

Key Words

Hydrated: the body has enough water

Dehydrated: the body does not have enough water

Functions in the body:

- All cells, bodily fluids (e.g. saliva, blood, urine, digestive juices) and body tissues contain water
- Controls body temperature.
- Needed for chemical reactions in body.
- Keeps skin moist and healthy
- Removes waste products from body.

Sources:

- Drinking water (tap water).
- Naturally found in many foods (e.g. milk, milk products, fruit, vegetables, meat, fish, eggs).
- Added to many foods during preparation, cooking and processing (e.g. soup, sauces, pastries, breads, boiled rice, pasta, beans, pulses etc.).

Effects of excess:

- Substances in the blood become over-diluted.
- Vital organs in the body start to fail, e.g. heart, kidneys.
- May cause death.

Effects of deficiency:

- Thirst—the brain detects when the body is thirsty + sends a message to the mouth
- Headache—blood pressure is concentrated so as it passes through the brain results in a headache
- Dehydration—urine becomes very dark. Should be very pale yellow in colour
- Feeling weak and sick as the body's normal chemical reactions are affected
- Body overheats as it cannot cool itself down
- Confusion as dehydration affects how the brain works
- Blood pressure and heart rate change as volume of blood is reduced

Water 1.1.6

Amount needed for different life stages

In the U.K it is recommended people drink 1—2 litres of water or other fluids a day (6—8 medium glasses) but needs to be increased in hot weather or if a lot of physical exercise takes place.

Other people with increased need for water are:

- Anyone suffering from vomiting or diarrhoea (to avoid dehydration)
- Lactating (breast feeding women) for milk production.
- Elderly people, to prevent kidney problems and infection

Bottled or tap water. Which source is better for environmental sustainability?

- Bottled water is sold in plastic bottles. These use a lot of energy and non-renewable resource (oil to make plastics) and they are bad for the environment because they have to be disposed of, often in landfill sites. Some, but not all, of the plastics used are recyclable.
- Tap water has to be cleaned to make it safe to drink, which uses energy, but it does not have the same effects on environmental sustainability as the plastic bottles used for bottled water.



Ways to encourage young children to drink more water:

Provide more watery foods such as fruits, vegetables, salads.

- Add slices of fresh orange, lemon or lime, or fresh mint to tap water.
- Add fun-shaped ice cubes to tap water.
- Serve water with every meal as a regular habit.
- Adults should set an example and drink water with the child so it becomes normal behaviour.

The Eatwell Guide limits fruit juice and/or smoothies to a total of 150ml per day. This is because they are both high in sugar and acids. The sugar is 'free' sugar because it has been released from the fruit during processing and can be concentrated. This is not good for the teeth meaning the enamel can be damaged by bacteria in the mouth producing acids from the sugar and acids in the fruit. If you drink more

Urine colour chart

1		Good
2		Good
3		Fair
4		Dehydrated
5		Dehydrated
6		Very dehydrated
7		Severe dehydration

