

# Open wide

Living with epilepsy often means living with recurrent dental injuries or oral side effects from medication. And one too many visits by the tooth fairy. Here we look at some of the issues surrounding seizures and teeth, while over the page Dr Guy Hollis gives his top tips for dental healthcare

When Louise Bolotin from Manchester transferred to a new dentist, she couldn't believe her luck. 'For the first time ever I had found a dentist who completely "gets" epilepsy,' she explains. 'With my previous dentists, as soon as I mentioned the word "epilepsy" you could see the fear in their eyes as they worried they were going to get their fingers bitten off if I had a seizure in the dental chair.'

'On top of that, I had lived with 15 years of constant plaque which I had been trying to manage myself in between appointments. It was only when I saw my new dentist that he explained the plaque could be all part of problems caused by my anti-epileptic drugs.'

Louise's story is not unusual. The unpredictable nature of seizures combined with side effects from some medications can add to the long-term impact of epilepsy. Issues range from experiences in the dental chair to gum disease, broken or lost teeth and the stigma associated with dental injuries.

Research has shown epileptic seizures to be the most common medical incident in the dental surgery – stress is often a trigger for seizures. Dental injuries rate as the third most common non-fatal seizure related injury after head injuries and burns and scalds. And dental treatment – unless you are on means-tested benefits – is not free for people with epilepsy. NHS prices can range from £17 for a check up to £204 for dentures, crowns and bridges.

In a study of 1,673 people with epilepsy in Gloucestershire, researchers found that dental injury occurs in approximately one per cent of people with epilepsy and for those with juvenile myoclonic epilepsy (JME) which starts in adolescence, this figure rises to around 10 per cent.

Lead researcher Dr Rhys Thomas from Wales Epilepsy Research Network at Swansea University

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said the significant increase in dental injury in people with JME was probably due to the sudden onset of a seizure without an aura, giving the person no time to take any safety precautions.

'A build-up of myoclonic jerks prior to a generalised seizure should act as a warning, but because it also promotes a loss of power and sudden falling forwards it results in more injuries to the front teeth in those with JME,' he said.

'There may be other factors too that account for the increase. For example in JME, seizures are more likely to occur first thing in the morning in the bathroom, providing more hard surfaces for the person to fall against than in other settings during the day.'

A further research study into dental care in Nigeria may at first glance seem to have little relevance to the UK experience. Out of 56 patients with epilepsy, 46 per cent were found to have injuries to their front teeth attributed to the traditional practice of forcing spoons and other hard objects into the mouth during seizures.

Although this was outside the findings of the WERN research, Christine Brock, manager of Epilepsy Society's Helpline, said that in spite of awareness raising, the helpline still occasionally receives calls from people who believe you should place a stick or spoon in a person's mouth if they are having a seizure.

The practice of wearing a mouth guard to prevent damage to teeth during a seizure is controversial with experts divided over its use.

'Anecdotally, while mouth guards obviously won't stop seizures, they can reduce injuries, particularly for those who have asleep seizures,' says Dr Rhys Thomas of WERN. 'People express their concern that they might swallow the guard, but I have never heard of this happening and



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in fact they are too large to be swallowed.

'I have even heard of someone using their guard from their teeth whitening kit to prevent damage to their teeth and mouth during a seizure.'

Oral health educator for Buckinghamshire, Julie Ailward warned, however, that while a guard may be good for protecting teeth in some circumstances, it could have a detrimental effect in terms of communication and social interaction.

'I would recommend that any mouth guard is made professionally to match the person's own teeth and bite,' she stressed.

But issues surrounding dental care extend beyond dental injuries. At the University of Bonn, research has shown that phenytoin can cause gingival hyperplasia or gum overgrowth in 50–60 per cent of people who are prescribed it, with inflamed gums threatening to engulf the tooth and cause sensitivity and bleeding. Treatment includes a switch to alternative anti-epileptic drugs and improved oral hygiene (see page 10).

Dr Guy Hollis, Epilepsy Society's dental expert said that in the wider community of people with epilepsy, the problems caused by phenytoin should be self-limiting as the medication is no longer prescribed as a first choice of treatment for this very reason, although there are still many people taking it.

'However, many other problems persist such as dry mouth (xerostomia), broken teeth due to jaw clenching plus sores on the tongue and inside of the mouth caused by biting during a seizure and sometimes as a reaction to medication,' he said.

Alongside these issues comes the relationship between patient and dentist and the search for a dentist who 'gets' epilepsy. While many report a very positive patient experience with the dentist proving informed, relaxed and empathetic, others

report a nervousness and tension with the dentist fearing the onset of a seizure during a routine check-up.

'His eyes were round as saucers when I zoned out,' said one patient. 'I was only trying a bit of mind over matter in the dental chair, but he thought I'd had a seizure and whipped everything out of my mouth.'

Chief Executive of the British Dental Health Foundation, Dr Nigel Carter emphasised the importance of communication in the dental surgery and the commitment of dentists to provide a supportive and safe service for people with epilepsy. 'All dentists are fully trained to treat people with epilepsy, giving you the best possible chance of receiving quality oral health care,' he said.

'It is important to tell your dentist if you have epilepsy, or have ever had any sort of fit in the past. This is to make sure the dental team is fully prepared if you do fall ill during treatment and can respond accordingly if necessary.

'Patients with epilepsy may find they are more likely to have fits when they are anxious. Tell your dentist if you have any concerns before or during your treatment. The dental team will make sure the surgery is safe for you and there is no risk of harm to you.

'If you undergo treatment the dentist will be unable to administer the usual adrenaline anaesthetics, as there could be a risk of it going into the bloodstream and possibly resulting in stress for you. Instead, dentists will use a non-adrenaline based anaesthetic, which might not last as long, but will perform exactly the same function.'

*Read Guy Hollis' top tips for dental care over the page.*



## Guy Hollis gives his top tips for dental care



- 1 Make sure you tell your dentist about your epilepsy, seizure type, frequency and triggers. It may be useful to take along your seizure diary to your appointment and a list of your medications. Be open about any fears and anxieties you may have.
- 2 Discuss with your dentist what action to take should an emergency occur in the surgery. Seizures are one of the most frequent incidents in the dental chair and dentists are trained to deal with such emergencies.
- 3 Good nutrition is vital for dental care. Avoid sweet, sugary foods and liquids which can contribute to tooth decay. Acidic drinks may cause erosion. Avoid coffee, alcohol and smoking.
- 4 Brush your teeth twice daily for at least two minutes, preferably with a small-headed electric toothbrush. Flossing your teeth daily can help to keep gums healthy and remove any build up of plaque. Rinse with a chlorhexidine gluconate (Corsodyl) mouthwash in the morning to help kill bacteria and a fluoride mouthwash in the evening to help strengthen your teeth.
- 5 Phenytoin can cause enlarged gums (gingival hyperplasia) which may lead to halitosis (bad breath) and a susceptibility to gum disease. Good oral hygiene is important but you should always seek the advice of your dentist and GP and discuss changing to a different medication.
- 6 Some medication can cause dry mouth (xerostomia), causing constant thirst and difficulty when eating and speaking. Reduced saliva can encourage the growth of bacteria in the mouth and increase the risk of tooth decay, gum disease and disease in the lining of the mouth. Take regular sips of water, chew gum or use artificial saliva as prescribed by your dentist.
- 7 Biting the tongue or the inside of the mouth during a seizure can result in painful ulcers. If brushing your teeth is uncomfortable, try rinsing with Corsodyl or applying medication such as Iglu until the swelling subsides. Sucking an ice cube and taking painkillers may also help with ulcers. If you have painless ulcers for more than 14 days, make sure you see a dentist.
- 8 If you fall during a seizure and damage your teeth, arrange an emergency appointment with your dentist as soon as possible. If injury or side effects from drugs affect your appearance and self confidence, discuss the possibility of cosmetic treatment with your dentist.
- 9 See your dentist regularly to ensure problems are prevented or treated.
- 10 Don't get too hung up about your epilepsy. For the average person with epilepsy, their oral hygiene is as good as in the general population.



### In an emergency

#### If a tooth is knocked out

You or someone with you should handle the tooth carefully by the crown, not the root. If it is clean, replant the tooth in its socket immediately and bite on a clean handkerchief to keep the tooth in position until you seek advice from your dentist.

If the tooth is dirty, rinse in milk or

under cold water but do not scrub. If you are unable to replant the tooth or do not feel confident in doing so, store in milk or place in saliva, for example in the person's mouth, next to the cheek. Seek medical advice as quickly as possible.

#### If a tooth or denture is inhaled

If the airway is mildly blocked but the person can speak and breathe, encourage them to cough to dislodge the tooth.

If the airway is severely obstructed and the person is having difficulty breathing, administer five back blows between the shoulder blades followed by five abdominal thrusts. If you are unable to dislodge the tooth, call for an ambulance.

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