

Body Weight, Composition, and Health



What is Body Composition?

Your body is made up of fat mass (fat) and fat-free mass (muscle, bone, organs, blood, fluids, etc.). The terms *fat-free mass* and *lean body mass* are often used similarly but, lean body mass consists of muscle mass alone.

Can I Control my Body Composition?

Body composition is influenced by *uncontrollable* factors such as age, sex, heredity, and stature and *controllable* factors such as energy intake and expenditure. The goal of weight loss is to lose excess fat while retaining muscle. For weight management, it is important to focus not just on food intake but fitness as well because physical activity, including strength/resistance training, has the greatest impact on maintaining a healthy body composition and metabolism.

Why is Muscle so Important?

Maintaining a body composition with an optimal fat-free mass (muscle, etc.) to fat-mass ratio (see bottom of page) provides health and weight management benefits. Muscle mass can help maintain your physical strength and movement throughout life. Muscle mass also uses more of the body's energy (calories) compared to fat mass which increases your resting metabolic rate.

Does Building Muscle make You Gain Weight?

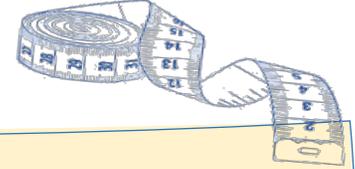
Muscle weighs more, has a defined shape, and takes up less space in the body compared to fat. Because of this, as muscle mass is increased and fat mass is decreased, your body shape can improve while the number on the scale may stay the same or slightly increase. Weight and BMI can be good initial indicators of fat mass, but these are better used along with other indicators such as % fat-free mass and % fat mass, body measurements, and clothing size changes. Without these other indicators, weight gain can be assumed to be an increase in fat mass when in fact, if you have been exercising, it can be muscle mass.

What is an Optimal Fat-Free Mass to Fat-Mass %?

Females: 70% - 82% Fat-Free Mass / 18% - 30% Fat Mass

Males: 75% - 90% Fat-Free Mass / 10% - 25% Fat Mass

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How Can I Measure Body Composition?

Along with completing your pre and post SECA body composition test and body measurements within the *Full Meal Replacement Program*, regularly weighing yourself on a scale, knowing your body mass index (BMI), and taking your body measurements such as waist circumference and waist-to-hip ratio with a soft tape measure can all be good tools to monitor body composition.

Do I Need to Measure my Waist Circumference?

Waist circumference or the waist-to-hip ratio can also be good indicators of abdominal obesity and chronic disease risk. Excess abdominal fat increases the risk of unhealthy metabolic changes and chronic disease development such as non-alcoholic fatty liver disease, cardiovascular disease, diabetes, metabolic syndrome, stroke, and some cancers.

What is an Optimal Waist Circumference?

Females: < 35 inches **Males:** < 40 inches

What is an Optimal Waist-to-Hip Ratio?

Females: < 0.85 **Males:** < 0.9

Use the *My Measurements Tracker* on the following pages to stay on track of your body weight and shape goals.

My Maintenance Measurements Tracker: Weight Chart

Maintenance Starting Weight: _____ lbs.

Week	Current Weight	Weight Change (Starting Weight – Current Weight)	Weight Change	Notes About Weight Change
Example 2	148 lbs.	150 lbs. - 148 lbs. = + (-) 2 lbs.	Increase / decrease / same	<i>I filled up on veggies, took my lunch to work, and walked for 300 minutes!</i>
1	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
2	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
3	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
4	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
5	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
6	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
7	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
8	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
9	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	
10	_____ lbs.	_____ lbs. - _____ lbs. = + / - _____ lbs.	Increase / decrease / same	

Total Weight Change (week 1 starting weight – week 10 ending weight): _____ lbs.

Body Weight Goal(s): _____

My Maintenance Measurements Tracker: Body Mass, Composition, and Measurements

Body Mass Index (BMI)

BMI (Pre-Program): _____ BMI (Post-Program): _____ Difference: + - _____

BMI Table

BMI	Possible Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal or Healthy Weight *Optimal Range
25.0 – 29.9	Overweight
30.0 – 39.9	Obese
Above 40.0	Severely Obese

BMI is an initial indicator of weight status based on height and weight but does not indicate body composition. For example, an individual can be in the **Underweight or **Healthy Weight** category and have a high fat-mass compared to healthy fat-free mass (tall, sedentary individuals). Or, an individual can be in the **Overweight** or even **Obese** category and have a high fat-free mass compared to unhealthy fat mass (short, body builders).*

BMI Goal(s): _____

Body Composition

Fat-Free Mass (Pre-Program): _____% Fat-Free Mass (Post-Program): _____% Difference: + - _____%

Fat Mass (Pre-Program): _____% Fat Mass (Post-Program): _____% Difference: + - _____%

Optimal %: Females: 70% - 82% Fat-Free Mass / 18% - 30% Fat Mass Males: 75% - 90% Fat-Free Mass / 10% - 25% Fat Mass

Body Composition Goal(s): _____

Body Measurements

Waist Circumference (Pre-Program): _____ in. Waist Circumference (Post-Program): _____ in. Difference: + - _____ in.

Waist-to-Hip Ratio (Pre-Program): _____ in. Waist-to-Hip Ratio (Post-Program): _____ in. Difference: + - _____ in.

Optimal Waist Circumference: Females: < 35 inches Males: < 40 inches

Optimal Waist-to-Hip Ratio: Females: < 0.85 Males: < 0.9

Body Measurement Goal(s): _____