

# InBody270s

#### **Body Composition Analyzer for All**

Body composition analyzer designed for everyday use by everyone

### New Standard of BIA

Redefine the depth of health assessment with the Phase Angle

#### **Streamlined Portability**

Compact and foldable design to ensure effortless mobility

## 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 crosssectional 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* 

## InBody270S Highlights

#### **Quick Measurement**

Experience InBody's quick and precise measurement in only 30 seconds, with ensured reliability. Users can access their health data instantly, facilitating prompt consultations.

#### **Compact and Portable Design**

The foldable structure and compact size ensure easy transportation and spatial efficiency. The optional InBody270 carrying bag enhances portability. Its compact size maximizes space utilization without compromising on functionality.

#### **Results in Your Hands**

Transfer your body composition data directly to your mobile phone using our QR code feature. Stay connected and track your progress anytime, anywhere with instant access to your detailed results.





## **Comprehensive Parameters for All**

#### **Nutrition Assessment**

#### In-depth Body Composition Analysis

Nutrition Analysis offers comprehensive evaluations of protein, mineral levels, and body fat to ensure the body's nutritional needs are met for optimal health. By providing insights into protein consumption, mineral status, and percent body fat, it empowers users to make informed dietary choices. With this in-depth analysis, achieving a balanced diet and monitoring progress toward health goals becomes straightforward and manageable.

### **Cellular Integrity Check**

#### Phase Angle

The human body comprises 36 trillion cells, and understanding cell health is crucial for overall well-being. The Phase Angle is a key parameter in assessing cell health and overall physiological status. It reflects the relationship between resistance in total body water and reactance in cell membrane. A higher Phase Angle indicates better cell membrane integrity, and well-balanced fluid, suggesting healthier cells. Last but not least, with the addition of Whole Body Phase Angle History, users can intuitively track and monitor their health trends over time.

#### Sarcopenia Assessment

#### SMI(Skeletal Muscle Mass Index)

Sarcopenia, assigned the diagnosis code M62.84 by WHO, is acknowledged as a disease rather than just a natural phenomenon. It can be easily assessed and evaluated using the Skeletal Muscle Mass Index (SMI)\* and Hand Grip Strength\*\*, allowing for comprehensive evaluation and personalized consultations.

\*Skeletal Muscle Mass Index (SMI) calculated by taking the sum of the appendicular muscle mass (in kilograms) and dividing it by the square of the person's height (in meters).

\*\*Hand Grip Strength is available with connections to the InBody Handgrip Dymamometer (IB-HGS, optional).

## **InBody Result Sheet**

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



## **Result Sheet Interpretation**

#### 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 better health status you are in.

#### 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

Analyze to evaluate if the muscles are adequately developed in the body segments. The top bar shows your muscle mass status compared to the ideal weight and the bottom bar shows your muscle mass status compared to your current weight.

#### 5 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.

#### 6 Body Composition History

Measure your body composition periodically to monitor your progress.

### 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

InBody Score is your score after evaluating your body composition.

### 9 Whole Body Phase Angle

Phase Angle is related to the health status of the cell membrane. Strengthening of the cellular membrane and structural function will increase the Phase Angle. In contrast, impairments to the cellular membrane can result in decreased Phase Angle.

#### 10 Weight Control

Use the Target Weight, Weight Control, Fat Control, Muscle Control to set your own goal.

#### 11 Waist-Hip Ratio (WHR)

Waist-Hip Ratio is the ratio of waist circumference to hip circumference.

#### 12 Visceral Fat Level

Visceral Fat Level is an indicator based on the estimated amount of fat surrounding internal organs in the abdomen.

#### 13 Research Parameters

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

#### 14 Impedance

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

#### \*Additional InBody Results Sheet

InBody Result Sheet for Children, Thermal Result Sheet

## **Optional Results Sheet**

#### 1 InBody Result Sheet for Children

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

### 2 Thermal Result Sheet (Optional)

Thermal Result Sheet is available by connecting the optional TP100 provided by InBody. Parameters on the Thermal Result Sheet are customizable from the InBody device settings.





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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

### InBody270S Body Composition Analyzer



Bioelectrical Impedance	Impodance (7)	15 Impedance measurements by using 3 different frequencies (20 kHz, 50 kHz, 100 kHz) at each 5 segments of the body (Right Arm, Left Arm, Trunk, Right Leg, Left Leg)	Age Range	3+ vears	
Analysis (BIA) Measurement Items	inpedance (2)		Height Range	95 - 220 cm (3 ft 1.4 in - 7 ft 2.6 in)	
			Language Support	InBody supports over 30 languages	
	Phase Angle (Ø)	1 Phase Angle Measurements by Using 1 Frequency (50 kHz) at	Outputs	Results and Interpretations	
Electrode Method	4 electric poles 8 Points	Touch type electrode measurement	(InBody Result	Body Composition Analysis (Total Body Water, Protein, Minerals, Body Fat Mass, Weigh	
Measurement Method	Direct Segmental Multi-frequency Bioelectrical Impedance Analysis Method, DSM-BIA Method		sneet)	Obesity Analysis (Body Mass Index, Percent Body Fat)     Segmental Lean Analysis (Right Arm, Left Arm, Trunk, Right Leq, Left Leq)	
Body Composition Calculation	No use of Empirical Estir	nation	-	Segmental Fat Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg)     Body Composition History (Weight, Skeletal Muscle Mass, Percent Body Fat)     InBody Score     Whole Body Phase Angle (History)     SMI (History)     Weight Control (Target Weight, Weight Control, Fat Control, Muscle Control)     Nutrition Evaluation (Protein, Minerals, Fat Mass)     Obesity Evaluation (BMI, Percent Body Fat)	
Logo Display	Name, Address, and Cor	ntact Information can be shown on the InBody Results Sheet.			
Digital Results	LCD Monitor, Data mana	gement software LookinBody120			
Type of Results Sheets	InBody Results Sheet, In	Body Results Sheet for Children, InBody Thermal Results Sheet			
Data Storage	Test results can be saved	if the member ID is utilized. The InBody can save up to 100,000 results.			
Test Mode	Self Mode, Professional	Mode	_	Body Balance Evaluation (Upper, Lower, Upper-Lower)	
Administrator Menu	Setup: Configure set     Troubleshooting: Adv	tings and manage data ditional information to help use the InBody		• Wals-mip Ratu (Graph) • Visceral Fat Level (Graph) • Research Parameters (Skeletal Muscle Mass, Fat Free Mass, Basal Metabolic Rate, Walst-Hip	
USB Thumb Drive	Copy, Backup or restore data management softv	the InBody test data (data can be viewed on Excel or LookinBody vare)	ccel or LookinBody Ratio, Waist Circumference, Visceral Fat Level, Obesity Degree, FFMI, FMI, SMI, SMM/WT) Recommended calorie intake per day		
Barcode Reader	The member ID will be automatically inputted when the barcode ID is scanned.			Calorie Expenditure of Exercise     Sarcopenia Parameter (SMLHGS)	
Backup data	Backup data saved in the InBody by using a USB Thumb Drive, Restore results on the InBody from a backup file.			Blood Pressure (Systolic, Diastolic, Pulse, Mean Artery Pressure, Pulse Pressure, Rate Pressure Product)	
Applied Rating Current	300 µA (± 30 µA)			· QR Code	
Adapter ② (DELTA)	Power Input AC 100 - 240 V, 50 - 60 Hz, 1.5 A - 0.75 A			Whole Body Phase Angle (50 kHz)	
	Power Output	DC 12 V, 5.0 A		· Impedance (Each segment and each frequency)	
Adapter ① (MEAN WELL)	Power Input	AC 100 - 240 V, 50 / 60 Hz, 1.0 A - 0.5 A	Outputs	Results and Interpretations	
	Power Output DC 12 V, 3.34 A		(InBody Result Sheet for Children)	Body Composition Analysis (Total Body Water, Protein, Minerals, Body Fat Mass, Weight)     Muscle Fat Analysis (Weight, Skeletal Muscle Mass, Body Fat Mass)	
Display Type	480 × 800 7 inch Color TI	FT LCD		Obesity Analysis (Body Mass Index, Percent Body Fat)     Growth Graph (Height, Weight, BMI)     Body Composition History (Height, Weight, Skeletal Muscle Mass, Percent Body Fat)     Whole Body Phase Angle (History)	
Internal Interface	Touchscreen, Keypad				
External Interface	RS-232C 1EA, USB HOST 2	EA, USB SLAVE 1EA, LAN (10/100T) 1EA, Bluetooth 1EA, Wi-Fi(2.4G/5G) 1EA			
Compatible Printer	Laser/Inkjet PCL 3 or abo	ove and SPL		· SMI (History)	
Dimension	356 (W) X 796 (L) X 995 (H) : mm 14.0 (W) X 31.3 (L) X 39.2 (H) : inch 13.4 kg (29.5 lb) About 30 sec.		-	• Growth Score • Weight Control (Target Weight, Weight Control, Fat Control, Muscle Control) • Obesity Evaluation (BMI, Percent Body Fat) • Nutrition Evaluation (Protein, Minerals, Fat Mass) • Body Balance (Upper, Lower, Upper-Lower)	
Device Weight					
Testing Duration					
<b>Operation Environment</b>	10 - 40 °C (50 - 104 °F), 30 - 75 % RH, 70 - 106 kPa			<ul> <li>Research Parameters (Skeletal Muscle Mass, Fat Free Mass, Basal Metabolic Rate, Child Obesity Degree FEMI FMI SMI SMM/WT)</li> </ul>	
Storage Environment	–10 - 70 °C (14 - 158 °F), 10 - 80 % RH, 50 - 106 kPa (No Condensation)			arcopenia Parameter	
Testing Weight Range	2 - 250 kg (4.4 - 551.2 lbs		_	Blood Pressure (Systolic, Diastolic, Pulse, Mean Artery Pressure, Pulse Pressure, Rate Pressure     Desclust)	
* Specifications may change without prior notice. * "QR Code" is registered trademark of DENSO WAVE INCORPORATED.			Producy · QR Code · Results Interpretation QR Code · Whole Body Phase Angle (50 kHz) · Impedance (Each segment and each frequency)		
			Outputs (InBody Thermal Result Sheet)	Total Body Water, Protein, Minerals, Weight, Muscle Mass, Body Fat Mass, Percent Body Fat, BMI, Basal Metabolic Rate, Waist-Hip Ratio, Waist Circumference, Visceral Fat Level, FFMI, FMI, SMI, SMMW/T, Segmental Lean Analysis (Right Arm, Left Arm, Trunk, Right Leg. Left Leg), Segmental Fat Analysis (Right Arm, Left Arm, Trunk, Right Leg. Left Leg), InBody Score, Fat Control, Muscle	



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#### Certificates

e 16 CE1639 NAW ISO13485



For more details about the patents that we acquired, please visit our website or refer to the patent

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iF Design Award

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gazette of intellectual property office of each country. (Korea, U.S, China, Japan)

## Result Sheet)

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