

How to Measure Skin Folds to Determine Percent Body Fat

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With body weight on everyone's mind these days, how do you know if you're just "overweight" or "over fat"? The answer for years has been by measuring one's body composition. Body composition is the science of measuring a person's lean and fat tissue. One of the easiest ways to measure how much fat a person has in their body (called percent body fat) is by measuring selected skin folds.

Difficulty: Moderate

Instructions

things you'll need:

- A pair of skinfold calipers
- A friend to assist with measuring skinfolds
- A quiet room

- 1 There are 3 sites to measure to determine one's percent body fat. On women, they are the triceps (back of the arm), suprailiac (crest above the hip bone) and the thigh.
- 2 For men, the skinfold sites to measure are the pectoral (chest), the abdominal (next to the belly button) and the thigh.
- 3 After measuring the locations on the body, add the 3 skinfold thicknesses together and enter into the following equations to determine the person's body density:
Females: $\text{Body Density} = 1.0994921 - 0.0009929 * \text{sum} + 0.0000023 * \text{sum}^2 - 0.0001392 * \text{age}$
Males: $\text{Body Density} = 1.1093800 - 0.0008267 * \text{sum} + 0.0000016 * \text{sum}^2 - 0.0002574 * \text{age}$
- 4 To compute a person's percent body fat, plug in the body density value into the following equations:
 $\text{Percent Fat} = [(495 / \text{Body Density}) - 450] * 100$
- 5 The ideal percent body fat ranges for men and women are:
Men: 8 to 14%
Women: 20 to 21%
The average percent body fat for American men and women are:
Men: 15 to 19%
Women: 22 to 25%

Tips & Warnings

- Practice measuring skinfolds and compare them to previous measurements.
- Make sure to calibrate your skinfold calipers against a known standard for accuracy.
- Skinfold measurements are only an estimate. There is no way to absolutely measure one's percent of body fat.