

FAQ: What are the recommendations for giving water during infancy?

August 2022



FIRST STEPS NUTRITION TRUST

What are the recommendations for giving water during infancy?

Summary table:

0-6 months Exclusively breastfed	0-6 months Formula fed	6-12 months All infants
No additional water needed	Might need extra water during hot weather. Use cooled, boiled tap water.	Introduce a small cup for sipping water at mealtimes. Use tap water.

Why additional water is not recommended for exclusively breastfed infants under 6 months of age

Fully breastfed babies do not need any water until they have started eating solid foods (NHS, 2018a, Becker & Remington, 2014). This is because the composition of breastmilk changes to meet the infant's needs, including for water which is a component of breastmilk. During hot weather, a breastfed infant may want to feed little and often to quench their thirst. A breastfeeding mother may therefore want to drink more fluids than usual during hot weather.

An infant's nutrient needs are high, but their stomach capacity is small which means they become full quickly. If water is provided in a manner that replaces milk, this could lead to energy and nutrient deficiencies. In the first six months of life, drinking too much water can be dangerous, because it could lead to water intoxication or overhydration. This is because the baby's kidneys are still maturing and are not fully able to regulate water and electrolyte balance. Providing too much water in early infancy can increase the risk of hyponatraemia (diluted sodium or salt levels) which could lead to seizures, coma, brain damage and in serious cases, death (Bruce & Kliegman, 1997, CDC, 1994, Medani, 1987, The Lancet, 1992). However, the European Food Safety Authority indicates that no single upper tolerable intake level for total water intake can be identified, since this needs to consider individual and environmental circumstances (EFSA, 2010).

What is the guidance around giving water to formula fed infants under 6 months of age?

Formula fed babies under 6 months of age should not be given water routinely, in order to avoid displacing infant formula which provides necessary energy and nutrients, and also because too much water may cause overhydration and water intoxication. However, the NHS advises that formula-fed babies under 6 months may need some extra water in hot weather (NHS, 2018a), although it does not provide guidance on amounts. Any additional water can be given as small amounts in between feeds.

For babies under 6 months, water straight from the mains tap in the kitchen should not be used as it is not sterile. The NHS advises to boil the tap water first and then let it cool down.

Bottled water is also not recommended as it may contain too much salt (sodium) or sulphate. If parents/carers have to use bottled water, they should be advised to check the label to make sure the sodium (also written as Na) level is less than 200 milligrams (mg) per litre. The sulphate (also written as SO or SO₄) content should not be higher than 250mg per litre (NHS, 2018a).

Filtered water can be given to babies under 6 months, but as for tap water, it should also be boiled and cooled first.

What about giving water to infants over 6 months of age?

For both breastfed and formula fed infants, water can be offered in a small baby cup or an open-handled cup at mealtimes, once the baby starts solid foods, at around 6 months (NHS, 2018a). Drinking water for babies over 6 months does not need to be boiled. Giving babies water to drink once they start eating solids may

help quench any thirst but is also important to familiarise them with the taste and to learn to like plain water (Perez-Escamilla et al, 2017).

It is important to ensure that water does not displace the nutrients that infants need from breast milk or formula. There are no specific recommendations in the UK for how much water can be given to infants aged 6-12 months, but others have recommended to offer a total of 4-8 ounces (approx. 110-220ml) of water per day (Perez-Escamilla, et al, 2017, American Academy of Pediatric Dentistry, 2021).

What type of cup should an infant be drinking from?

As above, from 6 months of age, infants should be introduced to drinking from a cup or beaker, and from the age of 12 months they should be actively discouraged from drinking from a bottle. It is best to use cups that are open-topped, or which have a spout that is free-running, so that there is no need to 'suck'. Sucking drinks from a bottle teat or spout means the drink spends more time in contact with the teeth and this can lead to dental problems. Baby cups can be useful for introducing drinking from a cup as they can be held easily and offer a small volume of liquid.



How can we ensure that a baby will not become dehydrated during hot weather?

As well as following the guidance above, caregivers can be encouraged to monitor their baby's nappies. Generally, babies should have 4-6 wet nappies every 24 hours (NHS, 2018b).

Parents/carers can also be referred to [NHS Keeping your baby safe in the sun guidance](#) for information on how to keep babies safe and cool during hot weather.

What about other fluids during infancy, especially during hot weather?

The only drinks recommended for infants during the first year of life are breastmilk or an appropriate infant formula, and water (NHS, 2018). Commercially available baby drinks (e.g., baby juices or baby herbal drinks), squashes, flavoured milk and juice drinks, diet drinks and no added sugar drinks (which contain artificial sweeteners), tea and coffee and fizzy drinks should not be given to babies under 12 months of age, or to young children (NHS, 2018). These drinks may be high in sugar and/or contain artificial sweeteners, which may encourage development of a sweet palate. High intakes of sugar are associated with dental caries and excess weight gain. Furthermore, many low-calorie soft drinks (or artificially sweetened foods and drinks) are acidic (either from carbonation and/or a fruit component or an acidic component such as phosphoric acid or citric acid) and can also cause tooth erosion (First Steps Nutrition Trust, 2019). Tea and coffee should be avoided because they contain caffeine.

For specific individual advice related to providing water to infants, caregivers should be encouraged to consult a health professional.

References

American Academy of Pediatric Dentistry. 2021. Healthy beverage consumption in early childhood: Recommendations from key national health and nutrition organizations: Summary of oral health considerations. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 565-8. https://www.aapd.org/globalassets/media/policies_guidelines/e_healthybev.pdf

Becker GE, Remington T. 2014. Early additional food and fluids for healthy breastfed full-term infants. *Cochrane Database of Systematic Reviews*. 11: CD006462.
<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD006462.pub3/full>

Bruce RC & Kliegman RM. 1997. Hyponatremic seizures secondary to oral water intoxication in infancy: association with commercial bottled drinking water. *Pediatrics*. 100(6):E4.
<https://pubmed.ncbi.nlm.nih.gov/9374582/>

Centers for Disease Control and Prevention (CDC). 1994. Hyponatremic Seizures Among Infants Fed with Commercial Bottled Drinking Water -- Wisconsin, 1993. *Morbidity and Mortality Weekly Report (MMWR)*. 43(35);641-643. <https://www.cdc.gov/mmwr/preview/mmwrhtml/00032470.htm>

European Food Safety Authority (EFSA). 2010. Scientific Opinion on Dietary Reference Values for water. *EFSA Journal*. 8(3):1459. <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2010.1459>

First Steps Nutrition Trust (FSNT). 2019. Sweet enough already: Artificial sweeteners in the diets of young children in the UK. https://www.firststepsnutrition.org/s/Artificial_Sweeteners_Nov_2019.pdf

First Steps Nutrition Trust (FSNT). 2020. Eating well: the first year A guide to introducing solids and eating well up to baby's first birthday.
https://www.firststepsnutrition.org/s/Eating_well_the_first_year_June_20_for_web.pdf

The Lancet Editorial. 1992. Excess water administration and hyponatraemic convulsions in infancy. 339; 8786: pg153-155. [https://doi.org/10.1016/0140-6736\(92\)90216-P](https://doi.org/10.1016/0140-6736(92)90216-P)

Medani CR. 1987. Seizures and hypothermia due to dietary water intoxication in infants. *Southern Medical Journal*. 80(4):421-5. doi: 10.1097/00007611-198704000-00003.

NHS. 2018a. Drinks and cups for babies and young children. <https://www.nhs.uk/conditions/baby/weaning-and-feeding/drinks-and-cups-for-babies-and-young-children/>

NHS. 2018b. Breastfeeding: is my baby getting enough milk?
<https://www.nhs.uk/conditions/baby/breastfeeding-and-bottle-feeding/breastfeeding-problems/enough-milk/>

NHS. 2021. Keeping your baby safe in the sun. <https://www.nhs.uk/conditions/baby/first-aid-and-safety/safety/safety-in-the-sun/>

Pérez-Escamilla R, Segura-Pérez S, Lott M, on behalf of the RWJF HER Expert Panel on Best Practices for Promoting Healthy Nutrition, Feeding Patterns, and Weight Status for Infants and Toddlers from Birth to 24 Months. Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach.
https://healthyeatingresearch.org/wp-content/uploads/2017/02/her_feeding_guidelines_report_021416-1.pdf

Date: 10 August 2022