Children do not drink enough during the school day – and the resulting dehydration contributes to continence problems (Box 1). One important part of treating these problems is an adequate and regular fluid intake during the day (Haines et al, 2000). However, it is not uncommon for pupils to go six or seven hours without a single drink, and those who do drink usually drink less than they need (Almond, 1993; Haines et al, 2000).

**Why fluid intake is important** Maintaining the body’s fluid balance at an optimal level has a marked effect on our health, well-being and physical performance. There is evidence to show that mild dehydration of 1–2% loss of body weight (the level of dehydration when we first feel thirsty) results in measurable decline in mental performance. A recent study of young adults found that mental performance decreased by 10% when they were thirsty (Rogers et al, 2001).

Children’s fluid requirements are proportionally higher than adults – 1.5 ml of water per kcal of food as opposed to 1 ml/kcal in adults (Kleiner, 1999). This equates to six to eight glasses (1.5–2 litres) of fluid per day for children plus additional fluid during warm weather and/or when physically active.

Anecdotal reports from schools indicate that attention spans, concentration and behaviour are noticeably improved by frequent intakes of small amounts of water; however, these effects on children have not been confirmed by research studies. A three-year research project in schools by the School of Health Sciences at Leeds Metropolitan University will be looking at the effects of access to water for pupils and the links between water and learning.

Research into children’s drinking habits show that many children regard plain water as a poor alternative to soft drinks (Petter et al, 1995). Children aged between seven and 10 drink about seven times as many soft drinks as plain water, and approximately 40% do not drink plain water at all (Gregory and Lowe, 2000).

**Water facilities in schools** Water fountains and taps are currently the most common drinking facilities in schools, and both are frequently sited in the toilet area. A study (Walters and Cram, 2002) which measured the hygiene of water fountains in 39 schools found that most were sited in toilets areas and were dirty, badly maintained and highly contaminated. Fountains with low water pressure were among the most highly contaminated (in part caused by contact with saliva, lips and fingers). Opportunities to drink water are often limited to morning break and lunchtime. How much children drink at school depends on the type and number of drinking facilities, their location, how well maintained they are, how attractive the water supply and facilities are to children and when they are allowed access. A recent study found that over half the schools studied forbade children to take drinks to school to consume at breaktime (Croghan, 2002).

**Government policy** Despite the government’s identification of schools as a key setting to improve child health and nutrition and the subsequent establishment of the National Healthy School Standard (NHSS), it has failed to provide legislation or guidance to ensure that schoolchildren get adequate access to water – one of the most basic requirements for health and well-being. The NHSS guidance makes no reference to water facilities or access other than a basic requirement that ‘clean drinking water is provided’ (NHSS Guidance, 1999). Similarly to government regulations (Department for Education and Skills, 1999), the NHSS guidance does not specify the means of delivery, appropriate locations, whether the water should be accessible to the children and how often, the number or type of facilities per pupil, hygiene standards, or that water should be palatable. Furthermore, the requirement for drinking water is tacked on to a sentence that deals with toilets.

The secretary of state’s guidelines to school caterers stipulate that ‘drinking water should be available to all pupils every day free of charge’ (Department for Education and Skills, 2001). However, these are guidelines only, not requirements, and there are no recommendations for provision of water during the rest of the schoolday.

**The campaign** Prompted by concerns over the poor fluid intake of children at school, the Royal College of Paediatrics and Child Health, on behalf of the Enuresis Resource and Information Centre (ERIC), carried out a questionnaire survey of drinking facilities in primary and secondary schools in two local education authorities. Both surveys revealed a variable but generally poor provision of facilities and access to water (Haines et al, 2000).

Following this, the national ‘Water is Cool in School’ campaign was launched by ERIC. Its aims are:

- To increase public awareness of the health benefits to children of drinking water regularly throughout the schoolday:
- To improve the quality of provision and access to fresh drinking water in schools;
- To obtain a government review of the regulations relating to drinking facilities in schools.
Over the past year the campaign – helped by regular features in the national and local media – has been successfully raising the profile of drinking water in schools. It produced a national information pack for schools outlining why it is important for children to drink water regularly during the schoolday and best-practice guidelines for facilities and access to water. An information pack for parents, posters, stickers and a tough sports bottle are also available.

As the charity does not have the funds to target all schools nationally, it encourages the setting up of regional campaigns. This approach is gaining momentum, with over 25 regional initiatives already set up around the country, and with several more planned. The impetus comes largely from local health professionals (school nurses, oral health advisers, nutritionists and doctors), but in a few areas the local education department has publicly backed the campaign and, in one case, also provided the funding. Most schemes have spent their limited budget on awareness-raising initiatives in schools, trying to persuade head teachers through information. Most have printed and distributed the national information pack to schools, while a few have produced a local version. Despite inadequate legislation or guidance from the government, NHSS coordinators, with the encouragement and support of the campaign, are increasingly making water a priority. The NHSS has sent all its regional coordinators both the information pack for schools and our guidance document of the process to ensure access to fresh drinking water in schools.

Many schools have also set up water schemes independently. Some have responded to educational initiatives that include regular drinks of water as a key element of their learning strategies; a smaller number have responded to the pressure of parents and pupils.

**Better drinking facilities and access** If we want children to drink water we need to make drinking water a pleasant experience rather than one to be endured or avoided.

Personal sports water bottles have rapidly become the most popular and practical solution to providing pupils with access to water throughout the school day. Although schools may fear that this will mean mess, disruption and endless trips to the toilet, those who have tried it report that this rarely happens.

The campaign has been encouraging schools to install up-to-date hygienic facilities and to provide fresh, good-tasting water, ideally from the same attractive water facilities routinely enjoyed by adults in offices and perceived by children as desirable. Mains-plumbed water coolers, or a modern chilled water fountain with a swan arm for filling bottles, should also be installed to allow bottles to be refilled or refreshed with chilled water. Reports from water companies show that the growth in water coolers in staffrooms around the country is beginning to be matched by the number of coolers provided for pupils.

**Conclusion** The Water is Cool in School campaign has raised awareness of the issue and has worked hard to improve the quality of provision and access to drinking water in schools. The improvement, however, is far from consistent. Access to clean and palatable drinking water is a basic human right and, in order to ensure that all pupils have adequate access, the next step is to lobby the government for improved legislation.

Encouraging schools to promote water at school will only ever achieve limited success if children are denied unrestricted access to clean and well-maintained toilets and, if in order to avoid using the school toilets, children avoid drinking. This has implications for children’s health, well-being and learning.

A second national campaign to raise the standard of provision and access to toilets in school will be launched in May 2003 by ERIC. Our aim is for children to be able to drink fresh water throughout the school day and to have good access to user-friendly toilets. To achieve this, we need your active support.

---

**BOX 1. THE LINKS BETWEEN WATER AND HEALTH**

The symptoms of mild dehydration (Kleiner, 1999) include:
- Thirst
- Headache
- Concentrated urine
- Poorer concentration
- Diminished mental and physical performance
- Lethargy
- Irritability

The effects of chronic dehydration on short and long-term health include:
- Bed-wetting, day-time wetting and soiling problems (Haines et al, 2000)
- Constipation (Almond, 1993)
- Urinary tract infections (Eckford et al, 1995)
- Kidney stones (Borghi et al, 1999)
- Acute appendicitis (Nelson et al, 1986)
- Cardiovascular disease (McManus and Churchwell, 1994)

---


