

Sweet talk: collaborate to educate

Dental hygienist **Anna Middleton** and dietitian **Sophie Medlin** debate all things sugary



Anna Middleton is a dedicated and passionate award-winning dental hygienist. She founded London Hygienist with the mission to change the way oral health care is delivered to patients. Anna studied at The Eastman Dental Hospital in London, after working as a dental nurse, and graduated in 2015 from the Faculty of Royal College of Surgeons. Anna is a key opinion leader for Philips and brand ambassador for several other companies. You can follow her **online** @londonhygienist



Sophie Medlin is a recognised consultant dietitian in London with expertise in gastrointestinal and colorectal health. She worked in acute hospitals specialising in gastrointestinal diseases before moving into academia, where she worked as a lecturer at King's College London. She now directs her company CityDietitians, where she consults for individuals and companies. You can find her online @@sophiedietitian

All this talk of cleaning sugar out from our diet seems to be in direct contradiction with recommendations for using energy drinks, gels and bars. What do you recommend to patients who go to gym/keep fit and want to know where you stand re: energy drinks?

Sophie Medlin (SM): There is certainly some clever marketing that goes on around energy drinks and gels, which are promoted to typically health-conscious people who may well have reduced the free sugar in other parts of their diet. Of course, these products have a lot of sugar in them that will cause dental decay in the same way as coke or sweets will. Most people, unless they are running or training for more than an hour at a time, don't need any energy products. Those who are regularly training for extended periods, such as professional athletes, may well benefit from these products and it is a good idea to discuss the hygiene around this with a dental professional.

There is an unnecessary and unhealthy amount of sugar in our diets. Is it up to all health professionals to ensure we educate our patients of the full health benefits of cutting sugar out of diets? If so, how?

SM: Arguably, most people are already aware that sugar isn't good for their health. Changing behaviour is a far harder thing. Public health research tells us that knowledge does not equal action. There are some patient groups who benefit from having more sugar in their diets because they have significantly raised energy needs or they have a condition that means they cannot get energy from other sources. Telling them to cut out sugar without that knowledge could be harmful. It is important to educate patients on the foods and



drinks that are likely to be contributing to dental decay but in general, unless there is evidence of excess sugar consumption in a dental check, this may be better achieved through messaging in waiting rooms rather than 1:1. As drinks like coconut water, lemon water, fruit juices and kombucha are marketed for their health benefits, it is important to also highlight that they also carry dental risks.

What can dental nurses do towards reversing the nation's addiction to the 'sweet stuff'?

Anna Middleton (AM): Dental nurses should familiarise themselves with the Public Health England's *Delivering better oral health: an evidence-based toolkit for prevention*¹, which has a large section about diet advice which should routinely be given to patients to promote good oral and general health. The main message is to reduce both the amount and frequency of consuming foods and drinks that contain free sugars which could lead to

an increased risk of dental decay. Free sugars include monosaccharides and disaccharides added to foods and drinks, as well as sugars naturally present in honey, syrups and fruit juices. It does not include sugars found naturally in whole fresh fruit and vegetables and those naturally present in milk and milk products.

There appears to be little desire by the food industry to be 'on side'. Why do you think this is?

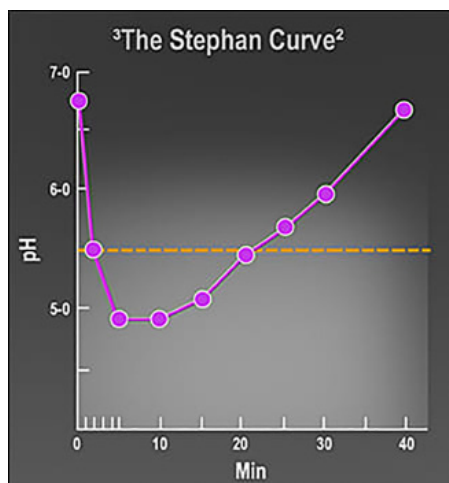
SM: Sugar is a very cheap commodity and it makes food taste great! The government is working to create more pressure for the food industry to reduce the sugar in our food in the same way they have done with salt in the past.

Change4Life, launched the 'Sugar Swaps' campaign, which offers tips to parents so they can substitute high sugar meals with low sugar

options – swapping sugary cereal with plain cereal, ice cream with low-fat yoghurt and so on. Is this something dental nurses can help raise awareness about?

AM: Absolutely, perhaps making a display showing various food swaps for the practice waiting room or creating an information leaflet can help raise awareness.

I often show patients the Stephan curve², which illustrates why the frequency of intake of sugars is particularly relevant for caries. It shows how the demineralisation of tooth surfaces occurs after a sugar intake and the subsequent drop in pH that takes place in the mouth as oral bacteria convert sugar to acid. This process stops as the buffering action of saliva takes place and is more rapid in the presence of fluoride. When sugar intakes are spaced some hours apart there is a good opportunity for remineralisation, which is also more effective in the presence of fluoride. Saliva production is stimulated at mealtimes and much reduced during sleep. ➡



Adapted from: Stephan RM, Miller BF. A quantitative method for evaluating physical and chemical agents, which modify production of acids in bacterial plaques on human teeth. *J Dent Res* 1943; 22: 45-51.

☛ If the patient is deemed to be at risk of caries a food diary can be kept by the patient to identify any risks, then advice can be given to help reduce the intake of sugar. The patient is asked to record all their meals and drinks every day for one to two weeks. You then highlight any meals or snacks that contain free sugars and how many were consumed between normal mealtimes and whether any intakes containing sugars were taken within one hour of bedtime.

What is xylitol?

AM: Pronounced 'zy-lee-tol' is a naturally occurring sweetener found in trees and plants, primarily those of the birch and beech variety.

Does it prevent tooth decay and dry mouth?

AM: The best thing about xylitol is that it kills the bacteria responsible for dental decay by up to 90%. Not only does it neutralise the plaque acids, it actually prevents them from starting in the first place, making it harder for plaque to stick to your teeth in the future. Thank you Mother Nature!

When used in oral care products, such as sugarfree gum and mints, not only will you have fresh breath but the xylitol can help change the environment in the mouth, keeping teeth healthy after eating and drinking.

To get the best benefits, it is

advised to have a piece of gum or mint with xylitol after every meal or snack, ideally five times a day. I recommend Peppersmith sugar-free gum and mints to my patients. Use my discount code 'HYGIENIST10' to get 10% off in their online shop www.peppersmith.co.uk.

Why Peppersmith?

Peppersmith mints and gum are made with 100% xylitol. They are great for protecting your teeth during the day and can help relieve a dry mouth as they stimulate saliva production. They come in a variety of flavours – not just mint. Try the strawberry pastilles or my favourite, the Sicilian lemon.

It's recommended by dental professionals, including myself, and approved by the Oral Health Foundation.³ The products are low GI (7) and low calorie, making them suitable for diabetics as it won't spike insulin levels.

But isn't a sugar substitute just as bad for you?

SM: We know that swapping sugar for sweeteners can help with weight management but, in an ideal world, we'd try to move away from both if we can.

Any sugar swaps you have to share that we can share with patients, please?

AM: Opt for safe snacks such as fresh fruit, vegetables, cheese and rice cakes. Choose water over juice, which should be diluted and saved as an occasional treat for children. Keep all sugars and acids to

mealtimes only and aim for no more than three to four sugar/acid attacks per day.

How important is it for parents to make swaps?

AM: With a rising number of children having their teeth extracted due to dental decay, it's extremely important to raise awareness. Often parents/carers may not be aware of what can cause decay. For example, dried fruit seems like a healthy choice over sweets but it gets stuck in the teeth and therefore can lead to decay.

Any tips for going sugar free?

AM: The two most important elements of a healthy diet are eating the right amount of food relative to how active a person is to be a healthy weight and eating a range of foods in line with the Eatwell Guide⁴ – which is a key policy tool that defines the government's recommendations on a healthy diet. It makes healthy eating easier to understand by giving a visual representation of the proportions in which different types of foods are needed to have a well-balanced and healthy diet.

References

1. www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention
2. www.dentalcare.com/en-us/professional-education/ce-courses/ce371/the-stephan-curve
3. www.dentalhealth.org/Pages/Category/peppersmith-products
4. www.gov.uk/government/publications/the-eatwell-guide

