



**Biospace**



# *InBody 3.0*

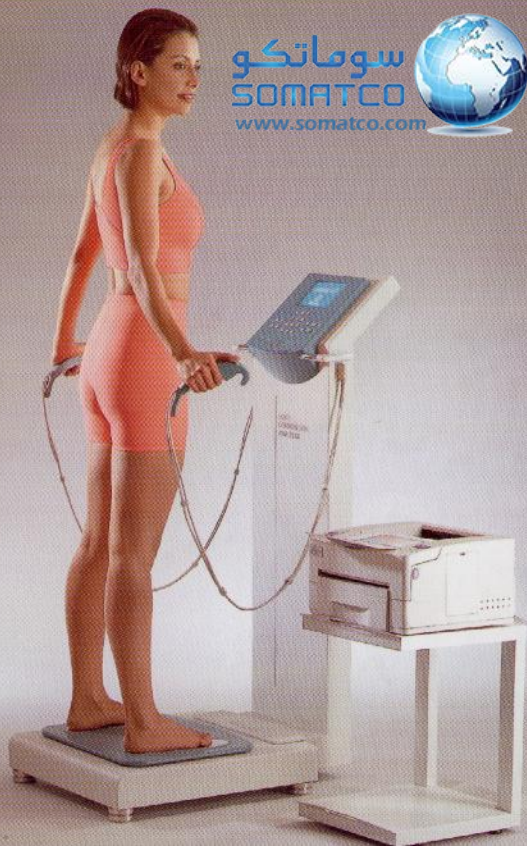
**BODY COMPOSITION ANALYZER**



# The Most Advanced Body Composition Analyzer *InBody 3.0*

InBody 3.0 utilizes the state of the art technology, providing extremely reproducible accurate data and diverse composition analysis of which professionals have dreamed. This new InBody technology was patented worldwide and was awarded The Changyoungsil Prize.

- 8-Point Tactile Electrodes
- Segmental Analysis
- Multi-frequency Analysis



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How to grip the hand electrodes



How to step onto the foot electrodes



# you can trust

## No Empirical Estimation

Most commercial analyzers utilize empirical data such as sex and age to calculate body composition. This often results in misleading individual's compositional changes. The outputs of InBody 3.0 are based on measured values only.

## Segmental Fluid Distribution

InBody 3.0 measures fluid content in each limb. This measurement is highly reliable so that a small difference can be detected quantitatively between right and left limbs and upper and lower limbs. Multiple applications can be made in rehabilitation, orthopedics, sports medicine and physical therapy.

## ECF : ICF Measurement

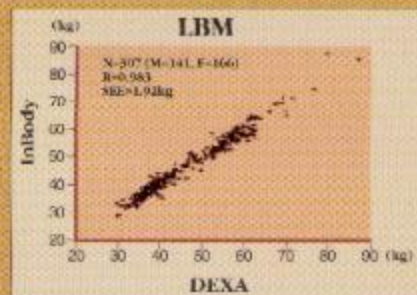
A ratio of intracellular fluid (ICF) and extracellular fluid (ECF) are constant in healthy individuals. This ratio is altered in many diseased states. InBody 3.0 provides this ratio with a high accuracy by utilizing multi-frequency impedance technology.

## Fat Distribution

A unique function of InBody 3.0 is the measurement of fat distribution expressed by waist - hip ratio(WHR). The data are closely related to those measured with a steel tape. Fat distribution is an important parameter in the diagnosis of obesity, which no other machines can measure.

## High Reproducibility

One of the most outstanding characteristics of InBody 3.0 is its reproducibility. The reproducibility is the most important specification of the analyzer for monitoring serial compositional changes. InBody 3.0 is designed to minimize measurement errors and biological errors to meet 99% of reproducibility.



## High Accuracy

InBody 3.0 has been tested on thousands of subjects against Underwater Weighing and Dual-Energy X-Ray Absorptiometry (DEXA) method. InBody 3.0 results have proven to be most closely related to the standard methods among commercial analyzers tested simultaneously.



**USER INFORMATION**

Organization name, address, and phone number.

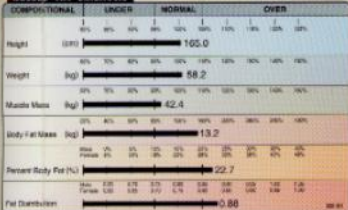
**BODY COMPOSITION ANALYSIS***InBody*

PLAZA HEALTH CARE

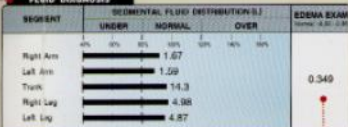
NAME	AGE	SEX	Patient I.D.
K. T. Yung	29	M	3265
EXAM DATE: 1998. 5. 23.		15:22:11	

**BODY COMPOSITION**

COMPONENT	MEASURED VALUE	TOTAL BODY WATER	MUSCLE MASS	LEAN BODY MASS	BODY WEIGHT
Intracellular Fluid (L)	20.3	31.1	42.4	45.0	58.2
Extracellular Fluid (L)	10.8				
Protein Mass (kg)	11.3				
Bone Mass (kg)	2.53	AMERICAN			
Fat Mass (kg)	13.2				

**MUSCLE - FAT DIAGNOSIS****EVALUATION**

Measure Type	Under		
	50%	75%	100%
Sarcopenia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proteinemia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Malnutrition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nutritional Status	Under	Normal	Over
	Fat	<input type="checkbox"/>	<input type="checkbox"/>
	Protein	<input type="checkbox"/>	<input type="checkbox"/>
Upper Limb Balance	Disturbed	Normal	
	Arm	<input type="checkbox"/>	
Leg	<input type="checkbox"/>		
Right Leg Balance	Disturbed	Optimized	
	Arm	<input type="checkbox"/>	
Leg	<input type="checkbox"/>		

**FLUID DIAGNOSIS****WEIGHT CONTROL (kg)**

Target Weight	57.7
Weight Deficit	-0.5
Fat Control	-4.6
Muscle Control	+4.0

**FITNESS SCORE**76 Point**PATIENT CLASSIFICATION**

- Dehydrated     Sarcopenic Patient     Muscle Dysmetria  
 Dehydrated     Nutritional Deficiency     Malnutrition  
 Pregnancy     Hypertrophy     Osteoporosis  
 Obesity     Hypertension     Hypertension  
 Eczema     Atherosclerosis     Cardiovascular Disease

**NUTRITIONAL ASSESSMENT**

BMI = 21.4 kg/m<sup>2</sup>  
 BMR = 1208 kcal  
 AMC = 21.5 cm (AC = 26.2 cm)  
 BCM = 31.6 kg

**BIOELECTRICAL IMPEDANCE**

300	351	27.9	240	250
317	332	23.9	242	253
299	302	21.4	221	236
279	296	20.5	218	229

**EVALUATION**

Normal weight is within  $\pm 10\%$  of the standard weight. Above it, overweight and below it, under weight. Sarcopenic type is insufficient in muscle mass with respect to his / her weight. Proportionate type between sarcopenic and muscular type, ranging within  $\pm 1$ -SD of the MEAN. Muscular type is sufficient in muscle mass over the average mass.

**WEIGHT CONTROL**

Recommended weight reduction determined by considering individual's weight and LBM. Under the standard weight, muscle and fat controls are recommended to meet the standard mass. Above the standard weight, they are required to meet the standard percent body fat. An individual with the standard weight is often recommended to increase muscle and to decrease fat like this example.

**FITNESS SCORE**

Fitness score indicates the body strength designed for easy understanding. The score increases as muscle mass increases with an adequate amount of fat. Average is 75-85. A person with above 90 is considered a strong person, under 70 very weak.

**BIOELECTRICAL IMPEDANCE**

Segmental multi-frequency impedance values. From right to left, the values are for right arm, left arm, trunk, right leg, and left leg. From top to bottom, values are impedance measurements at 5, 50, 250, and 500 kHz.

**NUTRITIONAL ASSESSMENT**

Body mass index (BMI), Weight(kg)/Height(m)<sup>2</sup>, Basal metabolic rate (BMR), Arm muscle circumference (AMC), Arm circumference (AC), Body cell mass (BCM).

# Test Result

## Body Model



## Diverse Analysis

- Lean Body Mass (LBM)
- Body Fat (BF)
- Percent Body Fat (%BF)
- Total Body Water (TBW)
- Intracellular Fluid (ICF)
- Extracellular Fluid (ECF)
- Segmental Fluid Distribution
- Fat distribution (Waist-Hip Ratio)
- Muscle Type (Sarcopenic, Muscular)
- Fitness Score
- Body Cell Mass (BCM)
- Arm Muscle Circumference (AMC)
- Basal Metabolic Rate (BMR)
- Body Mass Index (BMI)

## Easy to use

A subject grips the hand electrodes and steps onto the foot electrodes. InBody 3.0 automatically measures and prints the results in 2 minutes.

- No bed!
- No manual application of electrodes!
- No trained operator!

## INDIVIDUAL INFORMATION

Name, Sex, Age, and ID number entered by the mounted key pad.

## BODY COMPOSITION

Quantitative evaluation of intracellular fluid, extracellular fluid, protein, fat, and bone mineral content in the body. Muscle mainly consists of protein and water. LBM is the sum of muscle and bone mass. The rest is fat mass. The total is the body weight.

## MUSCLE-FAT DIAGNOSIS

This graph is expressed by bar (relative value) and number (absolute value). The bar is designed so that the average value reaches 100%. Average height of adult is 172cm (5ft 8in) for male or 160cm (5ft 3in) for female. The standard weight is (height-100) x 0.9 or BMI 22. Weight, muscle and fat mass are same in length when the composition is balanced. Standard value for % body fat is 15 ± 3% for male and 23 ± 3% for female. Fat distribution (WHR) is a ratio of waist-hip circumferences. Normal value for WHR is 0.75 ± 0.1 for female and 0.80 ± 0.1 for male.

## FLUID DIAGNOSIS

Water content in each limb is proportionately related to the lean mass in healthy individuals. Differences between right and left, and between upper and lower bars indicate the magnitude of imbalance.

## EDEMA EXAM

The normal range is 0.30-0.35. If the number is higher than this range, it means an abnormal accumulation of fluid in the tissue. Edema may or may not be visible. Following a finger press around the ankle, the skin swollen by edema flattens out very slowly.

## Specifications

<b>Electrode Method</b>	8-Point Tactile Electrode System
<b>Frequency Range</b>	5kHz 50kHz 250kHz 500kHz
<b>Installation Category</b>	CAT II
<b>Applied Rating Current</b>	250 $\mu$ A
<b>Measurement Site</b>	Right Arm Left Arm Trunk Right Leg Left Leg
<b>Outputs</b>	Weight(kg) Lean Body Mass(kg) Total Body Water(l) Intracellular Fluid(l) Extracellular Fluid(l) Fat Mass(kg) Percent Body Fat(%) Segmental Fluid Distribution Fat Distribution (Waist Hip Ratio) Segmental Impedance Values
<b>Display Unit</b>	320 x 240 dots graphic LCD
<b>Load Cell</b>	Strain-gauge Single Point Platform(20-250kg)
<b>Print Unit</b>	Laser / Inkjet Printer(with PCL3e above)
<b>Computer Interface</b>	9-pin Serial Port
<b>Machine Size</b>	500(W) x 700(L) x 1200(H)
<b>Machine Weight</b>	45kg
<b>Operating Power</b>	AC 100-120, 200-240 Volts, 50/60 Hz
<b>Power Consumption</b>	40 VA
<b>Measurement Duration</b>	Less than 2 minutes
<b>Temperature Range</b>	15 ~ 40° C
<b>Relative Humidity</b>	30 ~ 80%
<b>Age Limits</b>	7 ~ 80 Years



The specifications can be changed without notice.



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