CADENCE

InBody Composition Analyser:

READING THE RESULTS

Throughout the Summer the Cadence Peformance team have been attending cycling events across the country with our InBody Composition Analysis Machine. At times queues of up to 20 mins have formed with cyclists desperate to find out 'what they're really made of.' But now that you've been armed with this information what does it all actually mean? How can this knowledge help you? Regularly monitoring body fat and muscle development can help you understand how your diet, lifestyle, and exercise regimens influence your body composition. Knowing what's working for you can help you target and reach your fitness goals in the long term. We've outlined below what a number of the terms on your results page refer to.

NORMAL RANGES

This column is next to the one that displays your personal readings. The normal ranges have been established by analysing national averages and determining what is optimal from a health perspective. Although being super lean might be great for your race times it might not be ideal when it comes to supporting your body to complete its core functions.

WEIGHT

Is of course dependent on body shape and size. Not everyone's physiology lends itself to climbing mountains and likewise not everyone can be a power house on the flats. But most cyclists know that when they're going uphill their power to weight ratio is key. So spending thousands of pounds of super light bikes is all well and good but the few ounces saved on that beautiful carbon frame will be totally negated if you're carrying a spare tyre….or two round your midrif.

SKELETAL MUSCLE MASS

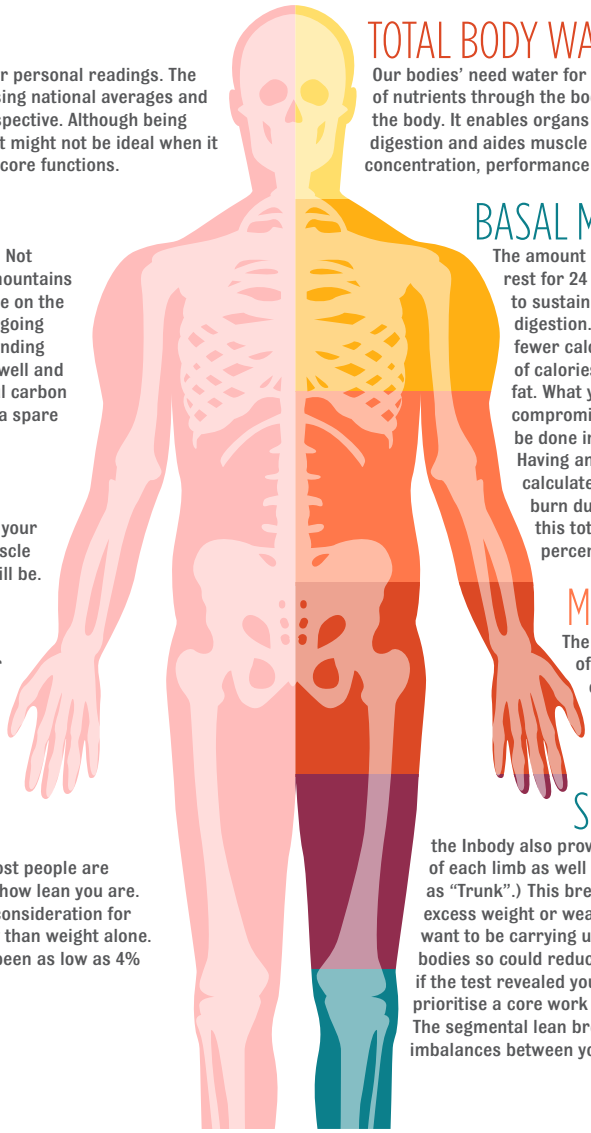
This is the total amount of muscle contained in your body. It sounds obvious but the higher your muscle mass the lower the percentage your body fat will be.

BODY FAT MASS

This is the total amount of fat contained in your body. A number of people we've measured are within the normal range for Body Fat Mass but due to their low Skeletal Muscle Mass their Percentage Body Fat is outside of the normal range for Body Fat Percentage.

PERCENTAGE BODY FAT

This is a headline figure that we tend to find most people are anxious to learn about. This figure reveals just how lean you are. Body Fat Percentage is also a more important consideration for health professionals in the diagnosis of obesity than weight alone. Out of interest Bradley Wiggins is said to have been as low as 4% body fat when competing in the tour.



TOTAL BODY WATER PERCENTAGE

Our bodies' need water for a number of reasons. Water helps in the movement of nutrients through the body and in the expelling of waste products from the body. It enables organs to function, regulates body temperature, assists digestion and aides muscle performance. Optimum hydration levels improve concentration, performance and all round well-being.

BASAL METABOLIC RATE

The amount of energy your body would use if it were at complete rest for 24 hours. It is the minimum amount of energy required to sustain your vital organs and body functions excluding digestion. We all know it's a simple formula to lose weight. Eat fewer calories than you use and you will burn stored reserves of calories. Ideally those reserves will be made up of body fat. What you don't want to do is lose muscle as that could compromise your performance. So any weight loss should be done in a controlled fashion to prevent muscle wastage. Having an exact BMR figure is very useful as you can then calculate and add to it the exact number of calories you burn during your daily activity. Each day a small deficit off this total can be targeted until you hit your target body fat percentage.

MUSCLE & FAT CONTROL

The "Muscle and Fat Control" figures present the amount of weight required to move you back into the middle of the normal ranges. The normal ranges are based on the general population and might not be ideally suited to achieving optimum performance in your preferred sport.

SEGMENTAL LEAN & FAT

the Inbody also provides a breakdown of the muscle and fat content of each limb as well as your core area (it's referred to on the sheet as "Trunk".) This breakdown is very helpful in identifying where your excess weight or weakness might be. For example most cyclists don't want to be carrying unnecessary amounts of muscle on their upper bodies so could reduce their weights regime if this is the case. Conversely if the test revealed you're under developed centrally you may want to prioritise a core work out each week instead of squeezing in another ride. The segmental lean breakdown can also help identify or confirm muscle imbalances between your left and right limbs.

HOW DOES IT WORK?

One question that cropped up a lot was how does the device work?

It sends tiny electrical impulses through the body and times how quickly those impulses take to return. Lean muscle tissue conducts electricity faster than fat, so a quicker response time correlates with a leaner physique.

Unlike simple bathroom scales the Inbody Machine takes measurements via eight locations on the body to ensure precision. It also uses multiple frequencies and generates results with a far higher degree of accuracy because single, low frequency electrical currents find it difficult to penetrate cell membranes and assess intracellular water.

For consistent results test conditions should be kept the same from test to test i.e. if you measured yourself after eating breakfast and pre-exercise you should replicate these conditions if you have a follow up test in order to be able compare results.

Remember if you have a health concern of any kind consult with your health care professional. You should also consult with a healthcare professional before starting any diet, exercise, supplementation or medication programme. Statements by Cadence Performance are not intended to diagnose, treat, cure, or prevent disease. Information presented by Cadence Performance is for educational purposes only and is not meant to substitute for the advice of a doctor or other medical professional.

Cadence Performance will be providing InBody Composition Analysis tests (worth up to £40) at events around the country in 2016/17 and we'll email you details of what events we'll be attending so you can come back and compare your results.