HOW TO USE THE DEFENDER® BODY FAT CALIPER TO MEASURE BODY FAT

We hope that you enjoy your Defender[®] Body Fat Caliper. These calipers are professional grade, but easy enough to be used by individuals and trainers alike. Its simplicity allows you to take a simple 3-site test to help determine body fat. Defender[®] Body Fat Calipers come with the Defender[®] Body Fat Wheel Chart to get your body fat % results. **Note:** If you are obese and have difficulty grabbing a skinfold, it is recommended to use the Navy tape measure method available on www.sequoiafitness.com/navy.html.

STEP-BY-STEP INSTRUCTIONS

- 1. **Note:** all skinfold measurements are taken on the <u>right</u> side of the body, while standing upright and relaxed. You will be taking a skinfold measurement at each of 3 sites different for men and women as described in the next section.
- 2. Before you begin, and each time you take a reading, move the sliding arrow to the end past 50 mm.
- 3. Place the caliper in your <u>right</u> hand, with your thumb on the upper arm of the caliper and forefinger on the lower arm of the caliper.
- 4. With your fingers of your <u>left</u> hand about 2-3 inches apart, gently grasp the first skinfold with the thumb and forefinger. Then pull the skinfold away from your body.
- 5. With your right hand, place caliper tips over the skinfold 1 cm (about 1/2 inch) away from thumb and finger, perpendicular to the skinfold. The caliper heads should be halfway between crest (outermost part) and base of fold (closest to the body).
- 6. Gently begin to apply caliper pressure. Keep the fold elevated, and maintain the pinch with your thumb and index finger.
- 7. When the correct amount of pressure has been reached, the **red marker** on the top of the caliper will turn to **green**. IMMEDIATELY STOP SQUEEZING THE CALIPER.
- 8. Read and record the measurement at the point of the arrow to the nearest mm.
- 9. Repeat the procedure for the remaining 2 skinfold sites.
 - a. Note: it is good practice to repeat the procedure for each site. If the second reading is more than 1-2 mm apart from your first reading, take a third measurement. Record the average score of the closest 2 values.
- 10. Add all 3 measurements together (one from each site).
- 11. Use the Defender® Body Fat Wheel Chart to determine your body fat %:
 - a. Line up the sum of the 3 measurements (Step 10) with your age, by rotating the top sheet of the wheel. **Note:** there are different windows on the chart for men and women.
 - b. Read your Body Fat % in the window at the arrow.
- 12. Record your measurements and results on the Defender® Body Fat Tracking Chart

LOCATIONS FOR CALIPER MEASUREMENTS – MALES

Chest: Take the measurement on a DIAGONAL skinfold taken halfway between the nipple and the front of the underarm. The measurement site is across an imaginary line drawn from your nipple to your armpit.

Abdomen: Take the measurement on a VERTICAL skinfold taken 2 cm (about 3/4 of an inch) to the right of the navel (belly button).

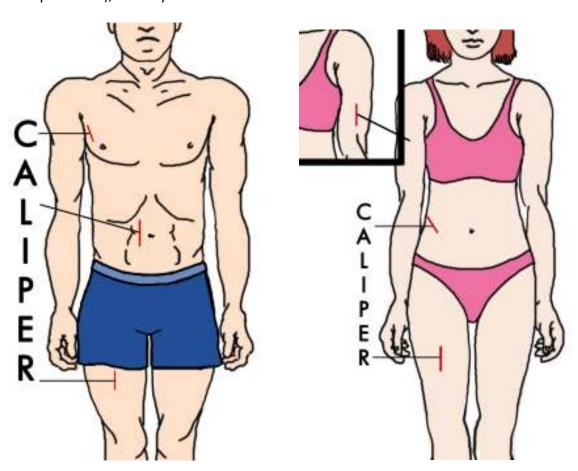
Thigh: Take the measurement on a VERTICAL skinfold taken in the middle of the thigh, halfway between the top of the thigh and your knee cap.

LOCATIONS FOR CALIPER MEASUREMENTS - FEMALES

Suprailiac: Take the measurement on a DIAGONAL skinfold just above the front, forward part of your hip bone.

Thigh: Take the measurement on a VERTICAL skinfold taken in the middle of the thigh, halfway between the crease of your groin and the top of your knee cap.

Triceps: Take the measurement on a VERTICAL skinfold taken on the back of the upper arm, (on the triceps muscle), halfway between the shoulder and elbow.



TYPICAL VALUES FOR BODY FAT RESULTS

The gold standard for body fat is underwater weighing; however, most people do not have easy access to an exercise physiology lab to have this test performed. The guidelines from the American College of Sports Medicine (ACSM) and American Council on Exercise (ACE) are listed below but are not age-adjusted. Once you have your results from the Defender® Body Fat Caliper, you can use the tables to see if you are comfortable with your status or if you want to make changes with your body.

Body Type -	Female	Male		
ACSM				
Athlete	<17%	<10%		
Lean	17-22%	10-15%		
Normal	22-25%	15-18%		
Above Average	25-29%	18-20%		
Over-fat	29-35%	20-25%		
Obese	35+%	25+%		

Body Type - ACE	Female	Male		
Essential Fat	10-13%	2-5%		
Athletes	14-20%	6-13%		
Fitness	21-24%	14-17%		
Acceptable	25-31%	18-25%		
Obese	>31%	>25%		

These values are just guidelines compiled for reference only. As you age, the acceptable level of body fat increases. There is no recognized or government sanctioned agency to approve body fat % categories. Please consult a physician if you are concerned about your results.

DEFENDER® BODY FAT TRACKING CHART

You may copy this chart for your personal use. A larger chart is also available on line at a link on www.sequoiafitness.com/defender. It is recommended to record your stats weekly.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
DATE:									
SITE:									
Upper									
Middle									
Lower									
TOTAL									
BODY FAT %									
WEIGHT									