



Getting Physical

A proper diet and regular physical activity are essential for achieving and maintaining a healthy weight. The amount of calories your body needs is determined by your basal metabolic rate (BMR—the energy needed to sustain bodily functions in a resting state) and your activity level. Regular physical activity helps to control weight by increasing BMR throughout the day and by burning calories during exercise. In addition to weight management, there are many other benefits of physical activity.

Benefits of Physical Activity

- Increases strength and endurance
- Decreases risk of heart disease, diabetes, and some types of cancer
- Lowers blood pressure
- Increases the “good” and lowers the “bad” blood cholesterol levels
- Increases muscle and decreases body fat
- Increases life expectancy
- Improves sleep patterns
- Enhances self-image and self-confidence
- Relieves depression, anxiety, and stress
- Increases energy
- Decreases arthritis pain and stiffness
- Decreases risk of illness
- Builds and maintains strong bones

- Improves mood and mental outlook
- Relieves menstrual cramps

Where Do I Start?

If you are just beginning an exercise program, remember to take it slowly. The old saying of “no pain, no gain” has been replaced with “train, don’t strain.” An ideal fitness program includes the following:

Daily physical activity: For health benefits, try to accumulate at least 30 minutes of physical activity every day. Make fitness a part of your daily life by taking the stairs instead of the elevator and walking or biking to and from school, the grocery store, or the movie theater.

Aerobic exercise: Aerobic activities, such as jogging, biking, and swimming, use oxygen to burn fat and carbohydrate stores in your body.

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For cardiovascular benefits, these activities should be performed for at least 30 minutes at 50-85% of your total capacity most days of the week (refer to the supplementary sheet to determine your capacity).

Choose aerobic activities you enjoy, not ones you are going to dread. Vary the type of activity you do to prevent boredom and reduce your risk of injury. Also, remember to begin slowly. Increase the duration of your program by approximately five minutes every week until you reach your goal. And, gradually increase your intensity level.

Strength training: To increase muscle mass and strength, boost BMR, and build strong bones, try to perform resistance exercises two or more times per week. These types of exercises can be done with free weights, machines, or your own body's resistance (such as push-ups and sit-ups). Be sure to include all the major muscle groups and maintain proper form.

Warm up and cool down: Be sure to include 5-10 minutes of brisk walking, light jogging, mild calisthenics, or skipping rope at the beginning of each exercise session. This warm-up increases the blood flow to the muscles which helps prevent injury and improve muscle performance. Similarly, at the end of each

exercise session include a 5-10 minute cool down period of reduced intensity. This allows the body to remove built up waste products that occur during exercise from the muscles. It also prevents sore and stiff muscles.

Stretching: Gentle stretching and range of motion exercises should be performed after the muscles are properly warmed up. Stretching keeps the muscles from tightening during exercise, decreases stiffness and soreness after exercise, increases flexibility, and promotes relaxation. It is important to avoid bouncing as this tenses the muscles rather than relaxes them and may result in injury. Hold each stretch for 10-20 seconds.

Keys to Success

Approach physical activity with a positive attitude. Think of the benefits of exercise and not the potential difficulties. Many individuals find that if they can stick to a fitness program for two weeks, it becomes much easier to continue. Select the proper attire for the exercise to be performed. Comfortable shoes and clothing not only help prevent injury, but they also make the activity more enjoyable. Regular physical activity will help you feel better about yourself. Pick activities that you enjoy and will have fun doing!

For more information about exercise, please visit www.snac.ucla.edu.

PLANNING A FITNESS PROGRAM

A successful fitness program is one that has been carefully planned and individualized to your specific needs and interests. To ensure success, first set a realistic goal that you are 90% certain you can achieve. For example, if losing body fat is your primary concern, you may want to focus on aerobic activities first. A good start might be to walk briskly for 15 minutes every other day. As your fitness level and motivation increase, you can advance the frequency, intensity, duration, and/or type of activity you perform.

To achieve maximum results, follow the **FITT** guidelines below:

- Frequency:** Most days of the week.
Intensity: Exercise at Target Heart Rate (explained below).
Time: 30 - 60 minutes of sustained, continuous aerobic exercise.
Type: **Aerobic**, which includes: jogging, swimming, aerobic dancing, bicycling, rowing, and skating. **Strength training**, which includes: use of free weights, machines, or your own body's resistance at least two times per week.

What Is My Target Heart Rate and Why Is It Important?

In order to gain cardiovascular benefits, you need to exercise at 50 to 85% of your maximum work capacity. This level of activity will allow you to achieve and maintain the benefits described on the SNAC table card. To calculate this range, you need to understand the following concepts:

Target Heart Rate (THR) — Heart rate that stimulates training benefits of the heart and circulatory system. Beginners should exercise at 60% to 70% capacity. Regular exercisers who want to increase their fitness level should strive for 75% to 85% capacity. Intensity should never exceed 90%.

Resting Heart Rate (RHR)— Heart rate during one minute of absolute inactivity. The best time to measure this is the moment you wake up. Don't even get out of bed! Measure by taking neck or forearm pulse for 15 seconds and multiply by 4.

To calculate your Target Heart Rate use the following formula:

$$\% \times [(220 - \text{age}) - \text{RHR}] + \text{RHR}$$

For example, someone who is 20 years old, inactive, and has a RHR of 80 would have the following THR:

$$.60 \times [(220 - 20) - 80] + 80 = 152 \text{ heart beats/minute}$$

Therefore, during exercise this individual's heart rate (determined by measuring the pulse) should be 152 beats/minute. Since it is difficult to take your pulse for one minute, a ten-second reading is more convenient. The ten-second reading for this person (152 divided by 6) should be 25 beats/10 seconds.

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How Much Physical Activity Is Enough?

Always begin a fitness program slowly, and gradually increase the frequency, intensity, and duration. If your goal is fat loss, combine more aerobic exercise with a moderate calorie reduction. If your goal is muscle gain, combine more strength training exercise with a moderate calorie increase.

The number of calories burned during any activity depends on your weight, speed, and skill level. The list below shows how many calories are burned during 30 minutes of continuous activity by a 150 lb. person:

Activity/Approximate Calories Burned

Activity	Approximate Number of Calories Burned	Activity	Approximate Number of Calories Burned
Aerobics – light	102	Jogging – 5.5 mph	324
Aerobics – medium	170	Roller Blading	173
Aerobic – heavy	272	Running – 7 mph	432
Backpacking	306	Running – 12 mph (sprinting)	591
Baseball	141	Skiing – cross country	351
Basketball – vigorous	340	Skiing – water	219
Bicycling – 5.5 mph	150	Swimming - .25 mph	150
Bicycling – 13 mph	320	Tennis	207
Bowling	132	Volleyball	173
Dancing – moderate	126	Walking – 2 mph	105
Dancing – vigorous	171	Walking – 4.5 mph	201
Football – touch	238	Walking – up stairs	525
Golf	122	Walking – down stairs	201
Horseback Riding – trotting	173	Weight Lifting – light	136
Ice Skating – 10 mph	197	Weight Lifting – heavy	306

How Do I Stay Motivated to Keep Up My Fitness Program?

Helpful hints for a successful fitness program include:

- Do not over-exert yourself – the old adage “no pain, no gain” is not true!
- Set realistic goals for yourself.
- Exercise with a friend.
- Compete only with yourself – each person is different.
- Begin your program slowly and gradually build up to 3 - 6 sessions per week.
- Keep a physical activity log – this helps you to monitor your progress. Include information such as date, work load, and duration of activity.

Remember to Reward Yourself for Your Hard Work!

There are many pleasurable rewards that do not involve food. Identify small, inexpensive, out-of-the-ordinary treats:

- Participate in a favorite hobby for an hour.
- Visit a friend.
- Buy a paperback book or magazine.
- Buy a new work-out outfit.
- Treat yourself to a massage, facial, or manicure.
- Go to the movies or rent a video.
- Go to a museum.