

ALTERNATIVE SUGARS

Xylitol



Call for change to child-focused terminology

Jenny Harris has called for the terminology of dental appointments to be made more sensitive to children's needs. Mrs Harris wants dentists to drop the acronym 'DNA', which stands for 'Did Not Attend' and use 'WNB': 'Was Not Brought'.

Mrs Harris is a member of the British Society of Paediatric Dentistry (BSPD) Executive and the Society's lead on child protection issues. The reason for the change is to remind dental teams that the child who does not turn up for an appointment is not responsible for his or her absence. To benefit from dental care they are reliant on others to bring them. If they miss an appointment without explanation, enquiries need to be made of their parent or guardian.

Mrs Harris said: 'Although the difference between the phrases DNA and WNB may seem slight, the gulf in meaning is wide. A young child cannot get to an appointment on their own – we need to stop seeing things from an adult point of view. Instead we must consider what the child is missing out on by not being brought.'

Mrs Harris first encountered the proposal for a change in terminology in an article published in the child protection nursing literature and has used the acronym WNB for missed appointments ever since. With colleagues in Sheffield Community & Special Care Dentistry Service, she has devised a 'Was not brought' pathway.

'When you have a series of missed appointments', said Mrs Harris, 'it's difficult to take things forward. Concerns cannot be ignored but need to be flagged up. The new tool gives dental teams a template to manage decision-making and to follow up with parents or health or social services to ensure the child isn't being neglected. Our priority is that the child gets the healthcare they need.'

The pathway is being evaluated by Jen Kirby, a specialty trainee in paediatric dentistry and leadership fellow. Ms Kirby will be delivering the results at the BSPD conference in Manchester, in September.



Elaine Gardner, British Dietetic Association (BDA) Spokesperson, presents part 1 in our brand new series of columns on sugar and sugar alternatives.

Name: Xylitol

What is it? A polyol (sugar alcohol) that looks and tastes like sugar (can be used in equal measurement).

Found in? Available to purchase in granular form and in a range of specialist food products like honey, jams and chocolate. Medications and oral health products (mouth rinses, toothpaste, lozenges) can contain xylitol. It is found naturally in very small amounts in some fruits like berries, but the most common source of xylitol is from sugar-free chewing gum.

Effect on general health: Xylitol has a lesser effect on blood sugar levels than sugar, due to its slow absorption rate (low glycaemic index of 7). It can be useful as an alternative to reduce sugar consumption for people with diabetes as it does not raise blood glucose or insulin levels.

It has a reduced caloric value which can be helpful in weight control. One spoon of sugar contains 16 calories versus 10 calories from xylitol. This is a small saving, but not very much.

Xylitol is slowly and only partially absorbed in the intestine and too much can cause water retention, resulting in diarrhoea. It is not recommended to consume more than 50 g xylitol per day.

Oral health impact: Xylitol is not metabolised by bacteria in the mouth and so it does not contribute to tooth decay. It also helps remineralise tooth enamel.

Chewing sugar-free gum stimulates the flow of saliva through the chewing action;

stimulated saliva helps to reduce acidity in the mouth by washing away plaque acids and contributes to their neutralisation by providing an important buffer, bicarbonate. Stimulation of saliva flow through the use of sugar-free gum results in a 10–12-fold increase over a resting saliva rate, which helps wash away debris of food particles and sugars from the mouth and restore optimum pH levels in the mouth faster than without sugar-free gum.

Saliva also has an important role in the maintenance of tooth mineralisation as it provides the calcium and phosphate ions used to repair damaged enamel and it encourages the remineralisation of early caries.

Chewing gum sweetened with xylitol also helps reduce oral *Streptococcus mutans* levels, a key pathogen responsible for dental caries.

Advice for patients: Xylitol is a useful alternative to sugar but moderation in the quantity consumed is important.

Sugar-free chewing gums using xylitol are a convenient, simple and effective means of improving dental health through the stimulation of saliva when used regularly throughout the day.

Further reading:

1. Milgrom P, Ly K, Rothen M. Research findings on xylitol and the development of xylitol vehicles to address public health needs. *Adv Dent Res* 2009; **21**: 10.1177/0895937409335623.
2. Söderling E. Controversies around xylitol. *Eur J Dent* 2009; **3**: 81–82.



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