

Body Composition Tests

Make an appointment with us to have all these tests done and more. See the **Self Tests Below** that you can do on yourself.

Height & Weight with Frame Size

We can help you determine your Frame Size

Height	Female	Male
	Frame Size Small • Medium • Large	Frame Size Small • Medium • Large
5' 0"	90 • 100 • 110	95 • 106 • 117
5' 1"	95 • 105 • 116	101 • 112 • 123
5' 2"	99 • 110 • 121	106 • 118 • 130
5' 3"	104 • 115 • 127	112 • 124 • 136
5' 4"	108 • 120 • 132	117 • 130 • 143
5' 5"	113 • 125 • 138	122 • 136 • 150
5' 6"	117 • 130 • 143	128 • 142 • 156
5' 7"	122 • 135 • 149	133 • 148 • 163
5' 8"	126 • 140 • 154	139 • 154 • 169
5' 9"	131 • 145 • 160	144 • 160 • 176
5' 10"	135 • 150 • 165	149 • 166 • 183
5' 11"	140 • 155 • 171	155 • 172 • 189
6' 0"	144 • 160 • 176	160 • 178 • 196
6' 1"	149 • 165 • 182	166 • 184 • 202
6' 2"	153 • 170 • 187	171 • 190 • 209
6' 3"	158 • 175 • 193	176 • 196 • 216
6' 4"	162 • 180 • 198	182 • 202 • 222
6' 5"	167 • 185 • 204	187 • 208 • 229

Knowing your frame size will help you set realistic weight loss goals. We do not all have the same size of frame; some people have a smaller and lighter frame, while others will possess a heavier build. As such, if you have a large frame size you cannot expect to weigh the same as someone with a small frame.

BMI-Body Mass Index

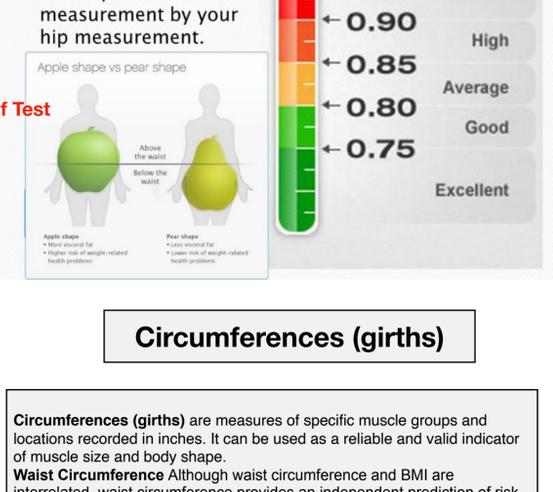
BMI-Another widely used way to determine body composition is through body mass index (BMI) (a ratio of weight to height). It is a commonly used, but flawed measure. Many who strength train, play sports, have big bones, or who are very muscular can have body weights way beyond the ideal height and weight range and can have high BMI values, which may classify them as obese. This classification may be wrong due to the presence of high levels of lean tissue. There are some people who have ideal weights and BMI, but have high levels of body fat with low levels of lean tissue. There are also some ethnic groups who have lower BMI standards (see below). **Self Test**- Therefore BMI does not work for all. Here is a link to determine your frame size.



WHR-Waist to Hip Ratio

Pear versus Apple Shaped-What shape are you? People who have metabolic syndrome typically have apple-shaped bodies, meaning they have larger waists and carry a lot of weight around their abdomens. It's thought that having a pear-shaped body — that is, carrying more of your weight around your hips and having a narrower waist — puts you at a lower risk of developing diabetes, heart disease and other complications of metabolic syndrome.

Waist to Hip Ratio (WHR) has been found to be a more efficient predictor of mortality in older people (>75 years of age) than waist circumference or BMI. If obesity is redefined using WHR instead of BMI, the proportion of people categorized as at risk of heart attack worldwide increases threefold. The body fat percentage is considered to be an even more accurate measure of relative weight. Of these three measurements, only the waist-hip ratio takes account of the differences in body structure. Hence, it is possible for two women to have vastly different body mass indices but the same waist-hip ratio, or to have the same body mass index but vastly different waist-hip ratios. WHR has been shown to be a better predictor of cardiovascular disease than waist circumference and body-mass index. However, other studies have found waist circumference, not WHR, to be a good indicator of cardiovascular risk factors, body fat distribution, and hypertension in type 2 diabetics.



Circumferences (girths)

Circumferences (girths) are measures of specific muscle groups and locations recorded in inches. It can be used as a reliable and valid indicator of muscle size and body shape.

Waist Circumference Although waist circumference and BMI are interrelated, waist circumference provides an independent prediction of risk over and above that of BMI. Waist circumference measurement is particularly useful in patients who are categorized as normal or overweight on the BMI scale. At BMIs of 35, waist circumference has little added predictive power of disease risk beyond that of BMI. It is therefore not necessary to measure waist circumference in individuals with BMIs 35.

Risk	MEN	WOMEN
Very Low	< 31.5	< 28.5
Low	31.5-39	28.5-35
High	39.5-47	35.5-43
Very High	>47	>43
Asians Risk	>35	>31.5
Health Coach Goal	<35	<32.5



Self Test

Incorrect. Waist circumference is NOT the narrowest part of the waist.

Correct. Measure your waist at the level of the belly button.

% Body Fat- Lean and Fat Weight

% Body Fat Many who strength train, play sports, have big bones, or who are very muscular can have body weights way beyond the ideal height and weight range and can have high BMI values, which may classify them as obese. This classification may be wrong due to the presence of high levels of lean tissue. There are some people who have ideal weights and BMI, but have high levels of body fat with low levels of lean tissue.

Most fitness professionals therefore believe a better way of measuring body composition is through determining percent body fat, a measure of fat and lean weight. FitTec uses the skinfold technique to estimate percent body fat. This procedure has a low margin of error in estimating body fat. Specific measures of skinfolds are very reliable and tell individuals where there maybe specific problems.

Average % body fat levels for men and women in their twenties are 15% and 25%, where a healthy range for those in their thirties is between 6-21% for men and 15-25% for women. There are three classifications presented (J&P, Lohman, and Ace). I prefer the J&P over the ACE & Lohman since it is more specific.

Through a calculation we can estimate a suggested goal weight for a projected goal % body fat. This goal weight is most likely the best suggested goal weight for you. Someone starting a conditioning program should expect to gain 5 to 10 lbs. of lean weight due to the addition of muscle. The addition of muscle will enhance your appearance and improve your performance.

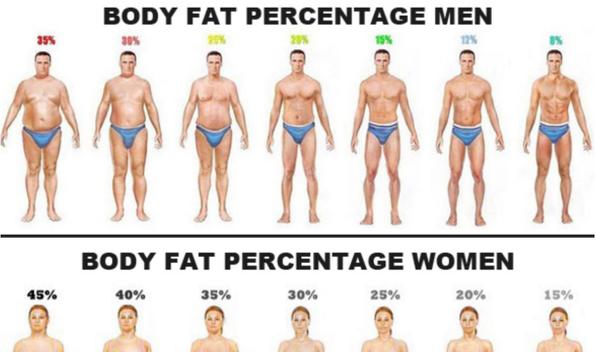
Make an appointment with us to have your body fat taken. We use a skinfold caliper measure. A Skinfold is a measure of subcutaneous fat taken at specific points across the body using a skinfold caliper. The measures are taken in millimeters. These measures are also used to determine site specific improvements. In other words if you lose millimeters off your abdomen that means you loss fat since skin thickness stays the same.



Self Test- Pinch an Inch
Test-if you can pinch more than 25.4 mm an inch you're at risk

ACE Body Fat % Chart		
Description	Women	Men
Essential Fat	10-13%	2-5%
Athletes	14-20%	6-13%
Fitness	21-24%	14-17%
Average	25-31%	18-24%
Obese	32%+	25%+

Lohman % Body Fat Classification		
Classification	Male	Female
Lean	< 8 %	< 13 %
Optimal	8-15 %	13-20 %
Slightly Overfat	16-20 %	21-25 %
Fat	21-24 %	26-32 %
Obese	> 25 %	> 32 %



Lean Mass Index or Fat Free Mass Index

If we know your body fat percentage we can determine your Lean Mass Index or Fat Free Mass Index

The lean mass index or fat free mass index is an index that takes into account the amount of muscle mass a person is carrying and divides it by height. It is an indicator of muscle mass and used for comparison. A study of elite athlete (some admitted steroid users and some not) combined with an analysis of 20 Mr. America contest winners from the 1939-1959 pre-steroid era, determined that a fat free mass index of 25 is pretty much an upper limit for someone who does not use steroids. A fat free mass of 19 is the average for males.

- Norms for FFMI in Men:**
- 16-17 = Well below average (< = 20th percentile)
 - 18-19 = Average (25-50th percentile)
 - 20 = Above Average (50-75th percentile)
 - 21 = Well above average (75-90th percentile)
 - 22 = Excellent (95th percentile)
 - 23-25 = Superior [Off the charts for normal adult men (Schutz et al., 2002)]
 - 28-29 = It is possible but very unlikely to reach this level Naturally as research and science have clearly shown NO non-steroid users have ever gotten higher than 28.
- Norms for FFMI in Women:**
- 15-17 = Well below average (< / - 20th percentile)
 - 17-18 = Average (25-50th percentile)
 - 19 = Above Average (50-75th percentile)
 - 20 = Well above average (75-90th percentile)
 - 21 = Excellent (95th percentile)

