

**Table 1. Baseline Characteristics by Cardiorespiratory fitness Level Among US Adults Aged 20-49 years, NHANES 1999-2004<sup>a,b</sup>**

	All	Male					P value	Female				
		All male	Low	Moderate	High	All female		Low	Moderate	High	P value	
N	3242	1707	246	598	863		1535	293	512	730		
Weighted N	59,888,450	31,533,263	4,381,672	11,197,310	15,954,281		28,355,187	4,914,828	9,520,874	13,919,484		
Estimated VO <sub>2max</sub> ,	40 ± 0.6	43.6 ± 0.6	32.5 ± 0.4	39.0 ± 0.2	49.9 ± 0.7	<.001	36.0 ± 0.6	26.4 ± 0.4	31.9 ±	42.2 ± 0.6	<.001	
Age, y	33.8 ± 0.4	33.6 ± 0.5	32.6 ± 1.3	33.4 ± 0.8	34.1 ± 0.8	.053	34.0 ± 0.6	32.8 ± 1.1	33.3 ± 1	34.9 ± 0.9	.002	
Race, %												
Non-Hispanic white	70.1	70.2	58.9	71.4	72.4		70.0	60.8	67.3	75.1		
Non-Hispanic black	10.4	9.6	11.9	9.7	8.8	.003	11.3	19.2	12.4	7.7	<.001	
Hispanic	15.3	15.8	21.3	14	15.6		14.6	14.6	15.4	14		
Other	4.3	4.4	8.0	4.9	3.1		4.1	5.4	4.8	3.2		
BMI, kg/m <sup>2</sup>	27.1 ± 0.3	27.2 ± 0.3	29.8 ± 0.8	27.3 ± 0.4	26.3 ± 0.3	<.001	26.9 ± 0.5	29.7 ± 1.1	26.9 ±	26.0 ± 0.7	<.001	
Smoking Status, %												
Never	56.2	52.1	55.7	51.8	51.3		60.9	64.2	60.2	60.1		
Former	16.7	17.7	16.9	15.2	19.7	.30	15.6	15.0	17.0	14.9	.74	
Current	27.1	30.2	27.4	33	29.1		23.5	20.8	22.8	25.1		
Hypertension, %	22.1	26.6	26.2	31	23.5	.03	17.2	22.7	14.3	17.3	.04	
Diabetes, %	1.3	0.9	1.0	1.3	0.6	.34	1.6	4.0	0.6	1.5	.011	
High cholesterol, %	19.7	22.3	21.2	25.1	20.7	.26	16.7	17.6	18.7	15	.38	
Physical active, % <sup>c</sup>	73.5	73.4	62.7	71.3	77.8	<.001	73.7	64.5	75.2	76	.007	
Sedentary, % <sup>d</sup>	43.2	45.8	53	48.3	42.1	0.02	40.4	47.0	46.7	33.7	<.001	
Follow-up, y	13.8 ± 0.1	13.7 ± 0.1	13.3 ± 0.4	13.7 ± 0.2	13.8 ± 0.2		13.8 ± 0.2	13.8 ± 0.3	13.8 ±	13.9 ± 0.2		

<sup>a</sup> All estimates were weighted to be nationally representative.

<sup>b</sup> Low cardiorespiratory fitness is defined as an estimated VO<sub>2max</sub> below the 20th percentile of the Aerobics Center Longitudinal Study (ACLS) data of the same sex and age group; moderate cardiorespiratory fitness is defined as a value between the 20th and 59th percentile, and high cardiorespiratory fitness is defined as at or above the 60th percentile.

<sup>c</sup> Physical active was defined as engaging in moderate or vigorous recreational physical activity over the past 30 days

<sup>d</sup> Sedentary was defined as TV watching or PC use >2 h/d outside of work.

**Table 2. Hazard Ratios and 95% CIs for All-cause Mortality by Cardiorespiratory Fitness Level and Sex<sup>a</sup>**

	Mortality		Hazard Ratio (95% CI)		
	No./Total No.	Weighted death (%)	Baseline model <sup>b</sup>	Multivariable model <sup>c</sup>	Multivariable model <sup>d</sup>
All					
High	46/1593	505,322 (1.7)	1 [Reference]	1 [Reference]	1 [Reference]
Moderate	35/1110	488,384 (2.4)	1.39 (0.70 to 2.79)	1.41 (0.70 to 2.80)	1.35 (0.67 to 2.71)
Low	23/539	333,102 (3.6)	2.15 (1.13 to 4.09)	2.33 (1.23 to 4.41)	2.26 (1.10 to 4.64)
<i>P</i> for trend			.026	.016	.036
Men					
High	34/863	399,945 (2.5)	1 [Reference]	1 [Reference]	1 [Reference]
Moderate	23/598	318,886 (2.9)	1.13 (0.52 to 2.44)	1.11 (0.53 to 2.33)	1.11 (0.50 to 2.46)
Low	14/246	261,453 (6.0)	2.27 (1.06 to 4.87)	2.50 (1.18 to 5.28)	2.72 (1.10 to 6.74)
<i>P</i> for trend			.071	.048	.076
Women					
High	12/730	105,377 (0.8)	1 [Reference]	1 [Reference]	1 [Reference]
Moderate	12/512	169,497 (1.8)	2.49 (0.87 to 7.08)	2.52 (0.88 to 7.22)	2.57 (0.86 to 7.74)
Low	9/293	71,649 (1.5)	2.08 (0.86 to 5.06)	1.89 (0.69 to 5.15)	1.55 (0.56 to 4.26)
<i>P</i> for trend			.030	.086	.181

<sup>a</sup> Low cardiorespiratory fitness is defined as an estimated VO<sub>2</sub>max below the 20th percentile of the ACLS data of the same gender and age group; moderate cardiorespiratory fitness is defined as a value between the 20th and 59th percentile, and high cardiorespiratory fitness is defined as at or above the 60th percentile.

<sup>b</sup> Adjusted for age, gender (overall only), and race/ethnicity.

<sup>c</sup> Additionally adjusted for smoking status, alcohol intake, total energy intake

<sup>d</sup> Additionally adjusted for sedentary behavior, physical activity, hypertension, diabetes, and hypercholesterolemia