

LAB 6.2 • MEASURE AND EVALUATE YOUR BODY CIRCUMFERENCES

Name: _____ Date: _____

Instructor: _____ Section: _____



Purpose: To learn how to measure your body circumferences.

Materials: Measuring tape, partner



SECTION I: MEASURING CIRCUMFERENCES

Using a cloth or plastic tape measure, have a partner assist you with the following circumference measures. Be sure to mark your measurements (centimeters or inches) and record them to the nearest 0.5 cm or 0.25 inch.

Site	Description		Measurement
Waist	For those with a visible waist, measure at the narrowest part of the torso; for those with a larger torso, measure at the navel.		
Hip	Measure with the legs slightly apart. Measure where the hip/buttock circumference is the greatest.		
Upper Arm	Measure midway between the shoulder and elbow.		Right: Left:
Forearm	Measure at the greatest circumference between the wrist and elbow.		Right: Left:
Thigh	Measure with your leg on a bench or chair (knee at 90 degrees). Measure half way between the crease in your hip and your knee.		Right: Left:
Calf	Measure at the greatest circumference between the knee and ankle.		Right: Left:
Neck	Measure midway between the head and shoulders.		

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

SECTION II: EVALUATING CIRCUMFERENCES AND DISEASE RISK

1. Calculate your waist-to-hip ratio (WHR):

$$\text{WHR} = \frac{\text{_____}}{\text{_____}} \div \frac{\text{_____}}{\text{_____}}$$

(waist circumference) (hip circumference)

$$\text{WHR} = \text{_____}$$

2. Evaluate your WHR using the table below:

Disease Risk and WHR				
Age (years)	Low	Moderate	High	Very High
<u>Men:</u> 20–29	<0.83	0.83–0.88	0.89–0.94	>0.94
30–39	<0.84	0.84–0.91	0.92–0.96	>0.96
40–49	<0.88	0.88–0.95	0.96–1.00	>1.00
50–59	<0.90	0.90–0.96	0.97–1.02	>1.02
60–69	<0.91	0.91–0.98	0.99–1.03	>1.03
<u>Women:</u> 20–29	<0.71	0.71–0.77	0.78–0.82	>0.82
30–39	<0.72	0.72–0.78	0.79–0.84	>0.84
40–49	<0.73	0.73–0.79	0.80–0.87	>0.87
50–59	<0.74	0.74–0.81	0.82–0.88	>0.88
60–69	<0.76	0.76–0.83	0.84–0.90	>0.90

Source: Reprinted with permission from V. H. Heywood, 2010, ADVANCED FITNESS ASSESSMENT AND EXERCISE PRESCRIPTION, 6th Edition. (Champaign: IL: Human Kinetics), 222.

Evaluate your waist circumference using the table below:

Waist Circumference (WC)		
Disease Risk Category	Women	Men
Very Low	<70 cm (<28.5 in)	<80 cm (<31.5 in)
Low	70–89 cm (28.5–35.0 in)	80–99 cm (31.5–39.0 in)
High	90–109 cm (35.5–43.0 in)	100–120 cm (39.5–47.0 in)
Very High	>110 cm (>43.5 in)	>120 cm (>47.0 in)

Source: From "Don't Throw the Baby Out with the Bath Water," George A. Bray, American Journal of Clinical Nutrition, 2004, Vol. 70, No. 3, pp. 347–349, by permission of the American Society for Nutrition.

3. Record your disease risk from WHR and waist circumference below:

Disease rating for WHR: _____

Disease rating for WC: _____

SECTION III: REFLECTION

1. Do your ratings for disease risk based upon circumferences surprise you? _____

2. Which of your circumference measures are you most interested in changing and why?
