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Could grinding your teeth cause headaches?

Grinding your teeth is not only bad for your oral health but can also have unexpected consequences.



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Many of us grind or clench our teeth from time to time – either because of stress or by habit. Normally it won't cause any harm but when it starts to happen on a regular basis, bruxism can lead to headaches or even migraines.

Dr Elliot Shevel, South Africa's pioneer in the field of migraine surgery and the medical director of The Headache Clinic, says bruxism is a common problem and a common cause of headaches and migraines.

Two recent studies focused on grinding patterns in migraine patients and the incidence of headaches related to occlusion (the way the teeth of the lower and upper jaws fit together when the jaws are closed) and bite-force imbalance (malocclusion).

Grinding patterns

The [first study](#), published in *The Journal of Craniomandibular Practice*, showed that a large number of migraine sufferers who grind their teeth usually grind over a large area of the mouth, particularly in the molar region. The study involved a total of 80 women who had been diagnosed with migraines and 52 women with no history of migraines.

The results showed a significant difference in the distribution of grinding patterns between the two groups. The proportion of grinding area at all sites was significantly larger in the migraine group.

Bite patterns

The second [study](#), published in the *Medicina oral Patologia Oral Cirugia Bucal*, used a digital occlusal analyser to evaluate the bite. After their bite was adjusted and optimised, the migraine sufferers reported a decrease in headaches.

“Many people grind their teeth at night while they sleep. The most common symptoms are a constant, dull headache during the day and jaw pain,” says Dr Shevel.



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“An overbite is a common problem. The probability and severity of migraines, headaches, jaw pain and ear pain in patients who have overbites is more than 65%. The teeth simply cannot hold the jaws in the proper position and pain sets in slowly, often beginning during early childhood.”

Treatment options

“Contrary to most specialists’ belief, headache and migraine are often caused by the contraction of muscles in the jaw, face, head and neck,” says Dr Shevel.

Using his background as a maxilla-facial surgeon and dentist, Dr Shevel has developed unique diagnosis and treatment methods that identify which muscles are causing the pain and then treat them.

Grinding teeth is diagnosed in a number of ways. First, patients often say that their partner or a family member hears them grinding when they sleep.

“When we examine the patient we do an electromyogram test, which tells us if the jaw muscles are too tense,” Dr Shevel says. “The jaw muscles are often very tender when we press on them with a fingertip. If the grinding is particularly bad, the teeth may show visible signs of wear.”

While there are various devices available to prevent bruxism, according to The Headache Clinic, the Posture Modifying Appliance (PMA) developed by Dr Shevel 25 years ago, is the best way to treat migraine sufferers who grind their teeth. It is also one of his most successful methods of treatment for the muscular component of the migraine pain.

The PMA is a small appliance custom made for each individual that fits comfortably and unnoticeably into the palate, encouraging the jaw muscles to relax into their natural rest position.