

THE PROFESSIONAL' S GUIDE TO

# THE INBODY RESULT SHEET

Everything you need to know to interpret InBody Results and start offering your clients the insights they need to improve their health & wellness

Based on ideal weight - Based on current weight

Segmental Lean Analysi

Right Arm	(kg) (%)	40	60	sò.		2.01 02.1	140	160	180	200	4	0.381
Left Arm	(kg) (%)	40	60	sò	100 100 197	.93	140	160	180	200	5	0.381
Trunk	(kg) (%)	70	80	90	100	110 17.7	120	130	140	150	5	0.399
Right Leg	(kg) (%)	70	80	5.22 83.8		110	120	130	140	150		0.399
Left Leg	(kg) (%)	70	80	5.13	100	110	120	130	140	150	5	0.401

 Segmental Fat Analysis

 ▼ | - | ▲

 Right Arm
 (1.5kg)

 Left Arm
 (1.6kg)

 Trunk
 (11.6kg)

 Right Leg
 (2.9kg)

 Left Leg
 (2.9kg)

 Itst.1%

#### **Research Parameters**

Intracellular Water	16.6 L (16.3~19.9)
Extracellular Water	10.9 L (10.0~12.2)
Basal Metabolic Rate	1176 kcal
Waist-Hip Ratio	0.97 (0.75~0.85)
Body Cell Mass	23.8 kg (23.4~28.6)

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#### **INTRODUCTION**

The InBody Result Sheet, if used properly, can be one of the most powerful tools at your disposal to guide, train, and care for your clients in ways that were never possible before. However, to unlock the power of the InBody Result Sheet, you need to become familiar with how it reports information, and even more importantly, what you can do with it. That's the point of this ebook.

Packed into the InBody Result Sheet is the health and fitness information that anyone who deals with the health and wellness of their clients absolutely needs if they want to be the best professional they can be.

Over the next several pages, you'll learn exactly how to read and interpret the InBody Result Sheet. You'll learn what the terms mean, why they're valuable, and the strategies you can use to implement this invaluable data into your business and with your clients.

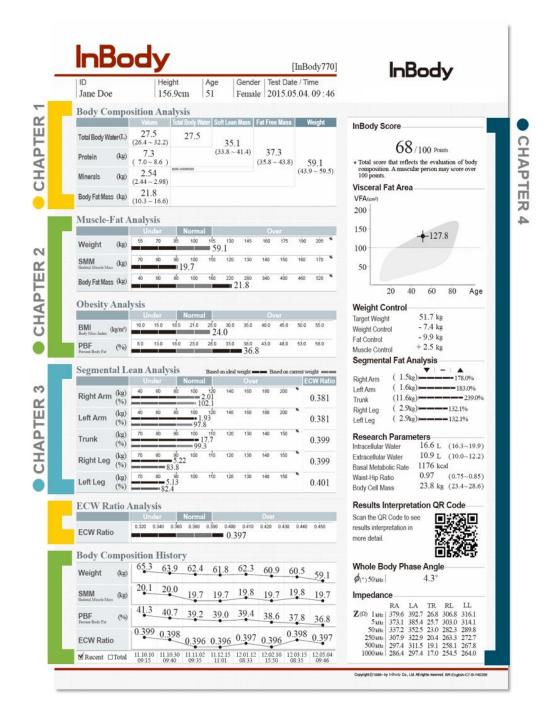
If, after reading, you have any questions at all, you can reach out to us anytime at info.eu@inbody.com, and an InBody Specialist will be happy to assist you with anything you'd like to know.

Now, on to the Result Sheet!

<sup>\*</sup> The information provided in this document is to be used for educational/informational purposes only and does not constitute medical advice. Only certified medical & health professionals may diagnose patients and provide such advice.

<sup>\*</sup> Some of the contents and cases are from InBody USA blog.

Below is the Result Sheet from our flagship model, the InBody 770. Although not all InBody models will have all the outputs shown below, understanding this Result Sheet will help you understand any InBody Result Sheet. This e-book will divide up related portions of the Result Sheet in separate chapters. You can jump to a specific section/chapter by clicking on it on the Result Sheet below.



#### HELPFUL TIP

Be on the lookout for boxes like these. These boxes will highlight practical uses for a section that will help you understand how to use the data.

You can click on this icon to return to the table of contents at any time



# BODY COMPOSITION AND BODY WATER ANALYSIS

## **BODY COMPOSITION ANALYSIS**

#### In this section, you'll learn:

<sup>·</sup> How to understand a body composition breakdown

- · How to determine if muscle growth has truly occurred
  - <sup>•</sup> How to identify swelling in the body

At the top of the result sheet is your client's basic body composition breakdown.

	Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight	
Total Body Water(L)	27.5 (26.4 ~ 32.2)	27.5	35.1			
Protein (kg)	7.3 (7.0~8.6)		(33.8 ~ 41.4)	37.3 (35.8 ~ 43.8)	59.1	
Minerals (kg)	2.54 (2.44 ~ 2.98)	non-osseous			(43.9 ~ 59.5)	
Body Fat Mass (kg)	21.8 (10.3 ~ 16.6)					

D epending on the model of InBody you're using, the breakdown may look a little different, but all models start with the smallest units on the left and gradually get into the bigger categories until you get to the total body weight on the far right.

In this example, taken from the InBody 770 Result Sheet, you can see how weight is broken down into Fat Free Mass, Soft Lean Mass and Total Body Water, which is broken into even smaller pieces: Total Body Water, Protein, Minerals, and Body Fat Mass.

Starting from the top, you have **Total Body Water** and **Protein**. Total Body Water can be divided into Intracellular Water and Extracellular Water. Intracellular Water is the amount of body water held within the body's cells; Extracellular Water is the water outside the cells.

<b>Body Compo</b>	osition Ana	alysis			
	Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight
Total Body Water(L)	27.5 (26.4 ~ 32.2)	27.5	35.1		
Protein (kg)	7.3 (7.0~8.6)		(33.8 ~ 41.4)	37.3 (35.8 ~ 43.8)	59.1
Minerals (kg)	2.54 (2.44 ~ 2.98)	non-osseous			(43.9 ~ 59.5)
Body Fat Mass (kg)	$\underset{(10.3\sim16.6)}{21.8}$				

#### **BREAKING IT DOWN**

Both of these sections are useful in their own right, but monitoring Extracellular Water in particular has a lot of very pertinent uses to health professionals.

If you notice an increase in ECW, but not ICW, this could be the presence of internal swelling and/or inflammation.

Because muscle is made up of mostly protein, if you see your client's protein increase, it's very likely that they have truly gained muscle.

Below Total Body Water and Protein, you can find **Minerals**. Although this is an often underused section of the Result Sheet, it can reveal some very interesting insights. Minerals refers to the total amount of inorganic minerals that are dissolved in bone and body fluids which represents osseous and non-osseous mineral respectively.

Body Con	ipo	sition Ana	alysis				
		Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight	
Total Body Water	(L)	27.5 (26.4 ~ 32.2)	27.5	35.1			
Protein (	(kg)	7.3 (7.0~8.6)		35.1 (33.8 ~ 41.4)	37.3 (35.8 ~ 43.8)	59.1 (43.9 ~ 59.5)	
Minerals (	(kg)	2.54 (2.44 ~ 2.98)	non-osseous				
Body Fat Mass (	(kg)	$\underset{(10.3\sim16.6)}{21.8}$					

#### **BREAKING IT DOWN**

Minerals account only about 5-6% of body weight and are not an energy source, but they are essential nutrients to maintain life and health. Most of which constitute bones and teeth, except for a small amount of ionic constituents dissolved in body water.

Below Minerals is **Body Fat Mass**. This reports all of the body fat in the person testing, including both the surface level (subcutaneous) and internal (visceral) fat.

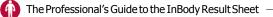
Body Cor	mpo	sition Ana	lysis				
		Values	Total Body Water	Soft Lean Mass	Fat Free Mass	Weight	
Total Body Wat	er(L)	27.5 (26.4 ~ 32.2)	27.5	35.1			
Protein	(kg)	7.3 (7.0~8.6)		(33.8 ~ 41.4)	37.3 (35.8 ~ 43.8)	59.1	
Minerals	(kg)	$\begin{array}{c} 2.54 \\ (2.44 \sim 2.98) \end{array}$	non-osseous			(43.9 ~ 59.5)	
Body Fat Mass	(kg)	$\underset{(10.3\sim16.6)}{21.8}$					

By adding Total Body Water, Protein, and Minerals, you get Fat Free Mass (FFM) shown in the second column from the right. FFM is the weight of everything except body fat. This includes muscle, water, bones, organs - everything that is not body fat.

		Total Body Water	Soft Lean Mass	Fat Free Mass	Weight		
Total Body Water(L)	27.5 (26.4 ~ 32.2)	27.5	35.1				
Protein (kg)	7.3 (7.0~8.6)		(33.8 ~ 41.4)		59.1		
Minerals (kg)	2.54 (2.44~2.98)	non-osseous			(43.9 ~ 59.5)		
Body Fat Mass (kg)	21.8 (10.3 ~ 16.6)						

Most of the time, increases in FFM reflect increases in muscle (which you can also see as an increase in Protein), and is considered a positive improvement in body composition. However, people who do not maintain normal body water ratios may have increased FFM due to swelling caused by certain health conditions.

EXTRAS FOR THIS SECTION ON THE INBODY BLOG	
<ul> <li>Body Composition 101: The Beginner's Guide</li> </ul>	Read
<ul> <li>Unpacking Body Composition Lingo</li> </ul>	Read
Your Body and You: A Guide To Body Water	Read



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### **ECW RATIO ANALYSIS**

In this section, you'll learn: • How to recognize a water imbalance

The ECW Ratio Analysis compares the ratio of ECW to TBW. Most healthy people will have an average ratio of around 0.380, with the acceptable range being between 0.360 - 0.390. Anything beyond 0.390 may indicate swelling or excess ECW.

ECW Ratio	Analy	sis								
	U	nder		Norma	d 👘		Over			
ECW Ratio	0.320	0.340	0.360	0.380	0.390	0.400 0.3	0.420	0.430	0.440	0.450

You'll see minor fluctuations in your client's ECW Ratio - that's normal. This output is primarily used to give context to another section – the Segmental Lean Analysis.

#### **BREAKING IT DOWN**

This graph lets you quickly understand if your client has some sort of swelling in his or her body, either in a specific area (like in the case of an injury) or present throughout the entire body (often seen in obese individuals).

You can also use this to give context to FFM. High FFM and a high ECW/TBW ratio usually indicate the presence of excess body water – not just muscle.



# MUSCLE-FAT, OBESITY ANALYSIS

### **MUSCLE-FAT ANALYSIS**

#### In this section, you'll learn:

How to quickly identify common body compositions
 How to tell if someone is under, over, or normal in weight, muscle, and fat

		Under Normal					Over						
Weight	(kg)	55	70	85	100	<sup>115</sup>	130 .1	145	160	175	190	205	9
SMM Skeletal Muscle Mass	(kg)	70	80	90 19	<sup>100</sup> 9.7	110	120	130	140	150	160	170	9
Body Fat Mass	(kg)	40	60	80	100	160	220	280	340	400	460	520	9

For many people, this section of the Result Sheet is one of their favorite

sections. Why? Because it allows you to categorize different body types more easily. This section makes it simple for you to give your clients a good, general idea about their current overall body composition and what changes they need to make.

#### HOW TO READ THE NUMBERS AT THE TOP:

		U	nder		Norma	1			0				
Weight	(kg)	55	70	85	100	<sup>115</sup> 59	130 .1	145	160	175	190	205	%
SMM Skeletal Muscle Mass	(kg)	70	80	90 1	<sup>100</sup> 9.7	110	120	130	140	150	160	170	%
Body Fat Mass	(kg)	40	60	80	100	160	220	<sup>280</sup>	340	400	460	520	%

The 100% mark, as well as all the percentage marks above bar graphs, are all based on what is considered ideal for an individual of **the specific height and gender they give when they tested**. It allows you to compare your client to others of the same height and gender.

While the healthy range varies as shown above, 100% designates the ideal for individuals with the same height and gender. So, if the weight bar **extended to 130%**, this would mean that the person who you are testing is **30% above average**.

Similarly, if your client's weight bar extended to 70%, this would mean that your client has 30% less mass than is considered average for their height.

#### **BREAKING IT DOWN**

This graph lets you show your client how their body composition compares against people of the same height and gender.

#### THE MUSCLE- FAT ANALYSIS HAS THREE COMPONENTS:

		U	nder		Norma	1			0				
Weight	(kg)	55	70	85	100	<sup>115</sup> 59	130 .1	145	160	175	190	205	%
SMM Skeletal Muscle Mass	(kg)	70	80	90 1	<sup>100</sup> 9.7	110	120	130	140	150	160	170	%
Body Fat Mass	(kg)	40	60	80	100	160	220	280	340	400	460	520	%

#### | WEIGHT

Total Body Weight

#### SKELETAL MUSCLE MASS (SMM)

The total weight of your client's Skeletal Muscle. These are the muscles that can be grown and developed through exercise. Unlike FFM, which includes everything that isn't body fat, you can view an increase in SMM as actual muscle gain.

#### **| BODY FAT MASS**

This is how much body fat your client has, and includes both the surface level and internal fat.

The Muscle-Fat Analysis also tells you whether your client has a healthy balance of SMM and Body Fat Mass in respect to his or her weight.

#### **BREAKING IT DOWN**

The Muscle-Fat Analysis graph allows you to get a rough understanding of your client's overall body composition in one quick glance. By looking at the lengths of each bar and how they compare to each other, you can better understand how to help your client reach their goals.

#### THE BASIC BODY TYPES: "C- SHAPE"

The three values presented in the Muscle-Fat Analysis are arranged in such a way as to make it simple and easy to make general observations about your client's body composition.

You do this by forming one of the three "shapes" by connecting the endpoints of the Weight, SMM, and Body Fat Mass bars.

		U	nder		Norma	1			Ov				
Weight	(kg)	55	70	85	100	115 <b>5</b> 9	130 .1	145	160	175	190	205	%
SMM Skeletal Muscle Mass	(kg)	70	80	<sup>90</sup>	9.7	110	120	130	140	150	160	170	9
Body Fat Mass	(kg)	40	60	80	100	160	220	280 1 8	340	400	460	520	%

A C-shaped individual has a shorter bar for SMM than for weight and Body Fat Mass. Although this is characteristic of someone who is overweight or obese, you may see this shape in someone who is normal or underweight, too.

#### **BREAKING IT DOWN**

You would want to counsel a client with a Muscle-Fat Analysis graph that looks like this to reduce their Body Fat Mass (which would also lower their Weight) while improving their Skeletal Muscle Mass. Helping this person improve to an I-Shape, and eventually a D-Shape, is the goal.

#### THE BASIC BODY TYPES: "I- SHAPE"

An I-shaped individual has a "balanced" body composition, meaning their Weight, Skeletal Muscle Mass, and Body Fat Mass bars roughly form a straight line.

Although people with this body composition are often at a healthy weight or percent body fat, they can still have health risks if they have too much body fat.

		U			Norma	d 🚽			0	ver			
Weight	(kg)	55	70	85	100	<sup>115</sup>	.7	145	160	175	190	205	9
SMM Skeletal Muscle Mass	(kg)	70	80	90	100	110 80.7	120	130	140	150	160	170	9
Body Fat Mass	(kg)	40	60	80	100	29.8	220	280	340	400	460	520	9

#### **BREAKING IT DOWN**

If you're working with a client that has an I-shaped body composition, you should find out from them what their overall health goals are before making recommendations.

Typically, I-shaped people are usually in a good position to focus on building muscle to gain strength and size, or lose body fat in order to gain improve overall leanness.

#### THE BASIC BODY TYPES: "D- SHAPE"

A D-shaped person has a longer SMM bar than both their weight and body fat bars. This is indicative of an "athletic" body type and is considered to be the ideal body composition shape.

		U	nder		Norma	al			Ov				
Weight	(kg)	55	70	85	100	115 64.4	130	145	160	175	190	205	91
SMM Skeletal Muscle Mass	(kg)	70	80	90	100	110	120 30	.5 <sup>130</sup>	140	150	160	170	9
Body Fat Mass	(kg)	40	<sup>60</sup> 9.9	80	100	160	220	280	340	400	460	520	9

If you are working with a client who has this type of body composition, they likely already have specific fitness goals in mind, and your job will be to help them reach them.

#### **BREAKING IT DOWN**

Your client may want to improve their strength and size. In that case, you would want to monitor their SMM bar and Body Fat Mass bars to make sure that SMM increases without a significant increase in Body Fat Mass.

Others may want to work on their leanness and lose body fat. For a client with this goal, loss of Body Fat Mass should be monitored while taking care to mitigate loss of SMM. If SMM losses become too great, make adjustments.

#### EXTRAS FOR THIS SECTION ON THE INBODY BLOG

' Why Building Lean Mass Is Important For Everyone (yes even you)

<sup>•</sup> 5 Things You Didn't Know About Muscle and Fat

Read

Read

## **OBESITY ANALYSIS**

#### In this section, you'll learn:

 How to assess your client's percent body fat
 If your client's body weight and BMI hides their health risks from excess body fat

		U	nder	N	lorma				Ov	/er		
BMI Body Mass Index	(kg/m²)	10_0	15 <u>.</u> 0	18.5	21.5	<sup>25.0</sup> 22.8	30.0	35.0	40.0	45.0	50.0	55.0
PBF Percent Body Fat	(%)	8.0	13.0	18.0 15.3	23.0	28.0	33.0	38.0	43.0	48.0	53.0	58.0

he Obesity Analysis includes the signature metric of any body composition analysis: **Percent Body Fat (PBF)**.

It's a deceptively simple metric – a division of body fat mass by total weight – but it is a much better indicator of the risk of obesity than BMI, which is one of the major reasons BMI is still included in the analysis – to highlight its flaws by comparing it to PBF.

#### WHAT' S THE DIFFERENCE BETWEEN BMI AND PBF?

		U	nder		Norma	d 👘			0	rer		
BMI Body Mass Index	(kg/m²)	10.0	15.0	18.5	21.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
PBF Percent Body Fat	(%)	8.0	13.0	18.0	23.0	28.0	33.0	<sup>38.0</sup> ■ 35.	43.0	48.0	53.0	58.0

On the InBody Result Sheet, you'll see a set of ranges for BMI and PBF. 18.5 – 24.99 kg/m2 is the normal range according to the World Health Organization. This normal range is presented on the Result Sheet, although the InBody device can be programmed to use a different range.

For PBF, the ranges differ for men and women, as women tend to carry more body fat than men due to their reproductive system as well as genetics. The example above is a graph that represents a female individual, and the normal range for females is set at 18-28%, with the average being 23%.

**BREAKING IT DOWN** 

You can show your client their body fat percentage to help them understand their health and fitness better. BMI should not be used. According the WHO, BMI is a population-level measure of obesity, and a rough guide for individuals.

#### THE HEALTY RANGE

For men, the healthy range is between **10-20%** 

	U	nder		Norma				0	/er		
BMI (kg/m <sup>2</sup> )	10.0	15.0	18.5	22.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
PBF (%)	0.0	5,0	10.0	0.3	20.0	25.0	30.0	35.0	40.0	45.0	50.0

For women, the healthy range is between **18-28%** 

		U	nder	N	lorma	al de la companya de			0	/er		
BMI (kg/r	n²)	10.0	15.0	18.5	21.5	<sup>25.0</sup> 22.8	30.0	35.0	40.0	45.0	50.0	55.0
PBF (?	6)	8.0	13.0	18.0 15.3	23.0	28.0	33.0	38.0	43.0	48.0	53.0	58.0

If you'd like more information on how InBody sets the PBF ranges for men and women, send an email to clinical.eu@inbody.com

— EXTRAS FOR THIS SECTION ON THE INBODY BLOG –	
<sup>,</sup> Why You Need To Know Your Body Fat Percentage	Read
' BMI's Fat Secret	Read

### **BODY COMPOSITIONHISTORY**

#### In this section, you'll learn:

 How to recognize trends in body composition
 How to identify positive or negative changes in body composition with respect to weight

	76.2							
Weight (kg)	76.2	75.6	75.0	74.8	74.3	74.5	74.0	74.2
SMM (kg)	37.7	37.0	37.4	37.2	37.0	37.2	37.3	37.6
PBF (%)	12.4	12.2	12.4	11.4	11.6	10.8	10.3	10.3
ECW Ratio	0.381	0.380	0.381	0.379	0.379	0.379	0.379	0.379
🗹 Recent 🗆 Total	18.02.03 12:45	18.02.10 11:02	18.02.17 12:32	18.02.24 10:45	18.03.01 11:47	18.03.09 12:15	18.03.15 11:43	18.03.21 12:30

A the bottom of the Result Sheet is the **Body Composition History**, which automatically tracks some of the most important body composition metrics. This makes it really easy to identify trends over time.

Take, for example, the results above. These results represent an athletic, D-shaped individual whose goal was to gain muscle and lose body fat.

#### TRACKING POSITIVE CHANGE

Weight (kg)	76.2	75.6	75.0	74.8	74.3	74.5	74.0	74.2
SMM Skeletal Muscle Mass (kg)	37.7	37.0	37.4	37.2	37.0	37.2	37.3	37.6
PBF (%)	12.4	12.2	12.4	11.4	11.6	10.8	10.3	10.3
ECW Ratio	0.381	0.380	0.381	0.379	0.379	0.379	0.379	0.379
🗹 Recent 🗆 Total	18.02.03 12:45	18.02.10 11:02	18.02.17 12:32	18.02.24 10:45	18.03.01 11:47	18.03.09 12:15	18.03.15 11:43	18.03.21 12:30

As you can see, the program this individual adopted has clearly been successful. In about two months, his weight has decreased 2 kg, yet has **maintained 37.6 kg of muscle** and dropped his **percent body fat by 2.1%**. By any measure, this would be an indication of great success!

**BREAKING IT DOWN** 

If your client's results look like the above example, the current exercise and/or diet regimen they've adopted would appear to be effective. Little modifications to diet or exercise are likely needed, but you should continue to monitor trends carefully.

#### TRACKING NEGATIVE CHANGE

The Body Composition History also makes it easy to raise red flags when negative changes in body composition occur, especially when they are disguised by a seemingly "positive" change of reduced body weight.

Weight	(kg)	82.3	82.1	82.0	81.9	81.6	81.7	81.8	82.0
SMM Skeletal Muscle Mass	(kg)	37.6	37.6	37.3	36.8	36.7	36.5	36.4	36.2
PBF Percent Body Fat	(%)	19.0	19.2	19.2	19.3	19.5	19.7	19.8	20.0
ECW/TBW		0.389	0.389	0.388	0.389	0.389	0.390	0.392	0.391
	Total	02.15.16 07:42	03.01.16	•	03.28.16	04.02.16 06:30	04.12.16	04.29.16 06:12	05.

If you have a client whose graph looks similar, by testing this client's body composition and seeing their overall trend, you would be able to see that much of this weight loss is due to the **slow loss of muscle, leading to a higher Percent Body** 

#### Fat.

#### **BREAKING IT DOWN**

A graph like this can be a real eye-opener for a client because it shows that negative changes in body composition can occur if his or her weight remains the same or even decreases for the wrong reason.

This person needs to be guided towards a solution that helps them retain their muscle mass with some combination of nutrition and strength training.

# EXTRAS FOR THIS SECTION ON THE INBODY BLOG Why Tracking Changes in Body Composition Leads To Results How To Set a Body Composition Goal That's Right For You Read



# SEGMENTAL LEAN ANALYSIS

### **SEGMENTAL LEAN ANALYSIS**

#### In this section, you'll learn:

How to spot problem areas in your client's development
 How your client compares to others
 If your client is sufficiently developed in all sections of their body

 If your client has muscle imbalances

Segmenta	al Lo	ean A	naly	ysis		Based	on ideal v	weight <b></b>	В	ased on c	urrer	nt weight
		U	nder	N	lorma			Ove	r			ECW Ratio
Right Arm	(kg) (%)	40	60	80	100 1.77 96.2		140	160	180	200	%	0.378
Left Arm	(kg) (%)	40	60	80	100 1.71 93.3	120	140	160	180	200	%	0.378
Trunk	(kg) (%)	70	80	90	100 16.2 97.1	110	120	130	140	150	%	0.385
Right Leg	(kg) (%)	70	80	90 5.03 86.4	100	110	120	130	140	150	%	0.382
Left Leg	(kg) (%)	70	80	<sup>90</sup> 5.02 86.2	100	110	120	130	140	150	%	0.383

 here are many valuable outputs on the Result Sheet. However, the Segmental Lean Analysis, if used properly is arguably the most powerful section of the Result Sheet.

#### FAT FREE MASS VS. MUSCLE MASS

The information in the Segmental Lean Analysis shows how much Fat Free Mass is contained in each segment; not how much "muscle" is in each segment.

This is an important distinction. While it is true that Skeletal Muscle gains in a body segment will be reflected as gains in the Segmental Lean Analysis chart, **not every gain in Fat Free Mass can be explained by muscle.** That's because Fat Free Mass is the sum of all the non-fat components in the body. In other words, it is the sum of Total Body Water, Protein and Minerals. It is calculated by subtracting Body Fat Mass from the weight. Therefore, Fat Free Mass can be influenced both by muscle mass and body water.

In other words, if the person has edema because of injury and diseases, increase of body water affects Fat Free Mass or Segmental Lean Analysis. Therefore, by comparing Segmental Lean Analysis and ECW ratio together, InBody can identify whether the increased amount came from the muscle mass or overhydration. This makes this chart useful not just for tracking muscle, but also for injury and disease states.

#### TOP AND BOTTOM BARS

The InBody divides the body into **five body segments**: the two arms, two legs, and the trunk, which can be thought of as covering the area between the neck and legs. The information for each body segment is reported as two bars.

#### **THE TOP BAR**

Segmenta	al Lo	ean A	naly	ysis		Based	on ideal w	veight <b></b>	Ba	used on c	urren	t weight
		U	nder		Norma			Ove				ECW Ratio
Right Arm	(kg) (%)	40	60	80	100 <b>3</b> .13 91.0	120	140	160	180	200	%	0.370
Left Arm	(kg) (%)	40	60	80		120 3.48 01.2	140	160	180	200	%	0.374
Trunk	(kg) (%)	70	80	90	100 26 96.0	110 .4	120	130	140	150	%	0.376
Right Leg	(kg) (%)	70	80	90	100		120 0.34 8.1	130	140	150	%	0.374
Left Leg	(kg) (%)	70	80	90	100	110 1(	120 10.42 )8.9	130	140	150	%	0.377

The **top bar** shows how much Fat Free Mass in kg is in a given segment. Just like with the Muscle-Fat Graph, the top bar of the Segmental Lean Analysis compares the kg of Fat Free Mass against the ideal expected amount of Fat Free Mass for that person's height and gender.

Your clients should always work to be at **100% or higher**.

#### | THE BOTTOM BAR

The **bottom bar** is different. The number shown by the bottom bar is the percentage and makes it easier to quickly understand see how close to (or past) 100% each bar extends.

Segmenta	al Le	ean A	naly	ysis		Based	on ideal w	veight <b></b>	Ba	used on c	urren	t weight
		U	nder		Norma			Over				ECW Ratio
Right Arm	(kg) (%)	40	60	80	= 3.13 91.0	120	140	160	180	200	%	0.370
Left Arm	(kg) (%)	40	60	80		120 3.48 01.2	140	160	180	200	%	0.374
Trunk	(kg) (%)	70	80	90	<sup>100</sup> 26 96.0		120	130	140	150	%	0.376
Right Leg	(kg) (%)	70	80	90	100		0.34 8.1	130	140	150	%	0.374
Left Leg	(kg) (%)	70	80	90	100		120 10.42 18.9	130	140	150	%	0.377

What is this bar showing? It's comparing your client's Fat Free Mass **their current body weight**. This shows whether or not your client has enough Fat Free Mass to **support their own body weight**, where 100% = sufficient.

#### **BREAKING IT DOWN**

In the above example, the 3 upper body segments are over 100%, but the lower body segments are not.

If you're working with a client like this, they may benefit from exercises that target Lean Body Mass development in their legs. This will help them achieve a more balance body composition and may have other positive effects, such as body fat reduction, as well.

#### WHICH CLIENTS MAY BE AT RISK FOR UNDERDEVELOPMENT?

Any person can theoretically be underdeveloped in a body segment, and without Segmental Lean Analysis, identifying this can be difficult. However, several groups of clients may be at more risk than others. Here are three.

#### 1. Sedentary adults

Sedentary adults who do not exercise commonly have below 100% Segmental Lean Mass especially in their legs, primarily due to jobs that require them to sit throughout most of the day.

#### 2. "Skinny Fat" individuals (sarcopenic obese)

People with "skinny fat" profiles have more fat than is healthy for their bodies coupled with a low amount of Fat Free Mass. Their relatively overdeveloped fat or underdeveloped muscle mass contributes to their body weight, and may result in scores below 100% for one or more body segment.

#### 3. The elderly

The elderly are at particular risk for not having sufficiently developed Fat Free Mass due to their tendency to lose muscle as a result of increasing inactivity. This impacts their ability to care for themselves as they age and puts them at greater risk of falling and broken bones.



#### **UPPER / LOWER MUSCLE IMBALANCE**

Upper/lower body imbalances are a fairly common in today's increasingly sedentary workforce, and you'll likely encounter cases like in the example below.

		U	nder		Norma	l 👘		Ove			
Right Arm	(kg) (%)	40	60	80	100	120	140	160	180	200	9
Left Arm	(kg) (%)	40	60	80	100	120	140	160	180	200	9
Trunk	(kg) (%)	70	80	90	100 26 96.0		120	130	140	150	9
Right Leg	(kg) (%)	70	80	90	100	110	120	130	140	150	9
Left Leg	(kg) (%)	70	80	90	100	110	120	130	140	150	9

#### **BREAKING IT DOWN**

If your client looks like this, he or she needs to increase the FFM in their lower legs. Even though the upper body is sufficiently developed, the lower body is still at risk for injury due to the low amount of Fat Free Mass. This client, despite their upper body, risks developing health issues if theys keep this body composition.

#### **RIGHT / LEFT MUSCLE IMBALANCE**

Another imbalance the Segmental Lean Analysis can reveal is the imbalance between the right and left arms and/or legs.

		U	nder		Norma	al		Ove		
Right Arm	(kg) (%)	40	60	80	100	120	140	160	180	200
Left Arm	(kg) (%)	40	60	80	100	120	140	160	180	200
Trunk	(kg) (%)	70	80	90	100	110	120	130	140	150
Right Leg	(kg) (%)	70	80	90	100	110	120	130	140	150
Left Leg	(kg) (%)	70	80	90	100	110	120	130	140	150

Although this client has a balanced upper body, there's a slight imbalance between the right and left legs. There are many reasons why this could have occurred: For example, an injury can cause swelling and cause the FFM values to go up.

#### **BREAKING IT DOWN**

If you are working with a client whose body composition looks like this, it is helpful to find out more about his or her medical history to determine whether an imbalance is due to swelling or from underdeveloped FFM.

# EXTRAS FOR THIS SECTION ON THE INBODY BLOG Lean Body Mass vs. Skeletal Muscle Mass: What's the Difference? Does Muscle Turn Into Fat? Read



# CUSTOMIZABLE OUTPUTS

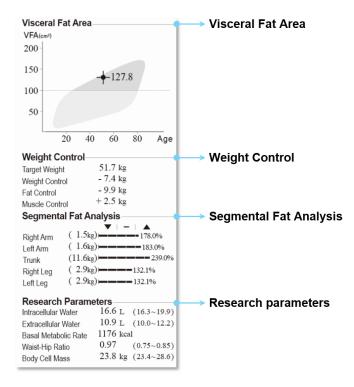
### **CUSTOMIZABLE OUTPUTS**

#### In this section, you'll learn:

How to track visceral fat and segmental fat
 How to guide a client to their average weight
 How to use research parameters to offer nutritional guidance

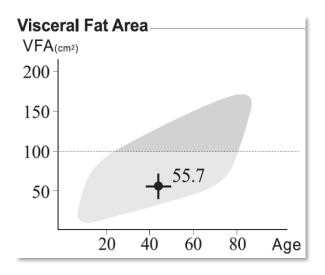
n the right hand side of the Result Sheet are a series of additional outputs that you can mix and match to suit your business needs. Depending on which InBody unit you are using, the outputs available may vary.

In the following pages, you'll learn about four of the most use outputs. All of these are available on the InBody 770. These are:



**VISCERAL FAT AREA** 

As you may know, there are two main types of body fat: **subcutaneous** and **visceral**. The Visceral Fat Area graph allows you to determine how much visceral fat your client has.



The graph looks a bit complicated but is actually quite simple to read. The "100" on the left side of the graph represents 100 cm<sup>2</sup> of visceral fat.

You should advise your clients to stay below this line for optimal health and to reduce health risks.

#### **BREAKING IT DOWN**

Research has found that visceral fat is particularly influenced by cardiovascular exercise. Encouraging your client to engage in more cardiovascular exercise may improve his or her health by promoting loss of visceral fat.

#### WEIGHT CONTROL

This section makes it incredibly simple to set goals for your client. It is designed to help your client reach their ideal body composition.

Weight Control	
Target Weight	74.7 kg
Weight Control	- 2.6 kg
Fat Control	- 2.6 kg
Muscle Control	0.0 kg

Depending on your client's current Muscle-Fat balance, this section of the Result Sheet will recommend adjusting fat mass and/or muscle mass in order to reach the target weight.

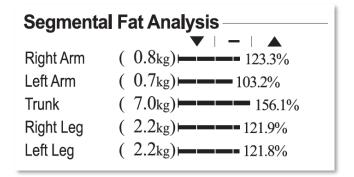
If your client is overfat, the InBody will advise losing a certain number of kg of fat mass and maintaining or increasing muscle mass. The InBody will never recommend losing muscle mass.

#### **BREAKING IT DOWN**

These recommendations are meant to be general guidelines for helping individuals achieve optimal health. However, your clients may have their own set of goals, and these should be discussed prior to planning a routine for meeting those goals.



#### SEGMENTAL FAT ANA LYSIS



In the above example, the person above has 7.0 kg of body fat in her trunk. For a person of their height and gender, that's 156.1%, or **56.1% more body fat** than the average person with the same height and gender. Segmental Fat Analysis is an estimated value based on other body composition results to guide your client consultations.

#### **BREAKING IT DOWN**

This section can be used to track your client's improvements in body composition and changes in body fat, over time. While studies have shown that you can't "spot target" body fat with exercise, you can use this section to encourage your clients and give them a more detailed account of the improvements they are making.

#### **RESEARCH PARAMETERS**

For research parameters, nutritional outputs and estimated parameters are provided; Intracellular Water, Extracellular Water, Basal Metabolic Rate (BMR), Waist-Hip Ratio (WHR), Body Cell Mass (BCM), Skeletal Muscle Mass Index (SMI) and etc.

Research Parameters		
Intracellular Water	29.0 l	(24.6~30.0)
Extracellular Water	17.4 l	(15.0~18.4)
Basal Metabolic Rate	1741 kca	l
Waist-Hip Ratio	0.81	(0.80~0.90)
Body Cell Mass	41.5 kg	(35.2~43.0)
SMI	8.5 kg/m <sup>2</sup>	

Intra/Extracellular Water shows the amount of water within and outside of the body cells. For healthy people, ICW:ECW ratio is normally 3:2. Thus, it is important to see ECW ratio rather than focusing on an absolute value. BMR is the number of calories you need in order to maintain their basic essential functions.

Along with BMR, BCM can be used to guide your clients' nutritional plans. BCM is the total mass of all cellular elements in the body, which constitutes all metabolically active tissues of the body. It includes the ICW and protein, which are the main components of muscle. BCM does not include ECW, so it can be used to see muscle mass status in patients with edema.

Lastly, SMI can be obtained by dividing Appendicular Muscle Mass with Height(m)<sup>2</sup>. Using the SMI value (parameter), you can diagnose sarcopenia and monitor nutritional status.

EXTRAS FOR THIS SECTION ON THE INBODY BLOG	
<sup>.</sup> How To Use BMR To Hack Your Diet	Read
Your Metabolism and Your Body Composition	Read



# UNLOCKING THE POWER OF THE RESULTSHEET

# **CASE STUDY#1**

Member **Retention** Chuze Fitness



"

It's something I know is going to keep the members there because now they have a tool that's going to allow them to track their progress."

**Corey Brightwell** Co-founder, Chuze Fitness



"



In this section, you'll learn:

 How tracking members with the Body Composition History added significant value to existing programs
 How the Result Sheet became a vehicle for member retention
 How the Result Sheet allowed for **new member retention strategies**, like competitions

W hat started off as a simple need to track results became much, much more.

Business was booming for Chuze Fitness, and the Team Training group exercise classes were rapidly becoming one of the most popular draws for members.

However, this new volume of members presented Cory Brightwell, Chuze Fitness' co-founder, with a new problem: how was he doing to reliably track progress for all the participants?

Already, Chuze had made the conscious decision to step away from using traditional body weight scales. Brightwell wanted to break people's fixation with body weight and remove what can be a discouraging barrier for people's motivation.

So, he brought in an InBody 570. The results were immediate.

"The InBody for us was a simple, easy-to-use tool for members. All they have to do is come up with their workout clothes, take their shoes and socks off, stand it for a couple minutes and boom, they've got it, they're done," said Brightwell. Tracking the progress for Chuze members became a breeze, and the detailed information on the InBody result sheet proved to be a lure for the members. Chuze's members began wanting to know the impact all their hard work at Chuze was having on their bodies. Were they losing body fat like they planned? How much muscle had they gained over the past month? These questions kept the members engaged with their fitness-and coming back to Chuze, month after month.

"It's a huge retention tool. It's something I know is going to keep the members there because they now have a tool that's going to allow them to constantly track their progress, and that's huge," remarked Brightwell.

However, the ability to track progress proved to be only part of the draw. Over time, Brightwell found another keep his membership engaged with his InBody device: body composition challenges. Similar to traditional weight loss challenges, Brightwell created a program to challenge his members to improve their body composition in what became known as "Chuze to Lose" competitions.

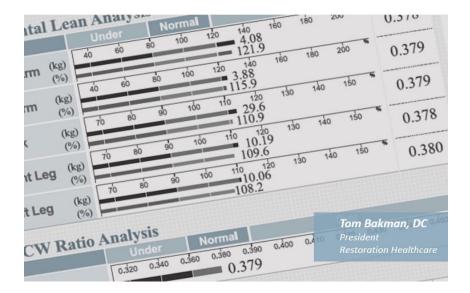
The combination of member retention and engagement proved to be essential for Chuze Fitness as they open new locations. Now, if there is Team Training, Brightwell ensures that there's an InBody there to track and push his members forward towards their goals.

WATCH VIDEO: CHUZE FITNESS





Validating Services with data-driven decisions Restoration Healthcare



4

I started in my mind putting it in a business model. If it helped people realize data to make decisions, that worked better for us. If it helped them keep compliant, it was better for us. "

Dr. Tom Bakman President, Restoration Healthcare



### In this section, you'll learn:

How body composition data can reveal root causes to complex issues
 How tracking Visceral Fat Area and Phase Angle data can improve patient health
 How data-driven decision making validates and solidifies a medical practice

hen it comes to medical care, patients care only about one thing: results. They want to feel that their doctor understands them and that the prescriptions and programs they provide are having an impact on their conditions.

Dr. Tom Bakman acutely recognizes this demand. "People want to see truth. In the world we live in right now, they want to be able to base decisions on something that's truthful and data-driven," said Bakman. "So, the more data that we can give them and help them understand the data, it empowers them to make better decisions as far as their healthcare."

Bakman uses the InBody 770 at the functional medical group he founded, Restoration Healthcare. Originally, he believed that he would use it only for weight loss. "Now," said Bakman, "we use it for every single patient that comes in the office."

The body composition data that the Result Sheet gives Bakman allows him to find root causes to problems so he can prescribe better treatments. When athletes, particularly runners, come to Bakman with issues, he relies on the Segmental Lean Analysis to discover muscle imbalances. If the data reveals that one leg is less developed than the other, Bakman can prescribe appropriate therapies to correct it.

Bakman also finds significant value in the Visceral Fat and Phase Angle Data provided by the InBody 770 Result Sheet. He recalled a particular patient who came in with a whole host of issues, including anxiety. When he tested his patient and showed him the results, it was "a cold reality check" for him, as Bakman put it.

"His visceral fat area was off the chart; he was highly inflamed. His Phase Angle was low. He was at 35% body fat," Bakman remembered. After identifying these issues with the InBody, Bakman put his patient on a biodentical hormone therapy program and counseled him to on lifestyle changes he could make. When he retested his patient three months later, the data revealed that Bakman's prescriptions were working: 9 pounds of gained Lean Body Mass, a 5% reduction in body fat, and a 40% reduction in Visceral Fat Area.

"Youthinkthisguy'shappy?" saidBakman. "He'sincrediblyhappyanditwasn'tuntil we got the data for him to show it."

These data-driven solutions have built Bakman's reputation in the highly competitive Southern California medical market. Bakman uses the InBody data to partner with his patients and show the impact his prescriptions have. That's solidified his role and helped his practice grow.

WATCH VIDEO: RESTORATION HEA LTHC ARE



# CASE STUDY#3

GrowingYour Membership NASA Johnson Space Center/Starport Services



The machine has proven itself. It's passed the 'NASA test' from a trust standpoint.



### Evan Thoman

Employee Wellness Manager, NASA Johnson Space Center



In this section, you'll learn how NASA JSC:

<sup>.</sup> Created excitement for the corporate wellness program

- <sup>·</sup> Created that excitement using the Result Sheet
  - ' Saw a **48.6% increase** in enrollment in one year

he NASA Johnson Space Center's corporate wellness program is called "Starport Services." Their central mission is to support the health and wellness of the NASA Johnson Space Center's 11,000+ member workforce, which includes NASA government employees and contractors.

In order to get more people signed up at Starport Services, Employee Wellness ManagerEvanThoman**needed to get his workforce excited about improving their physical fitness**. That's where the InBody Result Sheet came into play.

However, before he could get his workforce excited, he had to get them educated.

Thoman launched a series of "Know Your Numbers" campaigns for the workforce that taught the important body composition metrics like Percent Body Fat, Lean Body Mass, Skeletal Muscle Mass, Basal Metabolic Rate, etc.

Once his workforce was able to understand the basics of body composition and how it applied to them, all that was left to do was to get people tested and their Result Sheets printed.

Once a few people had their Result Sheets, the news spread like wildfire in the Johnson Space Center. The Result Sheet **became part of a word-of-mouth campaign**, selling itself over and over again and getting more people excited to test and get involved in the program.

"People who had never, ever planned on having an assessment done...all of the sudden saw this results page that their co-workers were passing around and saw all of the data that it presented, and **then suddenly became every interested and wanted to start tracking their own metrics**," Thoman said.

With help from his InBody, Starport Services enrollment grew from 2,800 in January to 4,280 by December – **a 48.6% increase** in just one year. Thoman found that the more educated his workforce became and the more people he was able to get tested, the more people would get excited and encourage their friends to come for a test themselves. **That helped him grow the wellness program**.

**READ MORE** 

## InBody

### WE CAN HELP YOUR BUSINESS GROW

#### LET'S TALK.

You can improve your business by improving your services, inspiring your current members to stay with you, and build your reputation.

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