



X-Plain™
Exercising For A Healthy Heart
Reference Summary

Heart disease is the leading cause of death in the United States. About half a million Americans die every year from heart disease.

In addition to eating healthy and reducing stress, exercising is one of the things YOU can do to reduce your risk of heart disease.

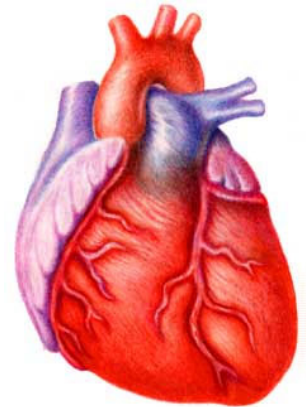
There is increasing evidence that being physically active can make the heart stronger and can prevent heart attacks.

This reference summary will discuss the benefits of being physically active. It also presents exercising options and tips.

Benefits

The heart is a muscle that pumps blood to the body. Like any other muscle, physical activity exercises the heart and keeps it strong. This is known as heart conditioning.

A strong heart pumps blood better. A well-conditioned heart pumps the same amount of blood in 50 beats as the heart of an inactive person pumps in 75 beats. At rest a well-conditioned heart beats slower than a non-conditioned heart. A weak heart does not pump as well as one that is conditioned. This increases the risk of heart and blood vessel disease.



Several other factors can cause heart disease such as:

- High cholesterol
- High blood pressure
- Obesity
- Stress
- Diabetes.

These are known as risk factors. Exercise helps to control these risk factors.

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Staying physically active helps to lower cholesterol levels and keep them within acceptable ranges.

Exercise burns energy, which reduces weight and fat.

It also helps people cope with stress, combat anxiety and depression, and feel relaxed.

In addition to making the heart healthier, staying active has several other benefits.

Regular exercise helps us feel better about our bodies. It tones the muscles. For overweight people, it helps with weight loss; for those who are not overweight, it helps prevent weight gain.

Exercise gives us more energy by increasing our endurance. Endurance is how long you can keep exercising without getting tired.

Exercise that can be done alone, such as jogging or swimming, gives us a chance to think about our lives without being interrupted.

Team exercise helps us meet new friends and enhance our social life.

It also improves the quality of sleep.

Types of Physical Activity

Levels of physical activity can be broken down into 4 categories:

- Inactive
- Moderately active
- Active with regular exercises
- Active with regular aerobic exercises

Inactive people can be defined as those who do not get regular exercise. Inactive people also avoid physical activity such as mowing the lawn, climbing the stairs, and walking to change the TV channel or answer the phone.

Inactive individuals are at the highest risk of developing heart disease. Any type of physical activity can help them to attain a healthier life style.

Moderately active people incorporate some physical activity into everyday tasks. This could include mowing the lawn, washing the car, vacuuming the carpet, taking the stairs instead of the elevator, or walking next door instead of calling on the phone.



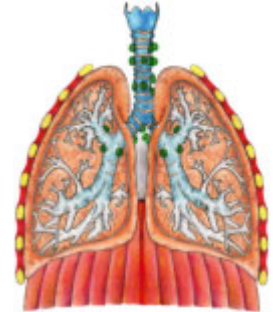
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The body needs about 30 to 60 minutes of physical activity a day to stay healthy. By including activity in the daily things you do, you can maintain a reasonable level of physical activity that will significantly benefit your heart.

For the heart to be conditioned to pump the same amount of blood with a smaller number of beats, exercise should be done vigorously. During exercise, the heart rate is increased significantly. This is known as aerobic exercise.

Some types of exercise provide a lot of benefits but are NOT considered aerobic. Examples are gardening, softball, walking leisurely, ping-pong, bowling, and weight lifting.

Aerobic exercises include activities such as aerobic dancing, bicycling, swimming, walking briskly, stair climbing, running, rowing, and jogging.



Tips for Starting

If you are inactive you can start being more physically active by adding a little bit of activity to the things you normally do. Here are 10 tips:

- Walk to your TV to change the channel instead of using the remote control.
- Take the stairs instead of using the elevator at work.
- Walk to the mall instead of driving there.
- Walk to your coworker's office instead of calling on the phone.
- Take the stairs instead of using the escalator at shopping malls and the airport.
- Mow the lawn and shovel the snow instead of hiring people to do these tasks.
- Wash your car.
- Vacuum the carpet and do housework more frequently.
- Pick up your pizza order instead of ordering through delivery.
- Do some gardening and rake the lawn.

Tips for Exercising

Here are 10 tips for exercising:

- Choose activities you enjoy.
- Exercise for about 30 minutes a day. If you need to, divide up the time into three 10-minute sessions instead of one 30-minute session.
- If you have not exercised in a while, begin exercising gradually to give your body a chance to get ready for more vigorous workouts.
- Warm up and stretch before exercising.

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- Exercise at your own pace.
- At the end of your exercise session, slow down gradually.
- Do stretching exercises after your workout.
- If you miss a few sessions, restart at a lower level than before.
- If you get bored with your current activity, change to a different exercise.
- To lose weight, it is important that you cut down on calories in addition to exercising.

Resistance Training

Weight lifting, also called resistance training, is recommended for all adults. Here are a few tips:

- Do resistance training 2 to 3 times a week with at least one day of rest between sessions.
- Start each session by warming up for 5 minutes
- Start with weights that you can use comfortably.
- Pick a set of 8 to 10 exercises that exercise the major muscle groups: arms, shoulders, chest, abdominal muscles, back muscles, hips, and legs.
- Follow the safety instructions on the equipment. Ask for directions if you do not know how to use the equipment.
- When exercising, exhale as you lift the weight and inhale as you return the weight to the starting position.
- Repeat each exercise 10 to 15 times until the muscles are fairly tired.
- As you gain strength after several sessions, gradually increase the amount of weight or the repetitions.
- To build endurance, increase the number of repetitions without increasing the amount of weight.

Aerobic Exercise

As we exercise, our body requires more oxygen. Our heart has to work harder and faster to deliver more oxygen to our muscles.

As our heart works harder to deliver oxygen, our heart rate goes up. The fastest your heart can beat is known as your “maximum heart rate.”

Maximum heart rate varies with age; a quick way to estimate yours is to subtract your age from 220. A 40-year-old person has a maximum heart rate of $220 - 40 = \mathbf{180}$ beats per minute.



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The goal of aerobic exercise is to increase the heart rate to between 50 and 75% of the maximum heart rate; this is called your “target heart rate zone.” Therefore, a 40-year-old person’s heart rate should be between 90 and 135 beats per minute **while** exercising.

It may take a few months to reach your target heart rate zone. It may also be possible to push your heart rate up to 85% of your maximum heart rate as you continue to exercise regularly.

You can measure your pulse by either feeling the carotid arteries in the neck or the radial artery in your wrist using your fingertips. Count how many pulses you feel in 15 seconds then multiply by 4 to get the heart rate per minute.

If your heart rate is below your target zone, you should increase the intensity of your exercise. If your heart rate is above your target zone, you should decrease the intensity of your exercise.

If you have any medical conditions, you should talk with your doctor before starting any exercise program. Some medications you may be taking may lower your heart rate; in a case like this, you would want to adjust your target heart rate zone accordingly.

Risks of Exercising

When done correctly, exercise involves very few risks. The following are some tips for safe exercising.

If you have heart disease or were born with a heart disease, consult your cardiologist regarding the type of exercise you can do.

You should stop exercising immediately if you start feeling pain or heaviness in your chest or neck. This may be an early sign of a heart attack. Pain in the left shoulder or arm is not normal either, and may also indicate that a heart attack is approaching.

Exercise may stress the joints, causing knee and ankle pain. It is important to exercise safely, being careful not to over-exert any specific joint.

Learn about safe techniques for using exercise equipment.

If you start feeling dizzy or light-headed, this may be an indication of a heat exhaustion. If your body temperature becomes very high and sweating stops, these are signs of the more serious heat stroke. In either case, you should rest and drink some fluids.

In cold weather, wear warm clothes if you are exercising outside.

Wearing good quality shoes that are suitable for the exercise you are doing is also a precaution that protects your joints from stress and pain.



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Wait at least 2 hours after a regular meal before exercising. Wait at least 20 minutes after exercising before you eat anything.

It is important to use safety measures while exercising such as wearing a helmet when riding a bicycle and goggles for racquetball. Also, use front and back bicycle lights if biking at night.

Use common sense when exercising; don't jog on icy roads, don't walk in unsafe dark streets, and don't ride a bike in busy streets.

Summary

Today, fewer and fewer jobs require significant physical activity. Therefore, most Americans get little vigorous exercise at work.

Regular exercise helps condition the heart and lungs, prevents heart attacks, and reduces stress.

Starting an exercise program can be made easy and successful if you:

- Select activities you like
- Start with realistic goals
- Gradually increase the intensity of the exercise.

The short-term and long-term benefits of exercising make it well worth your time!

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