Example 1: Overweight Adult

Oliver is a 32 year old patient. Oliver is 5' 7" and weighs 232 lbs. Using the CDC Adult BMI Calculator and the estimate for IBW, find Oliver's BMI and his IBW.
http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/metric_bmi_calculator/bmi_calculator.html

IBW = 50 kg + (2.3 kg x every inch over 5 feet)
IBW = 50 kg + (2.3 kg x 7)
IBW = 66.1 kg

ABW = 232 lb x (1 kg/2.2 lb) = 105.5 kg

Oliver is calculated to have a BMI of 36.3 and is obese. Using the equation to calculate IBW, we found that Oliver's IBW is 66.1 kg and his ABW is 105.5 kg.

Example 2: Overweight Child

Jason is a 5 year old patient. Jason is 3'9" and weighs 51 lbs. Using the CDC BMI Percentile Calculator for Children and Teens and the McLaren method for calculating IBW, find Jason's BMI, his BMI classification, and his IBW.
https://nccd.cdc.gov/dnpabmi/Calculator.aspx

Jason is calculated to have a BMI of 17.7, which puts him in the 93nd percentile of BMI-for-age. He is considered overweight because he is between the 85th and 95th percentiles of BMI-for-age.

Using the McLaren method, we draw a horizontal line from the patient's height (45") to the 50th percentile of height. Then we draw a vertical line down to find the 50th percentile of weight for this 50th percentile of height. Then, we draw another horizontal line to find the IBW should be about ~20.2 kg or ~44.5 lbs.

For this example, the ABW is 23.2 kg whereas the IBW is approximately 20.2 kg.

Example 3: Obese Child

Austin is a 14 year old patient. At today's appointment, Austin was measured to be 5'2" and weighs 150 lbs. Using the CDC BMI Percentile Calculator for Children and Teens and the McLaren method for calculating IBW, find Jason's BMI, his BMI classification, and his IBW.
https://nccd.cdc.gov/dnpabmi/Calculator.aspx

Austin is calculated to have a BMI of 27.4, which puts him in the 96th percentile of BMI-for-age. He is considered obese because he is between the 95th and 99th percentiles of BMI-for-age.

Using the McLaren method, we estimate that his IBW should be approximately ~46.5 kg or ~102 lbs. For this example, the ABW is 68.2 kg whereas the IBW is approximately 46.5 kg.

To test how well you understand these methods and how long it takes you to calculate BMI, BMI classification, and IBW, test yourself with these example patients.

1. Liam is 12 years old, is 4'4" and 88 lbs.

BMI: _____ kg/m2   BMI Classification: _____   IBW: _____ kg

2. Richard is 42 years old, is 6'2" and weighs 242 lbs.

BMI: _____ kg/m2   BMI Classification: _____   IBW: _____ kg

3. Trevor is 16 years old, is 5'10" and weighs 180 lbs.

BMI: _____ kg/m2   BMI Classification: _____   IBW: _____ kg

4. Matthew is 19 years old, is 6'0" and weighs 201 lbs.

BMI: _____ kg/m2   BMI Classification: _____   IBW: _____ kg

5. Blake is 4 years old, is 3'3" and weighs 36 lbs.

BMI: _____ kg/m2   BMI Classification: _____   IBW: _____ kg

6. William is 20 years old, is 5'6 and weighs 153 lbs.

BMI: _____ kg/m2   BMI Classification: _____   IBW: _____ kg