

Fluid

Water is essential for life. As a major constituent of the body, it has many functions including transporting nutrients and compounds in blood, removing waste products that are passed in the urine and acting as a lubricant and shock absorber in joints.

Water regulates the body's temperature; sweating is a very effective way of reducing the body's temperature. The water content of the body varies with age and gender; males have more water than females because women have a higher proportion of body fat.

At birth the human body is approximately 70% water and this decreases with age; in the elderly it is about 55%. Drinking enough is vital to maintain good health in the short and long term e.g. for the prevention of constipation, kidney stones and urinary tract infections. Good hydration also can prevent other conditions e.g. chronic renal disease.

What happens if I don't drink enough?

If you don't consume enough water you will become dehydrated. The first thing you will notice is increased thirst and a dry sticky mouth. Other effects include tiredness, poor concentration, headache and dizziness or light headedness.

How much do I need to drink?

In the UK, drinks provide 70-80 % of our water needs; the remaining 20-30 % comes from food e.g. soup, stews, some fruits such as melon and vegetables such as celery. The table below shows the recommended amount of water that should be taken as drinks per day.

These are average values and an individual's requirement will depend on many factors including temperature and humidity and exercise. Warm and dry environments such as air conditioned offices or centrally heated homes increase the need for water as they speed up the evaporation of sweat on the skin.



Recommended adequate intakes of water from drinks

	Age	Adequate water intake from drinks (ml/day)
Infants	0-6 months	550ml through milk
	7-12 months	640 – 800ml
Children	1-2 years	880 – 960ml
	2-3 years	1040ml
	4-8 years	1280ml
	9-13 years	Boys: 1680ml Girls: 1520ml
	> 14 years	As adults
Adults including the elderly		Men: 2000ml Women: 1600ml
Pregnant women		As adults + 300ml per day
Lactating women		As adults + 600-700ml per day

How do I know I am drinking enough?

Thirst is only part of the way we regulate hydration in the body. When you drink you stop you feeling thirsty before your body is completely rehydrated. The colour of urine is the best indicator; if you are drinking enough your urine should be a straw or pale yellow colour.

What type of drinks should I have?

To an extent this is a matter of personal taste and preference. In the UK drinking plain tap water is a good way to get enough to drink. Chilling or filtering tap water are cheap ways of making it taste more pleasant. Bottled water has the same hydrating abilities as tap water. Tea and coffee provide water and can be a good way of keeping older adults well hydrated.

However if you drink a lot of tea and coffee you need to be aware of the amount of caffeine you are consuming. This is particularly important for pregnant women.

Regular fizzy and still drinks contain a lot of sugar and should only be drunk in small amounts. Fruit juices provide water and other nutrients but contain sugar so only have one small serving per day; this counts towards your 5-a-day.

Alcohol may make the body pass more urine than usual and make you dehydrated. It's a good idea to also drink low-sugar soft drinks or water when drinking alcohol.

Children

While adults are very good at regulating water in the body these mechanisms are not yet fully developed in children. In addition younger children can't ask for a drink or say they are thirsty so children are particularly vulnerable to dehydration.

Access to water and avoiding lots of toilet breaks in schools can also be a problem. It is important that children drink frequently throughout the day. There is some evidence that children who drink extra water perform better in attention and memory tests.

Elderly people

Elderly people are vulnerable to dehydration and they may have difficulties accessing drinks. Fear of

Common household measures include:

1 medium size glass	≈ 200 ml
1 can of fizzy drink	≈ 330 ml
1 mug	≈ 250 ml
1 cup	≈ 200 ml

≈ = approximate measurements

incontinence may also mean that some elderly people restrict their fluid intake.

Regular drinks should be encouraged; tea and coffee are a good way of getting elderly to drink. Elderly dehydrated people are at particular risk of urine infections and falls and should monitor how much they drink in hot weather.

Sport

It is important that water lost through sweat when exercising is replaced to maintain performance and health. Some athletes may find isotonic drinks useful.

Summary

Having regular drinks throughout the day will help you stay well hydrated especially when it is hot or you are exercising. Keep an eye on the colour of your urine; if it dark you need to drink more.

Children and the elderly are particularly vulnerable to dehydration and may need to be encouraged to drink more.

Further information

Food Fact Sheets on other topics including Sports, Pregnancy and Alcohol are available at

www.bda.uk.com/foodfacts



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Written by Dr Joan Gandy, Dietitian. The information sources used to develop this fact sheet are available at www.bda.uk.com/foodfacts

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