

## LAB 6.3 • ESTIMATE YOUR PERCENT BODY FAT (SKINFOLD TEST)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Instructor: \_\_\_\_\_ Section: \_\_\_\_\_

**Materials:** Skinfold calipers, appropriate clothing (shorts, tank top, sports bra for women)

**Purpose:** To assess your current percent body fat.



**Directions:** Complete the sections below with a trained instructor.






### SECTION I: SKINFOLD MEASUREMENT

You will need an experienced, trained instructor to complete your measurements. Note the time of day of your measurements and perform any follow-up measurements at the same time of day.

1. Identify the correct skinfold locations. If you are male, locate the chest, abdomen, and thigh locations (see photos below). If you are female, locate the triceps, suprailiac, and thigh locations (see photos). Your instructor should mark these locations on the right side of the body with a pen before using the caliper.

Chest	A diagonal fold measured midway between the shoulder/ armpit crease and the nipple.	
Abdomen	A vertical fold measured one inch to the right of the navel.	

Thigh	A vertical fold measured midway between the crease in your hip and the top of your knee.	
Triceps	A vertical fold on the back of the upper arm midway between the shoulder and elbow.	
Suprailiac	A diagonal fold just above the hip bone, on the side of the body at the front edge of your relaxed arm.	

Source: Adapted from American College of Sports Medicine, *ACSM's Guidelines for Exercise Testing and Prescription*. 8th ed. (Baltimore, MD: Lippincott Williams & Wilkins, 2010).

2. Your instructor will measure each skinfold location using the technique below. Record the results below and then add up the numbers for the three skinfold sites to obtain your overall skinfold sum.

*Skinfold measurement technique:* After locating the correct sites, grab a double fold of skin on both sides of the skinfold location. Open your fingers about three inches when lifting the fold (> than three inches is required for larger individuals). Holding the fold in place, pick up the calipers with your other hand. While still holding the fold, place the caliper jaws on the skinfold location, measuring halfway between the crest and the base of the fold. You should measure perpendicular to the fold and about one cm away from your fingers. Read the measurement two to three seconds after placing the calipers and record the skinfold numbers to the nearest 0.5 mm. For accuracy, measure each site three times and average the two closest numbers.

MEN		WOMEN	
Chest	_____ mm	Triceps	_____ mm
Abdomen	_____ mm	Suprailiac	_____ mm
Thigh	_____ mm	Thigh	_____ mm
Sum of 3 =	_____ mm	Sum of 3 =	_____ mm

**3.** Using the sum of three skinfolds, find your estimated percent body fat in the tables for women and men.

Sum of Skinfolds (mm)	Percent Body Fat Estimates for WOMEN (from triceps, suprailiac, and thigh skinfolds)								
	AGE (years)								
	Under 22	23–27	28–32	33–37	38–42	43–47	48–52	53–57	Over 57
23–25	9.7	9.9	10.2	10.4	10.7	10.9	11.2	11.4	11.7
26–28	11.0	11.2	11.5	11.7	12.0	12.3	12.5	12.7	13.0
29–31	12.3	12.5	12.8	13.0	13.3	13.5	13.8	14.0	14.3
32–34	13.6	13.8	14.0	14.3	14.5	14.8	15.0	15.3	15.5
35–37	14.8	15.0	15.3	15.5	15.8	16.0	16.3	16.5	16.8
38–40	16.0	16.3	16.5	16.7	17.0	17.2	17.5	17.7	18.0
41–43	17.2	17.4	17.7	17.9	18.2	18.4	18.7	18.9	19.2
44–46	18.3	18.6	18.8	19.1	19.3	19.6	19.8	20.1	20.3
47–49	19.5	19.7	20.0	20.2	20.5	20.7	21.0	21.2	21.5
50–52	20.6	20.8	21.1	21.3	21.6	21.8	22.1	22.3	22.6
53–55	21.7	21.9	22.1	22.4	22.6	22.9	23.1	23.4	23.6
56–58	22.7	23.0	23.2	23.4	23.7	23.9	24.2	24.4	24.7
59–61	23.7	24.0	24.2	24.5	24.7	25.0	25.2	25.5	25.7
62–64	24.7	25.0	25.2	25.5	25.7	26.0	26.2	26.4	26.7
65–67	25.7	25.9	26.2	26.4	26.7	26.9	27.2	27.4	27.7
68–70	26.6	26.9	27.1	27.4	27.6	27.9	28.1	28.4	28.6
71–73	27.5	27.8	28.0	28.3	28.5	28.8	29.0	29.3	29.5
74–76	28.4	28.7	28.9	29.2	29.4	29.7	29.9	30.2	30.4
77–79	29.3	29.5	29.8	30.0	30.3	30.5	30.8	31.0	31.3
80–82	30.1	30.4	30.6	30.9	31.1	31.4	31.6	31.9	32.1
83–85	30.9	31.2	31.4	31.7	31.9	32.2	32.4	32.7	32.9
86–88	31.7	32.0	32.2	32.5	32.7	32.9	33.2	33.4	33.7
89–91	32.5	32.7	33.0	33.2	33.5	33.7	33.9	34.2	34.4
92–94	33.2	33.4	33.7	33.9	34.2	34.4	34.7	34.9	35.2
95–97	33.9	34.1	34.4	34.6	34.9	35.1	35.4	35.6	35.9
98–100	34.6	34.8	35.1	35.3	35.5	35.8	36.0	36.3	36.5
101–103	35.3	35.4	35.7	35.9	36.2	36.4	36.7	36.9	37.2
104–106	35.8	36.1	36.3	36.6	36.8	37.1	37.3	37.5	37.8
107–109	36.4	36.7	36.9	37.1	37.4	37.6	37.9	38.1	38.4
110–112	37.0	37.2	37.5	37.7	38.0	38.2	38.5	38.7	38.9
113–115	37.5	37.8	38.0	38.2	38.5	38.7	39.0	39.2	39.5
116–118	38.0	38.3	38.5	38.8	39.0	39.3	39.5	39.7	40.0
119–121	38.5	38.7	39.0	39.2	39.5	39.7	40.0	40.2	40.5
122–124	39.0	39.2	39.4	39.7	39.9	40.2	40.4	40.7	40.9
125–127	39.4	39.6	39.9	40.1	40.4	40.6	40.9	41.1	41.4
128–130	39.8	40.0	40.3	40.5	40.8	41.0	41.3	41.5	41.8

Source: A. S. Jackson and M. L. Pollock, "Practical Assessment of Body Composition," *The Physician and Sportsmedicine* 13, no. 5 (1985): 76–90. Copyright © 1985 JTE Multimedia, LLC. Used with permission.

Sum of Skinfolds (mm)	Percent Body Fat Estimates for MEN (from chest, abdomen, and thigh skinfolds)								
	AGE (years)								
	Under 22	23–27	28–32	33–37	38–42	43–47	48–52	53–57	Over 57
8–10	1.3	1.8	2.3	2.9	3.4	3.9	4.5	5.0	5.5
11–13	2.2	2.8	3.3	3.9	4.4	4.9	5.5	6.0	6.5
14–16	3.2	3.8	4.3	4.8	5.4	5.9	6.4	7.0	7.5
17–19	4.2	4.7	5.3	5.8	6.3	6.9	7.4	8.0	8.5
20–22	5.1	5.7	6.2	6.8	7.3	7.9	8.4	8.9	9.5
23–25	6.1	6.6	7.2	7.7	8.3	8.8	9.4	9.9	10.5
26–28	7.0	7.6	8.1	8.7	9.2	9.8	10.3	10.9	11.4
29–31	8.0	8.5	9.1	9.6	10.2	10.7	11.3	11.8	12.4
32–34	8.9	9.4	10.0	10.5	11.1	11.6	12.2	12.8	13.3
35–37	9.8	10.4	10.9	11.5	12.0	12.6	13.1	13.7	14.3
38–40	10.7	11.3	11.8	12.4	12.9	13.5	14.1	14.6	15.2
41–43	11.6	12.2	12.7	13.3	13.8	14.4	15.0	15.5	16.1
44–46	12.5	13.1	13.6	14.2	14.7	15.3	15.9	16.4	17.0
47–49	13.4	13.9	14.5	15.1	15.6	16.2	16.8	17.3	17.9
50–52	14.3	14.8	15.4	15.9	16.5	17.1	17.6	18.2	18.8
53–55	15.1	15.7	16.2	16.8	17.4	17.9	18.5	19.1	19.7
56–58	16.0	16.5	17.1	17.7	18.2	18.8	19.4	20.0	20.5
59–61	16.9	17.4	17.9	18.5	19.1	19.7	20.2	20.8	21.4
62–64	17.6	18.2	18.8	19.4	19.9	20.5	21.1	21.7	22.2
65–67	18.5	19.0	19.6	20.2	20.8	21.3	21.9	22.5	23.1
68–70	19.3	19.9	20.4	21.0	21.6	22.2	22.7	23.3	23.9
71–73	20.1	20.7	21.2	21.8	22.4	23.0	23.6	24.1	24.7
74–76	20.9	21.5	22.0	22.6	23.2	23.8	24.4	25.0	25.5
77–79	21.7	22.2	22.8	23.4	24.0	24.6	25.2	25.8	26.3
80–82	22.4	23.0	23.6	24.2	24.8	25.4	25.9	26.5	27.1
83–85	23.2	23.8	24.4	25.0	25.5	26.1	26.7	27.3	27.9
86–88	24.0	24.5	25.1	25.7	26.3	26.9	27.5	28.1	28.7
89–91	24.7	25.3	25.9	26.5	27.1	27.6	28.2	28.8	29.4
92–94	25.4	26.0	26.6	27.2	27.8	28.4	29.0	29.6	30.2
95–97	26.1	26.7	27.3	27.9	28.5	29.1	29.7	30.3	30.9
98–100	26.9	27.4	28.0	28.6	29.2	29.8	30.4	31.0	31.6
101–103	27.5	28.1	28.7	29.3	29.9	30.5	31.1	31.7	32.3
104–106	28.2	28.8	29.4	30.0	30.6	31.2	31.8	32.4	33.0
107–109	28.9	29.5	30.1	30.7	31.3	31.9	32.5	33.1	33.7
110–112	29.6	30.2	30.8	31.4	32.0	32.6	33.2	33.8	34.4
113–115	30.2	30.8	31.4	32.0	32.6	33.2	33.8	34.5	35.1
116–118	30.9	31.5	32.1	32.7	33.3	33.9	34.5	35.1	35.7
119–121	31.5	32.1	32.7	33.3	33.9	34.5	35.1	35.7	36.4
122–124	32.1	32.7	33.3	33.9	34.5	35.1	35.8	36.4	37.0
125–127	32.7	33.3	33.9	34.5	35.1	35.8	36.4	37.0	37.6

Source: A. S. Jackson and M. L. Pollock, "Practical Assessment of Body Composition," *The Physician and Sportsmedicine* 13, no. 5 (1985): 76–90. Copyright © 1985 JTE Multimedia, LLC. Used with permission.

**4.** Record your estimated percent body fat and rating.

Age = \_\_\_\_\_

Male or Female

Skinfold Sum from previous section = \_\_\_\_\_

% body fat = \_\_\_\_\_

Indicate your body fat rating below:

Body Fat Rating	WOMEN	MEN
Athletic/Low	14–20%	6–13%
Fitness	21–24%	14–17%
Acceptable	25–31%	18–25%
Obese	>32%	>26%

Source: From "Percent Body Fat Norms for Men and Women" in ACE LIFESTYLE AND WEIGHT MANAGEMENT COACH MANUAL. Reprinted with permission from the American Council on Exercise® (ACE®), [www.acefitness.org](http://www.acefitness.org).

## SECTION II: REFLECTION

**1.** Did your estimated percent body fat or rating surprise you? \_\_\_\_\_

**2.** How does your percent body fat rating compare with your other disease risk ratings from Lab 6.2?

\_\_\_\_\_