

# The right formula

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## Fitness and Nutrition – Theme 7: Keeping fit

| Factsheet 7b |

### What happens during exercise

When we go about our everyday activities, or when we exercise in moderation, we use energy stored in our muscles, in the form of glucose. The series of chemical reactions that convert food into energy for the muscles uses oxygen and it is called **aerobic** (the word comes from the Greek word for 'air').

Walking fast, jogging, dancing, riding a bike, are all aerobic exercises that use oxygen, utilising the heart and the lungs and improving a person's all-round fitness and health.

When we exercise vigorously our muscles use up oxygen and glucose faster than the bloodstream can supply them. As a result, our muscles are starved of energy and we get tired. There is, however, a back up chemical in the muscles, called phosphorylcreatine. This chemical can supply energy – but only for short periods of time – when oxygen is in short supply. As this type of energy production uses no oxygen, it is called **anaerobic** (meaning 'without air').

Activity or exercise that require intense bursts of energy for a short time, like running for a bus or sprinting across a basketball court, are anaerobic.

Some activities require a combination of both types of exercise. As an example, the 400 metre race is one of the most difficult runs as it is too short to be an aerobic exercise, yet too long to be only anaerobic. A combination of both types of energy is needed to run the race.