

# InBody580

#### **High Accuracy**

Accurate measurements derived from InBody Technology

#### **High Reproducibility**

Ergonomic Electrodes designed to ensure reproducibility

#### **Wide Application**

In-depth InBody Parameters for a variety of 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.

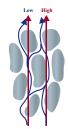




#### Simultaneous Multi-Frequency Impedance Measurement

InBody introduced a technology in body composition analyzers to trant 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







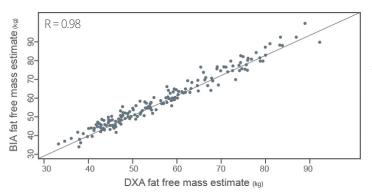


#### No Estimations or Empirical Estimation on Measured Values

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.

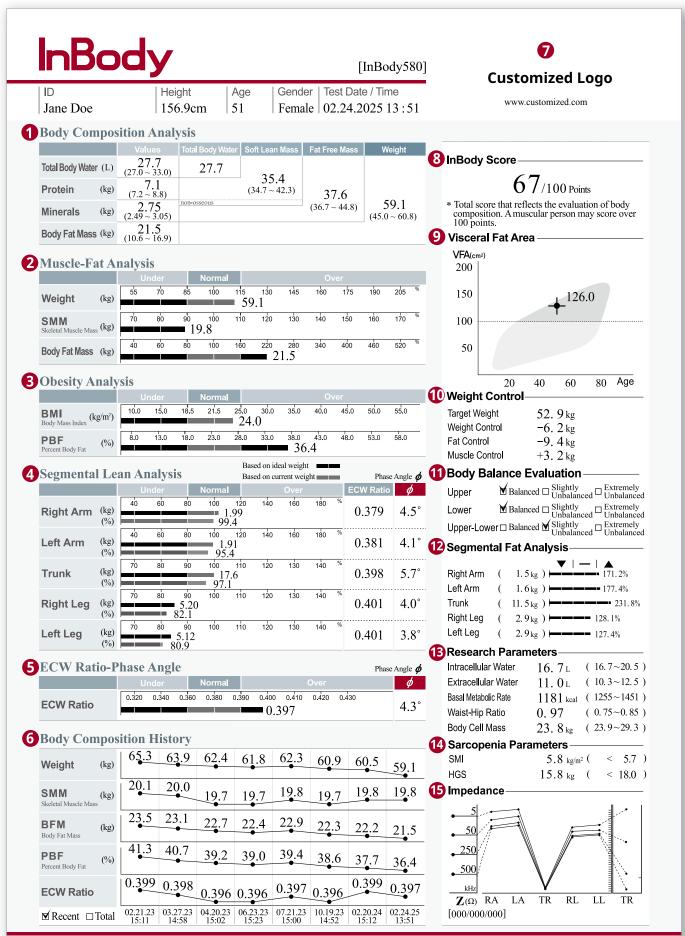
#### Sarcopenia Assessment

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\* can be measured with the InBody Handgrip Dynamometer (InGrip).

- \* 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 in different medical settings.



## **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. Use Percent Body Fat for a more precise assessment in 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 the amount of lean mass in a segment compared to the ideal weight, while the bottom bar indicates 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 intracellular and extracellular water remains consistent at about 3:2 in healthy individuals. 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 lead to 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, Percent Body Fat, and ECW Ratio. Regularly assessing on InBody to monitor progress is a great step toward a healthier life.

#### Logo Customization

The Customized Logo can be applied on the Result Sheet.
URL can also be placed 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 ones 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 100 cm<sup>2</sup> 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

Evaluates whether fat is adequately distributed throughout the body and compares the fat mass to the ideal. Each bar represents fat mass compared to the ideal amount.

#### **13** Research Parameters

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

#### **14** Sarcopenia Parameters

Sarcopenia is now recognized as a disease. Skeletal Muscle Mass Index (SMI) and Hand Grip Strength (HGS) measurements provide precise assessments for sarcopenia patients, enabling healthcare professionals to develop tailored care plans for effective management.

#### 15 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.

## InBody

[InBody580]

### InBody

| ID           | Height  | Age | Gender | Test Date / Time |
|--------------|---------|-----|--------|------------------|
| John Doe Jr. | 139.4cm | 10  | Male   | 04.15.2025 09:00 |

inbody.com

#### **Body Composition Analysis**

| Total amount of water in my body | Total Body Water | (L)  | 19.0 (18.0 ~ 22.0) |
|----------------------------------|------------------|------|--------------------|
| What I need to build muscles     | Protein          | (kg) | 5.0 ( 4.9 ~ 5.9 )  |
| What I need for strong bones     | Minerals         | (kg) | 1.81 (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 (27.3 ~ 36.9) |

## 85/100 Points

**Growth Score** 

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

V. 1 = 5 c:

#### **Muscle-Fat Analysis**

|                                  | U  | nder |    | Norma | ı 📗         |     |     | 0\  | /er |     |     |    |
|----------------------------------|----|------|----|-------|-------------|-----|-----|-----|-----|-----|-----|----|
| Weight (kg)                      | 55 | 70   | 85 | 100   | 115<br>35.0 | 130 | 145 | 160 | 175 | 190 | 205 | %  |
| SMM<br>Skeletal Muscle Mass (kg) | 70 | 80   | 90 | 13.1  | 110         | 120 | 130 | 140 | 150 | 160 | 170 | 96 |
| Body Fat Mass (kg)               | 40 | 60   | 80 | 100   | 160         | 9.2 | 280 | 340 | 400 | 460 | 520 | 96 |

#### Nutrition Evaluation -

| Protein    | <b>▼</b> Normal | ☐ Deficient        |                                |
|------------|-----------------|--------------------|--------------------------------|
| Minerals   | Mormal          | □ Deficient        |                                |
| Body Fat   | □Normal         | ☐ Deficient        | ▼Excessi                       |
| Obesity Ev | valuation       | )                  |                                |
| BMI        | Mormal          | □ Under            | □ Slightly<br>□ Over<br>□ Over |
| PBF        | □Normal         | □ Slightly<br>Over | Over                           |

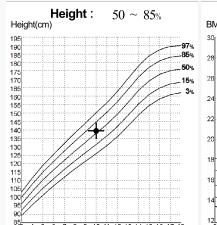
#### **Obesity Analysis**

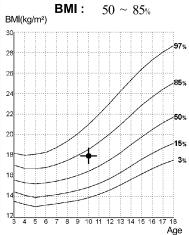
|                                | U   |      |      | Norma | d e         |        |      | 0١   |      |      |      |
|--------------------------------|-----|------|------|-------|-------------|--------|------|------|------|------|------|
| BMI<br>Body Mass Index (kg/m²) | 7.9 | 10.9 | 13.9 | 16.4  | 18.6<br>18. | 0 20.2 | 22.2 | 24.2 | 26.2 | 28.2 | 30.2 |
| PBF<br>Percent Body Fat (%)    | 0.0 | 5.0  | 10.0 | 15.0  | 20.0        | 25.0   | 26.2 | 35.0 | 40.0 | 45.0 | 50.0 |

#### Body Balance Evaluation —

| Upper       | <b>★</b> Balanced □ | Slightly<br>Unbalanced | □ Extremely Unbalanced  |
|-------------|---------------------|------------------------|-------------------------|
| Lower       | <b>M</b> Balanced □ | Slightly<br>Unbalanced | □ Extremely Unbalanced  |
| Upper-Lower | <b>M</b> Balanced □ | Slightly<br>Unbalanced | Extremely<br>Unbalanced |

#### **Growth Graph**





#### Segmental Lean Analysis –

| Right Arm | $0.94~\mathrm{kg}$ |
|-----------|--------------------|
| Left Arm  | $0.93~\mathrm{kg}$ |
| Trunk     | $10.7~\mathrm{kg}$ |
| Right Leg | $3.36~\mathrm{kg}$ |
| Left Leg  | 3.33  kg           |

#### Research Parameters

| Intracellular Water  | 11.6 և                 | ( | 11.2~13.6 ) |
|----------------------|------------------------|---|-------------|
| Extracellular Water  | 7.4 L                  | ( | 6.8~8.4 )   |
| Basal Metabolic Rate | $928\mathrm{kcal}$     | ( | 948~1077)   |
| Child Obesity Degree | 109 %                  | ( | 90~110 )    |
| Bone Mineral Content | $1.66\mathrm{kg}$      | ( | 1.60~1.96)  |
| Body Cell Mass       | $16.6\mathrm{kg/m^2}$  |   |             |
| FFMI                 | $13.3~\mathrm{kg/m^2}$ |   |             |
| FMI                  | $4.7~{\rm kg/m^2}$     |   |             |

#### QR Code

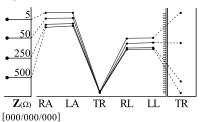


Scan the QR Code to see results on the website.

#### **Body Composition History**

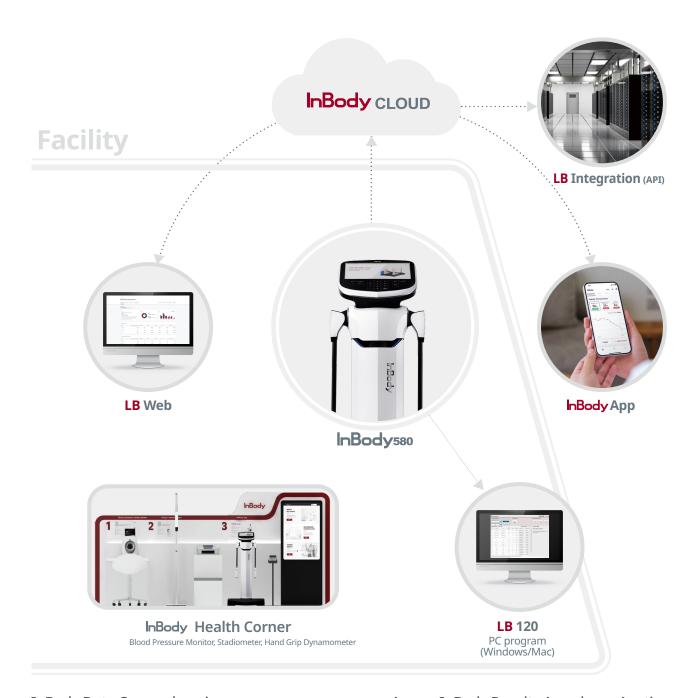
| bouy Compo                     | body Composition Instory |                   |                   |                   |                   |  |  |  |
|--------------------------------|--------------------------|-------------------|-------------------|-------------------|-------------------|--|--|--|
| Height (cm)                    | 134.4                    | 136.5             | 137.2             | 138.6             | 139.4             |  |  |  |
| Weight (kg)                    | 33.2                     | 35.1              | 35.6              | 37.3              | 35.0              |  |  |  |
| BMI<br>Body Mass Index (kg/m²) | 19.5                     | 19.5              | 19.6              | 20.1              | 18.0              |  |  |  |
| SMM<br>Skeletal Muscle Mass    | 13.4                     | 13.3              | 13.0              | 12.9              | 13.1              |  |  |  |
| PBF<br>Percent Body Fat (%)    | 25.8                     | 26.2              | 26.5              | 26.0              | 26.2              |  |  |  |
| ▼ Recent □ Total               | 06.23.24<br>15:23        | 07.21.24<br>15:00 | 10.19.24<br>14:52 | 02.20.25<br>15:12 | 04.15.25<br>09:00 |  |  |  |

#### Impedance -



## **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 goals.

#### **Analytical Dashboard and Report**

Get an intuitive analysis of your InBody data on the dashboard and see how your facility is performing 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**

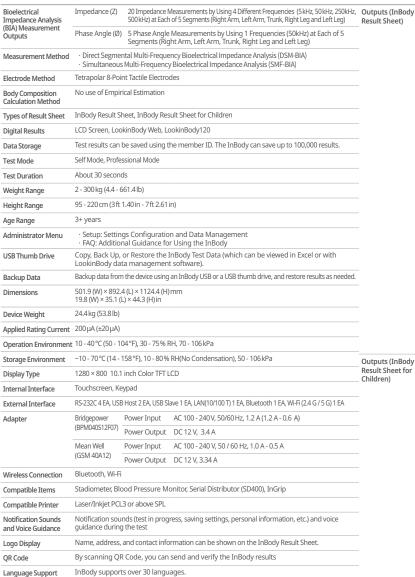
Upon customer consent, utilize InBody data through API and SDK.

#### Various File Formats

Print InBody data as an image, excel file etc.

## Specifications

#### InBody580 Body Composition Analyzer



- 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 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/WT, Whole Body Phase Angle\_50kHz)
- InBody Score Whole Body Phase Angle (History)
- SMI (History) Visceral Fat Area (Graph)
- Body Type (Graph)
- Weight Control (Target Weight, Weight Control, Fat Control, Muscle Control) Nutrition Evaluation (Protein, Minerals, Fat Mass)
- Obesity Evaluation (BMI, Percent Body Fat) Body Balance Evaluation (Upper, Lower, Upper-Lower) Segmental Fat Analysis (Graph)

- Segmental Body Water Analysis 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)

- 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 Circumference, TBW/FFM, FFMI, FMI, SMI, Skeletal Muscle Mass/Weight, Recommended Calorie Intake)
- Calorie Expenditure by Activity Blood Pressure (Sys, Dia, Pulse, MAP, PP, RPP)
- OR Code
- Result Interpretation QR Code Whole Body Phase Angle (50kHz)
- Impedance Graph (Each segment and each frequency) Sarcopenia Paremeters (SMI, HGS)

Body Composition Analysis (Total Body Water, Protein, Mineral, Body Fat Mass, Weight) Muscle-Fat Analysis (Weight, Skeletal Muscle Mass, Body Fat Mass) Outputs (InBody Result Sheet for

- Musclerat Alianysis (Wedjirl, Swetterla Muscle Mass, Doug Pat, 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,

  Percent Body Fat, Body Fat Mass, Basal Metabolic Rate, Fat Free Mass, Child Obesity

  Degree, FFMI, FMI, SMI, SMM/MT, Whole Body Phase Angle\_50kHz)
- Whole Body Phase Angle (History)
- SMI (History) Growth Score
- Weight Control (Target Weight, Weight Control, Fat Control, Muscle Control)
- Nutrition Evaluation (Protein, Minerals, Body 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) Segmental Body Water Analysis
- Research Parameters (Intracellular Water, Extracellular Water, Skeletal Muscle Mass, Fat Free Mass, Basal Metabolic Rate, Child Obesity Degree, Bone Mineral Content, Body Cell Mass, FFMI, FMI, SMI, Skeletal Muscle Mass/Weight)
- Blood Pressure (Sys, Dia, Pulse, MAP, PP, RPP)
- QR Code Result Interpretation QR Code
- Whole Body Phase Angle (50kHz: the right side of the body)
  Segmental Phase Angle (50kHz: Right Arm, Left Arm, Trunk, Right Leg, Left Leg)
  Impedance Graph (Each segment and each frequency)

#### Certificates























Awards

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. (Korea, U.S, China, Japan)

## \* Specifications are subject to be changed without prior notice. Note that this is a medical device, and use it with proper \* This product is a medical device. Please read the WARNINGS and PRECAUTIONS before you use it. \* Blood pressure information can only be printed when the blood pressure monitor is connected.

- "QR Code" is registered trademark of DENSO WAVE INCORPORATED.

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