

Water in the Workplace

Introduction

Water is a vital nutrient for life, but in a busy working environment it is easy to overlook the importance of good hydration for our daily health. Everybody wants to be healthy at work and a healthier workforce leads to improved productivity and lower sickness absence. Figures from the CBI show that sickness absence cost UK employers £12bn a year, with 168 million working days lost in 2004.

Good hydration contributes to workers' health and safety. Even mild levels of dehydration adversely affect both physical and mental performance, but these effects can be made worse by the physical demands of the job, a hot working environment, intake of caffeinated drinks, or the need to wear protective clothing. Good hydration also has many long-term health benefits, making it an essential part of any healthy lifestyle.

What is good hydration?

There is currently no agreement about how much water we should drink each day. Some estimates do exist and these range from 1.2 litres, to 3 litres (for men) or 2.2 litres (for women). These amounts represent about 81 per cent of our total daily water requirement, since on average about 19 per cent of the water we need comes from the food we eat.

Dehydration is defined as a 1 per cent or greater loss of body weight as a result of fluid loss. We usually feel thirsty when dehydration reaches 0.8-2 per cent. This means that you can't rely on thirst to tell you when it is time to have a drink, because by the time you feel thirsty, you are already slightly dehydrated. The key is to keep topping up with water throughout the day.

Look out for some of the early signs of dehydration which include light-headedness, dizziness, tiredness, irritability, headache, sunken features (particularly the eyes), flushed skin, heat intolerance, dry mouth, throat and eyes, and skin that is loose and lacks elasticity. There may be a burning sensation in the stomach, urine output will be reduced, and may appear darker than usual.

Water is mainly lost from the body as urine, but we may also lose water through evaporation from our lungs and skin when we breathe and sweat. A small amount of water is lost in faeces. In hot weather, or when we are active, the body loses more water and so we need more to drink. In order to remain healthy, water gains and losses must be balanced – this is what constitutes good hydration. Our bodies are very efficient at regulating daily water balance provided adequate food and the right fluids are available.

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Benefits of good hydration

Preventing and relieving headaches

Concentration and mental performance

Prevention of cancer and the risk of chronic diseases

Drinking enough water can help to protect the body against certain chronic diseases.

Individuals who maintain good hydration levels have been shown to have a reduced risk of developing the following conditions:

- Breast, colorectal, urinary tract cancer
- Coronary heart disease
- thrombosis
- stroke
- gallstones
- kidney and bladder stones

Maintaining a healthy workforce and helping employees avoid long term health problems will become increasingly important as the Employment Equality (Age) Regulations 2006 come into force in Great Britain. These will introduce a national default retirement age of 65 and make compulsory retirement below age 65 unlawful (unless objectively justified). The regulations will widen the age range of the workforce by placing a duty for employers to consider an employee's request to continue working beyond retirement. They will help to ensure that the contribution of older individuals is valued in the workplace and put an end to age discrimination at work.

Preventing urinary tract infections

Water helps to keep the urinary tract and kidneys healthy. Urine is formed by the kidneys to get rid of water-soluble waste products. Adults normally pass about 1.5-2 litres of urine per day. The kidneys play a vital role in controlling the amount of water in our bodies by increasing urine dilution to remove excess water and reducing urine dilution to retain water and prevent dehydration.

Maintaining a healthy weight

Water is a vital component of any healthy diet, including weight loss regimens.

One theory linking mild dehydration to obesity suggests that low fluid intake may stimulate a preference for a high fat diet. Of all the nutrients, fat generates the most metabolic water when it is broken down by the body. A high fat diet could, therefore, be part of a compensatory mechanism to deal with perpetually low water intakes.

Physical performance and exercise

Mild dehydration of 1-2 per cent can reduce physical work capacity by a quarter. Both aerobic and endurance activities are affected and the drop in performance becomes worse in a hot environment as the level of dehydration increases.

Health-conscious employers often provide access to gym and sports facilities for their staff.

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Oral health - Having a dry mouth is one of the early signs of dehydration, but a reduction in saliva production can be a risk factor for dental disease. Saliva is essential for good oral health. Sports drinks can also contribute to tooth decay and are usually very high in calories.

Healthy pregnancy - Pregnant women have a slightly increased water requirement due to the needs of the fetus and the amniotic fluid. This has been calculated to be an extra 30ml of total fluid intake per day (excluding water in foods). Good hydration during pregnancy is very important.

Caffeine

Ninety three per cent of workers drink at least one caffeinated beverage a day. Caffeine acts as a stimulant to the nervous system, and whilst its mild action may help to prevent a feeling of fatigue, it is also a weak diuretic. This means that it makes the body produce more urine, which in turn can lead to dehydration.

- A cup of fairly strong coffee contains about 60-100mg caffeine.
- The average cup of tea made from 5g tea contains 50-80mg caffeine.
- Cocoa also has about 20mg of caffeine in an average cup.
- Caffeine is also present in some carbonated soft drinks.

If you like to enjoy a cup of coffee at work, just be sure to drink plenty of water or other

non-caffeinated drinks in order to help counteract any negative effects of the caffeine.

Alcohol

Alcohol is a diuretic and, taken in excess, can lead to dehydration. For every 1g of alcohol consumed, urine excretion increases by 10ml. In addition, long-term, habitual consumption of alcoholic beverages blunts the thirst response. This means that you won't feel thirsty until you are much more dehydrated than normal.

Drinking alcohol in moderation is not harmful, but problems can occur if you drink too much. In order to counteract the dehydrating effect of alcohol, you should have plenty of other non-diuretic drinks such as water.

Environmental factors

Maintaining a good level of hydration is important in the following environments:

- Hot environments
- Cold environment
- Indoor environments

*Article written by Hilary J Forrester, Independent Researcher & Senior Policy Executive, Science & Education, BMA and Reprinted with the authors kind permission 04/04/06

**All relevant medical practice and care guidance must be observed before considering these suggestions.

For further links please visit:

www.water.org.uk
and www.waterforhealth.org.uk