

Effect of Exercise on different System

Respiratory system

Short term effects

During exercise, the body needs a supply of oxygen to release energy in the muscles. Respiration increases to provide that oxygen and remove carbon dioxide.

This is done by:

- increasing breathing rate by about three times the normal rate.
- increasing tidal volume by five times the normal rate.
- increasing blood supply to and through the lungs.
- increasing oxygen up take.

Long term effects

The body becomes more efficient at **using** oxygen. This is known as **VO₂ max** and is a significant indicator of an athlete's physical fitness.

Lungs

While exercising, the body needs more oxygen to keep the muscles working and the body functioning. Increasing body movements causes the brain to signal to the lungs to work harder to obtain needed oxygen. Thus exercise causes the lungs to work more efficiently.

Digestive system

Short term effects

Blood is diverted to the heart, lungs and working muscles, away from parts of the digestive system.

It is best to rest for up to two hours after a meal before exercising.

The effects of exercise on the body.

Short term effects

During intense exercise the body's temperature rises.

Messages are sent from the brain to the skin to make it sweat. **Sweat** is formed by sweat glands under the skin.

Losing heat through sweating is caused by the evaporation of sweat from the skin's surface.

Blood is diverted to the capillaries just below the skin. This causes the skin to **redden**.

Long term effects

Exercise improves the general health and well being of the body.

It is kept toned and helps to prevent heart disease in later life.

It provides positive mental and social contributions to a person's life as well as positive physical contributions.