

# the best way to brush your teeth

**(and the simple mistakes millions  
are making every day)**



Brushing your teeth once a day or more is ESSENTIAL.

[Dr Mike Heffernan](#)    [Dr Toby Edwards-Lunn](#)

A new survey by YouGov has found that 3 in 10 Britons only brush their teeth once a day. You might think this is shocking news – especially to a pair of professional dentists. Not so. Naturally, we dentists encourage our patients to brush regularly. But in fact it's far more important that they brush *properly*.

To give you an illustration: your dentist or hygienist will probably do a regular check on your teeth that awards you an overall “plaque score”. This score reflects the percentage surface area of your teeth that is covered or partially covered by plaque. Many patients who diligently brush twice a day and think they're doing a great job of taking care of their teeth come out with plaque scores of 50pc or higher, which is not good.

The reason for these disappointing scores, which come as a nasty surprise to many, is that millions of people don't truly understand what they should be doing (and why they should be doing it) when they brush their teeth. Do you?

So, for the thousands of patients who over the years have asked us how to be better brushers, here's our six-point guide to brushing your teeth in the most efficient and effective way – even if you're one of those 3 in 10 Britons who's only doing it once a day.

## 1. Why you should go electric

Electric vs traditional hand-brush? No contest. Electric toothbrushes are infinitely better at removing the sticky plaque from your teeth. And the key word here is “sticky”: plaque is designed to stick to your teeth. It cannot simply be wiped off. It needs to be actively removed. To do this with a hand-brush requires a lot of effort – whereas an electric toothbrush will put in the elbow grease for you, leaving you free to concentrate on something equally important: your brushing technique.

First, choose an electric toothbrush with a head the size of a small tooth. The head should rotate back and forth. You don't need to spend hundreds of pounds – a £30-£40 model will do fine. However, do make sure your toothbrush is fully charged at all times because the speed of its head rotation is key.

When brushing, the head should be angled at 45 degrees to the line of your gums. You should brush all three external surfaces of your teeth – the outside, the inside and the biting surfaces – as well as your gum line (the place where the base of your teeth connects to your gums). You should spend at least two minutes doing this. (Though remember: two minutes is longer than you think, especially if you're in a rush to get to work or bed. Use a stopwatch or the in-built timer if your toothbrush has one.) Some models also have a pressure sensor to ensure you do not press too hard: only gentle pressure is required because the hard work is being done by the rotations of the brush.

Finally, if your electric toothbrush comes with a thinner, pointed brushing head, make good use of it: this is the perfect tool with which to spend an additional 30 seconds cleaning the inner surface of your lower teeth – an area that many people overlook.

# **10-second automatic toothbrush could save you hours every year**

h

## 2. Why you should read the small print

Don't be swayed by the flashy packaging or catchy advertising jingles. The key to picking the best brand of toothpaste is found – like so many things in life – in the small print.

You will probably already know that the active ingredient in toothpaste that has made the biggest difference to dental health over the last 40 years is fluoride. But be sure to check that your toothpaste includes the recommended adult dosage, which is 1400PPM (parts per million). Any decent toothpaste should contain this minimum quantity and you might want to consider a toothpaste with a higher dosage if you are at a higher risk of tooth decay. The effectiveness of fluoride in keeping your teeth healthy is clearly established – and is based on years of well-researched, peer-reviewed clinical evidence.

Other ingredients to look out for include triclosan and calcium phosphate, which are now being added to toothpastes to improve their effectiveness. However, treat toothpaste manufacturers' "whitening" claims with caution: they are not typically backed up by solid clinical evidence.

more about flouride at the end--

## 3. Parts of the mouth people often forget to brush

In section 1, we advised you to brush the three outer surfaces of your teeth: the outside, the inside and the biting surface. This proves that even we dentists can occasionally be guilty of overlooking another crucial area: the surfaces between your teeth. This is where the majority of tooth decay takes hold and where gum disease starts. For this reason, it's crucial to clean the surfaces between your teeth every day.

You'll probably be pleased to hear that the prevailing wisdom about how best to do this is no longer flossing (hurray!) but using specially designed interdental brushes. Interdental brushes come in lots of shapes and sizes but our top tip is to use the biggest brush you can that will still fit between your teeth. (And remember that because the gaps between your teeth are different sizes, you

will need at least two differently sized interdental brush heads to do this.) Brushing between your teeth shouldn't take more than 60 seconds and you only need do it once a day.

But don't stop the moment you've finished brushing your teeth. The bacteria that cause tooth decay and gum disease can stick to your tongue and even the lining of your cheek. So brushing your tongue (which is a common feature of the brushing routine in other countries) is very important too – even if it does feel a bit weird.

#### 4. Why you should never rinse after brushing

As we mentioned in section two, the most important active ingredient in toothpaste is fluoride, which works by strengthening the outer surface of your teeth and making them more resistant to harmful acids. So why on Earth would you want to rinse this valuable defensive shield away a few moments after brushing?

Millions of people are seemingly unaware of this crucial piece of advice: it is fine to spit out the excess toothpaste and foam in your mouth after brushing but please DO NOT RINSE. You'll be throwing the fluoride baby out with the bathwater!

#### 5. Why using mouthwash can be bad for your teeth

Lots of people believe – often persuaded by adverts – that briefly swilling a luridly coloured liquid around your mouth will drastically improve your dental health. Unfortunately this is not the case, for the simple reason that most mouthwashes contain lower levels of fluoride than most toothpastes. This means that by rinsing with mouthwash immediately after brushing people are actually increasing the chances that they will suffer from tooth decay.

There are times that mouthwash can be useful (for example after oral surgery when using a toothbrush could cause further damage). But in general, mouthwashes that kill all the bacteria in your mouth are actually doing more harm than good – by wiping out the “good” bacteria that is one of our natural defences against harmful bacteria, viruses and fungi.

#### 6. The best (and worst) times of the day to brush

The most important time to clean your teeth is just before you go to sleep. While you're asleep, you have lower levels of protective saliva in your mouth and if sticky plaque is left on your teeth for extended periods then more of your teeth will suffer the effects of tooth decay.

The worst time to brush your teeth is immediately after drinking or eating anything acidic, e.g. fruit juices, smoothies, vinegars, fizzy sodas or wine. Acidic drinks make the outer layer of your teeth enamel softer and brushing your teeth at this moment will actually damage the surface of your teeth, making them more sensitive and liable to staining (by exposing the yellow inner part of the tooth).

So, instead of brushing immediately after acid attacks, it's better to have something to hand that will help to neutralise the acidity (e.g. a glass of water) or to eat or drink something that contains high levels of calcium and phosphate, such as cheese or milk, as this will help to reverse the damage being done to the outer surfaces of your teeth.

Chewing sugar-free gum will also help by encouraging your mouth to generate more saliva, which in turn will start to neutralize the acidity in your mouth. ([You might also like to try Dr. Heff's Remarkable Mints](#), a new sugar-free dental health mint that we and other dental health experts have invented, which is clinically proven to clean and restore your teeth through a process called "remineralization.")

The age-old debate about whether to brush your teeth before or after breakfast depends on one crucial factor: what you have for breakfast. If you're about to tuck into toast slathered with sticky honey or jam and you haven't drunk any acidic drinks (such as fruit juices), then brushing after breakfast would be better. However, if you are drinking acidic fruit juices during breakfast then we'd advise brushing beforehand.

Of course, the other completely essential time to clean your teeth and freshen your breath is before you go to the dentist. We're far too polite and professional to mention it, but we dentists have almost as much to gain from a thorough pre-appointment brushing as you patients...

# Fluoride Toothpaste- Good Or Bad?

*Punishment For Good Dental Habits*



Toothpaste manufacturers add fluoride to their products because the American Dental Association says the ingredient prevents cavities and inhibits plaque buildup (although warning against toxic effects at excess amounts).

[Read: New Sugar Protects Teeth](#)

Fluoride's critics, of which there are legion, have devoted their lives to highlighting its toxic effects on teeth and bones, including mottled enamel (fluorosis) and skeletal brittleness. There is also modest evidence of causing bone cancer, according to a study from the National Toxicology Program. Nonetheless, fluoride, obtained as a byproduct of mining, continues to be used because its positives are thought to outweigh the negatives.

## Starves Cavity Critters

In contrast, xylitol, first used in Finland during the sugar shortages of World War II, has none of fluoride's side effects and has also been found to be a cavity fighter. Whereas fluoride inhibits plaque, xylitol takes a more systemic approach and subdues the bacterium that causes acid buildup, leading to plaque. That bacterium is called *Mutans streptococcus* (MS) and thrives on sixcarbon sugars like sucrose, fructose and high-fructose corn syrup,

producing the acid environment that comes with plaque buildup. In deference to sucrose, xylitol, just about as sweet and certainly sweet enough, has five carbon rings. As a result, the bacteria eat but can't digest it and starve. As the little critters go, so goes plaque. Xylitol is recommended by dental associations for children and adults. Yet its popularity isn't comparable to fluoride. But new studies suggest consumers who shift their buying patterns in order to enjoy the sweet yet healthy sugar could enjoy a prettier smile.

## Enamel Thickness

In a study from the *Journal of Oral Science*, fluoride and xylitol toothpaste's impact on remineralization of human enamel was evaluated using quantitative lightinduced fluorescence. The results showed the combination of fluoride and xylitol "significantly" increased dental thickness compared to use of either ingredient alone. "These findings suggested that inclusion of xylitol in fluoride toothpaste might be useful to enhance... remineralization..."

An overview of clinical trial research included 10 published studies for a total of 5,903 participants who had used xylitol and fluoride dental products. Over 2.5 to 3 years of use, fluoride toothpaste containing 10% xylitol "may reduce caries by 13% when compared to a fluorideonly toothpaste," they wrote.

[Read: Mouth Breather](#)

The effect is amplified in mouth rinses, according to a study of school children that was published in the *Asian Pacific Journal of Tropical Biomedicine*. Significant reductions in MS count were observed after 10 weeks, and 12.5% xylitol alone after 10 weeks compared with baseline. "The present study provides evidence for the inhibitory effect of xylitol, used in combination with fluoride, delivered in the form of mouth rinse, on salivary MS in the group of schoolchildren."

[Read: Sugar That Starves Bacteria](#)

## Punishment For Good Habits

A public health official from Arizona speaking off the record say that fluoridation of public water supplies is meant to address the needs of those children who have bad dental care habits in their homes. Studies have suggested that the combination of fluoridated drinking water and toothpaste (also with the chemical) could be leading some children to ingest too much of this toxin—in a sense punishing those children and families who have good dental habits and regularly use toothpaste.

## How To Change Habits

Xylitol provides effective cavity prevention with or without fluoride—but for those millions of families who imbibe tap water with the mineral, finding a toothpaste with xylitol only could provide a safer, better effect. (One could also use xylitol for baking. It can be used on a one to one basis for sugar in recipes. And xylitol chewing gums might amplify the effect of fluoride and are shown on their own, in any event, to reduce dental caries when used regularly in quantities of about 5 to 10 grams daily).

[Read: Xylitol- New Findings](#)

“When using xylitol, it is important to remember that the number of daily exposures is more important than the quantity,” says Chris Kammer, DDS, founder and past president of the American Academy for Oral Systemic Health ([www.aaosh.org](http://www.aaosh.org)). “Xylitol must be used daily and regularly. Use several times per day. Studies show that 8 to 10 grams of xylitol per day are effective. When looking for xylitol products, make sure they are 100% sweetened with xylitol and you will more than likely be getting enough (one to two grams) during each exposure. By simply following the advice to chew two pieces of xylitol gum three times a day, almost everyone could avoid having another new cavity the rest of their lives.”

The gum must be chewed for at least 5 minutes 3-5x a day to be effective, says Kauko K. Makinen, professor of dentistry and biochemistry and a clinical xylitol researcher. “Also, regular chewing with xylitol gum stimulates the production of saliva—nature’s own mouthwash, which also reduces cavities.”

Check your water supplies and if they are fluoridated, consider a xylitol-only toothpaste. But if your water isn’t fluoridated, using fluoride with xylitol might be advised— check with a dentist.



**Medical EXPOSE**

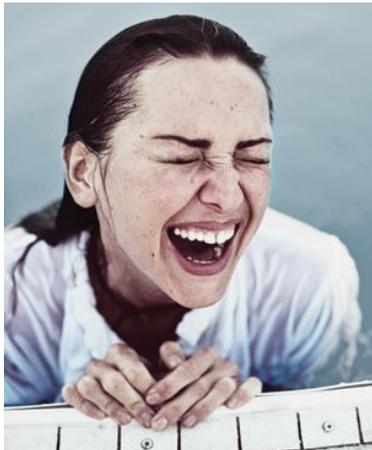
<http://www.medicalexpose.com/>

# Sugar That Starves Bacteria

*40% Fewer Calories Than Sugar*

7 glycemic value of xylitol

1:1 diabetic sugar exchange



The sweetener xylitol was discovered in 1890 but it was of little interest until the world wars led countries to pursue substitutes for expensive sugar. Japan, Germany, Russia and Finland led in the production of xylitol, which is naturally derived from the cell walls of vegetative matter, especially birch trees. Most people have heard of fluoride but few who have heard about xylitol, which has been shown to reduce cavities, prevent and reverse plaque, and remineralize teeth. Until the 1970s, xylitol was used primarily in the U.S. in small domestic markets as a sweetener in the diabetic diet. That changed, however, with a series of published studies in Finland from 1971-73 showing the preventive and remineralizing effect of xylitol in the Turku Sugar Studies. Since then, several clinical trials in many countries have confirmed these results. In Finland, oral health personnel have recommended daily use of xylitol chewing gum in their dental health education. Moreover, commercial companies have advertised xylitol, emphasizing in particular its preventive effects. All Nordic dental associations have given their recommendations for xylitol use.

Now we're discovering the many ways of using xylitol to achieve dental benefits. These include diabetic friendly powder sweetener for baking and cooking; nasal wash for allergies and asthma; and chewing gums, mints, toothpastes and mouth washes for reducing tooth decay.

Convincing research over the past few decades has shown xylitol to inhibit growth of harmful dental bacteria. The December 2008 issue of the *Journal of the American Dental Association* (139;12:1602-14) noted, when it comes to

xylitol, “There is consistent evidence to support the use of xylitol-containing chewing gum as part of normal oral hygiene to prevent dental bacteria.”

## Targets Bacteria

Xylitol is not metabolized by the bacteria that usually cause plaque, which does not form on teeth and cause dental decay. Traditional solutions, like brushing, flossing and using an oral rinse are important. “Xylitol complements fluoride and helps it to work even better,” says Doyle Williams, D.D.S., who practiced dentistry in Dallas, Texas, and is Dental Director of Delta Dental of Massachusetts. “Xylitol is an important addition to our diet because it targets with pinpoint accuracy the acid-producing bacteria *Streptus mutans* that causes tooth decay. Being a five carbon sugar, the bacteria simply can’t digest xylitol. They starve to death.”

## Part Of Overall Strategy

Pediatric dentist John Peldyak practices general family dentistry, and treats children for the Mobile Dentists in-school program. He was a member of the University of Michigan Xylitol Research Group. He recommends adding xylitol gum and mints to basic brushing and flossing habits. “I follow the standard oral hygiene recommendations of brushing, flossing and using of topical fluoride. But then I add something more that gives my teeth a big advantage: I use xylitol gums, mints and candies.”

The California Dental Association recommends patients consider xylitol “as part of an overall strategy for decay reduction” and adds that, “With xylitol use, the quality of the bacteria in the mouth changes and fewer and fewer decay-causing bacteria survive on tooth surfaces. Less plaque forms and the level of acids attacking the tooth surface is lowered.”

Xylitol is so safe that the World Health Organization and the Food and Drug Administration give it their highest safety ratings (including being “generally recognized as safe” in America). All in all, xylitol holds a lot of promise to consumers. More than just a sugar that starves bacteria— although that alone would be reason enough to consider using it—xylitol’s benefits continue to be revealed and appreciated worldwide.

*References*Honkala S, Honkala E, Tynjälä J, Kannas L. Use of xylitol chewing gum among Finnish schoolchildren. *Acta Odontol Scand.* 1999 Dec;57(6):306-9. Lous J. [Chewing gum can prevent acute otitis media]. [Article in Danish] *Ugeskr Laeger.* 2013 Feb 25;175(9):574-6. Disclosure in accordance with the Federal Trade Commission regulation 16 CFR, Part 255: this post is sponsored by an advertiser.