InBody 720

THE PRECISION BODY COMPOSITION ANALYZER

BIOSPACE

InBody 720

THE PRECISION BODY COMPOSITION ANALYZER

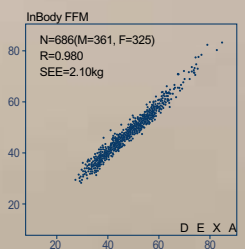
InBody-the product of great technology
Experience its speciality

InBody is chosen by experts

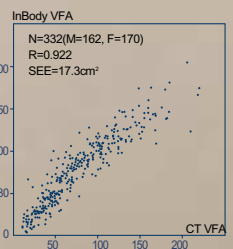
InBody has been praised by the world's medical professionals with its power to analyze and its clinical reliability. Biospace has been concentrating its effort on making a superb body composition analyzer. An accurate diagnosis is the basis for an effective treatment.

InBody's technology is unparalleled

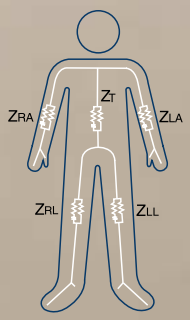
InBody's technology is patented as seed technology in advanced countries across the world including the US, Japan and European nations. Using 8-point tactile electrode method, InBody measures body by segment, and it has body composition analysis technology that does not resort to empirical estimates like gender or age. These are InBody's unique technologies that can be not compared.



LBM was measured for 686 examinees (361 men and 325 women) by whole body DEXA scanning and using InBody as well, and the results were compared and are shown in the above graph.



Visceral fat area (VFA) was measured for 332 examinees (162 men and 170 women) by CT imaging on the cross section of abdomen and by InBody as well. The results were compared and are shown in the above graph.



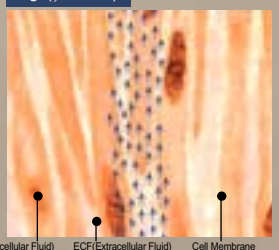
Report of InBody's precision

Tetrapolar 8-Point Tactile Electrode System

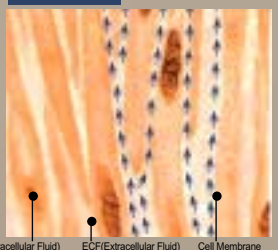
InBody is the creation of essence of sophisticated technology

As a high-tech device, InBody pushes the limit of frequency that determines the performance of body composition analyzer. InBody, a super-precision body composition analyzer, measures resistance in broadband frequencies of 1kHz-1MHz and reactance in mean frequencies.

High(>200kHz)



Low(<50kHz)



The best customer service

Equipped with wide experience of clinical experiments and database of over 20,000 persons, Clinical Research Team has been providing the best service in areas of Q&A about body composition analysis, its clinical application, provision of obesity-related information, research support and the latest research trend.

Biospace has been striving to improve human health; it has explored new realms of body composition analysis, leading the health care market with the top quality body composition analyzers that have set the standard for diagnosis of obesity and health care. Biospace focuses on product development and clinical research with an effort to venture into the field of electronic medical devices.

In recent years, people have come to recognize that obesity causes a wide range of health problems. It is known that the most effective and scientific way to prevent obesity is to analyze body composition on a regular basis.
Over the past decades, a technique has been developed which analyzes body composition based on the electrical conductive properties of biological tissues. Bioelectrical Impedance Analysis(BIA) has many advantages over other methods in that it is safe, rapid and easy to perform, and requires minimum operator training. Thus, the technique has become widely used in hospitals, health centers, fitness clubs and in field studies.

Nevertheless, in detecting acute or chronic changes in body composition the clinical usefulness of conventional BIA has been limited to healthy average people. Due to localized fluid accumulation or loss, and inability to accurately assess the balance between intracellular water(ICW) and extracellular water(ECW), there is difficulty applying BIA method to people who really need to analyze their body composition, such as patients, the elderly, children and athletes.

Biospace has reinforced the conventional BIA method and proven its technology through several clinical studies and research papers. Because the body is not an isotropic electrical conductor with uniform cross-sectional areas, we consider the body as consisting of five cylinders-four limbs and the trunk-and measure the amount of body water segmentally. Moreover, we use multifrequency to measure ICW and ECW separately. Thus, we do not have to use empirical estimation to compensate for inaccuracy, which makes the measurement insensitive.
We have acquired many patents and certifications, including FDA approval, which is valued world-wide. Biospace, as a pioneer, is the only specialized company for Body Composition Analyzers. We hope to see the body composition analyzers in every hospital, health center and fitness club all around the world.

Certifications

U.S. patent U.S. 5720296 | Canada patent C.N. 2225184 | German patent | France patent | England patent | Italy patent | Japan patent

Technology

InBody 720

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InBody measures minute changes in body Experience its speciality

More convenient

1. Color TFT LCD

Through 6.4 inch Color TFT LCD screen, you can check measurement procedures in detail.

2. Super-precision measurement

InBody's new, unique electrode system makes it possible to carry out super-precision measurement by enhancing interface between body and device.

3. Provision of a wealth of information

Body composition analysis results and graphs can be printed out and be used as items for medical examination.

4. Elegant design

InBody's sophisticated exterior, high-quality keypad and ergonomic design will add to the quality and elegance to hospitals or clinics.

5. System establishment

By linking InBody with various peripherals like Lookin'Body, the data management software, blood pressure monitor and stadiometer, the establishment of medical examination system will be possible.

Areas of InBody application

Medical check-up center

InBody provides measurement items necessary to prevent geriatric diseases like hypertension, diabetes, heart disease and fatty liver. In particular, with the inclusion of high-tech measurement items like visceral fat and edema, it is being widely used for medical examination to check geriatric diseases.

Obesity clinic/Plastic surgery

InBody provides high-precision data required to treat patients with obesity such as severe obesity, obesity with less developed muscle, geriatric obesity, childhood obesity and obesity after childbirth. In particular, InBody has higher precision level for patients with special body figure, so, it helps doctors to provide more appropriate judgment and treatment to those.

Rehabilitation/Orthopedic/Pain clinic

By providing accurate size of body parts like arms, legs, and trunk, you will be able to measure changes in body when treatment is given. In particular, since InBody is sensitive to the extent that right-handed and left-handed can be discriminated, it can detect minute changes that can not be checked with eyes.

Nephrology

InBody is used to help judge about body water balance, change in body water before and after dialysis and nutritional status for patients. Since it responds very sensitively to the change in body water, it will confirm dramatic changes in edema figures before and after dialysis.

Sports medicine

InBody provides a precise examination for body development status and balance. Analysis items by segment and various body indexes are used as essential data for exercise prescription.

Nutrition clinic/Geriatric clinic

InBody is used to analyze nutritional and health conditions for patients with wasting disease, geriatric disease, chronic disease and children in growth period. In particular, using broadband multi-frequencies, it provides a precise diagnosis on patients ' nutritional status

Product

InBody720

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Various Results based on measurements

Examinee and institution

You can advertise your center effectively. It displays personal information of examinee entered and hospital or clinic name, doctor name and the address.

Body Composition

By explaining the result sheet, your clients will realize what their body is composed of and soon comply with given instruction. In this part, these values demonstrate the weight of each body compositional element that makes up the examinee's total body weight. The estimated values are then compared with the standard values.

Muscle-Fat Analysis

Skeletal Muscle and Body Fat Mass are the main subjects for weight control. The horizontal bar graph helps you understand your body composition state compared to standard values. The value next to bar shows you the measured values and the end of bar indicates your position in the range. If the length of the bars would be similar, your body composition is well balanced, while if the lengths of the bars fluctuate, it means your body composition is not balanced.

Obesity Diagnosis

By showing the proportion of both BMI and percent body fat in their body, InBody720 can identify hidden obese people. A comprehensive diagnosis of obesity can be made based on various approaches like Percent Body Fat and Waist-Hip Ratio through body composition analysis.

Lean Balance

There are more various applications by providing graphs with values in relation to weight of the examinee as well as graphs with the absolute values in relation to standard weight. By measuring muscle distribution by segment, you can check body balance and development level by segment. InBody provides information essential to check the effect of rehabilitation treatment or establish a direction for exercise.

Segmental Edema

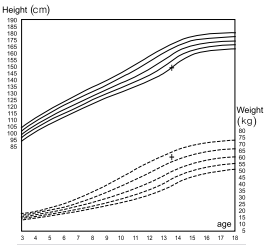
InBody720 shows segmental edema score as well as edema score for the whole body.

Edema

The graph shows the ratio of ECW to TBW and ECF to TBF. Edema score of healthy person is maintained in normal range.

Visceral Fat Area

It tells how much of body fat is accumulated in visceral areas.



Growth Chart

For children under 18 of age, instead of Visceral Fat Area, it provides a Growth Chart. With graphs in percentile regarding age, gender, height and weight, it is possible to see the developmental conditions of their growth.

Various comprehensive evaluation

Nutritional Evaluation, Weight Management, Obesity Diagnosis, Body Balance, Body Strength, Health Diagnosis The result sheet of InBody720 summarizes all the obtained results on the right side. This makes much easier for patients to comprehend their health condition. Using different colors, it even distinguishes the poor and the fine conditions. It helps to check and see overall body composition at a glance.

Body Composition History

Examination results will be stored so that changes in body composition of the examinee can be tracked.

Weight Control

Based on body composition analysis results, target weight and how much to adjust for fat and muscle are suggested.

Fitness Score

This generalized figure is suggested for subjects to remember easily. You need to make sure that score gets higher through weight control.

Additional Data

Basal Metabolic Rate, Body cell mass, Obesity degree, Bone mineral content. InBody shows you commonly used indexes related to body composition.

Anthropometrics

NECK(circumference of neck)
CHEST(circumference of chest)
ABD(circumference of abdomen)
HIP(circumference of hip)
AC_R(circumference of right arm)
AC_L(circumference of left arm)
$THIGH_R$(circumference of right thigh)
$THIGH_L$(circumference of left thigh)
AMC(circumference of arm muscle)

InBody 720 Body Composition Analysis

I.D.	AGE	HEIGHT	GENDER	DATE / TIME
MISUK HAN	39	159cm	F	2004.07.01/09:23:50(65000)

Seoul National Univ. Hospital
Doctor Lee

Body Composition Analysis

Compartments	Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight	Normal Range
I C W (ℓ) Intracellular Water	19.9	32.6	41.7	44.2	65.9	16.8 ~ 20.5
E C W (ℓ) Extracellular Water	12.7					10.3 ~ 12.6
Protein (kg)	8.6					7.2 ~ 8.9
Mineral (kg)	3.00	non-osseous / osseous: 2.49				2.50 ~ 3.10
Body Fat Mass (kg)	21.7					9.8 ~ 19.5

▸ Mineral is estimated.

Muscle - Fat Analysis

	Under	Normal	Over	UNIT:%	Normal Range
Weight (kg)	55 70 85 100 115 130 145 160 175 190 205	65.9			45.8 ~ 62.0
S M M (kg) Skeletal Muscle Mass	70 80 90 100 110 120 130 140 150 160 170	23.9			20.1 ~ 24.5
Body Fat Mass (kg)	40 60 80 100 160 220 280 340 400 460 520	21.7			4.8 ~ 19.5

Obesity Diagnosis

	Under	Normal	Over	Normal Range
B M I (kg/m²) Body Mass Index	10 15 18.5 21.5 25 28 33 38 43 48 53	26.1		18.5 ~ 25.0
P B F (%) Percent Body Fat	8 13 18 23 28 33 38 43 48 53 58	33.0		18.0 ~ 28.0
W H R Waist-Hip Ratio	0.65 0.70 0.75 0.80 0.85 0.90 0.95 1.00 1.05 1.10 1.15	0.86		0.75 ~ 0.85

Lean Balance

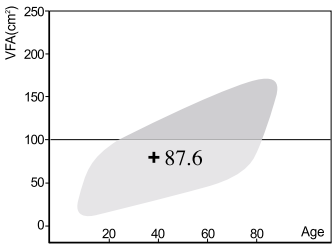
Lean ■■ Lean/Ideal Lean x100 (%)

	Under	Normal	Over	UNIT:%	Segmental Edema ECF / TBF	Segmental Edema ECW / TBW
Right Arm (kg)	40 60 80 100 120 140 160 180	2.19 / 103.8			0.333	0.380
Left Arm (kg)	40 60 80 100 120 140 160 180	2.06 / 97.7			0.352	0.400
Trunk (kg)	70 80 90 100 110 120 130 140	19.7 / 84.7			0.352	0.400
Right Leg (kg)	70 80 90 100 110 120 130 140	6.83 / 85.9			0.333	0.380
Left Leg (kg)	70 80 90 100 110 120 130 140	6.81 / 85.6			0.333	0.380

Edema

ECF / TBF	ECW / TBW
0.41	0.46
0.38	0.43
0.35	0.40
0.33	0.38
0.31	0.36
0.28	0.33
0.25	0.30
0.343	0.390

Visceral Fat Area



Nutritional Evaluation

Protein	☑ Normal	☐ Deficient			
Mineral	☑ Normal	☐ Deficient			
Fat	☐ Normal	☐ Deficient	☑ Excessive		

Weight Management

Weight	☐ Normal	☐ Under	☑ Over		
S M M	☑ Normal	☐ Strong	☐ Under		
Fat	☐ Normal	☐ Under	☑ Over		

Obesity Diagnosis

B M I	☐ Normal	☐ Under	☑ Over	☐ Extremely Over
P B F	☐ Normal	☐ Obese	☑ Extremely Obese	
W H R	☐ Normal	☐ Obese	☑ Extremely Obese	

Body Balance

Upper	☐ Balanced	☑ Slightly Unbalanced	☐ Extremely Unbalanced
Lower	☑ Balanced	☐ Slightly Unbalanced	☐ Extremely Unbalanced
Upper-Lower	☐ Balanced	☑ Slightly Unbalanced	☐ Extremely Unbalanced

Body Strength

Upper	☑ Normal	☐ Developed	☐ Weak
Lower	☐ Normal	☐ Developed	☑ Weak
Muscle	☑ Normal	☐ Muscular	☐ Weak

Health Diagnosis

Body Water	☑ Normal	☐ Under		
Edema	☑ Normal	☐ Slight Edema	☐ Edema	
Life Pattern	☐ Normal	☑ Alert	☐ Risky	☐ Highly Risky

Body Composition History

DATE / TIME	Weight	SMM	Fat	Score	ECF/TBF
04/03/05 09:55	67.0	23.0	24.5	73	0.348
04/04/02 10:30	66.8	23.0	23.5	73	0.349
04/05/12 09:50	66.5	23.2	22.7	73	0.345
04/06/08 10:23	66.0	23.7	22.0	74	0.343
04/07/01 09:23	65.9	23.9	21.7	74	0.345

Additional Data

	(Normal Range)
Obesity Degree = 124 %	90 ~ 110
B C M = 24.1 kg	24.0 ~ 29.3
B M C = 2.49 kg	2.35 ~ 2.52
B M R = 1324 kcal	1128 ~ 1378

Anthropometry

NECK = 33.6cm	CHEST = 95.1cm
ABD = 84.1cm	HIP = 97.5cm
ACR = 34.4cm	ACL = 34.3cm
THIGHR = 54.1cm	THIGHL = 54.1cm
AMC = 28.5cm	

Weight Control

Target Weight	56.4	kg
Weight Control	- 9.5	kg
Fat Control	- 9.5	kg
Muscle Control	0.0	kg
Fitness Score	74	Points

Impedance

R	RA	LA	TR	RA	LL
1kHz	373.0	370.0	31.2	277.0	278.0
5kHz	362.1	359.3	29.6	266.0	266.0
50kHz	314.0	313.0	25.6	229.0	230.0
250kHz	279.0	283.0	21.6	204.0	204.0
500kHz	269.0	275.0	20.6	198.0	199.0
1000kHz	248.0	254.0	18.1	194.0	195.0
Xc 5kHz	98.9	34.0	3.0	51.8	49.5
50kHz	56.2	91.9	9.5	11.3	12.8
250kHz	18.7	49.8	5.9	83.1	80.8

Specifications

Electrode Method	Tetrapolar 8-Point Tactile Electrode System
Frequency	1kHz, 5kHz, 50kHz, 250kHz, 500kHz, 1000kHz(1MHz)
Measurement Items	Resistance(R), Reactance(Xc), Phase Angle(φ)
Measurement Sites	Right Arm, Left Arm, Trunk, Right Leg, Left Leg
Outputs	Visceral Fat(VFA, cm^2) Fat Mass(FAT, kg) Intracellular Water(ICW, ℓ) Extracellular Water(ECW, ℓ) Total Body Water(TBW, ℓ) Edema Segmental Edema Segmental Lean Distribution(kg) Skeletal Muscle Mass(kg)
Applied Rating Current	100㎂(1kHz), 500㎂(others)
Power Consumption	60VA
Power Source	100-240V~, 50/60㎐
Display Type	640 × 480 Color TFT LCD
External Interface	RS-232C 3EA, USB(Ver. 1.1) 2EA, Ethernet(10/100 Base-T) 1EA
Printer Interface	IEEE1284 (25pin parallel)
Compatible Printer	Laser/Inkjet Printer (HP, Canon, Epson)
Dimensions	520(W) × 870(L) × 1200(H) : mm
Machine Weight	45kg
Measurement Duration	Less than 2 minutes
Operation Environment	10 ~ 40℃(50 ~ 104°F), 30 ~ 80% RH
Storage Environment	0 ~ 40℃(32 ~ 104°F), 30 ~ 80% RH
Optimum Pressure	500 ~ 1060hPa
Weight Range	10 ~ 250kg(22 ~ 551lbs)
Age Range	6 ~ 99years
Height Range	110 ~ 220cm(43.3 ~ 86.6in)

Certifications and patents obtained by Biospace

U.S. patent U.S. 5720296 | Canada patent C.N. 2225184 | German patent | France patent | England patent | Italy patent | Japan patent

BIOSPACE

Biospace Co., Ltd.
TEL : + 82-2-501-3939
FAX : + 82-2-501-3978
Homepage : http://www.biospace.co.kr
E-mail : biospace@biospace.co.kr

Biospace, Inc.
TEL : +1-310-358-0360
FAX : +1-310-358-0370
Homepage : http://www.biospaceamerica.com
E-mail : USA@biospaceamerica.com

Biospace Japan, Inc.
TEL : + 81-3-5298-7667
FAX : + 81-3-5298-7668
Homepage : http://www.biospace.co.jp
E-mail : biospace@biospace.co.jp

DanilSMC Co., Ltd. [Asia]
TEL : + 82-2-3462-5400
FAX : + 82-2-3462-5105
E-mail : danilsmc@danilsmc.com