



## Lab A6-4 Tracking Sum of Skinfold Measurements

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Skinfold measurements can be plugged into formulas that estimate total percent body fat, but they can also be used to track changes in body composition without the use of formulas. Taking skinfold measurements at a number of different sites and tracking changes in the measurements over time can help determine if a fitness and nutrition behavior change program is causing improvement in body composition. In this lab, you'll take measurements at eight sites, three of which represent the extremities (triceps, thigh, and calf) and five of which represent the trunk region (scapula, chest, midaxillary, iliac, and abdomen). You can track the sum of your extremities, trunk, and total skinfold measurements over time using the chart on the following page.

### Skinfold Sites

#### **Extremities**

**Triceps:** A vertical fold on the posterior midline of the upper arm, halfway between the shoulder and elbow.

**Thigh:** A vertical fold on the anterior midline of the thigh, halfway between the top of the kneecap and the top of the hip

**Calf:** A vertical fold on the anterior midline of the calf at the calf's widest point (greatest circumference)

#### **Trunk Region**

**Scapula:** A diagonal fold about 1–2 cm below the lower curve of the scapula (shoulder blade)

**Chest:** A diagonal fold between the armpit (shoulder crease) and nipple; for men, take the measurement about halfway between the two reference points, and for women, about one-third of the distance from the armpit

**Midaxillary:** A horizontal fold under the armpit at the level of junction of the xiphoid process and the body of the sternum

**Iliac:** A slightly diagonal fold just above the iliac crest (top of the hip bone); follow the natural fold tendency of the skin

**Abdomen:** A vertical fold about 2 cm to the right and 1 cm below the center of the umbilicus

### Skinfold Measurement Technique

Take all measurements on the right side of the body with the subject standing. It may be helpful to mark the correct sites with a pen. Pinch a fold of skin between your thumb and index finger. Pull the fold up so that no muscular tissue is included, just fat and skin; don't pinch the skinfold too hard. Hold the calipers perpendicular to the fold and measure the skinfold about 1 cm away from your fingers. Allow the tips of the calipers to close on the skinfold and let the reading setting before making it down. Repeat the measurements until two consecutive measurements match, releasing the repinching the skinfold between each measurement. Note the final measurement for each site (see chart); also note the time of day, as it is most accurate to repeat the measurements at the same time of day in the future.

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