

Relative health risks attributable to body composition for MALES using single non-graduated waist circumference (WC) cut-points within and across each BMI category.

BMI (kg/m <sup>2</sup> )	NIH WC (cm)	Health Risk
< 18.5 (underweight)	All circumferences	Generally Reduced (↓)Health Risk
18.5 – 24.9 (normal weight)	< 90	↓Health Risk
	≥ 90	↑Health Risk
25.0 – 29.9 (overweight)	< 100	↓Health Risk
	≥ 100	↑Health Risk
30.0 – 34.9 (obese 1)	< 110	↑Health Risk
	≥ 110	↑Health Risk
≥ 35 (obese II+)	< 125	↑↑Health Risk
	≥ 125	↑↑↑Health Risk

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**Table 1b** Relative health risks attributable to body composition for FEMALES using single non-graduated waist circumference (WC) cut-points within and across each BMI category.

BMI (kg/m <sup>2</sup> )	NIH WC (cm)	Health Risk
< 18.5 (underweight)	All circumferences	Generally Reduced (↓)Health Risk
18.5 – 24.9 (normal weight)	< 80	↓Health Risk
	≥ 80	↑Health Risk
25.0 – 29.9 (overweight)	< 90	↓Health Risk
	≥ 90	↑Health Risk
30.0 – 34.9 (obese 1)	< 105	↑Health Risk
	≥ 105	↑Health Risk
≥ 35 (obese II+)	< 115	↑↑Health Risk
	≥ 115	↑↑↑Health Risk

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## •SUPPLEMENTAL MATERIAL FOR UNIT FOUR: CHAPTER 7

**Table 2a** Health Benefit Zones from estimated  $VO_2$  max, including the corresponding estimated MET equivalents

Age 15-19				
Health Benefit Zone	Males		Females	
	$mL \cdot kg^{-1} \cdot min^{-1}$	METs	$mL \cdot kg^{-1} \cdot min^{-1}$	METs
Excellent	57.4+	16.5+	49.0+	14.1+
Very Good	52.4-57.3	15-16.4	43.7-48.9	12.5-14
Good	48.8-52.3	13.9-14.9	39.5-43.6	11.3-12.5
Fair	43.6-48.7	12.5-13.9	36.8-39.4	10.5-11.3
Needs Improvement	<43.6	<12.5	<36.8	<10.5
Age 20-29				
Health Benefit Zone	Males		Females	
	$mL \cdot kg^{-1} \cdot min^{-1}$	METs	$mL \cdot kg^{-1} \cdot min^{-1}$	METs
Excellent	55.6+	16.0+	47.2+	13.6+
Very Good	50.6-55.5	14.5-15.9	42.0-47.1	12.0-13.5
Good	47.2-50.5	13.5-14.4	37.8-41.9	10.8-11.9
Fair	41.6-47.1	11.9-13.5	35.0-37.7	10-10.7
Needs Improvement	<41.6	<11.9	<35.0	<10
Age 30-39				
Health Benefit Zone	Males		Females	
	$mL \cdot kg^{-1} \cdot min^{-1}$	METs	$mL \cdot kg^{-1} \cdot min^{-1}$	METs
Excellent	48.8+	14.0+	45.4+	13.0+
Very Good	45.4-48.7	13.0-13.9	40.1-45.3	11.5-12.9
Good	40.1-45.3	11.5-12.9	36.0-40.0	10.3-11.4
Fair	33.7-40.0	9.6-11.4	33.0-35.9	9.4-10.3
Needs Improvement	<33.7	<9.6	<33.0	<9.4

## •SUPPLEMENTAL MATERIAL FOR UNIT FOUR: CHAPTER 7

**Table 2a** Health Benefit Zones from estimated  $VO_2$  max, including the corresponding estimated MET equivalents, cont'd

Age 40-49				
Health Benefit Zone	Males		Females	
	$mL \cdot kg^{-1} \cdot min^{-1}$	METs	$mL \cdot kg^{-1} \cdot min^{-1}$	METs
Excellent	47.0+	13.4+	40.0+	11.4+
Very Good	42.7-46.9	12.2-13.4	35.1-39.9	10.1-11.4
Good	35.5-42.6	10.1-12.1	31.9-35.0	9.1-10.0
Fair	31.9-35.4	9.1-10.1	21.7-31.8	6.2-9.0
Needs Improvement	<31.9	<9.1	<21.7	<6.2

Age 50-59				
Health Benefit Zone	Males		Females	
	$mL \cdot kg^{-1} \cdot min^{-1}$	METs	$mL \cdot kg^{-1} \cdot min^{-1}$	METs
Excellent	41.8+	11.9+	36.6+	10.5+
Very Good	36.5-41.7	10.4-11.9	34.0-36.5	9.7-10.4
Good	30.1-36.4	8.6-10.4	31.0-33.9	8.9-9.7
Fair	26.0-30.0	7.4-8.6	24.6-30.9	7.0-8.8
Needs Improvement	<26.0	<7.4	<24.6	<7.0






  

Age 60-69				
Health Benefit Zone	Males		Females	
	$mL \cdot kg^{-1} \cdot min^{-1}$	METs	$mL \cdot kg^{-1} \cdot min^{-1}$	METs
Excellent	38.4+	11.0+	35.8+	10.2+
Very Good	32.8-38.3	9.4-10.9	32.8-35.7	9.4-10.1
Good	28.7-32.7	8.2-9.3	29.6-32.7	8.5-9.3
Fair	23.5-28.6	6.7-8.2	23.5-29.5	6.7-8.4
Needs Improvement	<23.5	<6.7	<23.5	<6.7

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## ■ SUPPLEMENTAL MATERIAL FOR UNIT FOUR: CHAPTER 7

**Table 2b**

<b>Excellent</b>		Your aerobic fitness falls within a range that is generally associated with maximizing health benefits.
<b>Very Good</b>		Your aerobic falls within a range that is generally associated with considerable health benefits.
<b>Good</b>		Your aerobic fitness falls within a range that is generally associated with many health benefits.
<b>Fair</b>		Your aerobic fitness falls within a range that is generally associated with some health benefits but also some health risks. Progressing from here into the Good zone and beyond requires accumulating 150 minutes per week of light to moderate and/or 75 minutes of moderate to vigorous physical activity over the course of most days of the week. This is a very significant step to increasing the health benefits from aerobic fitness and progressing beyond will further increase the health benefits associated with your aerobic fitness.
<b>Needs Improvement</b>		Your aerobic fitness falls within a range that is generally associated with considerable health risks. Try to accumulate 150 minutes or more of light to moderate intensity physical activity per week. This equates to 30 minutes or more over the course of most days of the week.

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