What is BMI?

Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI is a fairly reliable indicator of body fatness for most people. However, BMI does not measure body fat directly.

How is BMI calculated?
The calculation is based on the following formulas:

<table>
<thead>
<tr>
<th>Measurement Units</th>
<th>Formula and Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilograms and meters (or centimeters)</td>
<td>Formula: weight (kg) / [height (m)]^2</td>
</tr>
<tr>
<td></td>
<td>With the metric system, the formula for BMI is weight in kilograms divided by height in meters squared. Since height is commonly measured in centimeters, divide height in centimeters by 100 to obtain height in meters.</td>
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<td></td>
<td>Example: Weight = 68 kg, Height = 165 cm (1.65 m)</td>
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<td></td>
<td>Calculation: 68 ÷ (1.65)^2 = 24.98</td>
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<tr>
<td>Pounds and inches</td>
<td>Formula: weight (lb) / [height (in)]^2 x 703</td>
</tr>
<tr>
<td></td>
<td>Calculate BMI by dividing weight in pounds (lbs) by height in inches (in) squared and multiplying by a conversion factor of 703.</td>
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<td></td>
<td>Example: Weight = 150 lbs, Height = 5'5&quot; (65&quot;)</td>
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<tr>
<td></td>
<td>Calculation: [150 ÷ (65)^2] x 703 = 24.96</td>
</tr>
</tbody>
</table>

How do I measure up?
Calculate your BMI using the above formulas and determine which category you are in.

<table>
<thead>
<tr>
<th>BMI</th>
<th>Weight Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5 – 24.9</td>
<td>Normal</td>
</tr>
<tr>
<td>25.0 – 29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>30.0 and Above</td>
<td>Obese</td>
</tr>
</tbody>
</table>

If an athlete or other person with a lot of muscle has a BMI over 25, is that person still considered to be overweight?

- Anyone with a BMI over 25 would be classified as overweight and anyone with a BMI over 30 would be classified as obese.
- It is important to remember, however, that BMI is not a direct measure of body fatness and that BMI is calculated from an individual's weight which includes both muscle and fat.
As a result, some individuals may have a high BMI but not have a high percentage of body fat. For example, highly trained athletes may have a high BMI because of increased musculature rather than increased body fatness.

It is also important to remember that weight is only one factor related to risk for disease. If you have questions or concerns about the appropriateness of your weight, you should discuss them with your healthcare provider or meet with a Registered Dietitian.

**What's the harm in having a BMI greater than 25 (overweight)?**

Being overweight or obese increases your risk of many diseases and health conditions including:

- Hypertension
- Dyslipidemia (high LDL cholesterol, low HDL cholesterol, or high levels of triglycerides)
- Type 2 diabetes
- Coronary heart disease
- Stroke
- Gallbladder disease
- Osteoarthritis
- Sleep apnea and respiratory problems
- Some cancers (endometrial, breast, and colon)

**If you are overweight or obese consider meeting with a Registered Dietitian or health care provider for guidance in diet modifications and lifestyle changes to help you achieve a healthy weight for you.**

**What's the harm in having a BMI less than 18.5 (underweight)?**

Underweight individuals are at increased risk for many health conditions including:

- Weakened immune system
- Amenorrhea (loss of periods in women)
- Bone loss, which increases the risk of fractures and may lead to Osteoporosis
- Malnutrition
- Dehydration

**If you are underweight consider meeting with a Registered Dietitian or health care provider to have an assessment of your nutritional status and health.**

**References**

- cdc.gov/healthyweight/assessing/bmi