



MA801

Body Composition Analyzer



TAIWAN
EXCELLENCE 2021

www.chardermedical.com



Medically Certified Technology

For a medical-grade body composition analyzer, quality of technology, types of results provided, accuracy, safety, and repeatability are all crucial benchmarks to reach and surpass. As a well-established manufacturer of medical measurement devices, Charder's Quality Management System is implemented in accordance with ISO 13485 medical standards to ensure performance where it matters the most!

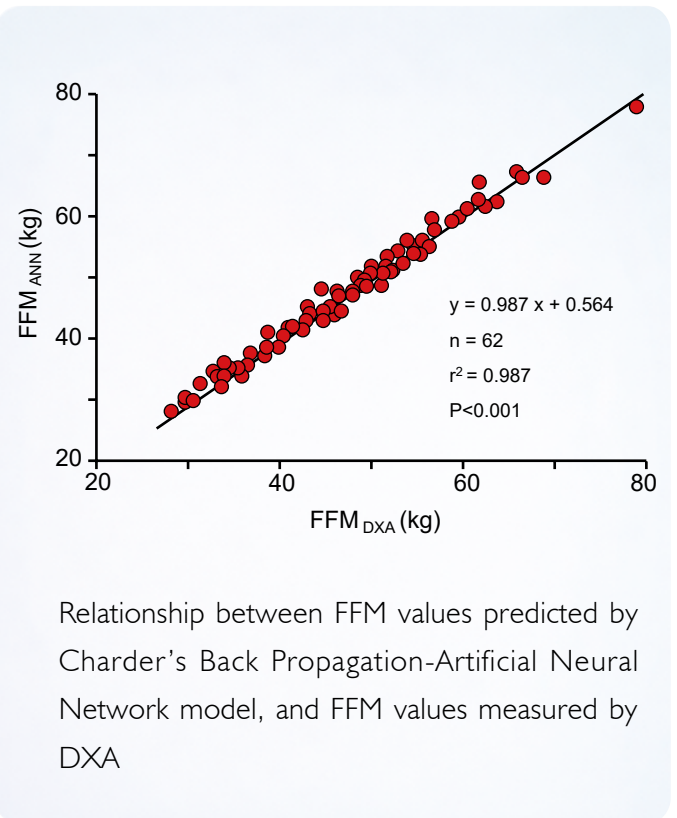


EU MDR Certification

The EU's Medical Device Regulation is one of the world's most rigorous certifications for medical devices, with strict standards governing key safety and performance through evaluations of biocompatibility, usability, clinical performance, post-market surveillance, and more.

Validated Results

Charder's years of research in the field of Bioelectrical Impedance Analysis include utilization of Artificial Neural Networks, with algorithms formulated and validated using gold standards such as Computed Tomography (CT) and Dual-Energy X-Ray Absorptio-metry (DXA), resulting in high levels of correlation.



Intuitive User-Friendly Design



Voice-Guided Measurement Procedure

10.1" color touchscreen combined with voice guidance throughout measurement procedure make the MA801 easy-to-operate with minimal training required, improving reliability and reproducibility.



Quick Measurement

Input user data quickly and conveniently using a variety of methods, including connection to PC software, scanner, or touchscreen. Complete a full non-invasive segmental multi-frequency assessment in less than a minute!



Multiple Result Sheets

4 different Result Sheets available, providing relevant body composition indicators including but not limited to cellular health, sarcopenia assessment, body water evaluation, obesity risk, and more; all arranged specifically to assist practical usage and application:

- Advanced Medical Result Sheet
- Standard Medical Result Sheet
- Advanced Fitness Result Sheet
- Child Growth Result Sheet



Professional Application



Rehabilitation / Sports Medicine.....•

Assess and monitor changes in muscle mass and cellular health, using data to guide training adjustments, tracking recovery in athletes undergoing rehabilitation.



Sarcopenia Evaluation.....•

Quantify muscle mass to assist with diagnosis, monitoring, and management of sarcopenia (age-related muscle loss).



Nutrition•

Evaluate impact of dietary changes and nutritional interventions on fat, muscle, and body water for optimization of diet.



Fluid Management•

Evaluate intracellular and extracellular water balance to receive crucial insights into fluid balance, aiding in the management of conditions like edema or dehydration.



Obesity Treatment•

Track changes in total, segmental, and visceral fat, allowing clinicians to monitor the effectiveness of fat loss interventions beyond weight, and evaluate obesity-related risk.



Risk Evaluation.....•

Evaluate indicators for elevated health risks relating to fat, cellular integrity, body water balance, and muscle deficiencies.



Data Integration Options

Manage measurement data using a variety of tools suitable for different settings!



Paper Result Sheet
(Printer)



Charder Proscan
(Android/iOS App)



Charder Insight
(Windows/Mac Software)



Server
(via API)



USB Flash Drive



ALL-NEW CORE MUSCLE ASSESSMENT

A strong core is more important than most people think - it isn't just about having abs and a "sixpack"!

Insufficient core muscle mass and strength can significantly increase the risk of sports-related injuries, especially when attempting more challenging tasks requiring more flexibility or higher weight-loading. Track core muscle with the all-new Core Muscle Assessment, available only on Charder Body Composition Analyzers.

HOW IT WORKS

- Bioelectrical Impedance Analysis
- Safe, quick, convenient
- Complete scan in less than a minute
- Abdominal fat and muscle



WHY DOES IT MATTER?

"Core Muscle" refers to the muscles of the abdominal and pelvic cavity that support and stabilize the trunk. The Sports & Fitness Result Sheet provides core muscle area (cm²) for the following:

Psoas Major (PM) :

Overall core strength and stability. Primary hip flexor, crucial in movements bringing thigh towards torso.

Erector Spinae (ES) :

Holding spine upright against force of gravity.

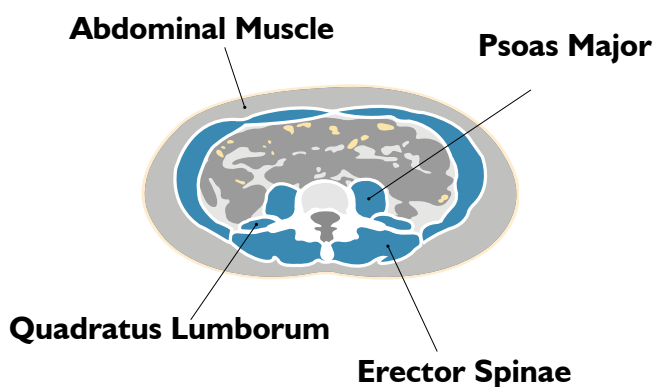
Weakness can contribute to poor posture and lower back pain.

Quadratus Lumborum (QL) :

Stabilizing lumbar spine (lower back) during movement and at rest. Helps prevent excessive motion in lower back, which can contribute to pain and injury.

Abdominal Muscle (Abs) :

Stabilizes vertebrae during upright position, forward and backward bending, and twisting postures.



CORE MUSCLE SCORE

Compare development of core muscle mass with the rest of the body!

High overall muscle and weight requires more core strength for better stability and enhancement of force transmission during physical activity.



**Low strength stability,
higher injury risk**



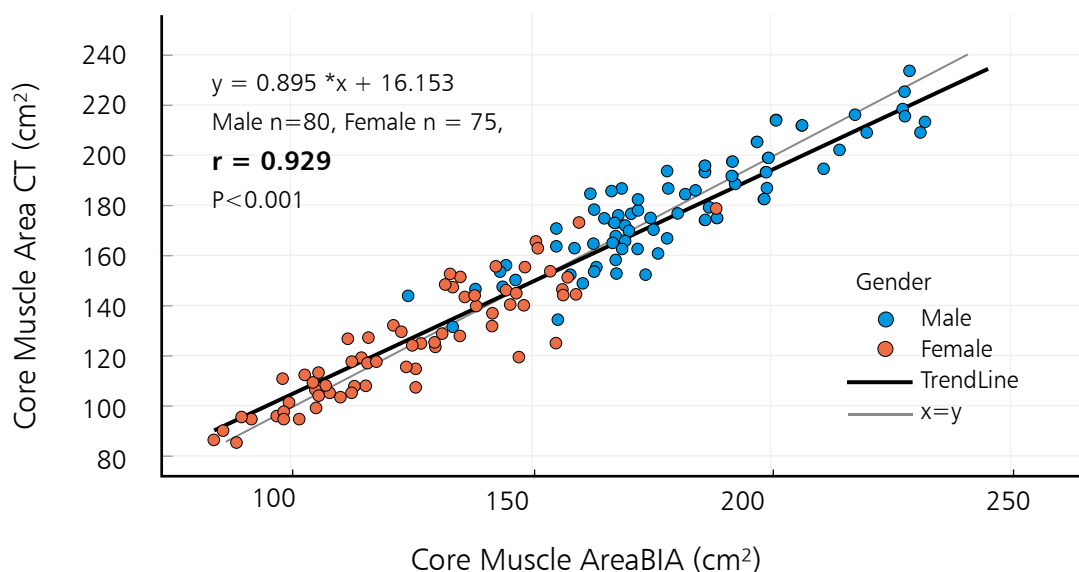
**Standard for healthy
adults**



**Better overall athletic
performance**

VALIDITY

- Unique and patented assessment method
- Novel algorithms formulated and validated using gold standards such as Computed Tomography (CT)
- High levels of correlation



Correlation between Core Muscle Area calculated by Charder's BIA model, and Core Muscle Area calculated by CT

Patent No.



JP7345920B1



TW202339669



US20230320607A1

Advanced Medical Result Sheet

chorder

MA801

8

Custom Logo

Name	ID	Ethnicity	Height	Gender	Age	Measured Time
Steven	20190201	Asian	182.5 cm	Male	38	2025.07.02 08:43 AM

1

35.9%

21.6%

16.0%

5.0%

21.5%

Body Composition Analysis

Compartment	Values	TBW	SLM	FFM	Weight	Normal Range
ICW (L)	28.7	46.0	58.8	62.8	80.0	25.4 ~ 31.0
ECW (L)	17.3					15.6 ~ 19.0
Protein (kg)	12.8					10.2 ~ 14.0
Mineral (kg)	4.0					2.6 ~ 4.5
BFM (kg)	17.2					8.0 ~ 16.0

2

Muscle - Fat Analysis

Under

Normal

Over

Weight (kg)

50 68 85 100 115 143 172 200 %

80.0

SMM (kg)

60 75 90 100 110 133 157 180 %

35.0

BFM (kg)

50 65 80 100 160 240 320 400 %

17.2

5

BIVA

Bioelectric Impedance Vector Analysis

More soft tissues

Less fluids

More fluids

Less soft tissues

9

Health Score

73.4 /100 Points

The health score is an arbitrary score based on the measured lean mass index, fat mass index, skeletal muscle index, and phase angle for the motivation of the subject.

3

Obesity Analysis

BMI (kg/m²)

10.0 14.3 18.5 21.3 24.0 34.3 44.7 55.0

24.0

PBF (%)

2.0 6.0 10.0 15.0 20.0 33.3 46.7 60.0

21.5

WHR

0.65 0.73 0.80 0.85 0.90 1.00 1.10 1.20

0.88

Abdominal Fat (L4-L5 vertebrae)

Visceral Fat

78.6 cm²

Subcutaneous Fat

145.1 cm²

6

Phase Angle

Whole-body phase angle (50 kHz)

Phase Angle (°)

8.0 7.0 6.0 5.0 4.0 3.0

5.6°

Age (years)

20 30 40 50 60 70 80

7

Muscle Quality

394 ~ 481 N

40 ~ 49 kgf

Right Hand

365 ~ 446 N

37 ~ 45 kgf

Left Hand

4

Total & Segmental Analysis

Whole Body

*Lean Mass

58.8 kg (46.1kg - 69.1kg)

Fat Mass

17.2 kg (8.0 - 16.0kg)

Phase Angle

5.6°

Right Arm

*Lean Mass

3.6 kg (2.8 - 4.1kg)

Fat Mass

0.7 kg (0.3 - 0.6kg)

Phase Angle

6.6°

Right Leg

*Lean Mass

10.0 kg (8.3 - 12.4kg)

Fat Mass

2.4 kg (1.3 - 2.2kg)

Phase Angle

5.4°

Trunk

*Lean Mass

28.2 kg (21.2 - 31.8kg)

Fat Mass

9.9 kg (5.3 - 9.2kg)

Left Arm

*Lean Mass

3.6 kg (2.8 - 4.1kg)

Fat Mass

0.7 kg (0.3 - 0.6kg)

Phase Angle

6.7°

Left Leg

*Lean Mass

10.2 kg (8.3 - 12.4kg)

Fat Mass

2.4 kg (1.3 - 2.3kg)

Phase Angle

5.3°

10

Percentage body fat percentiles for adults

Percent Fat

50 40 30 20 10 0

Age

20 30 40 50 60 70 80 90

11

Edema Index

0.376

17.3 L

28.7 L

ECW

ICW

12

Research Information

Basal Metabolic Rate

1726 kcal

Waist circumference

85.9 cm

Body Cell Mass

41.5 kg

Right Arm Circumference

31.3 cm

Left Arm Circumference

31.8 cm

Arm Muscle Circumference

27.7 cm

TBW / FFM

73.3 %

Fat-free Mass Index

18.9 kg/m²

Fat Mass Index

5.2 kg/m²

SMI

10.5 kg/m²

ASMI

8.2 kg/m²

13

Impedance

	RA	LA	TR	RL	LL
5kHz	328.0	319.7	28.5	266.0	255.9
20kHz	309.0	301.6	26.9	248.9	240.1
50kHz	290.1	284.1	24.7	232.5	225.0
100kHz	277.5	271.8	22.9	221.8	214.2
250kHz	260.5	254.9	20.5	211.9	204.8

10077 / 0094-P1 / 0971-0220

CD-IN-00131_V.002

8

Results Provided



Optimized for evaluating :
Obesity, Risk Indicators,
Frailty, General Health

1 Body Composition Analysis

In the 4-compartment body composition model, body weight is divided into Water, Protein, Minerals, and Fat.

2 Muscle-Fat Analysis

Observe balance between Skeletal Muscle Mass and Body Fat Mass. Healthcare professionals can take the subject's muscle and fat proportions into account to provide suitable advice and guidance.

3 Obesity Analysis

Body Mass Index (BMI) is a commonly used indicator for obesity, but it is potentially misleading because it does not distinguish between muscle and fat. Percent Body Fat (PBF) is a more useful indicator of obesity, allowing for improved detection of obesity even in cases where BMI is relatively normal.

In addition, not all body fat is created equal. Compared to Subcutaneous Fat, unseen Visceral Fat in the abdominal area is a key risk indicator for obesity-related diseases that may not be immediately visible from the outside.

4 Total & Segmental Analysis

Analyzing and comparing results in each segment of the body helps to identify imbalances in muscle, fat, and cellular health. Muscle imbalance in particular can increase risk of injury, while Phase Angle is commonly used to track the cellular effects of disease or abnormality which may not be reflected in muscle and fat mass.

5 BIVA

Bioelectrical Impedance Vector Analysis (BIVA) uses direct measurements of reactance and resistance to evaluate hydration and cellular health on an intuitive X-Y graph, making it easier for healthcare practitioners to compare the subject's results with healthy average percentiles.

6 Whole-Body Phase Angle

Phase Angle decreases with illness and old age, making it an important indicator of health, and an absolute necessity for a professional body composition evaluation. Compare subject's Phase Angle with their respective gender and age to place results into context.

7 Muscle Quality

For elderly subjects, strength can deteriorate more quickly than muscle mass. Accordingly, the most effective evaluation of sarcopenia generally uses a combination of strength and muscle mass evaluation. Charder's unique and patented grip strength estimation provides a valuable predictor that can serve as an early warning sign and point to possible loss of strength more quickly and noticeably than relying solely on tracking of muscle mass.

8 Custom Logo

A customized logo (or text) can be added to the top right of the Result Sheet.

9 Health Score

The Charder Health Score provides a quick and easy evaluation of overall body composition. Building muscle will help increase the score, whereas excessive fat will decrease the score.

10 Body Fat Percentiles

Compare patient's body fat percentages with similar population, placing results in context of age, gender, and ethnicity.

11 Edema Index

Identify abnormalities in intracellular/extracellular fluid proportion, using the edema index as an indicator and warning sign for diseases. Results exceeding the normal healthy range of 0.390 may be an indication of conditions affecting body fluid balance, including impaired heart and kidney function.

12 Research Information

The Advanced Medical Result Sheet provides a wide variety of body composition output parameters of particular relevance for anthropometric research, and also includes various indexes used as early warning signs for malnutrition, obesity, and sarcopenia.

13 Impedance

The MA80I Body Composition Analyzer utilizes bioelectrical impedance to measure the resistance that occurs when the safe imperceptible measurement current is sent through the body. This section can be used for troubleshooting, to help determine if an impedance error has occurred and if a re-test is needed.

Advanced Fitness Result Sheet

chorder

6 Custom Logo

Name	ID	Ethnicity	Height	Gender	Age	Measured Time
Hsinwei Ho	cec080	Asian	174.0 cm	Male	32	2023.06.06 10:52

1 Body Composition Analysis

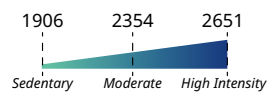
Weight (kg)	67.2	TBW (L)	43.6	FFM Ratio	73.3% (71.5~74.9%)
Clothing weight	-0.5 kg	Total Body Water			
FFM (kg)	59.5	Protein (kg)	12.0		20.1% (18.8~21.6%)
FM (kg)	7.6	Minerals (kg)	3.9		6.6% (6.2~7.2%)
Fat-Free Mass					
Fat Mass					

7 Metabolism

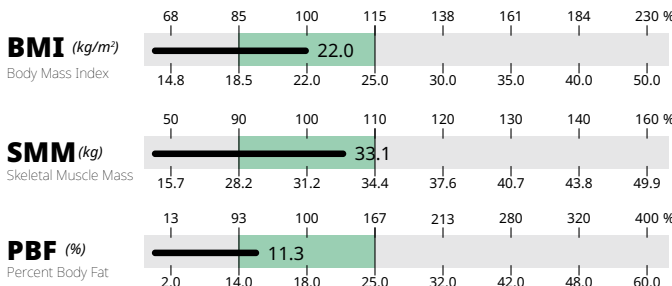
BMR Basal Metabolic Rate 1657 (kcal/day)

TDEE (kcal/day) Total Daily Energy Expenditure

PAL Physical Activity Level



2 Muscle-Fat Analysis

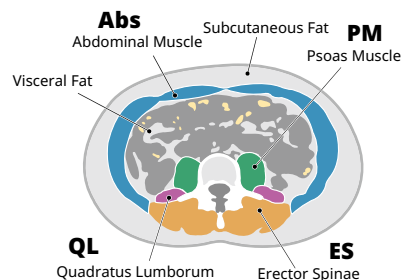
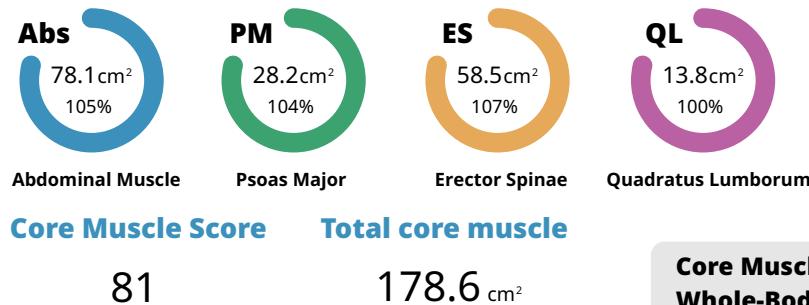


8 Activity

	kcal
Running	276~470
Cycling	255~450
Body Weight	235
Machine Weights	208
Free Weights	255
Kettlebell	276
TRX	242
HIIT	363
Pilates	195
Yoga	101
Boxing	383
Aerobic Dance	228

*per 30 minutes of exercise

3 Core Muscle Analysis (L4-L5 vertebrae)

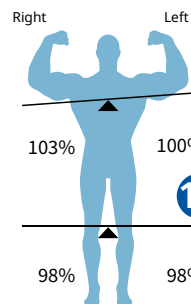


Core Muscle 105%
Whole-Body SMM 106%

4 Segmental Analysis

UNIT: kg	Lean	Fat	Normal Range
Right Arm	3.3	0.2	2.6~3.8
Left Arm	3.0	0.2	2.6~3.8
Trunk	25.6	4.2	19.3~28.9
Right Leg	9.3	0.9	7.5~11.3
Left Leg	9.3	0.9	7.5~11.3

Muscle Balance



9 Fitness Score

Overall Fitness Score	82.0
ASMI	8.3 kg/m² 55
FMI	2.5 kg/m² 20
Phase Angle	5.9 ° 55

10 Nutrition Control Guide

Target Weight	71.0 kg
Fat Control	-0.0 kg
Lean Control	+3.8 kg
Caloric Intake	
Bulking	TDEE+185~370 kcal/day
Weight Loss	TDEE-370~739 kcal/day
Protein Intake	73.9~107.5 g/day
Water Intake	2350~2860 ml/day

5 Body Composition History

	2017.12.01 11:40	2018.01.08 11:48	2018.01.13 09:40	2018.02.19 15:26	2018.03.24 10:57	2018.04.03 10:49	2018.05.10 14:15	2018.06.17 11:20
Weight (kg)	66.6	66.1	66.9	68.1	69.3	68.1	67.7	67.2
SMM (kg)	33.0	32.7	32.8	32.7	33.6	33.4	33.7	33.1
PBF (%)	10.7	11.1	12.1	13.7	12.8	11.7	10.4	11.3
Phase Angle (°)	5.9	5.7	5.6	5.8	5.7	6.2	6.0	6.0

11 Fitness Parameters

Fat-free Mass Index	19.7 kg/m²
Skeleton Muscle Index	10.9 kg/m²
Extracellular Water	16.5 L
Intracellular Water	27.2 L

1.0.079

CD-IN-02003_V.001

Results Provided



Optimized for evaluating :
Sarcopenia, Injury Risk,
General Fitness

1 Body Composition Analysis

In the 4-compartment body composition model, body weight is divided into Water, Protein, Minerals, and Fat. Observing which results are changing provides important insight into body composition. For example, Water is highly correlated with muscle mass, and it is common for users with high muscle mass to also have higher body water.

However, if Water increases but Protein remains relatively unchanged, then it's possible that increase in muscle weight is partly caused by water retention or other factors.

2 Muscle-Fat Analysis

Observe balance between Skeletal Muscle Mass and Body Fat Percentage. Healthcare professionals can take the subject's Muscle and fat proportions into account to provide suitable advice and guidance.

3 Core Muscle Analysis

"Core Muscle" refers to the muscles of the abdominal and pelvic cavity that support and stabilize the trunk. Subjects with higher weight and muscle will require a stronger core for overall stability and injury prevention.

The cross-sectional area (L4-L5 vertebrae) of the four main core muscles are displayed in cm², compared with a standard physique, and displayed as percentage value. A higher percentage reflects better development, identifying relatively less developed muscles to provide targeted guidance/training.

The four types of abdominal muscle provided are:

Psoas Major (PM): Overall core strength and stability. It's one of the primary and most important muscles of the hip flexor, crucial in movements bringing thigh towards torso.

Erector Spinae (ES): Holds the spine upright against force of gravity. Weakness can contribute to poor posture and lower back pain.

Quadratus Lumborum (QL): Stabilizes the lumbar spine (lower back) during movement and at rest. Helps prevent excessive motion in the lower back, which can contribute to pain and injury.

Abdominal Muscle (Abs): Stabilizes vertebrae during upright position, forward and backward bending, and twisting postures as well.

4 Segmental Analysis

Loss of lower body muscle is common among subjects at risk for sarcopenia, and insufficient leg muscle can be quickly identified at a glance.

In addition, left-right muscle imbalance in particular can increase risk of injury, and early detection is important for preventative training and adjustment of movement.

5 Body Composition History

A key benefit of Bioelectrical Impedance Analysis is repeatability and lack of side effects, making it easy to follow up consistently and evaluate change in body composition, for evaluation of training, nutrition, and other intervention.

6 Custom Logo

A customized logo (or text) can be added to the top right of the Result Sheet.

7 Metabolism

Energy expenditure is calculated based on Basal Metabolic Rate (BMR) and Physical Activity Level (PAL). The Result Sheet provides Total Daily Energy Expenditure (TDEE) for sedentary, moderate, and high intensity PAL. This information is important reference data for calculating ideal daily calorie consumption.

8 Activity

A chart with how many calories the subject's body would expend (per 30 minutes of exercise) is provided. Results will vary based on the subject's body composition and metabolism! This makes it easier to estimate the effect of training/exercise on overall energy expenditure more precisely.

9 Fitness Score

The Charder Fitness Score takes into account fitness-related body composition results, primarily (but not exclusively) Muscle, Fat, and Phase Angle.

As a general rule of thumb, increasing Muscle / Phase Angle will increase the score, while increasing Fat will decrease the score.

10 Nutrition Control Guide

Suitable level of caloric intake varies depending on if the subject's goal is Bulking (weight/muscle gain), Weight Loss, or Maintenance.

To effectively use this section, combine data from "Metabolism". To achieve goals sustainably, weight gain and loss are both set for gradual, rather than rapid change

11 Fitness Parameters

Various indexes used as early warning signs for malnutrition, obesity, and sarcopenia are provided for reference.

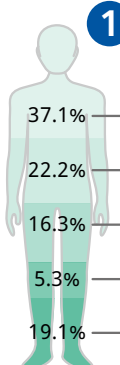
In addition, practitioners can quickly identify abnormalities in intracellular/extracellular fluid proportion, using the edema index as an indicator and warning sign for diseases. Results exceeding the normal healthy range of 0.390 may be an indication of conditions affecting body fluid balance, such as overtraining, swelling, and injury.

Standard Medical Result Sheet

chorder

5 Custom Logo

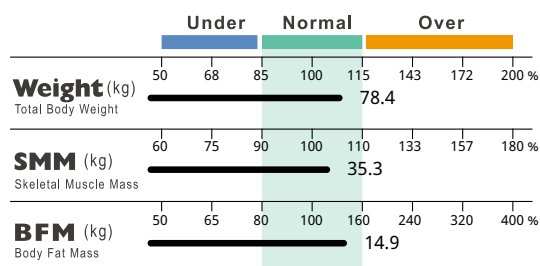
Name	ID	Ethnicity	Height	Gender	Age	Measured Time
Tim	7347204161		182.5 cm	Male	33	2021.03.15 03:53



Body Composition Analysis

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

2 Muscle - Fat Analysis



4 Body Balance Evaluation

Upper	Lower	Upper-Lower
☒	☒	☒
☐	☐	☐
☐	☐	☐

10 Health Score
74.9 /100 Points

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

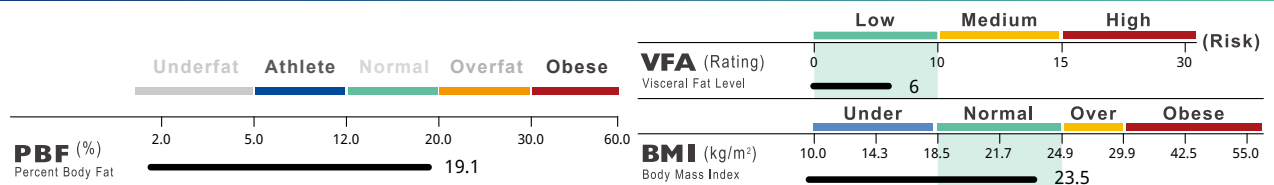
9 Fitness Parameters

Basal Metabolic Rate	1740 kcal
Total Energy Expenditure	2472 kcal/d
Phase Angle (50KHz)	5.7 °
Fat-free Mass Index	19.1 kg/m ²
SMI	10.6 kg/m ²
ASMI	8.1 kg/m ²

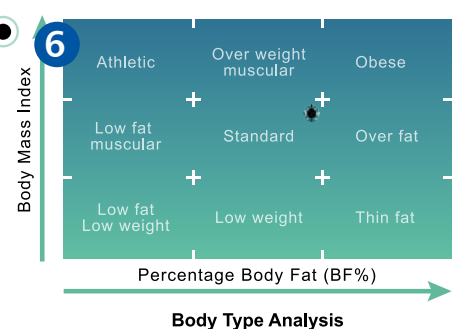
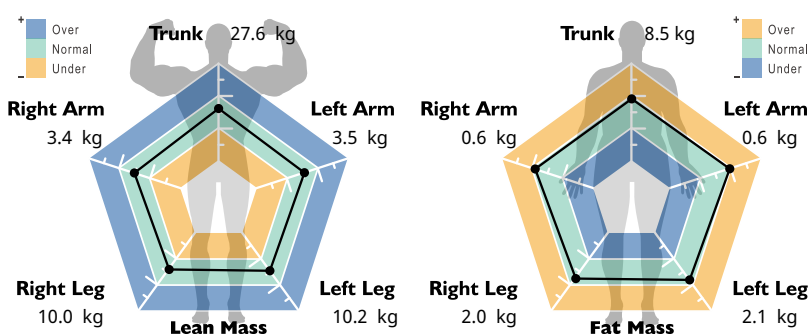
12 Impedance

	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

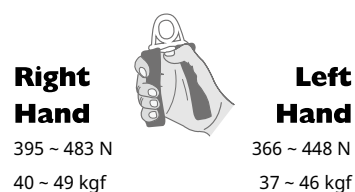
3 Obesity Analysis



4 Segmental Lean, Fat and Body Type Analysis



7 Muscle Quality



8 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

Muscle Quality Score 82 /100 Points

10072 / 0000 / 0187-0000 CD-IN-00129_V.005

Results Provided



Optimized for evaluating :
Muscle-Fat Balance,
General Universal Usage

1 Body Composition Analysis

In the 4-compartment body composition model, body weight is divided into Water, Protein, Minerals, and Fat.

2 Muscle-Fat Analysis

Observe balance between Skeletal Muscle Mass and Body Fat Mass. Healthcare professionals can take the subject's muscle and fat proportions into account to provide suitable advice and guidance.

3 Obesity Analysis

Body Mass Index (BMI) is a commonly used indicator for obesity, but it can be potentially misleading particularly in the case of highly muscular subjects, as it does not distinguish between muscle and fat. Percent Body Fat (PBF) is a more useful indicator of obesity, allowing for improved detection of obesity even in cases where BMI is relatively normal.

In addition, when it comes to obesity-related diseases, unseen Visceral Fat is a key risk indicator. Try to keep Visceral Fat Level under 10 to reduce health risks.

4 Segmental Analysis

Utilize the visual "radar chart" to intuitively compare results in each segment of the body to identify imbalances in muscle and fat. Muscle imbalance in particular can increase risk of injury, and insufficient lower-body muscle is often linked to higher risk of falls, particularly for older subjects.

5 Custom Logo

A customized logo (or text) can be added to the top right of the Result Sheet

6 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.

7 Muscle Quality

For elderly subjects, strength can deteriorate more quickly than muscle mass. Accordingly, the most effective evaluation of sarcopenia generally uses a combination of strength and muscle mass evaluation. Charder's unique and patented grip strength estimation provides a valuable predictor that can serve

as an early warning sign and point to possible loss of strength more quickly and noticeably than relying solely on tracking of muscle mass.

The Muscle Quality Score compares subject's grip strength with healthy results from the same gender. A higher score would mean that subject's grip strength is superior to others of the same gender.

8 Body Composition History

A key benefit of Bioelectrical Impedance Analysis is repeatability and lack of side effects, making it easy to follow up consistently and evaluate change in body composition, for evaluation of training, nutrition, and other intervention.

9 Fitness Parameters

The Standard Medical Result Sheet 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 in particular for evaluation of cellular health, and analyze health status in more detail.

10 Health Score

The Charder Health Score provides a quick and easy evaluation of overall body composition. Building muscle will help increase the score, whereas excessive fat will decrease the score.

11 Control Guide

The Control Guide calculates a recommended amount of muscle and fat control in order to reach an ideal, healthy body type. This can be used as a general reference for a "standard" body type, though subjects can of course choose to use their own goals and calculations instead.

12 Impedance

The MA801 Body Composition Analyzer utilizes bioelectrical impedance to measure the resistance that occurs when the safe imperceptible measurement current is sent through the body.

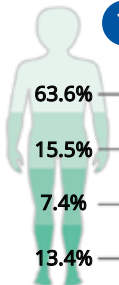
This section can be used for troubleshooting, to help determine if an impedance error has occurred and if a re-test is needed.

Child Growth Result Sheet

charder

5 Custom Logo

Name	ID	Ethnicity	Height	Gender	Age	Measured Time
child001	C001		135.0 cm	Male	9.3	2022.04.09 04:25



1

Body Composition Analysis

Compartment	Values	SLM	FFM	Weight	Normal Range
TBW (L) Total Body Water	17.1	21.2	23.2	26.8	16.2 ~ 19.8
Protein (kg)	4.2				4.1 ~ 5.0
Minerals (kg)	2.0				1.8 ~ 2.3
BFM (kg) Body Fat Mass	3.6				3.4 ~ 5.9

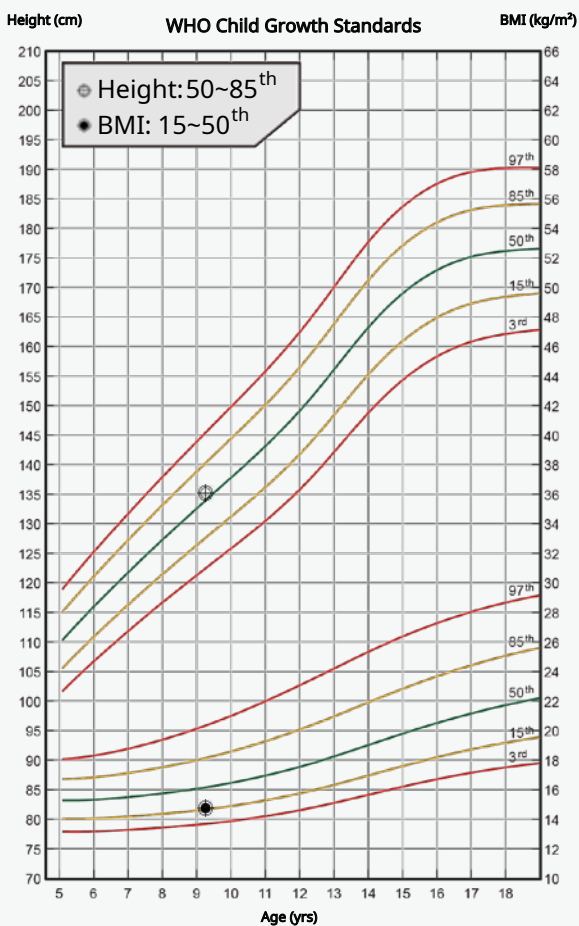
2

Muscle - Fat Analysis

	Under	Normal	Over
Weight (kg) Total Body Weight	14.7	19.7	24.6
SMM (kg) Skeletal Muscle Mass	7.5	9.4	11.2
BFM (kg) Body Fat Mass	1.5	2.6	3.6

6

Growth Chart



3

Obesity Analysis

	Under	Normal	Over	Obese
PBF (%) Percent Body Fat	2.0	7.4	12.8	17.5
BMI (kg/m²) Body Mass Index	10.0	11.8	13.5	16.1
WHtR Waist Height Ratio	0.30	0.35	0.40	0.45

4

Growth History

	2022.04.09		
Age (yrs)	9.3		
Height (cm)	135.0		
	50~85 th		
Weight (kg)	26.8		
BMI	15~50 th		
SMM (%)	44.4		
PBF (%)	13.4		

7

Nutrition Evaluation

Under	Normal	Over
☐	☒	☐
☐	☒	☐
☐	☒	☐

Growth Evaluation

Under	Normal	High
☐	☒	☐
☐	☒	☐

Nutrition and Activity Recommendations

1. Good body composition and development trends
2. Intake sufficient high quality protein
3. Regularly participate in various types of exercise

8

Research Parameters

Phase Angle (50KHz)	3.8 °
Basal Metabolic Rate	871 kcal
Waist-Hip Ratio	0.71
Subcutaneous Fat Area	5.0 cm²
TBW / FFM	73.5 %

9

Impedance

	RA	LA	TR	RL	LL
5kHz	479.4	500.8	35.8	274.9	264.2
50kHz	450.6	475.1	32.7	256.7	247.8
250kHz	420.6	445.7	30.5	235.5	227.8

10072 / 0000 / 0189-0220

CD-IN-00200_V.002

Results Provided



Optimized for evaluating :
Height / Weight Growth Trends,
Muscle-Fat Balance

1 Body Composition Analysis

In the 4-compartment body composition model, body weight is divided into Water, Protein, Minerals, and Fat.

2 Muscle-Fat Analysis

Measurement of weight is important, but incomplete without further analyzing the amount of muscle and fat in a child. Understanding skeletal muscle and body fat proportions can help professionals evaluate child growth more holistically, and provide suitable recommendations.

3 Obesity Analysis

For children, Body Mass Index (BMI) is a useful indicator for growth, but for evaluation of obesity, it can be potentially misleading because it does not distinguish between muscle and fat. Utilizing Percent Body Fat (PBF) is recommended as a more useful indicator of obesity, allowing for improved detection of obesity even in cases where BMI is relatively normal.

The child result sheet organizes common obesity-related metrics into Under, Normal, Over, and Obese categories.

NOTE: Normal range will adjust according to the child's age.

4 Growth History

By selecting the same user ID prior to measurement, growth trends can be tracked automatically (Height, Weight, BMI, Skeletal Muscle Mass, and percentiles)

5 Custom Logo

A customized logo (or text) can be added to the top right of the Result Sheet.

6 Growth Chart

The child's height and BMI results are compared with results from the same age to place results in context. Height is displayed on the upper half of the chart, while BMI is displayed on the bottom half of the chart. Results in the lowest percentiles are a potential sign of malnutrition or delayed growth, and we recommend a more detailed health check-up.

Region and country-specific standards are available to provide most suitable comparison.

7 Evaluation & Recommendations

Based on body composition and growth results, the result sheet will provide an evaluation and recommendations for nutrition and exercise. Results should be considered a general reading, and not for diagnostic purposes

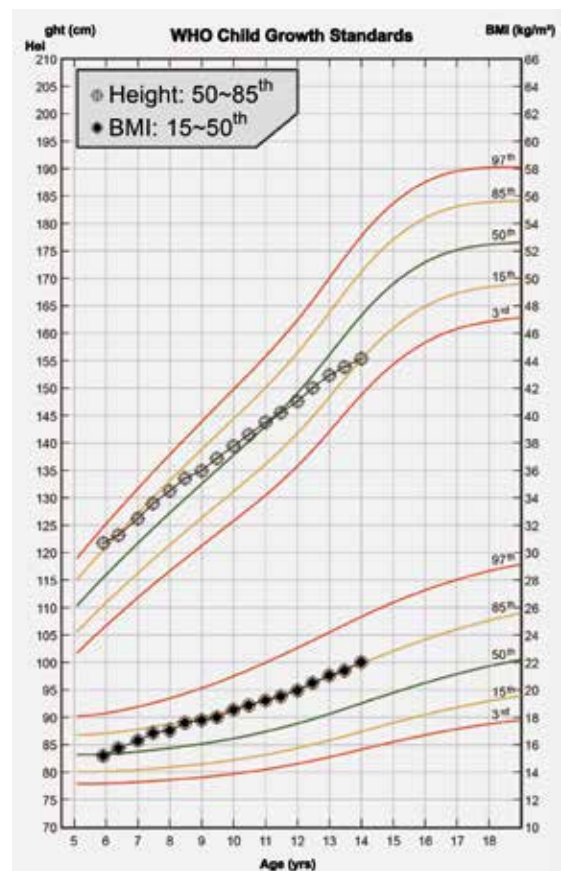
8 Research Parameters

The result sheet provides a variety of body composition output parameters of particular relevance for research.

9 Impedance

The MA801 Body Composition Analyzer utilizes bioelectrical impedance to measure the resistance that occurs when the safe imperceptible measurement current is sent through the body. This section can be used for troubleshooting, to help determine if an impedance error has occurred and if a re-test is needed

Using the Growth Chart



Evaluate if child's height and BMI are on track in accordance with their age group, or if growth abnormalities are occurring.

In this example, the child's height was in the 85th percentile when they were 6 years old, but has dropped to the 15th percentile by the time they reach 14 years old.

In contrast, the child's BMI was in the 50th percentile when they were 6 years old, increasing to the 85th percentile by the time they have reached 14 years old.

Overall, this would be an indication that although the child's height is still increasing and growth is still occurring, the rate of growth has slowed considerably.



MA801 Body Composition Analyzer

Measurement method	Multi-frequency Segmental Bioelectrical Impedance Analysis
Electrodes	Eight electrodes
Frequency	Five frequencies
Frequency range	5 kHz, 20 kHz, 50 kHz, 100 kHz, 250 kHz
Display	1280 × 800 pixels, 10.1 inch color LCD
Capacity	300 kg
Graduation	0.1 kg / 0.2 lb
Accuracy	Impedance ± 3%
Applicable Age	6 ~ 85 years old
Input device	Touch screen, Scanner (Optional)
Output device	USB x 3, RS232 x1
Transmission device	WiFi x 1, RJ45 Ethernet x 1, USB x 3, RS232C x1, Bluetooth x 1
Dimensions	875 (L) × 463 (W) × 1205 (H) mm
Weight	About 31 kg / 68 lb
Measuring time	Less than 45 secs
Data storage	100,000 results
Electrode Current	< 500μA
Power supply	Input AC 100~240V, 50/60Hz, 2.0A Output DC 12.0V, 5.0A adapter
Printing device	USB port
Measuring range	100 ~ 950 Ω
Operation Environment	+5 ~ +35°C / +41 ~ +95°F 30 ~ 75% RH 70 ~ 106 kPa 700 hPa ~ 1060 hPa

Advanced Medical Result Sheet

Weight, Body Mass Index (BMI), Skeletal Muscle Mass, Extracellular Water (ECW), Intracellular Water (ICW), Total Body Water (TBW), ECW/TBW, Body Fat, Percent Body Fat (PBF), Basal Metabolic Rate, Segmental Lean Mass, Segmental Fat Mass, Visceral Fat Area (VFA), Subcutaneous Fat, Health Score, Fat-Free Mass (FFM), Fat-Free Mass Index (FFMI), Skeletal Muscle Index (SMI), Appendicular Skeletal Muscle Index (ASMI), Grip Strength, Protein, Minerals, Soft Lean Mass, Waist-Hip Ratio, Waist Circumference, Body Cell Mass, Arm Circumference, Arm Muscle Circumference, Bioelectrical Impedance Vector Analysis (BIVA), Impedance, Phase Angle, Segmental Phase Angle, Body Fat Percentiles for Adults

Advanced Fitness Result Sheet

Weight, Body Mass Index (BMI), Skeletal Muscle Mass, Extracellular Water (ECW), Intracellular Water (ICW), Total Body Water (TBW), ECW/TBW, Body Fat, Percent Body Fat (PBF), Basal Metabolic Rate, Total Energy Expenditure, Segmental Lean Mass, Segmental Fat Mass, Total Core Muscle Area, Core Muscle Score, Abdominal Muscle, Psoas Major, Erector Spinae, Quadratus Lumborum, Core Muscle Percentage, Whole-Body SMM Percentage, Fitness Score, Fat-Free Mass (FFM), Fat-Free Mass Index (FFMI), Skeletal Muscle Index (SMI), Appendicular Skeletal Muscle Index (ASMI), Protein, Minerals, Activity, Target Weight, Fat Control, Lean Control, Caloric Intake, Protein Intake, Water Intake, Phase Angle, Muscle Balance, Body Composition History

Standard Medical Result Sheet

Weight, Body Mass Index (BMI) Skeletal Muscle Mass, Extracellular Water (ECW), Intracellular Water (ICW), Total Body Water (TBW), Body Fat, Percent Body Fat (PBF), Metabolic Rates (Basal Metabolic Rate, Total Energy Expenditure), Segmental Lean Mass, Segmental Fat Mass, Visceral Fat Level, Body Type Analysis, Weight Control, Fat Control, Muscle Control, Body Balance, Health Score, Fat-Free Mass (FFM), Fat-Free Mass Index (FFMI), Skeletal Muscle Index (SMI), Appendicular Skeletal Muscle Index (ASMI), Grip Strength, Muscle Quality Score, Protein, Minerals, Soft Lean Mass, Impedance, Phase Angle, Body Balance Evaluation, Body Composition History

Child Result Sheet

Weight, Body Mass Index (BMI) Skeletal Muscle Mass, Total Body Water(TBW), Body Fat, Percent Body Fat (PBF), Phase Angle, Basal Metabolic Rate, Waist Hip Ratio, Waist Height Ratio, Subcutaneous Fat Area, TBW/FFM, Protein, Minerals, Soft Lean Mass, Fat-Free Mass (FFM), Growth Chart, Growth History, Evaluation & Recommendations, Impedance



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