

Fighting dehydration

Dehydration is the excessive loss of body water, accompanied by a disruption of metabolic processes

Importance of water

The human body cannot function without water. It makes up two-thirds of the body and:

- transports nutrients, hormones and waste products around the body
- keeps the skin healthy by helping cells to regrow
- helps the kidneys to flush out toxins
- helps the digestive system
- lubricates joints, making movement easier

Water is the main component of many cells and plays an important part in regulating body temperature. When you take part in exercise, energy is required and some of that energy is released as heat. Water stops you overheating and cools you down through sweating and evaporation. But this means that water is lost during the cooldown process. Once the body starts to lose water during exercise, dehydration can occur.

When does dehydration occur?

During exercise, much water is lost through sweating, as sweating is the body's principal method for maintaining its core temperature of 37°C.

It is not just water that is lost through sweating. The body also loses electrolytes and minerals such as calcium, magnesium, sodium, chloride and potassium. If these are not replaced, dehydration occurs and performance will deteriorate.

Symptoms of dehydration

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| • Dizziness | • Dry mouth |
| • Feeling lightheaded | • Headache |
| • Feeling thirsty | • Tiredness |
| • Dark urine (which could also have a strong smell to it) | • Vomiting |
| | • Muscle cramps |

Effects of dehydration

- Blood viscosity increases
- Reduced blood pressure and blood flow to the working muscles
- Reduction in blood flow to the skin
- Reduced sweating to try to prevent further water loss
- An increase in core body temperature
- Muscle fatigue
- Muscle cramps
- Reduction in the exchange of waste products
- Reduction in the transport of nutrients
- Irregular heartbeat
- Decrease in performance

Overcoming dehydration

If these symptoms occur, drink plenty of water, fruit juice or diluted juice. There are products that you can buy over the counter from pharmacies that replenish the salts and sugars in the body. Sitting down and resting will also help the body to rebalance the minerals and lower the heart rate.

If the dehydration is caused by overheating, sitting in the shade and drinking water will help the body cool down. When a person starts vomiting and is unable to keep any fluid down, get them to drink water in small amounts frequently. In extreme cases of dehydration a person may need urgent medical treatment, in which case hospital is the best option.

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