

## EXERCISE AND YOUR HEART

**E**XERCISING REGULARLY is known to reduce the risk of heart disease. It makes the heart muscle both stronger and thicker, which enables it to pump the same volume of blood around the body with fewer beats. This explains why many athletes have a remarkably slow heart rate. All evidence shows that people who exercise regularly and vigorously have a much lower chance of having a heart attack and, if they do have one, they are more likely to survive it.

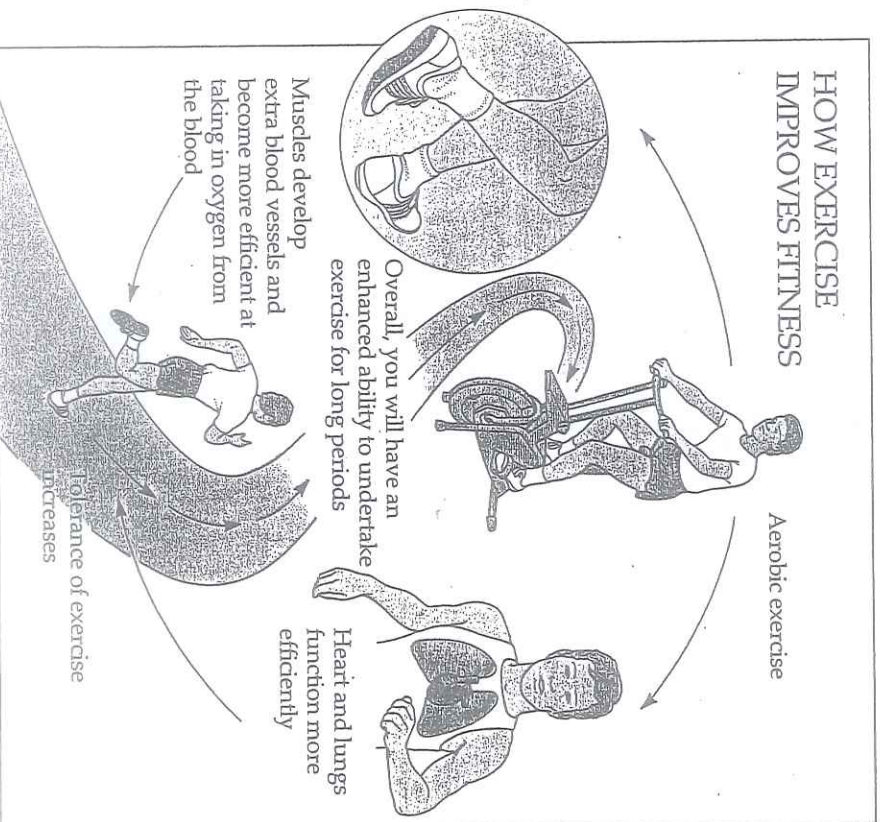
### SAFEGUARDING YOUR HEART

Regular exercise reduces the amount of unhealthy cholesterol in your bloodstream. This means that you have a lower risk of angina or of a heart attack. Another reason exercise is good for your heart is that, in conjunction with eating a healthy diet (see page 22), it helps control your weight. Exercise burns up extra calories, allows a much wider food selection, uses up fat from your body's reserves, and increases the level at which energy is burned in your tissues at rest, which helps you use excess calories when you are not exercising. People who are more than 20 percent overweight are more susceptible to high blood pressure and thus much more likely to have heart disease develop.

#### Exercise after a heart attack

Exercising regularly after a heart attack has been claimed by some experts to reduce your risk of having another one. Today most doctors allow you to start daily activities (such as walking short distances in your room) within a few days of a heart attack, provided you do not have any complications such as heart failure or an irregular heartbeat. Exercise levels are then gradually increased. Once the damaged area of heart muscle

Exercise increases the speed and strength of your heartbeat. At rest, your heart pumps between 10 and 12 pints of blood around your body in a minute. During exercise this rate can increase to between 18 and 70 pints per minute. If you are in shape, your heart will recover more quickly after exercise, so that your pulse returns to normal sooner.





## ASK YOUR DOCTOR

### EXERCISE AND THE HEALTHY HEART

**Q** My wife has read that you can die suddenly during strenuous exercise. I have been training hard for a marathon and she is worried. How can I tell if I am overdoing it?

**A** It is true that people die more often during exercise than when resting in bed. However, in general, people who exercise regularly live longer than those who do not. If you are concerned about your training, ask your doctor to give you a checkup. Warning signs during exercise are chest pain, pain in your neck or arms, severe breathlessness, dizziness, palpitations, or faintness.

**Q** If exercise makes blood pressure go up, why does my doctor tell me to exercise to keep my blood pressure down?

**A** Your blood pressure goes up during exercise because your heart is beating more forcefully. When you stop, it returns to lower than your usual blood pressure or back to normal. Regular exercise can help prevent persistently high blood pressure. It also lowers the level of cholesterol in your blood.

**Q** My father died of a heart attack at age 40. Should I be worried now that I am approaching 40?

**A** Anyone over 35 who has a family history of heart disease should have a checkup before doing any strenuous exercise to ensure that there are no signs of heart disease or high blood pressure. It should then be reasonably safe for you to exercise, as long as the exertion does not bring on any alarming symptoms.

## HOW EXERCISE STRENGTHENS YOUR HEART

During strenuous exercise the volume of blood flowing into the heart increases. The greater volume of blood stretches the muscle, and the muscle fibers respond with a stronger, more powerful, contraction. The heart's muscle bulk increases and its blood vessels proliferate, improving the muscle's blood supply. In time, the heart becomes more efficient and pumps a greater volume of blood with each stroke, allowing the heart rate to slow down.

HEART OF PERSON WITH  
SEDENTARY LIFE-STYLE



The heart muscle bulk and the blood vessel network adequately cope with the usually low pressure of blood.

HEART OF PERSON WITH  
ACTIVE LIFE-STYLE



There is increased muscle bulk and a proliferation of blood vessels within the heart muscle.

## IS EXERCISE SAFE WITH ANGINA?

If you have angina, talk to your doctor before you begin an exercise program. Gentle exercise is recommended for most angina sufferers, many of whom are able to take regular, brisk walks. Stop exercising if any symptoms appear and never exercise if you have chest pain or severe breathlessness. Do not exercise in very cold or very hot weather or right after a heavy meal; these factors can place extra strain on your heart. Strenuous exercise, such as digging in the garden or shoveling snow, should be avoided.

has healed, which usually takes about 6 weeks, most people are allowed to return to their normal activities.

### A steady pace

Start exercising with a program of slow walking, increasing your pace and the distance you walk gradually over a couple of weeks. Stop if you notice chest pain, breathlessness, palpitations, dizziness, or any other alarming symptoms. Do not exercise in very cold or very hot weather or right after a meal.