

# BRUSH strokes

Supervised toothbrushing could be key to reducing the staggering number of infants with tooth decay. By **Annette Rawstrone**

**A** quarter of children in England have tooth decay by the time they are five years old, with this statistic rising to 50 per cent in some deprived areas around the country. The treatment of tooth decay is the most common reason why young children are admitted to hospital – 33,000 each year, which costs the NHS more than £50 million annually.

The impact tooth decay has on young children is often equally huge. It negatively affects children in a variety of ways, including:

- Pain and suffering.
- Reducing the foods they can comfortably eat.
- Delaying their speech and language development.
- Reducing their sleep and quality of life, including self-esteem.
- Reducing attendance at nursery or school.

Children with decay in their first teeth are four times more likely to go on to develop decay in their adult

teeth. But tooth decay is largely preventable through good oral health routines. In response, over the past decade, supervised toothbrushing programmes have been introduced in some areas that can be delivered in early years settings, with practitioners overseeing children cleaning their teeth each day (see Case study).

In Wales, the Designed to Smile programme, and in Scotland, the Childsmile Toothbrushing Programmes, are available to all three- and four-year-olds in nursery – and extended to younger and older children in some areas. Analysis of the Scottish programme found it is effective at reducing tooth decay, especially among those at greatest risk, such as children living in areas of social deprivation. The intervention costs roughly £16 per child, per year, and is found to pay for itself within three years through improvements in children's oral health and less need for dental treatment, including care under general anaesthetic.



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## REDUCING DECAY

There is currently no national programme in England, and oral health improvement is a statutory responsibility of local authorities. Only about half provide supervised toothbrushing programmes, and early years settings can be reluctant to take part, despite it fulfilling the EYFS requirement to promote good oral health.

Researchers from the University of Sheffield, University of Leeds and Bradford Improvement Academy have established the BRUSH (optimising toothbrushing

## FURTHER INFORMATION

- The Supervised Toothbrushing Toolkit: <https://www.supervisedtoothbrushing.com>

## case study: Tinsley Meadows Primary Academy in Sheffield

Nursery teacher David Yates has promoted good oral hygiene in early years since 2008, after developing links with Sheffield's oral health team while working at a Sure Start Children's Centre.

'I saw the benefits of toothbrushing programmes for children, including reduced tooth decay and supporting their speech and language development,' he says. 'When I moved to

Tinsley Meadows, I asked if I could continue this work.' The school, set in a deprived area with children at greater risk of poor oral health, has supervised toothbrushing programmes in Reception and Nursery classes.

'We find parents are overall very supportive,' Yates says. 'Occasionally parents are cautious, and we explain it's in addition to what they're doing at home, and we

reassure them each child has their own toothbrush, replaced regularly, and that we follow proper guidelines. We receive training from the oral health team so can also give advice to parents.'

Yates says practitioners can be cautious about such schemes. 'It does sound like it'll be chaos, but I tell them to have confidence, and invite them to see how we do it,' he says. 'We dry brush



our teeth with a pea-sized amount of toothpaste. Brushes are then washed and put in a named slot in a rack. It's a simple routine and the children enjoy it.'



fluoride varnish being painted on and just getting used to the environment,' she says. 'The focus should be more on what parents can do and what nurseries can do to support parents. Parents often have very good intentions about brushing teeth, but this can slip – perhaps the children are resistant to toothbrushing, maybe they are having difficulty affording toothpaste and toothbrushes or they have high-sugar diets – and by the time the children are two or three, they're starting to get tooth decay.'

**SUPERVISED BRUSHING PROGRAMMES**

When Labour announced its intentions to expand toothbrushing programmes, the party faced criticism for taking away responsibility from parents and placing another burden on nurseries and schools. Marshman says supervised toothbrushing schemes are very much about partnership with parents, in the same way practitioners manage toilet training and weaning. She emphasises that, although beneficial, it is not a replacement for brushing at home.

BRUSH found barriers to settings introducing programmes included a lack of funding and training. Dr Peter Day, professor of children's oral health at the University of Leeds and co-lead of BRUSH, adds, 'There are also the pressures around staffing, but if a toothbrushing programme is done efficiently, then it's done in five to ten minutes, once the children are in a good routine, and is not too much hard work.'

To share best practice and encourage more areas to introduce programmes, the researchers have developed a free online resource (see Further information). This shows how encouraging oral health routines aligns with areas of the curriculum, as well as the health benefits for children. There are resources for those responsible for commissioning and delivering programmes, along with advice and information for settings already running or interested in starting a supervised programme.

Marshman adds, 'The new toolkit will make it easier for new toothbrushing programmes to be set up, meaning more children will be able to benefit from the programmes so less children suffer from tooth decay and its consequences.' ■

Programming in nurseries and schools project to understand how best to implement and evaluate such programmes. 'One of the key ways to prevent tooth decay is toothbrushing with a fluoride toothpaste,' says co-lead of the project, Professor Zoe Marshman, professor in dental public health at the University of Sheffield.

'We already know supervised toothbrushing programmes for young children are effective in reducing tooth decay, and easy for nurseries and schools to run. However, the uptake and maintenance of these programmes has been fragmented.'

This may change if Labour gets into power in the upcoming General Election. Labour has pledged to introduce measures to support dental health, including supervised toothbrushing in school for three- to five-year-olds, targeted at areas with the highest childhood tooth decay.

Labour is also proposing measures to increase access to NHS dental appointments. While Marshman welcomes this, she says the best thing is preventing tooth decay in the first place, by regular toothbrushing from when the first teeth erupt, reducing the need to visit a dentist for treatment. 'Ideally childhood dental visits should just be for preventative care, like advice,

**SUSTAINABLE TIPS**  
*FREE CHILDREN FROM NAPPIES EARLIER*



In the first of a new series about how nurseries can become more environmentally friendly, **Cheryl Hadland**, chair of the sustainability charity GECCO and founder of Tops Day Nurseries, discusses how potty training children earlier can significantly reduce waste and cost from disposable nappies

Did you know the average age of potty training in the UK may be approaching three-and-a-half years old? Yet 50 years ago in this country, the nappy-free age was around one year to 18 months, and in many countries around the world, children are potty trained by the age of two. In Vietnam, 98 per cent of children are nappy-free during the day by 12 months old.

**Benefits of potty training earlier**

Controlling the bladder and bowel marks an important stage for child development, and there are many benefits for children, families, early years settings and the environment if children go nappy-free earlier.

The UN Convention on the Rights of the Child states children have a right to healthy development, including being able to use a potty or toilet. Evidence suggests early potty training is good for children's self-esteem, and urinary tract and constipation problems may decrease. Potty training later may impact mobility and motor development as children cannot move as freely.

**Reducing waste and cost**

A child will use approximately 6,000 nappies before being potty trained, at around the age of three. This costs around £1,200 per year. (Reusable nappies cost roughly £480, plus laundry costs.) Potty training a child at one year old will save two years' worth of disposable nappies; a cost saving of £800 per child. Nurseries paying for waste disposal could reduce bin size and collection frequency, as 4,000 fewer nappies per child will be thrown away over the two years. Bio-degradable nappies cost more and do not biodegrade in landfill.

**Tips for potty training**

Nursery staff need to be encouraging and create a positive atmosphere. They will need potties and convenient cleaning facilities, and can let children sit on a potty a few times a day, with or without clothes, from as soon as they can sit up. Work with parents to learn the signs for when the child needs to go, such as after larger meals or having a nap. Try and make time on the potty fun, perhaps with stories, a song, some toys, and of course children provide role models to each other. You could even have 'potty meetings', positioning the potties in a circle and inviting the children to sit down. The social aspect encourages more involvement, and use loads of praise, attention, or even visual or actual rewards – for staff and children!

**Measuring success**

Staff might like to track their success and work out the funds saved through potty training earlier. It will also significantly reduce your carbon footprint. For more information, contact our charity [www.GECCO.org.uk](http://www.GECCO.org.uk).

➔ See online version for references