BIOSPACE

Health Care & Human Care

InBody230

The most ideal and convenient system for health care

The revolutionary technology in BIA has created a new standard for body composition.

Leading novel technology provides accurate results you can trust
- Body Composition
- Obesity Diagnosis: BMI, Percent Body Fat
- Segmental Analysis for Lean Mass
- Guidance for weight management

Advanced design and features to fulfill your needs
- Easy to carry and install
- Easy to operate
- Easy to transfer the results through a USB memory stick
- Useful accessories and much more

BIOSPACE

Available Options

Thermal Printer

A small and handy printer can be attached to the InBody230.

InBody Bag

Specially designed bag helps to store and carry the InBody230.

SD400

Connect the InBody with more than one compatible device.

Useful Health Management, InBody230

- To monitor the body composition at a glance

Depending on the length of graphs for weight, muscle mass, and body fat mass, your can easily check clients' body composition states and body shapes.

- To get accurate obesity diagnosis

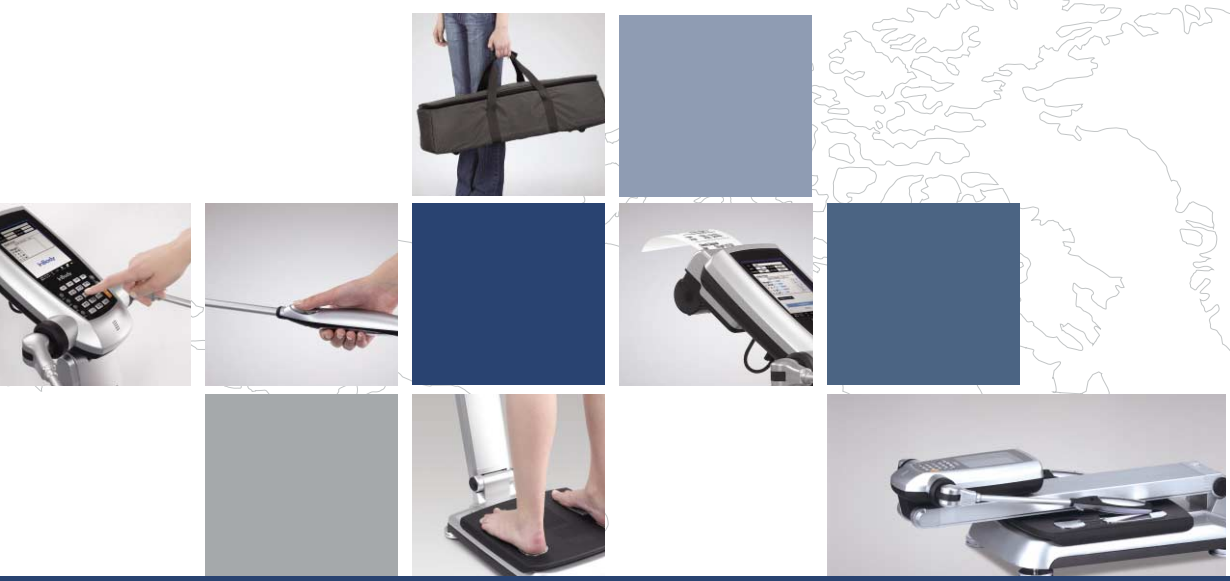
Considering BMI and %body fat, you can distinguish between the obese and those who are wrongly classified as overweight due to superior muscle development.

- To see the body balance of each segment

Segmental muscle analysis shows if muscle development is well-balanced.

Worldwide patented technology is right near you.

BIOSPACE



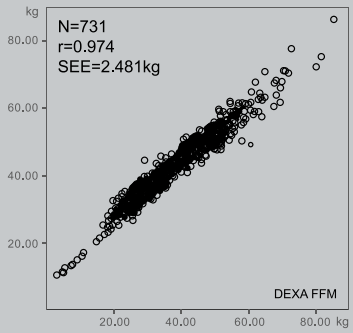
Correlation study with DEXA shows that the InBody is highly accurate (r=0.974).

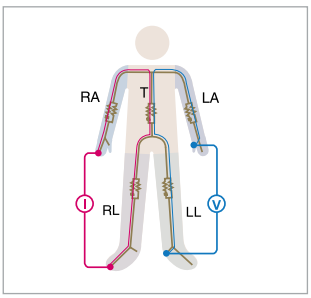
The InBody is the only body composition analyzer which offers the high correlation coefficient near 0.98 comparing with DEXA.

*Male : 343, Female : 388

	N	Minimum	Maximum	Mean	Std. Deviation
Age (years)	731	5.00	88.00	40.09	17.54
Height (cm)	731	106.50	193.00	162.42	10.43
Weight (kg)	731	17.30	118.30	60.60	13.59

InBody230 FFM

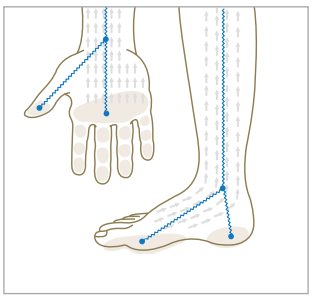




Direct Segmental Measurement

Biospace's segmental analysis method is a worldwide patented technology.
It makes measurements absolutely accurate by producing impedance values for 5 different segments of the body separately (each arm, each leg, and the "trunk").

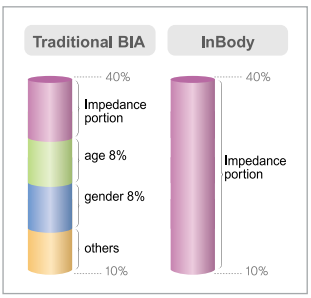
- Accurate impedance measurement of the trunk is the key to bioimpedance technology.
- No population-specific statistics (empirical factors) are used in the measurements.



8-Point Tactile Electrode System

It has enhanced accuracy by fixing the measuring region.

- The fixed measuring regions of the body guarantee high reproducibility.
- It also minimizes error rates with strategic, easy to use, hands and feet electrodes.



No Use of Empirical Estimation

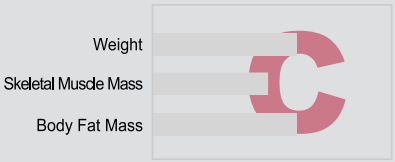
With direct segmental measurement and 8-point tactile electrode system, the InBody does not need empirical factors in calculation.

- High accuracy is guaranteed by precisely assessing the trunk.
- All of the results are measurements, rather than calculations that rely on factors such as gender, age, or body type.

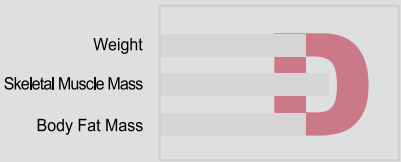
Results Interpretation

Body Composition

Pay attention to the shape formed by the bars for Weight / Skeletal Muscle Mass / Fat Mass.



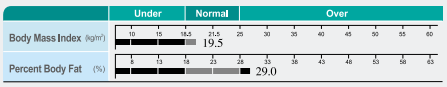
'C' shape : Fat mass is relatively greater than muscle content.



'D' shape : Muscle mass has been increased and fat mass has been reduced. This is indicative of a stronger body.

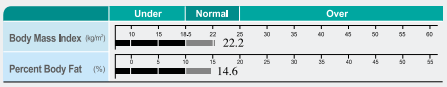
Obesity Diagnosis

BMI alone can not judge obesity. BMI and Percent Body Fat must be considered together for accurate obesity diagnosis.

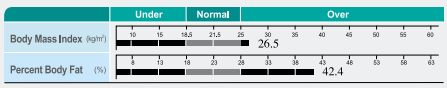


Normal BMI with high PBF ; Sarcopenic and Obese Body

High BMI but normal PBF; Well- built Body



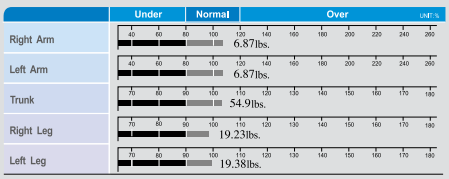
Both BMI and PBF are normal; Healthy Body



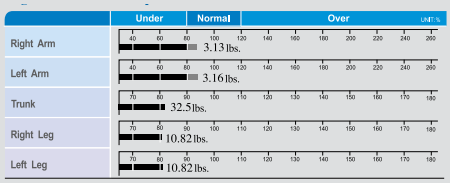
Both BMI and PBF are high; Obese Body

Segmental Lean Development

Maintain Segmental Lean Mass in the either "Normal" or "Over" and check body balance between upper and lower and between left and right.

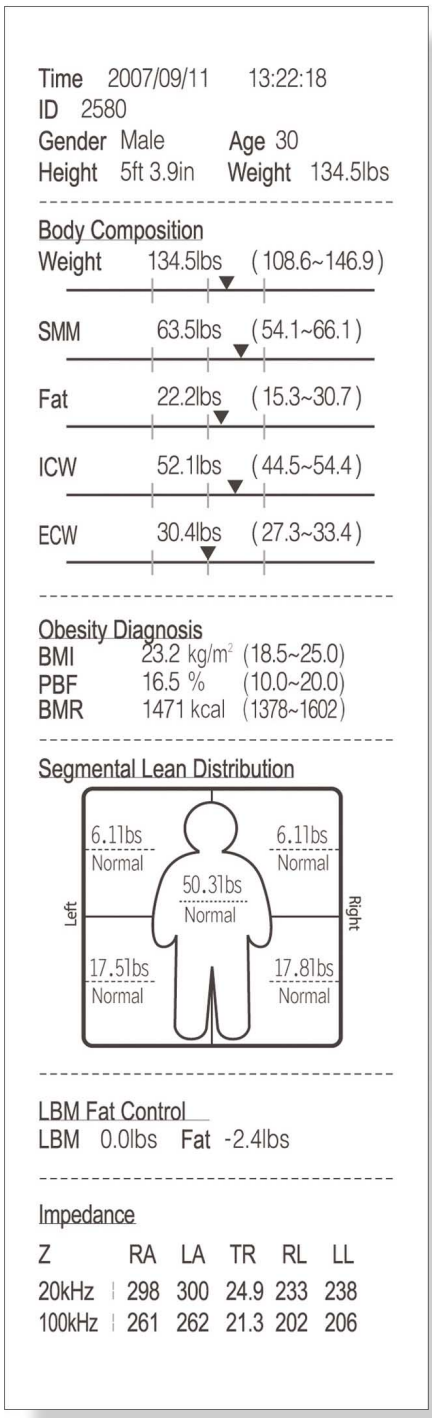


A well-balanced body with enough muscle in each segment.



Imbalance between the 2 arms and not enough muscle in legs.

Results from the Thermal Printer



The Results Sheet

InBody

Name(I.D.)	Gender	Age	Height	Date	Time
2580	Male	30years	5ft. 3.8in	2007.03.21	09:23:35

BIOSPACE
www.biospaceamerica.com

Body Composition

Compartments	Values	Total Body Water	Lean Body Mass	Weight
Intracellular Water	50.7 lbs.	80.4 lbs.	109.4 lbs.	131.2 lbs.
Extracellular Water	29.7 lbs.			
Dry Lean Mass	29.0 lbs.			
Body Fat Mass	21.8 lbs.			

Body Composition Analysis

	Under	Normal	Over	UNIT:%
Weight	55 70 85 100 115 130 145 160 175 190 205 220	131.2 lbs.		
Skeletal Muscle Mass	70 80 90 100 110 120 130 140 150 160 170 180	61.7 lbs.		
Body Fat Mass	40 60 80 100 160 220 280 340 400 460 520 580	21.8 lbs.		
Intracellular Water	70 80 90 100 110 120 130 140 150 160 170 180	50.7 lbs.		
Extracellular Water	70 80 90 100 110 120 130 140 150 160 170 180	29.7 lbs.		

Obesity Diagnosis

	Under	Normal	Over
Body Mass Index (kg/m²)	10 15 18.5 22 23 30 35 40 45 50 55 60	22.6	
Percent Body Fat (%)	0 5 10 15 20 25 30 35 40 45 50 55	16.6	

Segmental Lean Development

	Under	Normal	Over	UNIT:%
Right Arm	40 60 80 100 120 140 160 180 200 220 240 260	5.9 lbs.		
Left Arm	40 60 80 100 120 140 160 180 200 220 240 260	5.9 lbs.		
Trunk	70 80 90 100 110 120 130 140 150 160 170 180	48.9 lbs.		
Right Leg	70 80 90 100 110 120 130 140 150 160 170 180	17.1 lbs.		
Left Leg	70 80 90 100 110 120 130 140 150 160 170 180	17.1 lbs.		

Body Fat & LBM

Fat Control	- 2.4 lbs.
LBM Control	0.0 lbs.
Basal Metabolic Rate	1442 kcal

BMI Body Mass Index ☑Normal ☐Under ☐Over

PBF Percent Body Fat ☑Normal ☐Under ☐Over

Impedance	RA	LA	TR	RL	LL(Ω)
20kHz :	309	308	25.5	245	241
100kHz :	271	271	21.4	213	210

Body Composition
Your body is composed of water, dry lean mass (protein and mineral) and fat. Total body water is divided into water inside the cells (Intracellular water) and water outside the cells (Extracellular water). When you are healthy, your body maintains a balanced ratio between Intracellular water (ICW) and Extracellular water (ECW). Keeping these components in appropriate balance is the key to staying fit and healthy. Compositional imbalance in the body is closely related to obesity, malnutrition, edema and osteoporosis.

Body Composition Analysis
Excessive body fat is the cause of many diseases, and it is important to keep your body fat mass in a normal range. Your body fat mass and muscle mass determine your physique. In order to have a firm looking body, it is necessary to have greater muscle mass than body fat mass. An ideal graph would show the SMM to be greater than the body fat mass graph. Extracellular and intracellular water balance is critical for health since the body is composed mostly of water. When extracellular water is abnormally greater than intracellular water for some reason, edema is recognizable.

Obesity Diagnosis
The BMI method is the most common. It evaluates your weight in relationship to your height to assess body fat content. If your BMI is over the normal range, you are considered to be at risk for obesity related diseases. Percent body fat uses a percentage to show how much of your weight is body fat. Percent body fat is able to differentiate between muscle weight and fat weight, while BMI does not. BMI is helpful for 'normal' individuals to assess their obesity risk, but percent body fat is based on the composition of the individual rather than solely on their weight. The normal range for PBF is 10~20% for males and 18~28% for females.

Segmental Lean Development
The longer the bar graphs in this section, the better. This section is used to evaluate muscle strength and its distribution throughout the body. The normal or over range represent well developed muscle, while the under range indicates segments of the body that are lacking muscle. When analyzing the results it is helpful to compare the right and left side of the body and the upper to the lower extremities. By comparison you can assess whether your body is balanced or unbalanced.

Body Fat & LBM
Identifies the amount of body fat mass and muscle mass you should gain or lose in order to reach your ideal body composition.
LBM Control: + (need more LBM)
0.0 (maintain current LBM)
Fat Control: + (need more Body Fat Mass)
- (lose Body Fat Mass)

InBody230
BODY COMPOSITION ANALYZER

Specifications

Parameters	Weight, Total Body Water, Intracellular Water, Extracellular Water Lean Body Mass, Dry Lean Mass, Body Fat Mass, Skeletal Muscle Mass, BMI, Percent Body Fat, Segmental Lean Mass (right arm, left arm, trunk, right leg, left leg), Fat Control, LBM Control, Basal Metabolic Rate(BMR), Impedance of Each Segments & Frequencies	
Electrode System	Tetrapolar 8-Point Tactile Electrodes	
Frequency	20, 100 kHz	
Applied Current Rating	330μA	
Power Supply	Power Input	AC100-240V, 50/60Hz, 1.2A
	Power Output	DC 12V, 3.5A
Display Type	480 × 320	
	color STN LCD	
Input Interface	Keypad	
External Interface	RS-232C 1EA, USB Slave 1EA, USB Host 1EA	
Printer	Printers recommended by Biospace, Thermal (optional)	
Dimensions	356(W) × 843(L) × 984(H) mm	
Unit Weight	32.0lbs (14.5kg) approx.	
Measuring Time	30 seconds	
Operation Conditions	10 ~ 40C°, 30 ~ 80%RH, 500 ~ 1060hPa	
Storage Conditions	0 ~ 40C°, 30 ~ 80%RH, 500 ~ 1060hPa	
Weight Capacity	22 ~ 551lb. (10 ~ 250kg)	
Age Range	3 ~ 99 years	
Height Range	2ft. 9.5in. ~ 7ft. 2.6in. (85 ~ 220cm)	

The information herein is subject to change without notice. Biospace Co., Ltd shall not be liable for technical or editorial errors or omissions contained herein.

BIOSPACE

Biospace Co., Ltd.
TEL : 1-310-358-0360 ❙ FAX : 1-310-358-0370
Homepage : http://www.biospaceamerica.com
E-mail : usa@biospaceamerica.com