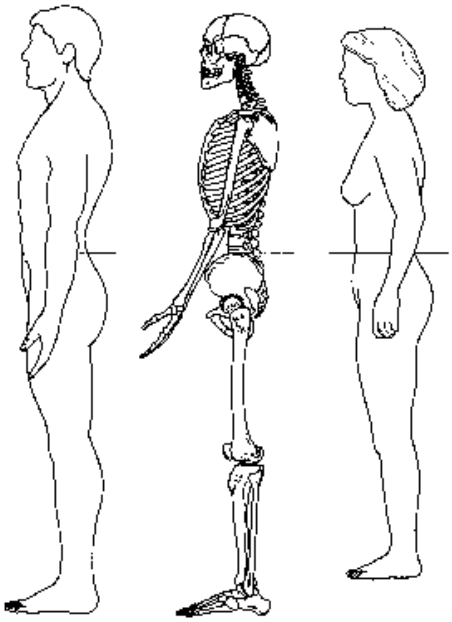
Assessment by Waist Circumference

Although waist circumference and BMI are interrelated, waist circumference provides an independent prediction of risk over and above that of BMI. Waist circumference measurement is particularly useful in patients who are categorized as normal or overweight on the BMI scale. At BMIs ≥ 35, waist circumference has little added predictive power of disease risk beyond that of BMI. It is therefore not necessary to measure waist circumference in individuals with BMIs ≥ 35.

Waist Circumference Measurement

To measure waist circumference, locate the upper hip bone and the top of the right iliac crest. Place a measuring tape in a horizontal plane around the abdomen at the level of the iliac crest. Before reading the tape measure, ensure that the tape is snug, but does not compress the skin, and is parallel to the floor. The measurement is made at the end of a normal expiration.



Measuring Tape Position for Waist (Abdominal) Circumference

Classification of Overweight and Obesity by BMI, Waist Circumference, and Associated Disease Risk*

	BMI (kg/m^2)	Obesity Class	Disease Risk* Relative to Normal Weight and Waist Circumference	
			Men ≤ 40 in. Women ≤ 35 in.	Men > 40 in. Women > 35 in.
Normal+	18.5 - 24.9		----	----
Overweight	25.0 - 29.9		Increased	High
Obesity	30.0 – 34.9	I	High	Very High
	35.0 – 39.9	II	Very High	Very High
Extreme Obesity	≥ 40	III	Extremely High	Extremely High

***** Disease risk for type 2 diabetes, hypertension, and CVD.
+Increased waist circumference can also be a marker for increased risk even in persons of normal weight.

Source: National Heart, Lung, and Blood Institute; National Institutes of Health; U.S. Department of Health and Human Services.