MA601
Advanced Body Composition Analyzer

- Cellular Quality
- Muscle Evaluation
- Body Type Analysis
- Body Water Balance

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Advanced Body Composition Analysis Outputs

Body Type Analysis

Low or normal BMI isn't necessarily an indication of good health. If body fat percentage is high, risk for obesity-related diseases remains high - utilize the body type analysis and visceral fat level to identify hidden obesity risk, and design personal training accordingly.

* Hung SP et al. Combine body mass index and body fat percentage measures to improve the accuracy of obesity screening in young adults. Obesity Research & Clin Practice, 2017. Vol 11;1,pp.11-18

Segmental Analysis

Muscle imbalance may increase the risk of injury and soreness. Track segmental muscle development and keep your clients safe.

* 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

Phase Angle

Body composition quantity is insufficient for evaluations of health. Measure and track changes in phase angle to get a better indicator of subject's cellular health !

* 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

Muscle Quality

Through measurement of cellular health, the MA601 can estimate muscle quality, for a more effective indicator of mobility deterioration. By comparing projected grip strength with actual grip strength, effective evaluation of muscle quality can be made.

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

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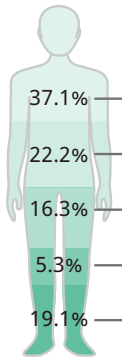
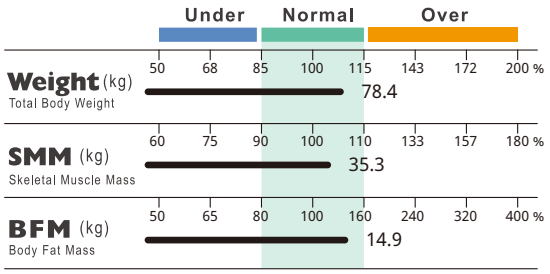
Name	ID	Ethnicity	Height	Gender	Age	Measured Time
Tim	7347204161		182.5 cm	Male	33	2021.03.15 03:53

1 Body Composition Analysis



Compartments	Values	TBW	SLM	FFM	Weight	Normal Range
ICW Intracellular Water (L)	29.1	46.5	59.3	63.5	78.4	25.4 ~ 31.0
ECW Extracellular Water (L)	17.4					15.6 ~ 19.0
Protein (kg)	12.8					10.0 ~ 13.7
Mineral (kg)	4.1					2.6 ~ 4.4
BFM Body Fat Mass (kg)	14.9					7.8 ~ 15.7

2 Muscle - Fat Analysis



4 Body Balance Evaluation

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

8 Fitness Parameters

Basal Metabolic Rate	1740 kcal
Total Energy Expenditure	2472 kcal/d
Phase Angle (50KHz)	5.7 °
Fat-free Mass Index	19.1 kg/m²
SMI	10.6 kg/m²
ASMI	8.1 kg/m²

9 Health Score

74.9 /100 Points

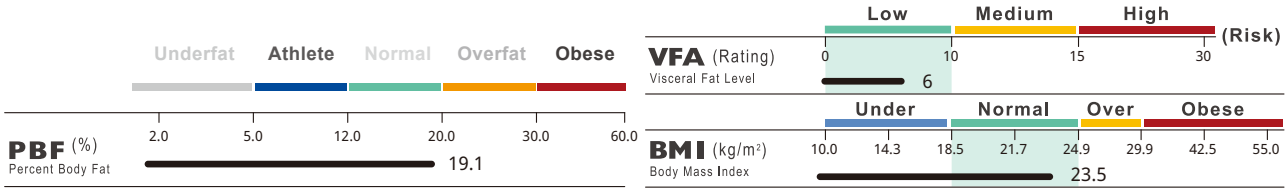
10 Control Guide

Target Weight	77.2	kg
Weight Control	-1.2	kg
Fat Control	-3.2	kg
Muscle Control	+2.0	kg

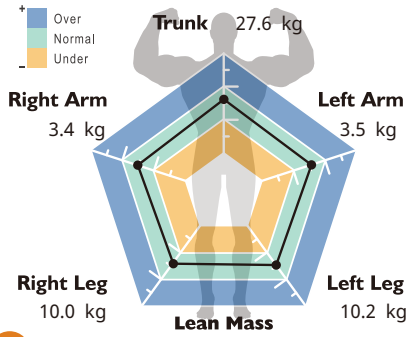
Impedance

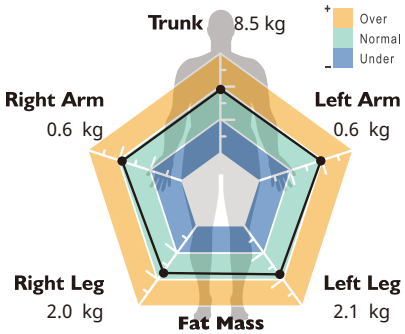
	RA	LA	TR	RL	LL
5kHz	345.0	336.4	26.7	264.2	260.0
50kHz	305.9	299.4	22.1	229.8	227.6
250kHz	279.8	275.5	18.9	208.7	206.8

3 Obesity Analysis



4 Segmental Lean, Fat and Body Type Analysis





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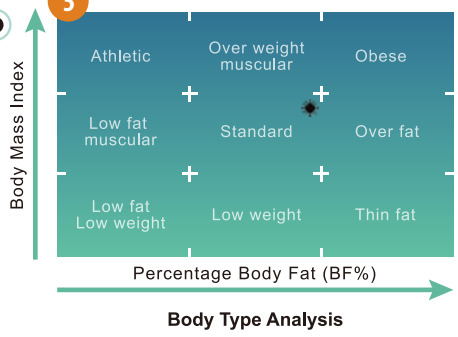

6 Muscle Quality

Right Hand	Left Hand
395 ~ 483 N	366 ~ 448 N
40 ~ 49 kgf	37 ~ 46 kgf

Muscle Quality Score 82 /100 Points

7 Body Composition History

	2021.01.25 10:27	2021.02.04 08:47	2021.02.11 14:15	2021.02.18 10:49	2021.02.25 10:57	2021.03.02 15:26	2021.03.09 09:40	2021.03.15 11:53
Weight (kg)	78.1	78.0	77.8	77.8	78.5	78.0	77.9	78.4
FFM (kg)	65.3	64.2	63.9	64.0	64.0	63.9	63.8	63.5
SMM (kg)	33.7	34.2	34.7	34.7	35.0	35.0	34.9	35.3
PBF (%)	16.7	17.5	17.0	17.0	17.5	17.5	17.2	19.1

Introduction to the Body Composition Result Sheet

1 Body Composition Analysis

Reliable, non-invasive Bioelectrical Impedance Analysis makes it easier to conduct regular monitoring of Body Composition. The calculated estimated weights of the body's compositional elements can be compared with standard results for context.

2 Muscle-Fat Analysis

Measurement of weight is important, but incomplete without further analyzing the amount of muscle and fat in a subject. Understanding skeletal muscle and body fat proportions can help professional trainers formulate muscle and fat control recommendations.

3 Obesity Analysis

The MA601 categorizes body fat ranges into those commonly seen for Underfat, Athlete, Normal, Overfat, and Obese populations. With more precise ranges, fat control goals and progress can be tracked more accurately. Visceral Fat Level can also be used as an indicator for hidden obesity.

4 Segmental Analysis & Body Balance Evaluation

Measure muscle and fat more precisely with segmental analysis of the trunk, upper body, and lower body. Identify imbalances and track changes to better observe the effects of training.

5 Body Type Analysis

The body type analysis chart combines BMI and Percent Body Fat to determine the subject's body type. Body composition changes needed to achieve ideal body type can be clearly determined using this clear and simple chart.

6 Muscle Quality

Muscle Quality and estimation of grip strength provides a valuable muscle quality indicator that can point to changes more quickly and noticeably than a simple measurement and tracking of muscle mass.

7 Body Composition History

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)

8 Fitness Parameters

The MA601 provides multiple body composition output parameters of particular relevance for fitness, and includes various indexes used as early warning signs for malnutrition and sarcopenia. Make use of Phase Angle for evaluation of cellular health, and analyze health status in more detail.

9 Health Score

The Result Sheet provides normal ranges for a variety of output, as well as an overall health score that takes into account a combination of results.

10 Control Guide

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

Elevate your gym with practical application of advanced BIA Body Composition Analysis

Get Precise and Train Smart

Clients need to know if their training habits are creating imbalances, which reduce efficiency and increase risk of injury long-term. Keep track of muscle and fat in different body segments to determine if clients are properly developed and balanced.

Let coaches do what they do best

By measuring potential clients and having a conversation about the result sheet, coaches can easily and credibly discuss how they can help clients achieve their goals, through individualized fitness programs.

Track Progress and Improve Retention

Sticking to an exercise program can be difficult, and it' s all too easy to quit. With precision measurements, you can show clients how they' ve progressed, and demonstrate how your program is effectively helping them build muscle and burn fat!

It's not just Quantity, it's Quality

Working out shouldn' t be just about looking good, it' s about results. Muscle mass matters, but muscle quality is the true indicator of athletic performance. Evaluate if your clients are gaining strength, and be the first to notice if training needs to be adjusted.

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 (0.1kg 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	580 (L) x 450 (W) x 1025 (H): mm 22.8 (L) x 17.7 (W) x 40.4 (H): inches
Device Weight	About 12kg (27lbs)
Device Color	Dark, Light

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, Visceral Fat Level, 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, Appendicular 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

charder®

Charder Electronic Co., Ltd.
No.103, Guozhong Rd., Dali Dist., Taichung City 41262 Taiwan
TEL: +886 4 2406 3766 FAX: +886 4 2406 5612
Email: info_cec@charder.com.tw www.chardermedical.com

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