



UNDERSTANDING YOUR BODY COMP (DEXA) REPORT

Body composition analysis using a DEXA machine is the most accurate way to truly understand your current physical health and track the impact different lifestyle changes can have on your body. This document will walk you through the important measurements on your body comp report. We believe that your body composition data is a health vital sign, much like your blood pressure and temperature, that should be repeated once per year (or every 6 months if losing weight).

DEFINITIONS

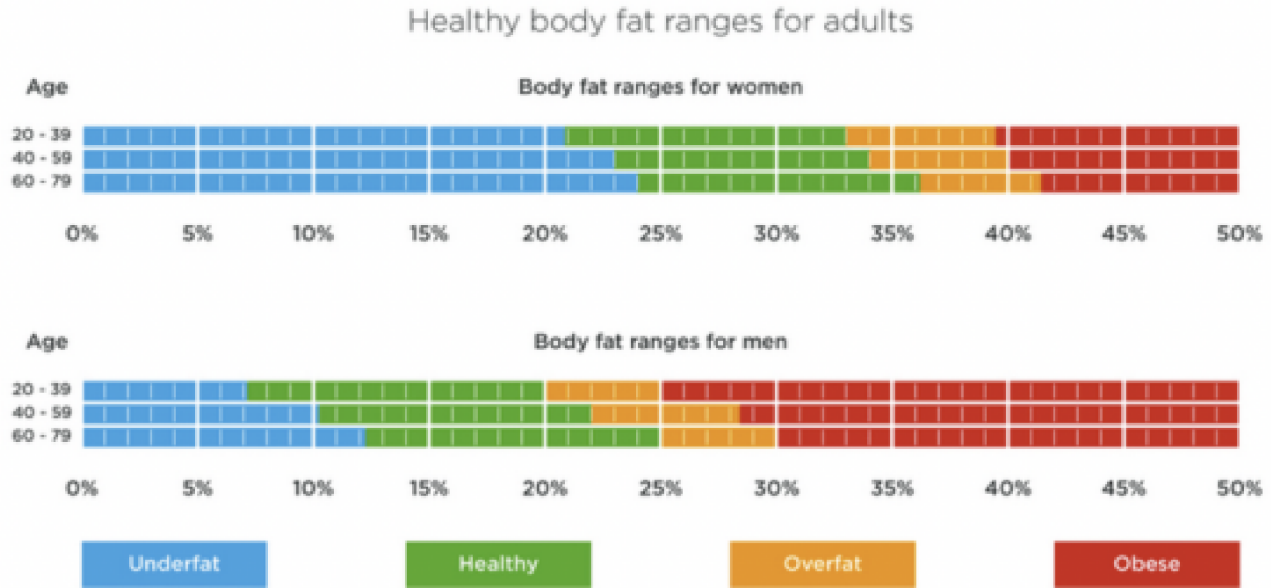
Trend: Total										
(e) - Estimated Measured Date	Age (years)	Tissue ¹ (%Fat)	Centile ^{2,3}	Total Mass (lbs)	Region (%Fat)	Tissue ¹ (lbs)	Fat ¹ (lbs)	Lean ¹ (lbs)	BMC (lbs)	Fat Free (lbs)
4/10/2023	61.4	23.0	36	167.7	22.1	161.29	37.06	124.24	6.40	130.63
1/3/2023	61.1	22.5	32	167.8	21.7	161.48	36.34	125.15	6.34	131.49
(e) 8/22/2022	60.7	20.2	17	166.6	19.4	160.29	32.37	127.92	6.28	134.20
5/11/2022	60.5	28.0	76	173.5	26.9	166.75	46.71	120.03	6.71	126.74

The above is a perfect example of the importance of knowing your muscle:fat ratio and tracking your data over time. It shows a client with 4 readings over a 1 year time frame. You can see that this person lost 6lbs of weight (total mass) but really lost 9.5lbs of fat (fat mass) while gaining 4lbs of muscle (lean mass) — great work!

- Total Mass = your weight on the DEXA machine, clothes included
- Fat mass = amount of fat, given as both a percentage and as a weight in pounds
- Tissue %Fat = %Fat compared to the weight of just the soft tissue in the body
- Region %Fat = %Fat of your entire body, including the skeleton (our preferred metric)
- Tissue (lbs) = weight of lean mass + fat mass (BMC removed)
- Lean Mass = weight of your muscles + organs + skin + water content
- BMC = Bone Mineral Content, the weight of your bones
- Fat Free Mass = Lean mass + BMC (muscle mass + skin/organ weight + water content + bones)

BODY FAT

We all know that your weight on a scale says nothing about your overall health — you can be overweight and healthy or thin and very unhealthy. Rather, it's the amount of fat on your frame and how that fat is distributed on your body that best correlates with health. Knowing your body fat percentage is also a very important measure to track during weight loss, as you want to focus on losing just fat mass, not muscle mass. Normal/optimal body fat percentages vary by age, sex, and your desired goals.



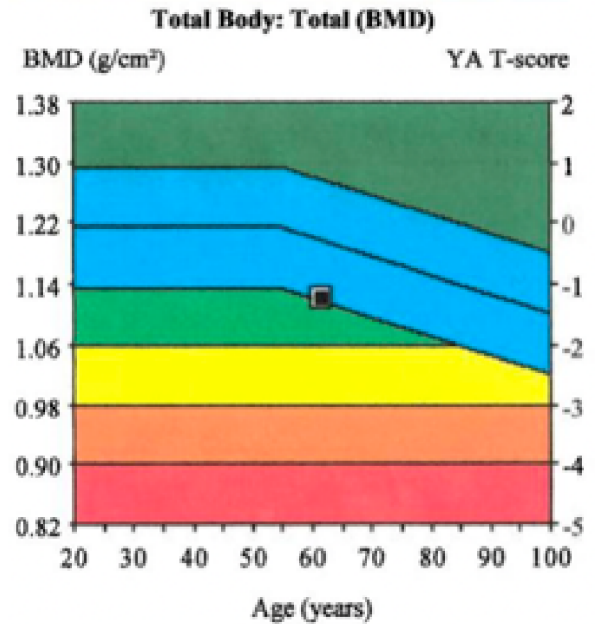
ANDROID/GYNOID (A/G) RATIO

This ratio is looking at how body fat is distributed between your abdomen (android) and hips/ buttock (gynoid). For both men and women, you want more body fat around the hips than the abdominal region of your body (the ratio will be <1). Abdominal obesity is highly correlated with an increase in visceral fat, fat that is found around the organs in your abdomen. This type of fat is very inflammatory, increasing the risk of heart attacks, strokes, type 2 diabetes, dementia, organ failure, and cancer. Since our machine cannot measure visceral fat directly, knowing your A/G ratio is the next best measurement. A higher A/G ratio suggests higher visceral fat content.

OPTIMAL RATIO	
Men	< 1.0
Women	< 0.8

BONE MASS

As you age, your bones will naturally become thinner and weaker. If your bones become too thin, then you develop a medical condition called osteoporosis. Having osteoporosis increases the risk of bone fracture (hip fractures are the worst type), which diminishes your quality of life, and is the leading cause of injury-related death in adults >65yrs old. Therefore, maintaining dense bones is key to a longer, vibrant life. The “T-Score” is your bone health compared to a 25 year old person (the ‘optimal’ bone health age). The “Z-Score” is your bone health compared to people your age.



On the body comp graph, you want to be in the top half of the blue area or higher.

RESTING METABOLIC RATE (RMR)

This is calculated using your fat free mass (lean mass + BMC) and tells us roughly how many calories you burn in a day just to stay alive. RMR increases with more muscle mass, which is important if you are trying to lose weight or maintain your weight loss. You can use the following information to calculate your TDEE (total daily energy expenditure) or use an online calculator (<https://legionathletics.com/tools/tdee-calculator/>).

Activity Level	Factor	Definition of Activity Levels	
Sedentary	1.2	Sedentary	little or no exercise
Light	1.375	Light	light exercise/sports 1-3 days per week
Moderate	1.55	Moderate	moderate exercise or sport 3-5 days per week
Very	1.725	Very	hard exercise or sport 6-7 days per week
		Extreme	very hard exercise/sports and physical job

RELATIVE SKELETAL MUSCLE INDEX (RSMI)

This measurement is a good way to assess how much muscle you have based on your frame size and allows us to gauge your risk of sarcopenia, or low muscle mass. Sarcopenia is a major problem, especially as we age, affecting our ability to walk, maintain balance, and perform activities of daily living.

Relative Skeletal Muscle Index (RSMI)		
Women	Men	
>9.0	>11.0	Athlete
8.0-9.0	10.0-11.0	Fitness
7.0-8.0	9.0-10.0	Healthy Normal
5.45-7.0	7.26-9.0	Low Muscle Mass
<5.45	<7.26	Sarcopenia

In order to have a vibrant life as we age, we must maintain adequate muscle mass.

I hope this was a helpful walkthrough of your body composition report. If you are interested in deeper health engagement through our precision health program or additional offerings by our health coaches, please go to our website www.authentichealth.com to learn more.

The Team at Authentic Health