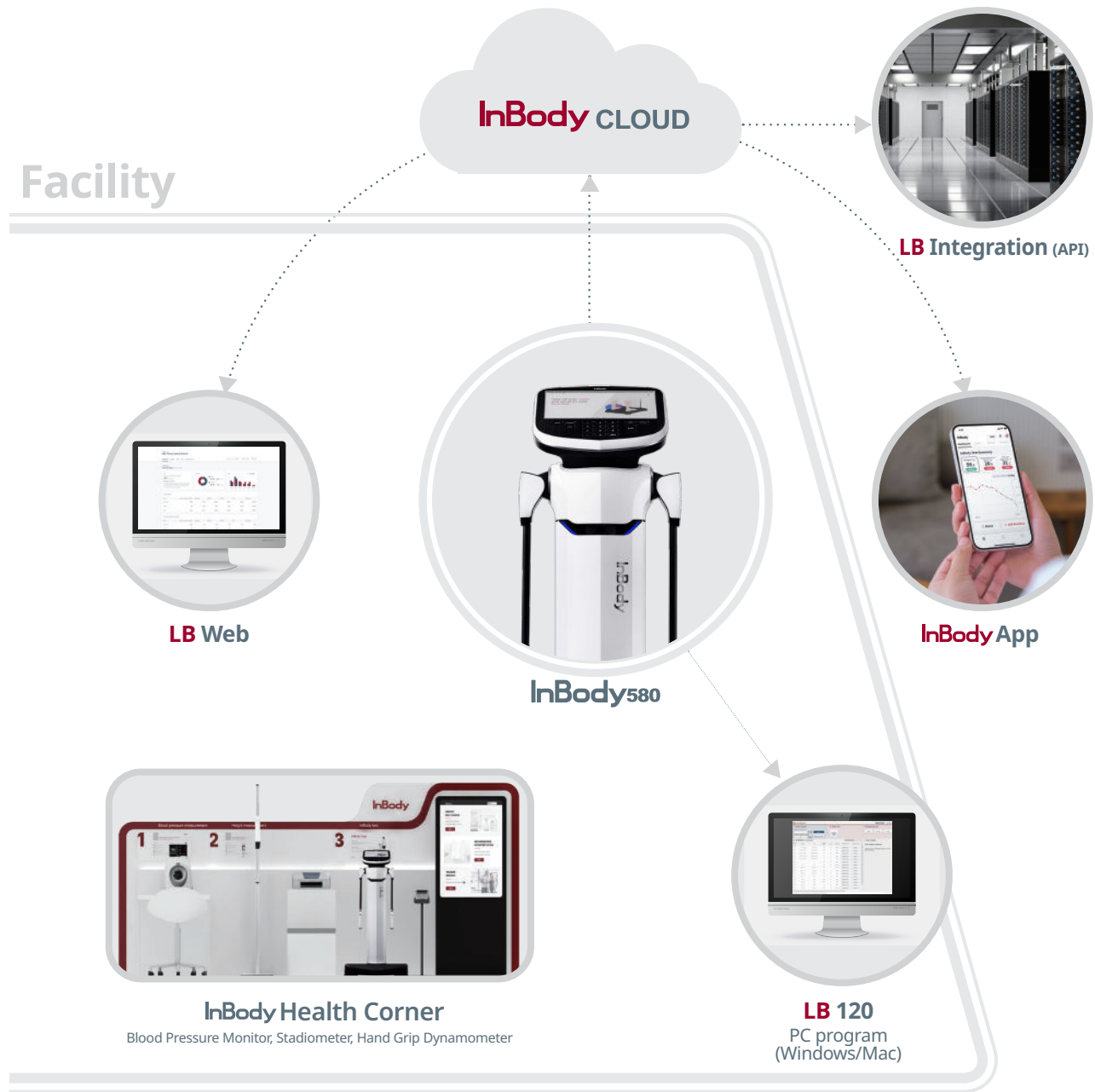
Impedance



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InBody Data Integration Solution

Manage and utilize your InBody data in various settings.



InBody Data Comprehension

Provide a health report to monitor your customers body composition goal.

Analytical Dashboard and Report

Get an intuitive analysis of your InBody data on the dashboard and see how your facility is operating with InBody.

Monitor Lifestyle Habits

Integrate InBody devices to monitor lifestyle habits and provide remote health management.

Access InBody Results Anywhere, Anytime

Through PC, tablet and smartphones, access your customer's InBody results anywhere, anytime.

API Integration

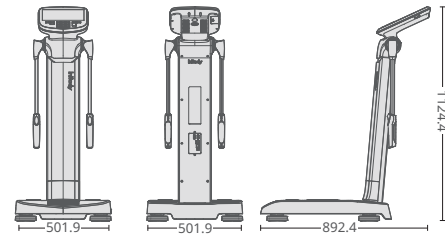
Upon customer consent, utilize InBody data through API and SDK.

Various File Formats

Print InBody data as an image, excel file etc.

Specifications

InBody580 Body Composition Analyzer



Bioelectric Impedance Analysis (BIA) Measurement Item	Bioelectrical Impedance (Z)	20 Impedance Measurements by Using 4 Different Frequencies (5 kHz, 50 kHz, 250kHz, 500 kHz) at Each of 5 Segments (Right Arm, Left Arm, Trunk, Right Leg and Left Leg) 5 Phase Angle Measurements by Using 1 Frequencies (50kHz) at Each of 5 Segments (Right Arm, Left Arm, Trunk, Right Leg and Left Leg)
Electrode Method	Tetrapolar 8-Point Tactile Electrodes	
Measurement Method	Direct Segmental Multi-Frequency Bioelectrical Impedance Analysis (DSM-BIA) Simultaneous Multi-Frequency Bioelectrical Impedance Analysis (SMF-BIA)	
Body Composition Calculation Method	No Empirical Estimation on Measured Values (Age and Gender does not affect the measured values)	
Display Type	1280 × 800 10.1 inch Color TFT LCD	
Internal Interface	Touchscreen, Keypad	
External Interface	Serial(RS-232C): 2 EA, USB (HOST): 2 EA, LAN (10/100T): 1EA	
Wireless Connection	Bluetooth, Wi-Fi	
Compatible Printer	Laser/Inkjet PCL3 or above SPL	
Test Duration	About 30 seconds	
Weight Range	5~300kg (11.0 - 661.4 lb)	
Age Range	3 years and older	
Height Range	95~220cm (3ft 1.40in ~ 7ft 2.61in)	
Logo Display	Name, Address and Content Information can be shown on the Results Sheet	
Digital Results	LCD Screen, LookinBody Web, LookinBody120	
Types of Result Sheets	InBody Result Sheet, InBody Result Sheet for Children, Thermal Result Sheet	
Notification Sounds and Voice Guidance	On the progress of the test, saving settings, and inputting information such as personal details	
Data Storage	Saves up to 100,000 measurements (When ID is entered)	
Test Mode	Professional Mode and Self Mode	
Dimensions	501.9 (W) × 892.4 (L) × 1124.4 (H) mm	
Equipment Weight	24.4 kg (53.8 lb)	
Applied Rating Current	200 μA (±20 μA)	
Adapter	Bridgepower (BPM040512F07)	Power Input AC 100-240V, 50-60Hz, 1.2A (1.2A-0.6A) Power Output DC 12V, 3.4A
	Mean Well (GSM40A12)	Power Input AC 100-240V, 50-60Hz, 1.0-0.5A Power Output DC 12V, 3.34A
Operation Environment	10 - 40 °C (50 - 104 °F), 30 - 75 % RH(No Condensation), 70 - 106 kPa	
Storage Environment	-10 - 70 °C (14 - 158 °F), 10 - 80% RH(No Condensation), 50 - 106kPa	

InBody Result Sheet	<ul style="list-style-type: none"> Body Composition Analysis (Total Body Water, Protein, Minerals, Body Fat Mass, Soft Lean Mass, Fat Free Mass, Weight) Muscle-Fat Analysis (Weight, Skeletal Muscle Mass, Body Fat Mass) Obesity Analysis (Body Mass Index, Percent Body Fat) Segmental Lean Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) Segmental Fat Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) ECW Ratio-Phase Angle Body Composition History (Weight, Skeletal Muscle Mass, Soft Lean Mass, Body Fat Mass, Percent Body Fat, BMI, ECW Ratio, InBody Score, Basal Metabolic Rate, Visceral Fat Level, Waist Hip Ratio, Fat Free Mass, Waist Circumference, Obesity Degree, FFMI, FMI, SMI, SMM/W/T, Whole Body Phase Angle_50kHz) InBody Score Whole Body Phase Angle (History) SMI (History) Body Type (Graph) Weight Control (Target Weight, Weight Control, Fat Control, Muscle Control) 	<ul style="list-style-type: none"> Nutrition Evaluation (Protein, Minerals, Fat Mass) Obesity Evaluation (BMI, Percent Body Fat) Body Balance Evaluation (Upper/Lower, Upper/Lower) Segmental Fat Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) Segmental Fat Analysis (Graph) Segmental Circumference (Neck, Chest, Abdomen, Hip, Right Arm, Left Arm, Right Thigh, Left Thigh) Waist-Hip Ratio (Graph) Visceral Fat Level (Graph) InBody Score (Graph) Basal Metabolic Rate (Graph) Research Parameters (Intracellular Water, Extracellular Water, Skeletal Muscle Mass, Fat Free Mass, Basal Metabolic Rate, Waist-Hip Ratio, Waist Circumference, Visceral Fat Level, Visceral Fat Area, Obesity Degree, Bone Mineral Content, Body Cell Mass, Arm Circumference, Arm Muscle Mass/Weight, Recommended Calorie Intake, Recommended Calorie Intake-manual input) Calorie Expenditure by Activity Blood Pressure (Sys, Dia, Pulse, MAP, PP, RPP) QR Code Results Interpretation QR Code Whole Body Phase Angle (50kHz) Impedance Graph (Each segment and each frequency) Sarcopenia Parameters (SMI, HGS)
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InBody Result Sheet for Children	<ul style="list-style-type: none"> Body Composition Analysis (Total Body Water, Protein, Mineral, Body Fat Mass, Weight) Muscle-Fat Analysis (Weight, Skeletal Muscle Mass, Body Fat Mass) Obesity Analysis (Body Mass Index, Percent Body Fat) Growth Curve Outputs (Height, Weight, BMI) Body Composition History (Height, Weight, BMI, Skeletal Muscle Mass, Soft Lean Mass, Body Fat Mass, Percent Body Fat, Basal Metabolic Rate, Fat Free Mass, Child Obesity Degree, FFMI, FMI, SMI, SMM/W/T, Whole Body Phase Angle_50kHz) Whole Body Phase Angle (History) SMI (History) Growth Score Weight Control (Target Weight, Weight Control, Fat Control, Muscle Control) 	<ul style="list-style-type: none"> Nutrition Evaluation (Protein, Minerals, Fat Mass) Obesity Evaluation (BMI, Percent Body Fat) Body Balance Evaluation (Upper/Lower, Upper/Lower) Segmental Lean Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) Research Parameters (Intracellular Water, Extracellular Water, Skeletal Muscle Mass, Fat Free Mass, Basal Metabolic Rate, Child Obesity, Bone Mineral Content, Body Cell Mass, FFMI, FMI, SMI, Skeletal Muscle Mass/Weight) Blood Pressure (Sys, Dia, Pulse, MAP, PP, RPP) QR Code Results Interpretation QR Code Whole Body Phase Angle (50kHz) Impedance Graph (Each segment and each frequency)
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- The above content is subject to change without prior notice for the purpose of improving product appearance and performance.
- Note that this is a medical device, and use it with proper care and knowledge of its precautions and instructions.

- The results about Blood Pressure or Hand Grip Strength are only available when integrated with InBody Blood Pressure Monitor (BPBIO Series) or InBody Handgrip Dynamometer (IB-HGS).
- QR Code is registered trademark of DENSO WAVE INCORPORATED.



InBody's Intellectual Property Rights



For more details about the patents that we acquired, please visit our website or refer to the patent gazette of intellectual property office of each country.