



Measuring Height and Weight Using Scales and Headboards

Why is it important to collect Height and Weight?

- Height and weight can be used to calculate a person's Body Mass Index (BMI)
- A person's BMI can tell you whether they are within a normal weight range for their height, or if they are underweight or overweight
- It is important to have an ongoing record of resting heart rate to track health changes and progress towards Athlete's goals.

How do you measure someone's Height and Weight?

- Height
 - Ask the athlete to remove their shoes, bulky clothing, hats, backpacks and hair accessories that may interfere with the measurement.
 - Take the height measurement on flooring that is not carpeted and against a flat surface such as a wall with no molding.
 - Have the athlete stand with his/her back against the measuring surface.
 - Make sure the athlete stands with feet flat, comfortably together and against the measuring surface.
 - When possible, the head, shoulder blades, buttocks and heels should touch the measuring surface. Their arms should be hanging freely by the sides of their body, with palms facing the thighs if possible.
 - Make sure the athlete looks straight ahead and that the line of sight is parallel with the floor.
 - Use a flat headpiece (may also be called a headboard) to form a right angle with the wall and lower the headpiece until it firmly touches the top of the athlete's head.
 - If the Athlete is taller than the measurer, the measurer should ensure that they are able to read the measurements on the headpiece easily without craning their neck or standing on their toes. They may need to use a step stool to read measurements.
 - Ask the athlete to move out from under the headboard.
 - Lightly mark where the bottom of the headpiece meets the wall.
 - Record the height to the nearest 1/8th inch or 0.1 centimeter.
- Weight
 - Place the scale on firm flooring (such as tile or wood) rather than carpet.
 - Balance the scale at zero.
 - For digital scales: push the zero button if it does not self-zero.
 - For beam balance: move both weights left to zero before each use. If the scale does not balance at the midpoint, adjust the counterweight until it does.
 - Have the athlete remove shoes, heavy clothing, such as sweaters and jackets, fanny packs, backpacks, items from pockets (phone, wallet, coins, etc.), heavy jewelry, medals or sports equipment.
 - Athletes should be weighed with either socks or barefoot.
 - Have the athlete stand with both feet in the center of the scale.
 - Record the weight to the nearest decimal fraction (for example, 55.5 pounds or 25.1 kilograms).



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Recommendations for the most accurate measurement for Height and Weight:

- It is recommended that multiple measurement stations be set up so more than one Athlete can be measured at a time. Each station should have a complete set of data collection equipment. Some Programs may only have the resources for one measurement station and that is okay.
- Programs should use the same measurement instruments for the pre and post measurements.
- Recommendations for Measuring Height
 - Use a vertical board with an attached English and/or metric ruler (stadiometer).
 - Do not use the measuring rod attached to scales, they are inaccurate because the headpiece can be unsteady.
 - Measure height on a stable platform or firm uncarpeted floor.
 - Have a stool or step ladder handy if the athlete is taller than the measurer.
- Recommendations for Measuring Weight
 - Use a beam balance or electronic digital scale not spring balance or home use scales.
 - Use a scale that can be read at “eye level” of the measurer.
 - Scales should weigh in units of 0.1 kg or ¼ lb increments.
 - Do not use scales with wheels.
 - Calibrate scales prior to every time you measure someone’s weight.
 - You can calibrate by putting an object on the scale with a known weight like a gallon of water (equals 8.34 pounds and 3.78 kilograms).
 - If the scale does not read the weight of the gallon jug within half a pound, take off and reweigh.
 - If you weigh a second time and still do not get the accurate weight you may not want to use that particular scale.

Things that can affect Height and Weight measurements:

- Using incorrect equipment – home scales, height rod scales, not using right angle headboards
- Misreading the measurement
- Recording the incorrect measurement
- Not balancing scales to zero before each use
- Not using the same measurement instrument throughout the data collection period
- Measuring height with shoes and hats
- Measuring weight with excess clothing, items in pockets or bags