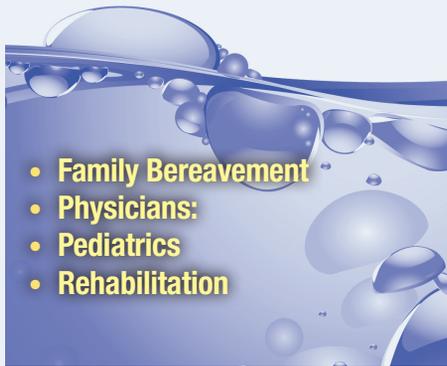


## Why Kids Need Water

By Elizabeth K. Johnson



### WATER FOR THEIR BODIES

Most parents try to make sure their children get enough to eat and that they're eating enough healthful foods—plenty of protein, fruits and vegetables, dairy and grains—and that sweets and salty snacks are considered treats and not the norm. And most parents keep plenty of liquids around for their kids, like milk and juice. But don't forget about water. According to the American Medical Association, water is essential for children's overall health: water aids digestion, helps prevent constipation, is needed for good blood circulation and helps clear toxins from the body.

What else is water good for? Absolutely everything! "Water helps transport nutrients and oxygen to cells, cushions joints, and protects organs and tissues. It's instrumental in regulating body temperature and maintaining electrolyte (sodium) balance." ([www.parents.com](http://www.parents.com))

The guidelines for the amount of water children should drink (age one year and above—infants should stick to breast milk or formula) suggest that they drink similar to the amount for adults: about one quart for every 1,000 calories expended. Of note: If your child is thirsty, they'll usually let you know. Other good fluid sources also come from certain "wet" foods, like celery, lettuce, soups, citrus and other fruits. As long as kids get a variety of foods and liquids they'll main optimal hydration.

Another upside to giving your kids plenty of water is that it can keep their weight in check. Current statistics reveal that about 15% of U.S. children are overweight or obese, which can cause illnesses later in life. So when your child says he/she is thirsty, encourage a big cool glass of water, unsweetened fruit juice or even seltzer water with some fresh fruit—sometimes the fizz makes them think they're drinking soda pop.

### WATER AND THEIR TEETH

From age one year to 14-years-old, it's important that children also get enough fluoride to help prevent tooth decay, as unhealthy oral hygiene can lead to other health issues as adults. And keep in mind that fluoride is NOT typically found in regular bottled or filtered water. While there's some controversy about the amounts of fluoride in some public water supplies, fluoride is a trace mineral and a necessary nutrient for kids.

"Community water fluoridation is simply the addition of fluoride to drinking water to supplement what is already present naturally," says Brett Magnuson, DDS, of Magnuson Dental Design in Kalamazoo. "As toddlers, drinking fluoridated water will help your child get the fluoride imbedded in the developing tooth bud they need to protect their teeth from decay."

Infants don't need fluoride until around age one. Parents whose infants are drinking formula concentrations that need to be diluted should use bottled water that is fluoride-free or low in fluoride water or tap water from a reverse osmosis home water filtration system.

After age one, fluoride should be introduced so that it becomes incorporated into the developing tooth. This can be accomplished by using fluoridated tap water or the use of vitamin supplements prescribed by your child's pediatrician if the drinking water does not contain fluoride.

Bottled water containing fluoride is also "commercially" available for parents who have well water containing lower than suggested levels of fluoride. These levels, however, are unregulated and can vary in concentration from batch to batch.

While basic water is wonderful, too much fluoridation (greater than 1.2 ppm), can produce fluorosis in children's developing teeth. "Enamel fluorosis can result from ingesting greater than optimal amounts of fluoride in early childhood while teeth are developing," Dr. Magnuson says. Fluorosis may first present as barely noticeable in children's teeth—tiny white or brown streaks or specks in the tooth enamel. If higher than recommended concentrations persist, the permanent

teeth may become discolored, pitted and rough. He recommends that parents should have their water source tested at the local health department to determine if the fluoride concentrations are appropriate.

Most toothpaste contains fluoride and helps remove plaque that forms on teeth and gums every day. “Plaque can cause gum disease and tooth decay,” Dr. Magnuson says, “which is why fluoride toothpaste provides an extra topical (like wax on a car) benefit in preventing tooth decay by strengthening tooth enamel.”

However, swallowing toothpaste, which most children seem to do, may increase the amount of fluoride they’re ingesting and contribute to fluorosis. Young children should be supervised while brushing and taught to spit it out, rather than swallow. He also recommends not using fluoride toothpaste until a child is two years old. “When children’s teeth start to appear, just brush them with a child-size toothbrush. For children age two and older, place one pea-sized amount of fluoride toothpaste on the toothbrush at each brushing.”

According to Dr. Magnuson, as of January 2011, the American Dental Association (ADA) supports the Department of Health and Human Services recommendation for recalibrating the ratio of fluoride in water to below .7 ppm. “The ADA also states the need to consider all sources of fluoride ingested, such as drinking water (bottled, well water, city water), vitamin tablets or drops with fluoride, and toothpaste that is swallowed.” Consult with your pediatrician because most of the time children typically don’t start seeing a dentist until about age 3-4.

The ADA recommends: NO fluoride between ages six months to three years, unless supply is less than .6 ppm.

	<b>.3 ppm</b>	<b>.3 - .6 ppm</b>	<b>above .6 ppm</b>
Birth – 6 months	0	0	0
6 mo. – 3 years	.25mg/day	0	0
3 yr. – 6 years	.50mg/day	.25mg/day	0
6 yr. – 16 years	1.0 mg/day	.50mg/day	0

### WATER AND ACID EROSION

Parents may want to pay special attention to what their children are sipping and snacking on as even many healthy snacks are acidic and can cause acid erosion, an irreversible process where the tooth’s surface slowly erodes. “Every time a sip or snack is taken, an acid cycle starts,” Dr. Magnuson says. “The pH level of the mouth drops and becomes more acidic for 20 minutes and erosion occurs. Then, if another snack is taken, another 20-minute cycle occurs. People who habitually sip and snack all day long can have 10 hours or more of erosion.” This has become an increasing problem in teens, athletes, and college students.

Think of this: Most ingredients in carbonated sodas include vitamin C (L-ascorbic acid or L-ascorbate), phosphoric, citric and carbonic acids. Even noncarbonated sport and energy drinks, with or without sugar, have high levels of citric acid and vitamin C (L-ascorbic acid or L-ascorbate). “The pH of most soft drinks falls between 2.3 and 3.4. The pH of water is 7 and battery acid’s pH is 1,” he states. (The lower the pH level, the more acidic.) “Obviously these ranges are responsible for significant tooth demineralization.”

Even people eating healthy diets containing lots of fruits and vegetables can harm their teeth because of the foods’ low pH levels. Example: the pH level of oranges is 2.8 – 4.0. And those who believe in brushing their teeth after a meal can increase the damage to their tooth surfaces. Vitamin C softens the root surface, which can then be brushed away. The minerals in our saliva will re-harden these surfaces in about an hour. According to Dr. Magnuson, it’s much better to rinse with water after eating or drinking and delay brushing for about an hour.

So to protect your children’s physical well being and their teeth, don’t forget about water.

Sources:  
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