

## **Athletic Training Education Program lends a hand at University Wellness Services Challenge**

Over 80 students, faculty, and staff received information about their estimated aerobic capacity or their maximum volume of oxygen uptake ( $VO_{2max}$ ), their individualized target heart rate zones based on their age/gender-adjusted percentile ranking for  $VO_{2max}$ , and were given the estimated caloric expenditure for exercise within their target heart rate for 20 minutes and 30 minutes (next pages). – February, 2007.



**Heart Fitness Check  
Wellness Challenge**

Courtesy of  
Fresno State Sports Medicine Club

We will enter the following information into a computer to determine your heart fitness check. You will keep this information.

1. Resting pulse – count your pulse for 15 seconds:



2. Age

3. Weight

4. Height

Feet

Inches

5. Gender (Check)

0.) Female

1.) Male

6. Rate your level of fitness for the past 6 months. (Check only one box)

DID NOT PARTICIPATE REGULARLY IN PROGRAMMED RECREATION, SPORT OR HEAVY PHYSICAL ACTIVITY.

0 – Avoided walking or exertion, e.g., always used elevator, drove whenever possible instead of walking.

1 – Walked for pleasure, routinely used stairs, occasionally exercised sufficiently to cause heavy breathing or perspiration.

PARTICIPATED REGULARLY IN RECREATION OR WORK REQUIRING MODEST PHYSICAL ACTIVITY, SUCH AS GOLF, HORSEBACK RIDING, CALISTHENICS, GYMNASTICS, TABLE TENNIS, BOWLING, WEIGHTLIFTING OR YARD WORK.

2 – 10 to 60 minutes per week.

3 – Over one hour per week.

PARTICIPATED REGULARLY IN HEAVY EXERCISE SUCH AS RUNNING OR JOGGING, SWIMMING, CYCLING, ROWING, SKIPPING ROPE, RUNNING IN PLACE OR ENGAGING IN VIGOROUS AEROBIC ACTIVITY TYPE EXERCISE SUCH AS TENNIS, BASKETBALL OR HANDBALL.

4 – Ran less than one mile per week or spent less than 30 minutes per week in comparable physical activity.

5 – Ran one to 5 miles per week or spent 30 to 60 minutes per week in comparable physical activity.

6 – Ran 5 to 10 miles per week or spent 1 to 3 hours per week in comparable physical activity.

7 – Ran over 10 miles per week or spent over 3 hours per week in comparable physical activity.

# Heart Fitness Check Wellness Challenge

Courtesy of  
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Your Estimated Maximal Aerobic Capacity or  $VO_{2max}$  is:

 ml/kg/min

What is  $VO_{2max}$ ?

Aerobic capacity is defined a person's maximal ability to deliver, take up, and use oxygen during physical activity. It is technically the maximal volume of oxygen uptake ( $VO_{2max}$ ) and is measured in liters per minute or relative to body weight in milliliters per kilogram. A person's level of physical activity is directly related to their aerobic capacity. Indeed, by rating your level of physical activity, you can with good degree of accuracy predict your aerobic capacity as depicted in this graph.

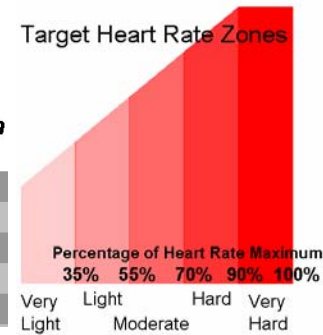
Recent research suggests that inactivity is a stronger risk factor for health-related problems than body weight. In other words, striving to increase your aerobic capacity by engaging in a regular exercise program, consisting of 30 to 60 minutes of moderate intensity exercise, is one of the best ways a person can reduce their risk for health problems such as heart disease or diabetes.

How do you rate relative to your age group? Below are percentile values for  $VO_{2max}$  based on age.

Percentile	AGE				
	20-29	30-39	40-49	50-59	60+
<b>MEN</b>					
90	51.4	50.4	48.2	45.3	42.5
80	48.2	46.8	44.1	41.0	38.1
70	46.8	44.6	41.8	38.5	35.3
60	44.2	42.4	39.9	36.7	33.6
50	42.5	41.0	38.1	35.2	31.8
40	41.0	38.9	36.7	33.8	30.2
30	9.5	37.4	35.1	32.3	28.7
20	37.1	35.4	33.0	30.2	26.5
10	34.5	32.5	30.9	28.0	23.1
<b>WOMEN</b>					
90	44.2	41.0	39.5	35.2	35.2
80	41.0	38.6	36.3	32.3	31.2
70	38.1	36.7	33.8	30.9	29.4
60	36.7	34.6	32.3	29.4	27.2
50	35.2	33.8	30.9	28.2	25.8
40	33.8	32.3	29.5	26.9	24.5
30	32.3	30.5	28.3	25.5	23.8
20	30.6	28.7	26.5	24.3	22.8
10	28.4	26.5	25.1	22.3	20.8

**Pick your Target Heart Rate Zone:** based on the percentile for your  $VO_{2max}$ , select your Target Heart Rate Zone.

$VO_{2max}$ Percentile	Intensity	Percentage of Heart Rate Maximum
<20	Very light	35
<40	Light	36 54
<60	Moderate	55 69
<80	Hard	70 89
90 or >	Very hard	above 90



Your Actual Recommended Target Heart Rate Zone is:

Low End  bpm

High End  bpm

Calories Burned at Your Target Heart Rate

20 minutes  calories

30 minutes  calories

**Improving your fitness by exercising in the Target Heart Rate Zone is the BEST way to make your body a fat burning machine!**

You should strive to exercise in your Target Heart Rate Zone for 20 to 30 minutes. As you do so, you will increase your  $VO_{2max}$  and raise your percentile ranking therefore allowing you to safely exercise at a higher target heart rate zone. In doing so, you will burn more calories every time you exercise for 20 to 30 minutes