

BDA

British Dental Association

**Make a meal of it:
keep Britain's children
smiling sweetly**



www.bda.org/makeamealofit

Make a meal of it

Despite steady improvements, an unacceptable number of children still suffer from tooth decay – an entirely preventable condition. The average figures for tooth decay hide regions and communities whose oral health falls far behind the most affluent parts of the country¹.

Acid in the diet can damage tooth enamel especially with prolonged or repeated exposure. There is a wide variety of acidic food and drinks that can cause damage and this includes carbonated and fruit-based drinks². Although tooth decay is the result of consuming sugar in food or drink, it is acid that is the destructive agent. In the mouth, the bacteria living on the teeth rapidly convert the sugar into acid and it is this acid that dissolves the tooth enamel. The risk of developing decay increases as the amount and frequency of sugar consumption rises. Keeping teeth clean by regular brushing helps prevent decay as the amount of acid generated is dependent on the quantity of dental plaque on the teeth.

Sugary snacks and drinks are leading causes of tooth decay

The post-war period has seen a progressive decline in the levels of tooth decay in children in all developed countries³. This can be attributed to better access to dental care and the use of fluoride-containing toothpastes. The progressive reduction in tooth decay clearly demonstrates that dental decay is completely preventable and there is no reason why the majority of children in the UK should not reach adulthood without experiencing any tooth decay.

The trend towards improved oral health is, however, hampered by the consumption of sugary snacks and acidic fizzy drinks. Tooth enamel can last a lifetime if treated with respect, resisting repeated exposure to acid. Acid can come directly from acids in food and drink and also from acids produced by the bacteria that live in and around the teeth in the form of plaque. Normally the saliva in the mouth gradually repairs the damage resulting from acid, but the consumption of sugary snacks and acidic fizzy drinks between meals interferes with the ability of the saliva to repair tooth damage since it reduces the opportunity for recovery.

Teeth are directly damaged by acidic food and drink

Consuming sugary foods and drink leads to decay and the chances of developing decay can be greatly reduced by the removal of dental plaque through toothbrushing. But direct exposure to acidic food and drink will lead to the destruction of the tooth enamel, in a process termed erosion, which no amount of brushing can prevent. Examination of children's teeth suggests that there may be an unreported epidemic, with surveys of 12 year-old children showing that as many as 60 per cent of children show evidence of tooth erosion⁴. The problem is clearly associated with the consumption of acid. Thus even if carbonated drinks are sugar-free their acid properties will still lead to tooth damage albeit by erosion rather than decay. The problem is made worse by the trend for sweets, which tend to be eaten between meals, to contain increasingly acid ingredients⁵. There is some evidence that early exposure to sour or bitter tastes makes children more likely to choose foods and drink that are more acidic.

Decay an indicator of inequalities

In 2003 over half of primary school children in England had at least one decayed tooth¹ whereas by 2012 instances of decay had been reduced to a third⁶. Such improvements mask some significant variation between regions – in some parts of the UK tooth decay is still seen in over half of all children, unchanged from the overall level seen ten years ago⁵. The inequalities in oral health remain dramatic, so a child in the most affluent community in England has approximately a two per cent chance of having a tooth extracted due to decay compared to a five per cent chance for a similar child in the least affluent community. Indeed amongst the most deprived communities in Wales over ten per cent of children will have a tooth extracted due to decay⁶.

Consumption of excess calories is characteristic of the modern child diet and contributes to poor health

Sugary drinks and snacks contain additional calories but convey minimal nutritional benefit. The increased tendency to consume snacks and drinks particularly outside normal mealtimes contributes directly to the progressive increased numbers of overweight and obese children. The statistics are truly shocking with the latest surveys showing that approximately 30 per cent of all children in England are now overweight or obese⁷. In a similar manner to dental decay, levels of obesity are closely correlated with household income. In families with the lowest household income 39 per cent of children are overweight and 25 per cent are so overweight that they are classified as obese. This compares with an average obesity level of 16 per cent for all children⁷. The differences established during childhood will persist to adulthood and will be reflected in the lifelong increased risk of developing a range of conditions including heart disease and diabetes⁸.

The wider campaign to improve children's health

In February 2013 the Academy of Medical Royal Colleges (AMRC), which represents the majority of doctors in the UK, published a report⁸ which recognised that current strategies are failing to improve the diet and health of children and that an unprecedented coordinated approach is needed. The report sets out a series of key recommendations that seek to tackle the current obesity crisis in children in the UK. The recommendations address actions by healthcare professionals, reducing the exposure of children to unsuitable food and making it easier for individuals to make healthy food and lifestyle choices.

In parallel, the Children's Food Campaign launched an initiative in March 2013 which highlights the need to change the way in which supermarkets and high street stores promote unhealthy food and drink to children⁹. One aim is to highlight that the sale of confectionery and sugary drinks at the checkout currently lies outside the remit of the Advertising Standards Authority. This is despite some stores actively targeting children by the positioning and design of the products on offer. There is a need to reduce advertising of unhealthy food and drink to children, especially as research has shown that food promotion to children can be sufficient to override many other factors influencing food choices, like parental diet. Marketing for a specific brand also has the potential to encourage the consumption of a general category, for example chocolate, as well as the specific product being promoted.

Action required

The BDA is calling for six policy and legislative changes to help tackle the problem:

1. The introduction of a 20 per cent tax on sugary carbonated drinks as proposed by the AMRC report; and additionally for this tax to include diet versions which are equally damaging to teeth.
2. A ban on unhealthy food and drink advertising aimed at children.
3. The introduction of a maximum size of sweets and drinks sold in cinemas.
4. The removal of vending machines selling sweets and sugary/acidic drinks from schools and hospitals.
5. Restricting the availability of unhealthy food and drink at shop tills.
6. Extending the remit of the Advertising Standards Authority to cover product placement and checkout displays.

Get involved

- Post photographs of unacceptable marketing to children at the checkout on the Children's Food Campaign's (CFC) '**Wall of Shame**'. This helps CFC gather evidence of the growing encroachment of aggressive marketing practices to sell unhealthy products to children.
- Contribute reports on the dedicated 'Make a Meal of It' communities page on the **BDA's website** of supermarkets, cinemas and sports centres and schools where there is over-promotion of sweets and acidic drinks. This will help the BDA identify the worst offenders to target in the next phase of the campaign.
- Sign a BDA-created Government e-petition calling for robust action.
- Write directly to local outlets of supermarkets, cinemas, local authorities and hospitals asking them to act responsibly in relation to the marketing and delivery of sugary/acidic food and drinks. This will support the BDA's national lobbying of such bodies.

Further information:

Children's Food Campaign

Responsibility Deal

Academy of Medical Royal Colleges

References:

1 The British Dental Association Oral Health Inequalities Policy

2 Blacker, S.M. and Chadwick, R.G. (2013). Br Dent J 214: 172-3.

3 National Dental Inspection Programme for Scotland 2011, The 2003 Children's Dental Health Survey

4 Dugmore, C. R. and Rock, W. P. (2004). Br Dent J 196: 279 – 282.

5 Gambon, D.L. et al., (2012). Br Dent J 213: 55-57.

6 Davies, G.M. et al., (2012). Community Dent Health. 29: 8-13.

7 Health Survey for England 2011

8 Measuring Up. The medical profession's prescription for the nation's obesity crisis. (2013) Academy of Medical Royal Colleges

9 Checkouts checked out (2013) The Children's Food Campaign