

Could wearing ear plugs stop you grinding your teeth?

WIGGLING the tubes of my new ear inserts until they fitted snugly, I felt bemused. They were so comfortable I could hardly tell I was wearing them, yet they were supposed to stop me clenching my jaw and grinding my teeth.

Given that all the awkward tooth guards and bite splints I had tried had failed to accomplish this feat, I was sceptical.

Along with six million other people in Britain, I have bruxism, otherwise known as teeth grinding or clenching. I had no idea that I did this, nor the impact it could have, until I began visiting an osteopath 20 years ago for the persistent pain in my neck, shoulders and back.

After a quick look in my mouth, he pointed out that unless I began using a tooth guard or splint (the technical term dentists use), his efforts at unlocking my back would last only a day or two.

Apparently, the tension I generated by clamping my back teeth together was causing my back and neck muscles to tighten up and spasm.

I mostly did this jaw-clenching while asleep, but began to realise it also happened when I was stressed during the day.

So a dentist measured me up for a U-shaped device that slotted over my upper teeth, which would stop me exerting pressure through my back teeth at night.

It did ease my back and neck ache at first, but after a few months I would wake at night to find I was biting the splint for all I was worth. And the pain crept back.

Since then I've used a variety of splints, with varying degrees of success. They usually make a huge difference to begin with, then I find a way to tense up around them and give up. Mostly, I try to ignore the perennial stiffness and do Pilates, physiotherapy and yoga to stay supple.

I even tried Botox injections in my jaw muscles ten years ago. This works by immobilising the masseter muscles — the chewing muscles which power the grinding and clenching.

This did help, but I didn't fancy having to repeat it every three months. And now that studies have shown the treatment may reduce bone density in the jaw, I'm glad I didn't.

SO I'M always on the lookout for something that might help. And when I heard that Dr Joanna Christou, a London-based dentist and cosmetic doctor, was conducting a clinical review of a new device called Cerezen, I applied like a shot.

She wanted people with a history of tooth-grinding and associated problems with their temporomandibular joint (TMJ) — the big hinge joint at the corner of the jaw.

At my appointment, I filled in a questionnaire, and immediately felt a bit of a fraud. It was clear from the options that some sufferers found their jaws frequently locked shut, had constant ringing in their ears and tension headaches, or could hardly eat because of the pain caused by their jaw.

But while my problems were not this severe, Dr Christou said I was a good candidate as I couldn't open my jaw fully (on reflection I realised that I'm always being asked to open my mouth wider at the dentist) and she could feel the tension in my neck muscles.

Next she showed me the Cerezen devices — two hollow, hard plastic tubes, 6mm long, which are slightly twisted to follow the contours of the ear canal. Each has a tiny blob

protruding from it, to make it easier to hoick it out of your ear.

The idea behind the inserts is to do with the ear canal lying right behind the TMJ. When you grind or clench your back teeth, it exerts pressure on this joint, causing the ear canal to contract slightly (which might explain why some people have earache as a result).

This in turn is meant to put pressure on the ear inserts — not enough to cause discomfort, but to encourage the jaw to relax, by a process that the Cerezen website describes, rather bafflingly, as 'para-cognitive awareness'.

'It's the physical stimulus of having the device in the ear canal so close to the jaw joint, which breaks the tension cycle of clenching,' says Dr Christou.

Launched in the U.S. in 2012, Cerezen has now come to Britain. So far, there has been one randomised controlled clinical trial, which showed a statistically significant reduction in pain among patients who used it, as good as that given by a stabilisation splint used by other patients in the trial.

What's more, people found them easy to wear as part of their normal lives, says Saife Aziz, the UK health manager of Renew Health, which

brought the device to Britain. He added that the devices were comfortable enough to wear for longer at a time than a splint and, unlike a splint, people could wear them during the day as well.

'The trial didn't show whether patients would continue to wear the splint after the trial finished, but we do know they continue to use Cerezen,' he says.

OF COURSE, I was mad keen to try it, so I had moulds made of my ear canals by an audiologist. Two weeks later, I wiggled my custom-made devices into my ears and got on with life.

Cerezen recommends you wear them for 16 hours a day, but take them out when showering, so I got into the habit of having them in overnight, but taking them out for a time during the day.

I could tolerate sleeping in them, as long as I didn't press the side of my head too firmly into the pillow. If I did, the prong pressed uncomfortably into my outer ear, so I learned to sleep on my back. As the inserts are hollow, I could hear well enough in quiet surroundings. But they did dull my hearing when there was background noise or when I was in a group, so I started to take them out for meetings or parties.

And they were a bit of a nuisance. They stayed put when I walked the

dog or cycled, but would wiggle loose in the gym or yoga studio, so I took them out for exercising or to wear headphones.

I also removed them when brushing my teeth — I couldn't stand how they buzzed as the vibrations from my sonic toothbrush travelled up my jaw and into my ears.

To my surprise, no one spotted them — all you can see is the tiny blob that helps you pull them out.

Wearing them soon became a way of life and four months rolled by. But were they doing any good?

80%

Proportion of teeth grinding cases that occur in sleep

Certainly, the tension in my neck and shoulders seemed better than usual, and Anna the physio seemed to be spending less time massaging my knotted muscles.

When I returned for my follow-up assessment, it was positive.

'The big change is that you can open your mouth 10 per cent more than before,' says Dr Christou.

'Also, you really don't have much muscular tension in your neck any more, and your jaw opens more smoothly. These are all

positive signs.' Overall, everyone in Dr Christou's review had positive results. But there were only ten of us. And I still wasn't completely convinced. So when Saife Aziz asked if I'd let him take them back, I happily stopped wearing them then and there.

He looked surprised as no one else who has tried the devices has been prepared to relinquish them.

But a week later, the familiar stiffness started creeping up my back, shoulders and neck, and I dug them out again. For now, I'm wearing them only overnight.

Whether the inserts could be a solution to a common problem, it's too early to say.

'Ideally, in order for the jaw to be comfortable, there are three things that need to work in harmony: the temporomandibular joints, the muscles that move the lower jaw and the teeth,' says Andrew Eder, a professor and honorary consultant in restorative dentistry at the UCL Eastman Dental Institute.

HE ADDS: 'If any of these is out of alignment or not working properly, you can end up with problems such as pain or tooth wear.'

'I usually manage these problems in my patients with a Michigan splint, a type of mouth guard normally worn over the upper teeth at night, for which there is a lot of long-term evidence.'

'I might add support from a physiotherapist or osteopath to help with the muscles, and possibly an anti-inflammatory medication in the short term.'

'I watch any of these novel approaches with interest, particularly when there are appropriate research studies that support the treatment being recommended.'

But he points out that it is early days for Cerezen.

'Until we have evidence of positive long-term outcomes, I would feel uncomfortable offering this to my patients. However, I am keenly watching this space.'

■ **CEREZEN devices cost from £499 per pair. To find your nearest dentist who can supply them, visit cerezen.co.uk or call 0800 0488 446.**

By ALICE HART-DAVIS

THIS week: Chickenpox

THIS illness is caused by the varicella virus, which grows quickly in cells lining the back of the throat, lungs and upper part of the respiratory tract.

'It then takes about two weeks to spread by piggybacking on white blood cells as they travel around the body,' says Dr Ben Neuman, a microbiologist from the University of Reading.

'The virus infects skin cells and the nerve cells under-neath them.'

Once the virus has taken hold, a rash and then blisters form in about two days.



HOW LONG WILL IT LAST?

You will be infectious until the blisters dry out — about a week — and are covered in scabs.

However, some of the virus remains in nerve cells at the bottom of the spinal cord, where it can be reactivated as shingles years later when the immunity is weakened.

THE LUNCH CRUNCHER

How to make your calories go further

YOU CAN HAVE THIS



Costa tuna melt panini (484 calories)

OR THIS



One baked potato (200g before cooking) with 160g can tuna in water



Rocket & cherry tomato salad with 1tbsp balsamic dressing



100g raspberries with 100g fat-free Greek yoghurt (484 calories)

MAKE your lunch larger and healthier — but no more fattening — by swapping a tuna melt panini for tuna with a jacket potato and salad, plus fruit and yoghurt. The panini provides a third (6.3g) of your daily

recommended limit of saturated fat. The alternative lunch has less than 1g and also counts as two of your five-a-day, is a good source of calcium for bones and provides nearly 40 per cent of your daily fibre.