

## Oral Health for Babies and Children

**A key public health issue for children is dental caries (decay). Dental decay is the most common oral disease affecting children in the UK, yet it is largely preventable.**

Whilst children's oral health has improved over the last twenty years, almost a third of five year olds (27.9%) (Public Health England, 2012) and 12% of three year olds (Public Health England, 2014) were found to have tooth decay. Significant inequalities also exist with children in deprived communities having poorer oral health than those living in more affluent communities (Marmot, 2011). Dental decay is the top cause of childhood hospital admission for 5-9 year olds with just under 26,000 admitted in 2013/14) making 8.7% of all admissions (Health and Social Care Information Centre, 2015) at an estimated cost of £14.5 million (NICE PH55 costings, 2014).

Health Visitors (HV) can encourage parents to take care of their child's teeth from the start. The following good practice points provide key evidence based messages that HVs can use when advising parents about looking after their baby's and children's teeth (Delivering Better Oral Health, 2014). Tooth brushing thoroughly with fluoride toothpaste is one of the most effective ways of preventing both dental decay and gum disease. Systematic reviews have shown that to prevent and control dental decay it is the fluoride in the paste that's important whilst for gum disease it's the physical removal of the plaque by tooth brushing that is key (Delivering Better Oral Health, 2014).

### **Good practice points to maximise the preventive action of tooth brushing**

- Babies and young children are unable to clean their own teeth effectively. Parents should be advised to brush or help their child to brush their teeth (until they are at least 7 years old), to supervise the amount of toothpaste used and to ensure that the teeth are cleaned thoroughly.
- Brushing should be introduced as soon as the first primary tooth appears (at approximately 6 months of age).
- Teeth should be brushed at least twice daily with a fluoride toothpaste, last thing at night and on at least one other occasion. Brushing at bedtime ensures that the fluoride continues protecting the teeth whilst children sleep.
- Parents should be advised to choose a toothbrush with a small head and medium texture bristles. Manual or powered toothbrushes can be recommended; whilst there is some evidence that powered toothbrushes with a rotation, oscillation action can be more effective for plaque control, probably more important, is that either brush is used effectively at least twice a day.
- All tooth surfaces should be brushed systematically and particularly along the gum line where plaque forms. As a rough guide thorough cleaning should take about 2 minutes.

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**The use of fluoride toothpaste reduces the development of dental decay and this effect increases with increased concentration of fluoride.**

- Family fluoride toothpaste with 1350 – 1500 parts per million fluoride (ppmF-) should be recommended for maximum caries control for children except those who cannot be prevented from eating the toothpaste. Advice should be given about adult supervision and the correct amount of paste to be used.
- Children under three years should use no more than a smear of toothpaste containing no less than 1,000 ppm fluoride (fig 1.)
- Children between three and six years should use no more than a pea-sized amount of toothpaste containing more than 1000ppm fluoride (Fig 2.)
- Parents should be advised that children should not be allowed to eat or lick toothpaste from the tube.
- Rinsing with lots of water after they have brushed their teeth should be discouraged as this rinses off the fluoride from the tooth and reduces its effectiveness. Spitting out excess toothpaste is preferable.
- For older children, the use of disclosing tablets can indicate areas of visible plaque and can help to show if the teeth have been brushed thoroughly.

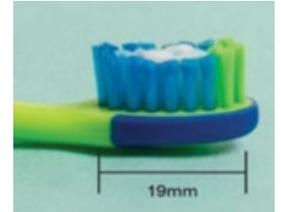


Fig 1: Smear



Fig 2: Pea-size

## Healthy eating advice

Dental caries is the result of demineralisation of the tooth surface which occurs after an intake of sugar. Bacteria convert the sugar to acid and the pH in the mouth drops and demineralisation takes place (SACN, 2015). The buffering action of saliva stops the acid attack and the process of remineralisation begins, this is more effective in the presence of fluoride. Frequent sugar intake means that demineralisation takes place more often. Saliva production is stimulated at mealtimes and much reduced during sleep. In addition to advice about a healthy balanced diet the key dietary messages for parents to prevent dental caries are:

- Breast milk is the only food or drink babies need for around the first six months of their life. Formula milk is the only suitable alternative to breast milk.
- Once solid foods have been introduced, mothers should continue to breastfeed or give their baby infant formula alongside an increasingly varied diet until they're at least one year old. Cows' milk as a drink can be introduced from 12 months.
- From the age of six months old bottle fed babies should be introduced to drinking from a non valved free-flow cup. Bottle feeding should be discouraged from 12 months old.
- Only breast or formula milk or cooled, boiled water should be given in bottles.
- Only milk or water should be drunk between meals.
- Sugar should not be added to foods or drink.

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- The frequency and amount of sugary food and drinks should be reduced.
- It is recommended that the intake of free sugars should not exceed 5% of total dietary energy from the age of two years. Free sugars comprise all sugars added to food and drinks and sugars naturally present in unsweetened fruit juices, honey and syrups. It does not include lactose in milk and milk products and the sugars naturally found in whole fruit and vegetables (SACN, 2015).
- The recommended maximum intake of free sugars is no more than 19g per day= 5 sugar cubes for 4-6 year olds, 24g per day= 6 sugar cubes for 6-10year olds and 30g per day= 7 sugar cubes for 11 years and over (PHE, 2015).
- It is recommended that the consumption of sugar sweetened beverages such as fizzy drinks, soft drinks and squash should not be part of the daily diet of children (SACN, 2015).
- Food and drinks containing free sugars should not be given within one hour before bedtime as the production of saliva in the mouth slows down and this can increase the risk of tooth decay.
- Only give sweet foods including dried fruit and fruit juice at mealtimes. Fruit juice counts towards 5 a day but even unsweetened fruit juice is sugary and should be limited to no more than 150mls a day from fruit juice, smoothies or both.
- Sugar free medicines should be advised particularly if the medication is long term or taken frequently.

### Visiting the dentist

- Encourage the parent to ask the dentist about fluoride varnish.
- It is recommended that parents take their child to the dentist as soon as the primary teeth erupt. The dental team can give appropriate oral health advice for the child.
- Mothers are entitled to free NHS dental treatment during pregnancy and until their child is one year old.

## References

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