

## Exercise and Physical Fitness

Juggling work, school, exams and personal relationships can make it difficult to find time for exercise. But, exercising and physical activity provide an opportunity to relieve the stress that builds from a hectic schedule and lifestyle. Setting aside a few minutes a day to exercise will help decrease stress, clear your mind, increase mental clarity and improve overall well-being.

### What is the most beneficial type of exercise?

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Exercise involving aerobic activity is the most beneficial kind of exercise and is effective when done a minimum of 3-4 days a week. The U.S. Department of Health and Human Services (HHS) and the American College of Sports Medicine (ACSM) agree, you need to do two types of physical activity each week to improve your health – aerobic and muscle-strengthening.

Adults aged 16-64 need at least:

- 2 ½ hours of moderate-intensity aerobic activity (i.e. brisk walking) every week,
- 1 ¼ hours of vigorous-intensity aerobic activity (i.e. jogging or running) every week,
- OR an equivalent mix of moderate and vigorous-intensity aerobic activity.

*AND*

Muscle-strengthening activities 2 or more days a week that works all major muscle groups (legs, hips, back, abdomen, chest, Shoulders, and arms)

### What is considered “aerobic activity”?

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- Uses oxygen to “burn” or utilize calories.
- Is steady and continuous in duration.
- Lasts for a period of at least 20 minutes, preferably 30-60 minutes. Work to increase duration gradually over time.

Examples of aerobic activities include brisk walking, running, swimming, rowing, continuous jump roping, jogging, bicycling, "aerobics" and dancing. Non-aerobic activities may include sprinting, weight lifting, racquetball, handball and tennis. These activities are considered non-aerobic because it involves short bursts of activity and does not maintain a steady heart rate.

For moderate-intensity physical activity, a person's target heart rate should be 50 to 70% of his or her maximum heart rate. Types of moderate-intensity activity includes walking fast, doing water aerobics, riding a bike on level ground or with few hills, playing doubles tennis, and pushing a lawn mower.

For vigorous-intensity physical activity, a person's target heart rate should be 70 to 85% of his or her maximum heart rate. Types of vigorous-intensity physical activity includes jogging or running, swimming laps, riding a bike fast or on hills, playing singles tennis, and playing basketball.

### What is considered “muscle-strengthening activities”?

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Muscle-strengthening activities should work out all your major muscle groups, and be done to the point where it is hard for you to do another repetition without help. A repetition is one complete movement of an activity, i.e. lifting a weight or doing a push-up.

Try to do 8-12 repetitions per activity and count them as one set. Try to do at least 1 set, and progressively try to increase your number of sets to 3. Some types of Muscle-strengthening activities include lifting weights, working with resistance bands, doing exercises that use your body weight for resistance (i.e. pushups, sit ups), heavy gardening (i.e. digging, shoveling), and yoga.

### How can you incorporate more exercise into your daily routine?

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- Take the stairs instead of the elevators any chance you get.
- Park farther away to increase the amount of daily walking.
- Take a walk after dinner - take Fido with you if you have that option.
- Instead of sitting in the airport waiting for your flight to board, go for a walk.
- Change your commute. Try riding your bike to school, rather than driving.
- While waiting between classes, try stretching or standing rather than sitting around.

## What are the benefits of Aerobic Activity?

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### *Improve Sense of Well-Being*

- Research shows that physical activity can improve overall mood and sense of well-being.
- It also helps to manage stress.

### *Increases Energy*

- Physical activity also increases energy levels, enabling you to study, work, or play more efficiently

### *Weight Control*

- Physical activity burns calories.
- Physical activity increases your metabolic rate (your calorie burning process) for hours afterward, thus promoting additional calorie burning.
- Physical activity produces lean muscle and lean muscle needs more calories to maintain itself than fat. This assists your body in more productively using the food you eat.

### *Cardiovascular Health*

- Regular aerobic activity maintains blood circulation and increases the strength of the heart. It is a good preventive measure against the risk of cardiovascular diseases such as heart attacks.

## Target Heart Rate

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In order to maximize the benefits that can result from regular aerobic activity, it is important to be sure you are exercising safely. Even if you are already healthy and physically fit, you want to make sure you are not over-exerting yourself and especially your heart. Your *target heart rate* is the ideal rate at which your heart and body will be working most efficiently.

<u>AGE</u>	<u>TARGET HEART RATE*</u>
20-24	140-160
25-29	136-156
30-34	133-152
35-39	129-148
40-44	126-144
45-49	122-140
50-54	119-136
55-59	115-132
60+	112-128

*\* This is the number of beats per minute you should be at while exercising. Your body burns calories most efficiently at this rate.  
(These rates will apply to those who are within the appropriate height/weight ratio)*

To determine your *active heart rate*, do the following while physically active:

1. Slow down your physical activity pace but do not stop.
2. Use your first and second finger and find your pulse on your wrist.
3. Count the number of heart beats for 10 seconds.
4. Multiply this number by 6 and this is your target heart rate.
5. Check to make sure this rate falls under the appropriate category for your age range in the target heart rate chart.

***If your heart rate is above the suggested range for your age range, you are over-exerting yourself.  
DO NOT EXERCISE AT THIS RATE!***

A general formula for determining your *MAXIMUM heart rate* is: Maximum heart rate = 220 - your age

### **A word of CAUTION**

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For those people who smoke, have no regular physical activity regime, are obese, have diabetes, high blood pressure, heart, lung or joint disease or other serious medical problems, *see a health care provider before beginning any physical activity program.*

### **For More Information:**

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Student Health Services ..... 619-594-5281 Visit Our Website at ..... shs.sdsu.edu  
Health Promotion..... 619-594-4133 Facebook/Twitter..... Facebook.com/aztehealth &  
Wellness at the ARC ..... 619-594-1800 @AZTEHealth