



Take your practice to the next level with clinical application of advanced BIA Body Composition Analysis

Sports Medicine

Monitor Rehabilitation Progress

Utilize Phase Angle to track progress and recovery at a cellular level, helping you determine when it's safe to allow an injured athlete to resume training and tough workouts.

Fluid Management

Track changes in body fluid

Precise tracking and management of extracellular and intracellular fluid is of utmost importance in a wide variety of diseases, including but not limited to cardiac and renal deficiency. Compare ECW:ICW proportion to evaluate imbalance, and track body water changes as frequently as needed.

Obesity Treatment

Detect hidden obesity risk

Utilize body type analysis, which combines BMI and Percent Body Fat, providing medical professionals with an additional tool for evaluation of hidden obesity risk.

Evaluation of Sarcopenia

Track changes in quality, not quantity

In elderly populations, muscle strength can decline much more rapidly than muscle mass. By evaluating muscle effectiveness through evaluation of cellular health, healthcare professionals now have a more useful indicator that may provide early warning for fall risk.



MA601 Body Composition Analyzer

Key Specifications	
Bioelectrical Impedance Analysis (BIA)	15 Impedance Measurements: 3 frequencies (5kHz, 50kHz, 250kHz) for 5 segments (Right Arm, Left Arm, Trunk, Right Leg, Left Leg)
Electrodes	8-point Tactile Electrode Design
Display	800 x 480 pixels, 7-inch color touchscreen LCD
Capacity / Graduation	Max Capacity 300kg (0.1 kg graduation)
Applicable Age	6-85 years old
Output / Transmission	USB 2.0 x2, Bluetooth (optional), Wi-Fi, RJ45 Ethernet
Data Storage	50,000 Measurements (data transfer available via USB, Bluetooth, or Wi-Fi)
Measurement Duration	Less than 45 seconds
Device Dimensions	506 (L) x 450 (W) x 1025 (H): mm 19.9 (L) x 17.7 (W) x 40.4 (H): inches
Device Weight	About 12kg (27lbs)

Result Sheet Output	
Body Composition Analysis	Intracellular Water, Extracellular Water, Total Body Water, Protein, Mineral, Body Fat Mass, Soft Lean Mass, Fat-Free Mass, Weight
Muscle-Weight Analysis	Weight, Skeletal Muscle Mass, Body Fat Mass
Obesity Analysis	Percent Body Fat, Body Mass Index
Segmental Analysis	Lean Mass (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) Fat Mass (Right Arm, Left Arm, Trunk, Right Leg, Left Leg)
Body Type Analysis	Utilizes BMI and Percent Body Fat
Muscle Quality	Estimated grip strength (N, kg), Muscle Quality Score
Body Composition History	Weight, Fat-Free Mass, Skeletal Muscle Mass, Percent Body Fat (Last 8 results)
Body Balance Evaluation	Analysis of balance between Upper, Lower, and Upper-Lower body segments.
Fitness Parameters	Basal Metabolic Rate, Total Energy Expenditure, Phase Angle (50kHz), Fat-Free Mass Index, Skeletal Muscle Index
Health Score	Combined evaluation of body composition results
Control Guide	Target Weight, Weight Control, Fat control, Muscle Control
Impedance	5kHz, 50kHz, 250 kHz





Advanced Body Composition Analyzer

The MA601 Body Composition Analyzer applies artificial neural network algorithms to Bioelectrical Impedance Analysis (BIA), for more reliable and accurate measurement of body composition. Featuring advanced output parameters such as muscle quality for improved evaluation health, our results are formulated and validated with clinical trials, providing medical professionals with accurate and reproducible measurement data.





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Body Type Analysis

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* Wang HK et al. Mobility impairment, muscle imbalance, muscle weakness, scapular asymmetry and shoulder injury in elite volleyball athletes. J Sports Med Phys Fitness 2001. Sep;41(3):403-10

* Gonzalez MC et al. Phase angle and its determinants in healthy subjects: influence of body composition. *Am J Clin Nutr* 2016; 103:712-6

* Marra M et al. Bioelectrical impedance phase angle in constitutionally lean females, ballet dancers, and patients with anorexia nervosa. *ECJN* 2009; 63, 905-908

* Cruz-Jentoft AJ et al. Sarcopenia: European consensus on definition and diagnosis. Age and Ageing 2010; 39:412-423



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Body Composition Analysis

Compartment	Values	TBW	SLM	FFM	Weight	Normal Range
ICW Intracellular Water (L)	16.4	27.1	34.6	36.9	48.5	17.0 ~ 20.8
ECW Extracellular Water (L)	10.7					10.4 ~ 12.8
Protein (kg)	7.5	7.4 ~ 9.1				
Mineral (kg)	2.3	1.6 ~ 2.7				
BFM Body Fat Mass (kg)	11.6	8.7 ~ 13.6				

Weight (kg)
Total Body Weight: 70 kg. Target: 48.5 kg.

SMM (kg)
Skeletal Muscle Mass: 20 kg. Target: 19.6 kg.

BFM (kg)
Body Fat Mass: 11.6 kg. Target: 11.6 kg.

Upper	Lower	Upper-Lower	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Balanced
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slightly Unbalanced
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely Unbalanced

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73.3 /100 Points

Control Guide

Target Control	52.9	kg
Weight Control	+4.4	kg
Fat Control	-0.4	kg
Muscle Control	+4.8	kg

Male

Female

VFA (Rating)
Visceral Fat Level

BMI (kg/m²)
Body Mass Index

PBF (%)
Percent Body Fat

0 5 10 15 20 25 30 35 40

0 2 10 15 30

10.0 14.2 18.5 21.2 24.0 29.9 42.4 55.0

Under Normal Over Obese

Underfat Athlete Normal Overfat Obese

23.9

2

18.9

Figure 1: Body Mass Index (BMI) and Body Type Analysis

The figure displays two radar charts comparing body composition metrics for a 25-year-old male, alongside a Body Type Analysis chart.

Left Radar Chart: Lean Mass

- Trunk:** 15.4 kg
- Right Arm:** 1.6 kg
- Left Arm:** 1.5 kg
- Right Leg:** 5.8 kg
- Left Leg:** 5.9 kg

Right Radar Chart: Fat Mass

- Trunk:** 4.8 kg
- Right Arm:** 0.4 kg
- Left Arm:** 0.4 kg
- Right Leg:** 2.4 kg
- Left Leg:** 2.4 kg

Body Type Analysis Chart:

The chart plots BMI (18-30) on the Y-axis against Percentage Body Fat (BF%) (10-25%) on the X-axis. The chart identifies various body types based on these metrics:

- Athletic:** Low fat muscular
- Over weight muscular:** Over weight muscular
- Obese:** Obese
- Standard:** Standard
- Over fat:** Over fat
- Low fat:** Low fat
- Low weight:** Low weight
- Thin fat:** Thin fat

The chart also includes a legend for BMI status: Over (orange), Normal (green), and Under (blue).

Right Hand
203 ~ 248 N
21 ~ 25 kgf

Left Hand
183 ~ 224 N
19 ~ 23 kgf

	2018.12.01 11:40	2019.01.08 11:48	2019.01.13 09:40	2019.02.19 15:26	2019.03.24 10:57	2019.04.03 10:49	2019.05.10 14:15	2019.06.19 00:00
Weight (kg)	48.6	48.5	48.5	48.7	48	48	48.3	48.5
FFM (kg)	36.1	36.4	36.5	36.6	36.6	36.5	36.6	36.9
SMM (kg)	20.7	20.4	20.5	20.5	20.3	20.3	20.5	19.6
PBF (%)	25.6	24.2	24.3	24.3	24.1	24.1	24.3	23.9

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By selecting the same user ID prior to measurement, changes in body composition can be tracked automatically (Weight, Fat-Free Mass, Skeletal Muscle Mass, and Percent Body Fat)

The Control Guide calculates a recommended amount of muscle and fat control in order to reach an ideal, healthy body type.

