InBody®770

INTERPRETATION
GUIDE

Go Beyond The Scale
Find Out What You're Made Up Of

12.7 KG
BODY FAT MASS

2.68 KG
LEFT ARM
SEGMENTAL LEAN MASS

8.32 KG
RIGHT LEG
SEGMENTAL LEAN MASS

29.9 KG
MUSCLE MASS

49.0cm^2
VISCERAL FAT AREA

84 / 100
INBODY SCORE

InBody®

InBody® 770

Guideline and Interpretation

The information provided within this interpretation guide is to ensure a precise analysis and understanding of your individual body composition scan.

About InBody 770

The InBody 770 measures and analyses an individual's body composition in terms of water, fat, protein, muscle, bone mineral and much more. The device can determine the weight of lean muscle tissue in each limb, the amount of body fat, bone mineral content, as well as a host of other valuable information.

Why InBody 770?

Total body weight alone is not a clear indication of a person's overall body composition as it does not distinguish the amount of fat or lean mass the body is fundamentally comprised of.

Standard bathroom scales can only provide a reading of your total body weight.

In the example shown on the right, both women have a scale weight of 60kg, but the ratio of their Skeletal Muscle Mass (SMM) compared to their Body Fat Mass (BFM) is comparatively different.

With the InBody 770, testing and results are obtained in less than one minute.

The InBody 770 allows you or your trainer/health professional to regularly monitor your level of body fat and in particular your visceral fat and skeletal muscle mass so you can understand how your diet, lifestyle and training regime are influencing your overall body composition.

Weight:	60kg	60kg
BFM:	16.8kg	10.2kg

Body Composition Analysis

BODY COMPOSITION ANALYSIS

	Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight
Total Body Water (L)	41.2 (32.8~40.0)	41.2	53.1 (42.0~51.4)	56.5 (44.6~54.5)	70.0 (54.7~73.9)
Protein (kg)	11.2 (8.8~10.8)				
Minerals (kg)	4.08 (3.03~3.71)	non-osseous			
Body Fat Mass (kg)	13.5 (12.9~20.6)				

Total Body Water (TBW)

TBW is all the water in the body and is approximately 60% of your total weight. Ideally your TBW should be in the normal range set out below the reading, however in individuals that have a higher amount of skeletal muscle mass this may be above the normal range.
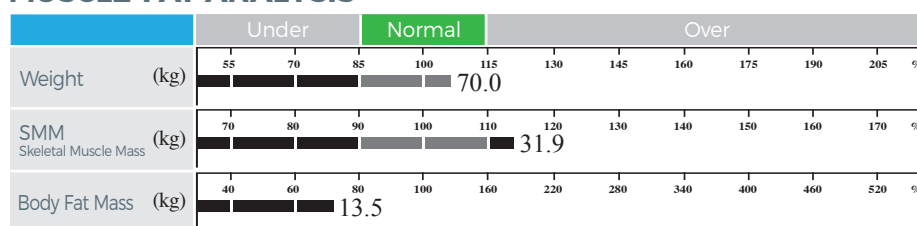
Protein

Protein is a solid organic compound that consists of nitrogen and can be found in body cells. Along with body water, protein is the main component of muscle mass. High nitrogen levels within the cells indicate good levels of muscle mass. Protein is directly related to intracellular water. Therefore, a lack of protein indicates a lack of intracellular water. Ideally your protein content should be within or exceed the normal range set out below the reading.

Mineral

The InBody 770 analyses two groups of minerals: osseous mineral and non-osseous minerals. Osseous mineral is bone mineral where non-osseous minerals are those found in all other parts of the body. Mineral mass is closely related to soft lean mass. If you have more lean mass, the weight of bones strengthen, which in turn increases the bone mineral.

Muscle-Fat Analysis

MUSCLE-FAT ANALYSIS

	Under	Normal	Over	
Weight (kg)	55 70 85	100 115	130 145 160 175 190 205 %	70.0
SMM Skeletal Muscle Mass (kg)	70 80 90	100 110	120 130 140 150 160 170 %	31.9
Body Fat Mass (kg)	40 60 80	100 160	220 280 340 400 460 520 %	13.5

Weight (kg)

Your weight in kilograms (kg) is displayed.

Skeletal Muscle Mass (SMM)

Skeletal Muscle Mass (kg) displays how much muscle is attached to your bones. The body consists of cardiac muscle, visceral muscle and skeletal muscle. However, skeletal muscle can be most transformed through exercise and diet, and as such is displayed separately.

Body Fat Mass (KG)

Body Fat Mass shows how many kilograms of fat your body has.

Results Made Simplistic

The InBody 770 demonstrates over 50 parameters that relate directly to body composition and therefore becomes extremely comprehensive, however a unique feature is the scan can become as simplistic as you would like. This is achieved by the Muscle Fat analysis table where it creates three predominant shapes; those being C, I or D. We have aligned these shapes to a traffic light system.

The C-Shape

In the below example, the body composition graph forms a 'C' shape. Although the weight can be in the normal weight range, this shape can be indicative of lower skeletal muscle mass and higher body fat mass, which can represent an unbalanced body.

MUSCLE-FAT ANALYSIS

	Under	Normal	Over	
Weight				69.6
SMM Skeletal Muscle Mass				24.4
Body Fat Mass				25.1
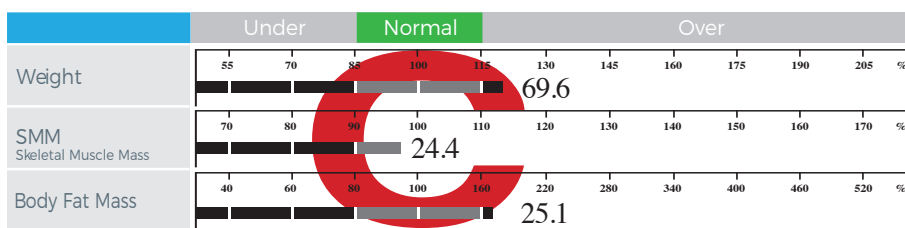
STOP!

The I-Shape

The 'I' shape predominantly provides a uniform measure of body weight, skeletal muscle mass and body fat mass with no one area being more dominant than the other.

MUSCLE-FAT ANALYSIS

	Under	Normal	Over	
Weight				58.8
SMM Skeletal Muscle Mass				22.7
Body Fat Mass				17.3
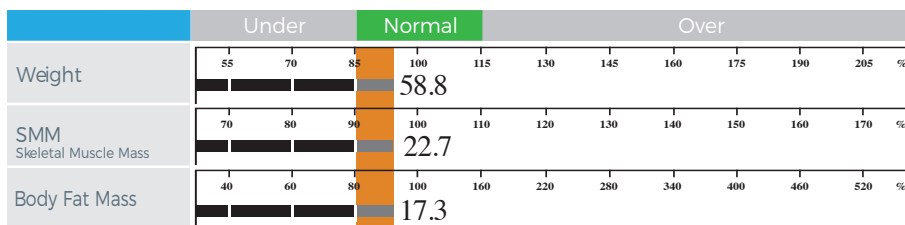
DECISION TIME

The D-Shape

In the below example, the body composition graph forms a 'D' shape. This normally indicates higher skeletal muscle mass with a more balanced ratio of body fat mass, which is generally representative of a well-trained and balanced body.

MUSCLE-FAT ANALYSIS

	Under	Normal	Over	
Weight				69.2
SMM Skeletal Muscle Mass				31.0
Body Fat Mass				14.0
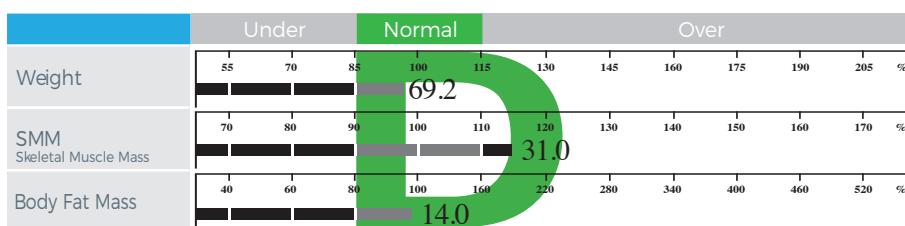
KEEP GOING

Calculated Analysis

CALCULATED ANALYSIS

		Under	Normal	Over				
BMI Body Mass Index	(kg/m²)	10 15 18.5 22 25		30 35 40 45 50 55				22.9
PBF Percent Body Fat	(%)	8.0 13.0 18.0 23.0 28.0		33.0 38.0 43.0 48.0 53.0 58.0				19.2

Body Mass Index (BMI)
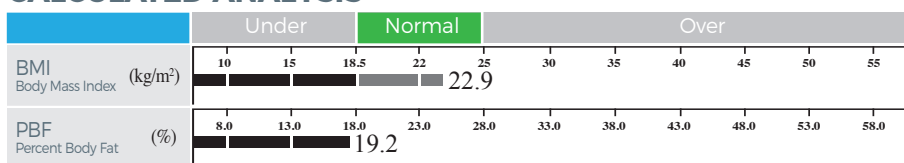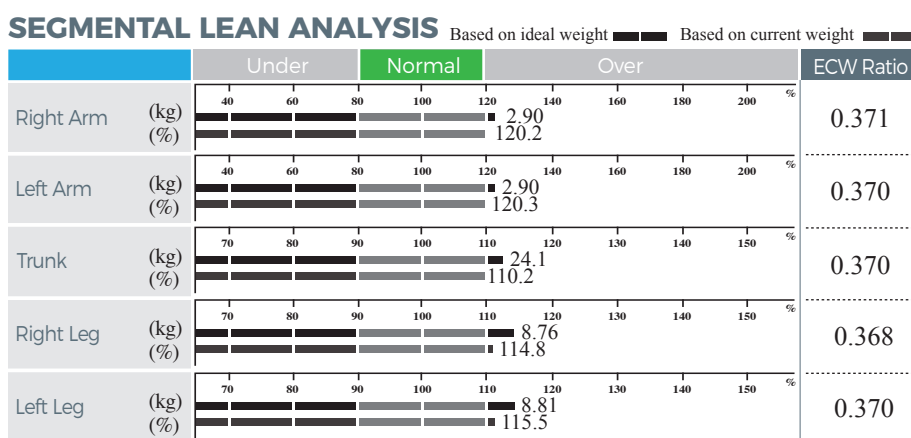
BMI is an individual's body mass divided by the square of their height. Although a widely used method to measure body mass, the BMI does not take into consideration overall body composition and is inherently flawed with errors. For example, a person with large amounts of muscle mass would be classed as overweight or highly unbalanced when using the BMI measurement.

Percent Body Fat (PBF)

The InBody 770 can determine your Percent Body Fat. The American College of Sports Medicine suggests a PBF range of 10-20% for men and 18-28% for women. It is important to comprehend that the percentage of body fat is the ratio of body fat relevant to total weight, not just muscle. Therefore if total weight increases (e.g. water or muscle mass, exclusively) then the percentage of body fat can and will change, however your actual body fat amount may not have changed. This is why it falls under the Calculated Analysis. To be more precise, we suggest you should always refer to the amount of body fat in kilograms as this is the true indicator of total body fat and is much more important to monitor for changes.

Segmental Lean Analysis

SEGMENTAL LEAN ANALYSIS   Based on ideal weight ▬▬   Based on current weight ▬▬

		Under	Normal	Over		ECW Ratio
Right Arm	(kg) (%)	40 60 80 100 120		140 160 180 200 %	2.90 120.2	0.371
Left Arm	(kg) (%)	40 60 80 100 120		140 160 180 200 %	2.90 120.3	0.370
Trunk	(kg) (%)	70 80 90 100 110		120 130 140 150 %	24.1 110.2	0.370
Right Leg	(kg) (%)	70 80 90 100 110		120 130 140 150 %	8.76 114.8	0.368
Left Leg	(kg) (%)	70 80 90 100 110		120 130 140 150 %	8.81 115.5	0.370

The double bar graphs can identify the amount of muscle mass in each segment (4 limbs and trunk) and show the ideal ratio of each. By measuring segmental muscle distribution, you can review body balance and development level. InBody 770 provides essential information to check the effectiveness or establish a direction for exercise.

The Upper Bar: ▬▬▬▬▬▬

The upper bar is the amount of soft lean mass in kilograms.

The Lower Bar: ▬▬▬▬▬▬

The lower bar shows your soft lean mass as a percentage in relation to your actual weight. If the lower bar graph reaches 100%, it means that you have ideal soft lean mass for your weight.

This can be an effective tool to determine imbalances between each body part. Ideally you want to be within 6% of the correlating left or right limb in the upper body and generally be within 3% in the lower body. With any reading above these measurements it would suggest a reflection of muscular imbalances, which may need addressing with exercise. Bear in mind that edema issues (swelling of the cell) can effect this which may be reflective of things such as injury and therefore should be taken into consideration as part of the overall evaluation.

Segmental ECW Ratio

The segmental edema is used to measure precise water levels in each limb of the body. This allows an effective evaluation of each limb to confirm balance and/or a swelling of an individual limb, which could possibly be in relation to such things like injury. This, used with the ECW ratio as a whole, allows precise measurements to determine where your body water is distributed. A suggested ideal range is between 0.36 -0.39.

ECW RATIO ANALYSIS

	Under	Normal	Over							
ECW Ratio	0.320 0.340 0.360	0.380 0.390	0.400 0.410 0.420 0.430 0.440 0.450							
	■■■■■■■■■■■ 0.370									
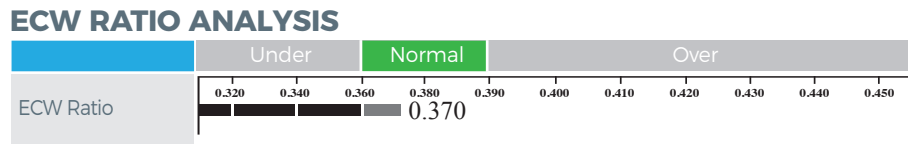
ECW Ratio Analysis

The ratio of Extracellular Water to Total Body Water, is an important indicator as to whether the body water is balanced. ECW ratio should ideally be in a range of 0.36 - 0.39. If the ECW ratio is higher than the range it may be suggestive of having edema (swelling of a cell), therefore it may require further health care professional intervention.

InBody Score

InBody Score ────────────────

87 /100 Points

The InBody score is a reflection of the overall evaluation of a person's body composition. The more muscle mass a person has the higher the score reflection and as such a muscular person may score over 100 points.

See the legend below for comparison of your score.

69 or less	Indicates the possibility of being out of balance (Muscle-Fat ratio) generally requiring nutrition and exercise intervention
70 - 79	Generally considered an average person, reasonably balanced
80 - 84	Generally those who actively look after their diet and exercise regimes
85 +	Predominantly found in well-trained individuals and is usually indicative of a well-balanced body

Visceral Fat Area

VFA is an indicator based on the amount of fat surrounding internal organs in the abdomen. The ideal area to achieve should be the light grey area below the horizontal centre line.

Visceral Fat Area ────────────
VFA(cm²)

53.5

20 40 60 80 Age

Evaluations

In this section the InBody 770 gives suggestions on muscle and fat mass control.

Target Weight offers a suggestion on what your target weight should be.

Weight Control suggests how many kilograms to increase or decrease by.

Fat Control suggests how much fat to decrease or increase for optimal balance.

Muscle Control suggests how much muscle to increase for optimal balance.

Weight Control

Target Weight	70.0 kg
Weight Control	-1.0 kg
Fat Control	-1.0 kg
Muscle Control	0.0 kg

Segmental Fat Analysis

Segmental Fat Analysis is a means of assessing an individual's distribution of fat around the body. This provides a way of determining predominant areas of fat located on the body.

The percentages indicate an individual's fat mass in relation to their ideal percentage for their weight (100%). Less than 100% indicates leaner fat mass in that area. Higher than 100% indicates a higher fat mass in that area.

Segmental Fat Analysis

▼ | — | ▲

Right Arm	(0.7 kg)	68.2%
Left Arm	(0.7 kg)	67.5%
Trunk	(6.8 kg)	112.6%
Right Leg	(2.1 kg)	75.8%
Left Leg	(2.1 kg)	75.8%

Research Parameters

Intracellular Water (ICW): ICW is water in the cells (NB. Muscles are cells, so high muscle mass = high cells = high intracellular water). Ideally your ICW should be in the normal range set out to the right of your results, however if a person has higher muscle mass than average they may be outside this range.

Extracellular Water (ECW): ECW is water outside the cells (e.g. under the skin). Ideally your ECW should be in the normal range set out to the right of your results, however if a person has higher muscle mass than average they may be outside this range. (NB. ECW is normally high if intracellular water is high)

Research Parameters

Intracellular Water	26.0 L	(20.3~24.9)
Extracellular Water	15.2 L	(12.4~15.2)
Basal Metabolic Rate	1591 kcal	
Waist-Hip Ratio	0.84	(0.75~0.85)
Bone Mineral Content	3.43 kg	(2.49~3.05)
Body Cell Mass	37.2 kg	(29.1~35.5)
Arm Circumference	30.4 cm	
Arm Muscle Circumference	27.1 cm	

Basal Metabolic Rate (BMR): BMR is the minimum amount of energy required to sustain vital functions whilst at rest. An effective way to raise BMR is to increase muscle mass.

Waist-Hip Ratio (WHR): WHR is a good indicator of internal fat distribution on a person. The higher the number the more uneven the distribution can become between the waist and the hip.

Bone Mineral Content (BMC): Bone density or bone mineral density is a medical term referred to as BMC. BMC is used in clinical medicine as an indirect indicator of osteoporosis and as a monitor of its treatment. A high mineral content generally indicates a higher bone density and strength.

Body Cell Mass (BCM): BCM is the sum of the cells containing intracellular water and protein found in the organs. The main role of this index is to help evaluate your nutritional state.

Arm Circumference (AC): AC is the measurement of the left arm. The left arm is measured as the majority of the population is right handed.

Arm Muscle Circumference (AMC): AMC is the measurement of the arm minus the fat. Excessive fat in this area is suggestive of possible hormonal imbalances and therefore would be worthwhile to be monitored.

Whole Body Phase Angle

Whole Body Phase Angle and Segmental Phase Angle is an indicator of membrane integrity and water distribution between the intra and extracellular cells. The average approximate range of Phase Angle is 4 - 7°. This number, irrespective of the suggested range is your individualised number and therefore should be monitored over a period of time for any changes.

Whole Body Phase Angle ———

6.3°

	RA	LA	TR	RL	LL
$\phi(°)50\,\mathrm{kHz}$	5.8	5.8	9.2	6.7	6.7

Body Composition History

The InBody 770 has the ability to record up to 8 previous scans. Previously measured data is an important indicator to measure your body's composition change.

BODY COMPOSITION HISTORY

Weight	70.0	70.5	70.7
SMM Skeletal Muscle Mass	31.9	32.4	32.2
PBF Percent Body Fat	19.2	18.5	19.2
ECW Ratio	0.370	0.370	0.371

☑ Recent ☐ Total

05.09.17 10:05 | 07.12.17 05:25 | 04.01.18 05:31

Optional Information

Blood Pressure ———

Sys.: 136 mmHg   Dia.: 77 mmHg   Pulse.: 62 bpm

Blood Pressure

Systolic Blood Pressure (SBP):

SBP measures the amount of pressure that blood exerts on arteries and vessels while the heart is beating. Normal range 90 -120mmHG (American Heart Association)

Diastolic Blood Pressure (DBP):

DBP is the pressure that is exerted on the walls of the various arteries around the body in between heart beats when the heart is relaxed. Normal range 60-80mmHG (American Heart Association)

Heart Rate (HR):

The rate at which your heart beats – expressed as beats per minute. The average resting heart rate is 60 – 80 bpm. (American Heart Association)

Segmental Circumference

Segmental Circumference is the individual measurement of separate body parts. This is a useful measurement for those who are accustomed to traditional girth measurements and provides another means of assessing body part change.

Segmental Circumference ———

Neck	42.1 cm
Chest	111.9 cm
Abdomen	95.6 cm
Hip	103.8 cm
Right Arm	35.6 cm
Left Arm	35.6 cm
Right Thigh	56.0 cm
Left Thigh	55.9 cm

7

Before your InBody Scan...

Guidelines For A Precise Measurement

1. Never scan immediately after exercise.

The analysis must be carried out before exercise and ideally on an empty stomach and bladder.

2. Always use the same height

The same height measurement is to be used for each adult in follow up scans. This ensures the same parameters are present to achieve consistent and precise measurements.

3. No showers or saunas

The analysis should not be carried out after a shower or the use of a sauna as sweat and heat causes a temporary change in conductivity within the body.

4. Wear comfortable clothing

Ideally wear comfortable clothing and remove all jewellery and excess items like jackets, metal belts and watches where possible.

5. Test under similar conditions

To effectively track and monitor results, subsequent testing should be carried out under similar conditions. (i.e. similar clothing, testing time, before eating or exercising etc.)

6. Use an InBody tissue

Thoroughly wipe the palms and soles with the InBody tissue before testing, as conductivity is of paramount importance.

7. Avoid talking

Avoid contact and talking during the analysis, this may lead to interference affecting test results.

8. Other Considerations

It is important to note that body composition results will be affected in the case of pregnancy, breast augmentation, irremovable piercing, metal plates, pins, screws, metal prosthetic joints or where a pacemaker, defibrillator or nerve stimulator are present. It is not advised to scan if you are pregnant or have a pacemaker.
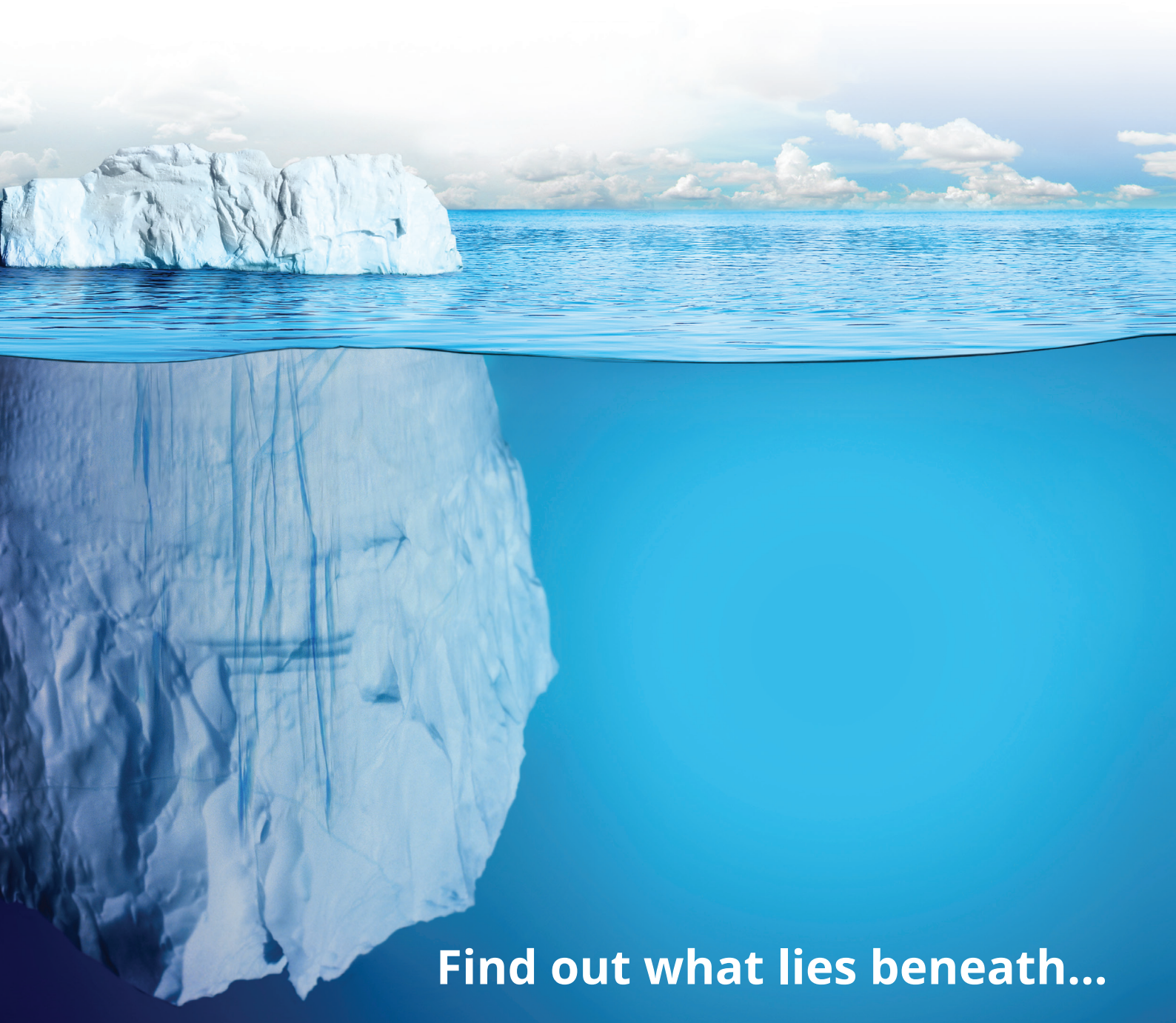
At InBody we always suggest a qualified health care professional should be consulted to effectively evaluate your overall scan, particularly if any abnormalities are noted.

If you're not
ASSESSING
you're simply
GUESSING

InBody ®

Body Composition Analysers

Find out what lies beneath...

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