



**HEALTH & FITNESS ASSESSMENTS - NATIONAL NORMATIVE DATA**

Blue = recommended; Red = higher risk

1. **Risk Factors for Metabolic Syndrome\*** (A precursor to Heart Disease and Type 2 Diabetes)

Risk Factor	Risk Criteria
Waist Circumference	>102 cm (>40 in) for men >88 cm (>35 in) for women
Blood Pressure	>130 mmHg (systolic BP) or >85 mmHg (diastolic BP) or both
Fasting Blood Glucose	>100 mg/dl or >6.1 mmol/L
Triglycerides	>150 mg/dl or >1.6 mmol/L
HDL-C	<40 mg/dl or <1.04 mmol/L for men <50 mg/dl or <1.29 mmol/L for women

\*Metabolic Syndrome is defined as 3 or more risk factors

2. **Body Mass Index\* (BMI)**

Classification	BMI Value
Underweight	< 18.5
Normal weight	18.5 – 24.9
Overweight	25.0 – 29.9
Obesity	
Class I	30.0 – 34.9
Class II	35.0 – 39.9
Class III	> 40.0

\*To determine your BMI, log on to: [www.myregence.com](http://www.myregence.com) using your insurance card information. Enter your height and weight into the “Health Calculator” listed under “My Health.”

3. **Waist-to-Hip Circumference National Norms and Disease Risk**

	Age	Risk			
		Low	Moderate	High	Very High
Men	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
Women	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

4. **Blood Pressure**

Systolic BP (mmHg)	Category	Diastolic (mmHg)
<120	Normal	<80
120-139	Prehypertension	80-89
140-159	Stage 1 hypertension	90-99
>160	Stage 2 hypertension	>100

## 5. Body Composition (Percent Body Fat)

Recommended %Body Fat Levels for Physically Active Adults				
	Low		Mid	Upper
Males	Goal Range			Not Recommended
18-34 years	5		10	15
35-55 years	7		11	18
55+ years	9		12	18
Females				
18-34 years	16		23	28
35-55 years	20		27	33
55+ years	20		27	33

## 6. Grip Strength

Rating	Grip Strength											
	15-19 yr		20-29 yr		30-39 yr		40-49 yr		50-59 yr		60-69 yr	
	M	F	M	F	M	F	M	F	M	F	M	F
Excellent	>108	>68	>115	>70	>115	>71	>108	>69	>101	>61	>100	>54
Very Good	98-107	60-67	104-114	63-69	104-114	63-70	97-107	61-68	92-100	54-60	91-99	48-53
Good	90-94	53-59	95-103	58-62	95-103	58-62	88-96	54-60	84-91	49-53	84-90	45-47
Fair	79-89	48-52	84-94	52-59	84-94	51-57	80-87	49-53	76-83	45-48	73-83	41-44
Needs improvement	<78	<47	<83	<51	<83	<50	<79	<48	<75	<44	<72	<40

## 7. Cardio Respiratory Fitness (VO<sub>2</sub> max)\*

Age	Poor	Fair	Good	Excellent	Superior
Women					
20-29	<35	36-39	40-43	44-49	50+
30-39	<33	34-36	37-40	41-45	46+
40-49	<31	32-34	35-38	39-44	45+
50-59	<24	25-28	29-30	31-34	35+
60-69	<25	26-28	29-31	32-35	36+
70-79	<23	24-26	27-29	30-35	36+
Men					
20-29	<41	42-45	46-50	51-55	56+
30-39	<40	41-43	44-47	48-53	54+
40-49	<37	38-41	42-45	46-52	53+
50-59	<34	35-37	38-42	43-49	50+
60-69	<30	31-34	35-38	39-45	46+
70-79	<27	28-30	31-35	36-41	42+

\*8 minute Single-Stage Treadmill Walking Test - Ebbeling (1991)

8. Flexibility: Modified Sit-and-Reach (A higher number equates to better flexibility.)

Percentile Rank	Women			Men		
	<35 yr	36-49 yr	>50 yr	<35 yr	36-49 yr	>50 yr
99	19.8	19.8	17.2	24.7	18.9	16.2
95	18.7	19.2	15.7	19.5	18.2	15.8
90	17.9	17	15.0	17.9	16.1	15.0
80	16.7	16.2	14.2	17.0	14.6	13.3
70	16.2	15.2	13.6	15.8	13.9	12.3
60	15.8	14.5	12.3	15.0	13.4	11.5
50	14.8	13.5	11.1	14.4	12.6	10.2
40	14.5	12.8	10.1	13.5	11.6	9.7
30	13.7	12.2	9.2	13.0	10.8	9.3
20	12.6	11.0	8.3	11.6	9.9	8.8
10	10.1	9.7	7.5	9.2	8.3	7.8
5	8.1	8.5	3.7	7.9	7.0	7.2
1	2.6	2.0	1.5	7.0	5.1	4.0

9. Push-up Test

	Age					
	15-19 yr	20-29 yr	30-39 yr	40-49 yr	50-59 yr	60-69 yr
<i>Men</i>						
Excellent	>39	>36	>30	>25	>21	>18
Very Good	29-38	29-35	22-29	17-24	13-20	11-17
Good	23-28	22-28	17-21	13-16	10-12	8-10
Fair	18-22	17-21	12-16	10-12	7-9	5-7
Needs Improvement	<17	<16	<11	<9	<6	<4
<i>Women</i>						
Excellent	>33	>30	>27	>24	>21	>17
Very Good	25-32	21-29	20-26	15-23	11-20	12-16
Good	18-24	15-20	13-19	11-14	7-10	5-11
Fair	12-17	10-14	8-12	5-10	2-6	2-4
Needs Improvement	<11	<9	<7	<4	<1	<1

10. Partial Curl-up Test (Ability to do Modified Sit-Ups)

	Age					
	15-19	20-29	30-39	40-49	50-59	60-69
<i>Men</i>						
Excellent	25	25	25	25	25	25
Very Good	23-24	21-24	18-24	18-24	17-24	16-24
Good	21-22	16-20	15-17	13-17	11-16	11-15
Fair	16-20	11-15	11-14	6-12	8-10	6-10
Needs Improvement	<15	<10	<10	<5	<7	<5
<i>Women</i>						
Excellent	25	25	25	25	25	25
Very Good	22-24	18-24	19-24	19-24	19-24	14-24
Good	17-21	14-17	10-18	11-18	10-18	8-16
Fair	12-16	5-13	6-9	4-10	6-9	3-7
Needs Improvement	<11	<4	<5	<3	<5	<2

These tables are based on American College of Sports Medicine guidelines, compiled by HPER Dept. graduate students.