

# Interpretation Guide Vital Body Scan NZ Ltd

**What you are made of?**

**Find out with -**

**Vital Body Scan NZ Ltd**

**Mobile Body Composition Analysis**



## Interpreting your results

Compartments	Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight	Normal Range
<b>T B W</b> Total Body Water (l)	30.8	30.8	39.4	42.0	59.1	31.0 ~ 37.8
<b>Protein</b> (kg)	8.1					8.3 ~ 10.1
<b>Mineral</b> (kg)	3.07	osseous: 2.56	2.86 ~ 3.50			
<b>Body Fat Mass</b> (kg)	17.1		12.1 ~ 19.4			

### Total Body Water (TBW)

TBW is all the water in the body and is approximately 60% of total weight. Ideally your TBW should be in the normal range set out below the reading.

### Protein

Protein consists of nitrogen and nitrogen levels within the cells indicate good levels of muscle mass and health. A lack of protein implies a lack of muscle mass and/or poor nutrition and malnourishment. Ideally your protein content should be within or exceed the normal range set out below the reading.

### Mineral

The Vital Body scan 520 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

	Under	Normal	Over	LIMIT %	Normal Range
<b>Weight</b> (kg)	55 70 85	100	115 130 145 160 175 190 205		51.6 ~ 69.8
<b>S M M</b> Skeletal Muscle Mass (kg)	70 80 90	100	110 120 130 140 150 160 170		23.2 ~ 29.4
<b>Body Fat Mass</b> (kg)	40 60 80	100	160 220 280 340 400 480 520		12.1 ~ 19.4

### Weight (kg)

Your weight in kilograms is displayed. The normal range suggested is based on the BMI and as such should not be considered on its own.

### Skeletal Muscle Mass

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

Body Fat Mass (kg) shows how many kilograms of fat your body has. If your body fat mass exceeds the suggested range you may be considered to be overweight.

The muscle and fat analysis component of the Vital Body Scan is an effective and quick indicator of your current health status. It will create a generalised shape which is a good marker to determine your overall body composition rating. We utilise as traffic light system, to see if you are on the right track

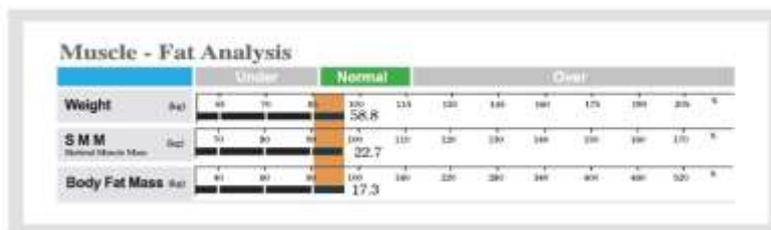
### The C- Shape

Firstly the 'C' shape, as per the below example of the muscle fat analysis. Although the weight can be in the normal range, the shape can be indicative of low skeletal muscle mass and a high body fat mass, which represents a weak body.



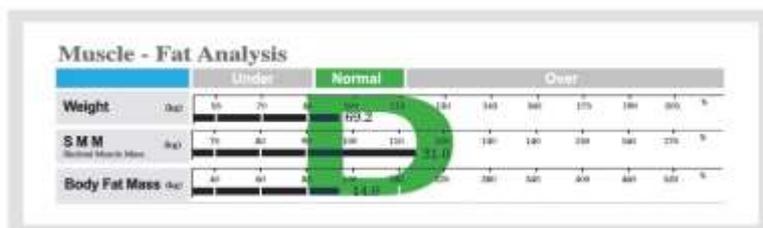
### The I- Shape

The next example is the 'I' shape provides a uniform measure of bodyweight, skeletal muscle and body fat with no one area being predominant than the other. This is generally found in untrained individuals

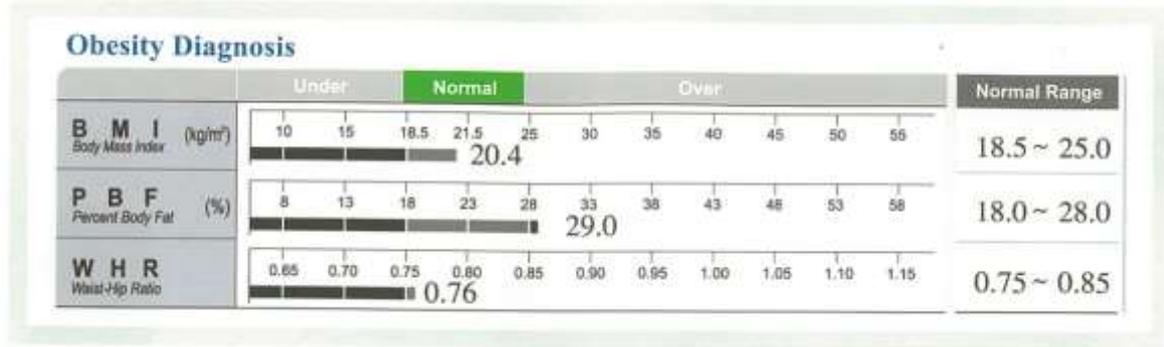


### The D- Shape

In the below example, the muscle-fat analysis graph forms a 'D' shape. This indicates high skeletal muscle mass with an ideal level of body fat, which representative of a healthy body.



## Obesity diagnosis



### BMI (Body Mass Index)

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

### PBF (Percent Body Fat)

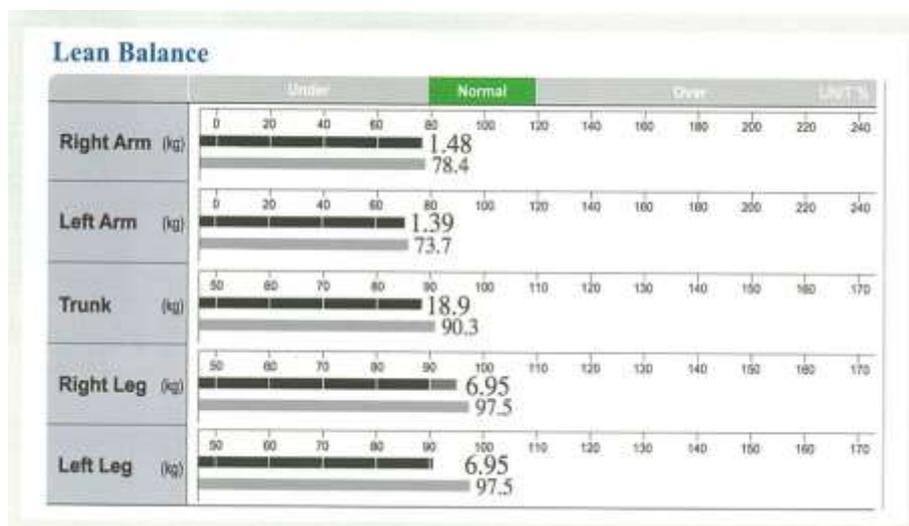
The Vital Body Scan 520 can accurately determine your percentage of body fat (PBF). The American College of Sports Medicine suggests a PBF of 10-20% for men and 18-28% for women is satisfactory for good health. We recommend for ideal health to be at a lower end of this range.

### WHR (Waist-Hip Ratio)

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 hips.

## Segmental Lean Analysis

The Segmental Lean Analysis graph shows segmental muscle mass by double bar graph. The double bar graphs can identify the amount of muscle mass in each segment (4 limbs and trunk) as well as show the ideal ratio of each. By measuring segmental muscle distribution, you can review your body balance and development level. The Vital Body Scan 520 provides information essential to check the effects of rehabilitation treatment or establish a direction for exercise.



### The Upper Bar:



The number at the end of the upper bar graph is the amount of soft lean mass in kilograms. If the upper bar graph reaches 100%, it means you have the ideal soft

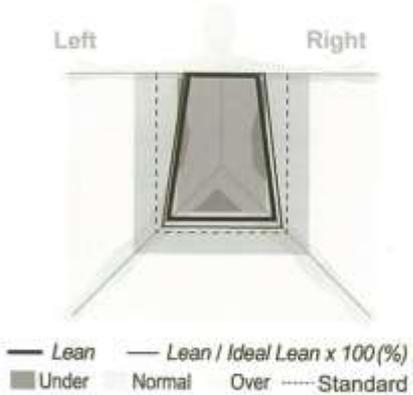
### The Lower Bar:



The lower bar shows your soft lean mass in percentage, in relation to your actual weight. This can be an effective tool determine imbalances between each correlating body part.

## Body shape Graph

This Graph provides an overview of how well balanced, thus proportional, your upper and lower body is. This is directly related to the lean balance table located at the bottom of your scan



--- ideal amount of muscle mass  
 — actual amount of muscle mass

Shape of square is changing for upper/lower body development.



## Nutritional evaluation

### Nutritional Evaluation

Protein	<input type="checkbox"/> Normal	<input checked="" type="checkbox"/> Deficient
Mineral	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Deficient
Fat	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Deficient <input type="checkbox"/> Excessive
Edema	<input type="checkbox"/> Normal	<input checked="" type="checkbox"/> Slight Edema <input type="checkbox"/> Edema

Nutritional Evaluation offers a simple analysis of protein, mineral and fat content. Edema is swelling of a cell whereby the ratio of intracellular water to extracellular water is compromised (higher than normal ranges).

### Weight Management

Weight	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Under	<input type="checkbox"/> Over
SMM	<input type="checkbox"/> Normal <input type="checkbox"/> Strong	<input checked="" type="checkbox"/> Under	
Fat	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Under	<input type="checkbox"/> Over

Weight management offers an analysis of your weight, skeletal muscle mass and fat mass. Keep in mind that total weight cannot be viewed simply on its own.

### Obesity Diagnosis

BMI	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Under	<input type="checkbox"/> Over	<input type="checkbox"/> Extremely Over
PBF	<input type="checkbox"/> Normal	<input checked="" type="checkbox"/> Over	<input type="checkbox"/> Extremely Over	
WHR	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Over	<input type="checkbox"/> Extremely Over	

The obesity diagnosis offers an analysis of your Body Mass index, Percent of Body Fat and Waist- Hip Ratio. PBF and WHR are good indicators of obesity but BMI alone is not as accurate.

### Body Balance

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

Body Balance shows the proportional balance between the right arm and the left arm (Upper) and the balance between the right and the left leg (Lower) as well as the overall balance between the upper and lower portions of your body

### Body Strength

Upper	<input type="checkbox"/> Normal	<input type="checkbox"/> Developed	<input checked="" type="checkbox"/> Weak
Lower	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Developed	<input type="checkbox"/> Weak
Muscle	<input type="checkbox"/> Normal	<input type="checkbox"/> Muscular	<input checked="" type="checkbox"/> Weak

Body Strength looks at the total muscle mass in the body. For optimal health it is recommended to aim for the normal to developed section.

## Weight Control Section

Weight Control	
Target Weight	60.7 kg
Weight Control	+1.6 kg
Fat Control	- 3.2 kg
Muscle Control	+4.8 kg
Fitness Score	72 Points

**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 increase or decrease for optimal health.

**Muscle control:** Suggests how much muscle to increase or decrease for optimal health

## Fitness Score

The Fitness Score shows the current status of overall body strength based on the measured muscle and fat mass.

Although useful as a motivational tool it is important to note that lean, athletic females with moderate muscle mass and less than normal body fat mass can often be measured as having a lower fitness score.

Therefore, it is important to evaluate all areas of the analysed within the body composition scan as well as acknowledge each person's individual goals. This is not an indicator of person's cardiovascular fitness but more of a useful means as a motivational tool. See the legend below for a comparison of your score.

70 or less      Indicates a lack of muscle or possibly of being extremely underweight or overweight, requiring exercise and diet control

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70 – 80      Average person off the street, reasonably healthy

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80 – 85      Those who actively look after their diet and exercise

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85+      Usually very fit or carrying a large amount of Skeletal Muscle Mass

## Additional Data

<b>Additional Data</b>	(Normal Range)
Obesity Degree = 97%	90 ~ 110
B C M = 26.7 kg	27.5 ~ 33.5
B M C = 2.56 kg	2.36 ~ 2.88
B M R = 1276 kcal	1186 ~ 1367
A C = 25.5 cm	
A M C = 21.6 cm	

**Obesity Degree:** The Obesity Degree is a concept that is utilised around the world. The equation utilises ideal BMI and current weight. In cases where a person has more lean mass than fat mass then this method of determining obesity does not apply.

**BCM:** Body Cell Mass is the amount of cells in the body. The main role of this index is a means of assessing your nutritional state.

**BMC:** Bone mineral content 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.

**BMR:** Basal Metabolic Rate 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.

**WHR:** Waist-Hip Ratio is determined by dividing the waist circumference at the line of the navel by maximum hip circumference. It is a useful indicator for looking at the distribution of body fat. The Vital Body Scan 520 uses its impedance index to provide a measurement of a person's WHR.

**AC:** Arm Circumference is the estimation of the circumference of the arm

**AMC:** Arm Muscle Circumference is the estimation of the circumference of the muscle of the left arm. The difference between AC and ACM is to establish the amount of fat located on the arm. Excess fat around the upper arm (tricep region) can be indicative of hormonal imbalance such as estrogen dominance and therefore may require a further evaluation from health care professional.

## Body Composition History

<b>Body Composition History</b>					
DATE / TIME	Weight	SMM	Fat	Score	
05/01/02 11:15	61.5	20.5	19.9	69	
05/01/15 11:10	60.2	20.8	18.7	70	
05/02/01 11:23	59.1	22.3	17.1	72	

The key information of up to 10 previous measurements are shown. Previous measurement data is an important indicator to identify body composition change.