

# How to Calculate and Plot BMI

## What is BMI?

Body mass index, or BMI, is an indirect measure of body fatness derived from height and weight. It can be used as a screening tool to identify children who may be at an unhealthy weight. In children and teens, BMI is dependent on age and gender and therefore must be plotted on a growth chart.

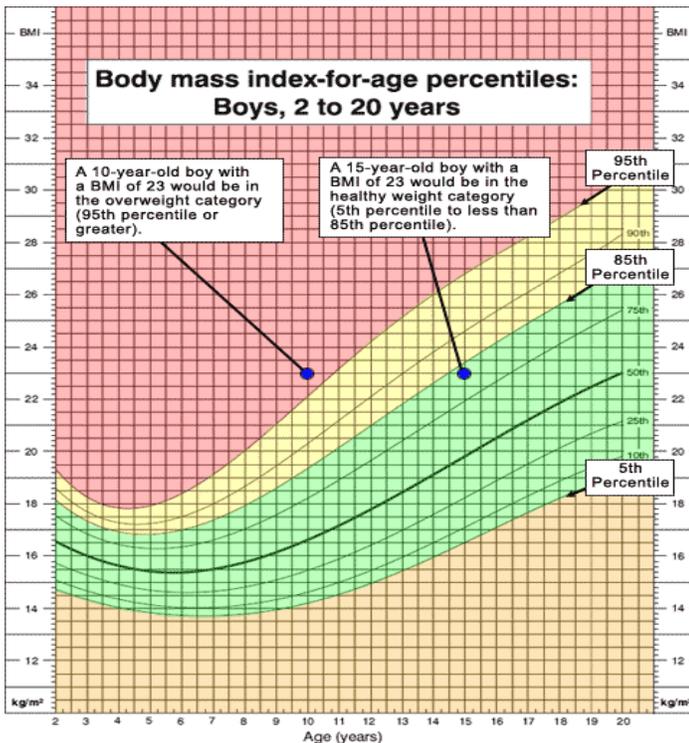
## How do I calculate BMI?

$$\text{Weight (kg)} \div \text{height (m)}^2$$

$$\text{Weight (lb)} \div \text{height (in)}^2 \times 703$$

## BMI-at-a-Glance Quick Reference Steps

1. Measure height and weight.
2. Calculate BMI.
3. Plot BMI on growth chart.
4. Assess BMI according to the outlined criteria.
5. Consider diet, physical activity, muscle, and other factors that may impact interpretation of BMI.



## Plotting BMI

BMI must be plotted on a sex-specific BMI for age growth chart. These charts are available from Centers for Disease Control and Prevention at [www.cdc.gov](http://www.cdc.gov). Compare this percentile to the categories below for weight status. Remember that BMI should not be the *only* factor in diagnosing underweight.

Weight status category	Percentile range
Underweight	< 5 <sup>th</sup> percentile
Healthy weight	5 <sup>th</sup> percentile to 85 <sup>th</sup> percentile
At risk of overweight	85 <sup>th</sup> to < 95 <sup>th</sup> percentile
Overweight	Equal to or greater than 95 <sup>th</sup> percentile

## Why do I need to plot BMI?

Unlike adults, children and teens' weight fluctuates by age and sex. Therefore, it is not possible to use the BMI cutpoints used for adults.



## When should I use BMI?

BMI should be calculated on all youth ages 2-20 at annual well-child check ups as part of regular growth monitoring. Weight status should not be 'eyeballed' or determined from height and weight charts used separately.