

# exercise

Everyone can benefit from some form of exercise and experience a lift to their overall health and well-being. Moderate exercise is beneficial to the immune system, and can also improve mood and offer an important way of maintaining a healthy self-image.

Aside from popular forms of exercise like swimming, cycling, aerobics, running, and weight training (sometimes called resistance training), there are a number of movement-based exercises, such as yoga, which help maintain muscle tone and suppleness whilst also having meditative or relaxing qualities.

## What are the benefits?

Blood lipids is the name given to fatty substances in the blood, such as cholesterol and triglycerides. Having high levels of these substances in the blood raises your risk of coronary heart disease. Many people have raised blood lipids, but people who are taking anti-HIV drugs may also experience this problem.

Raising the heart rate for at least thirty minutes three times per week through aerobic exercise (such as cycling, running, swimming, or even brisk walking) reduces these fats, and so lowers risk of heart disease.

People with HIV-related wasting often have low levels of a type of cholesterol called HDL; sometimes referred to as 'good' cholesterol. Resistance training has been shown to significantly increase HDL cholesterol in HIV-positive men with normal testosterone levels.

Regular exercise has been shown to reduce total body and trunk fat among HIV-positive men with body fat changes (lipodystrophy). Resistance exercise reduces raised triglycerides and cholesterol levels.

## Planning a personal programme

Most gyms employ fitness instructors whose job it is to ensure all exercise is carried out safely. They can also design an individual training programme for you.

Local authority gyms may be cheaper than private gyms, and some HIV organisations have their own facilities. In some cases, your HIV treatment centre may be able to refer you to a physiotherapist, a health professional specialising in exercise and physical therapy.

## Fuel for exercise

Before the workout begins ensure that you are properly hydrated. During each workout, ensure that you maintain an adequate fluid

intake. You should try to drink at least 150ml to 250ml every 15 minutes during a session, and increase this if you are taking the protease inhibitor indinavir, to protect against kidney stones.

Do not exercise before breakfast, or immediately after a large meal. The best time to exercise is 30 minutes after a light snack or a meal replacement drink. Do not eat during a workout but do try to eat a meal high in carbohydrate and protein as soon as possible after each session in order to promote muscle tissue growth. Seek advice from a registered dietitian at your treatment centre on developing a suitable diet plan.

## The exercise programme

Stretching should be performed at the beginning and end of each workout in order to warm-up and then relax tired muscles. Warm-up exercises should last no longer than 8-10 minutes and should not tire you out. Your warm-up could consist of jogging, riding a bike or swimming slowly. Warming-up muscles in this way will decrease the risk of muscle injury during strenuous exercise and will increase blood flow to the heart.

## Resistance training

Regular resistance training can be used to promote and maintain muscle, whilst reducing body fat and increasing muscle strength. Resistance training should take the form of sets of 8 to 12 repetitions. Begin with one set of each exercise and increase this to three as your stamina improves. Start with low weights and build up slowly over time. Lift and lower weights slowly.

## HIV wasting

People with less muscle are likely to be more severely weakened by weight loss or wasting, since it is usually muscle tissue that is lost before body fat. Significant weight loss (more than 10% of total body weight) can impact upon quality of life, feelings of self-esteem, the ability to carry out day-to-day tasks, as well as the ability to fight off other infections.

One research study found that men with low testosterone levels, who had lost more than 5% of their body weight in the past six months, and who began resistance training, gained 2.1kg over 16 weeks. In another, men with normal testosterone levels, who had lost more than 10% of their body weight, or who weighed less than 90% of their ideal body weight, began resistance training (three times weekly for 12 weeks). These men gained an average of 2.3kg of muscle over a 12-week period.

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