

MIGRAINE RESEARCH INSTITUTE

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“Don’t pay with your health”

It must be remembered that different people have different physiological responses to increased stress levels. Where some may start clenching teeth and/or develop headaches and migraines, others may respond with increased acidity levels in the intestine resulting in stomach ulcers. That said, one of the most common responses to increased stress levels is to clench the jaw and raise the shoulders. This particular stress response is the pivot that results in the triangular link between clenching the teeth, increased stress levels, and headaches and migraines. This physical change of posture alters the resting position of two major sets of muscle groups. Clenching the jaw changes the position of the *cranio-mandibular* muscles, i.e. the muscles that connect your head to lower jaw. Raising the shoulders changes the resting position of the *cranio-cervical* muscles, i.e. the muscles that connect your head to your neck, shoulders and back. Changing the resting position of any set of muscles for a prolonged period of time causes those muscles to go into spasm and generate pain, much the same way that keeping your arm out in front of you and parallel to the ground would thrust your shoulder muscle into a painful spasm.

One of the definitive scientific studies in this field of research was published in the respected international medical journal *Cranio* in 1997. The research was conducted over a three year period on 133 patients who clenched their teeth, and further 133 patients that did not. The results showed that there is a very strong relationship between clenching the teeth and both tension headaches and migraines. Both bruxing (clenching the teeth) and headaches and migraines have long term consequences. Grinding one’s teeth causes the teeth to get worn away which can result in the need for an ‘over denture’ to cover the tooth surface, loosening of the teeth in their sockets resulting in periodontal disease (gum disease), and also tinnitus or ringing in the ears.

By far the most severe consequence of clenching the teeth however, are the muscle spasms that left untreated often result in chronic headache and migraine pain. To understand the effects on the quality of life of the chronic headache and migraine sufferer one need only look to published medical literature. Their quality of life ranks as worse than that associated with arthritis and diabetes, and is comparable to the level of dysfunction seen with recent myocardial infarction or congestive heart failure. The headache and migraine pain is usually coupled with extremely harmful and often unavoidable addiction to pain killers.

The most statistically effective breakthrough in this area of treatment is known as the Posture Modifying Appliance (PMA) and was first presented to the International Headache Society's (I.H.S.) annual congress in Rome in 2003. The results showed an approximate doubling (105.1%) of the quality of life of sufferers with muscle spasm related headaches and migraines over the six month period of the study. The breakthrough was discovered and presented by South Africa's migraine research pioneer Dr Elliot Shevel.

The latest research on Dr Shevel's PMA breakthrough was performed in Italy at the *Neurological and Psychiatric Science Department of The University of Bari* in May 2006. It examined laser-evoked potentials in chronic tension-type headache patients treated with two different approaches: Dr Shevel's Posture Modifying Appliance, which reduces muscular pain related to tension in the jaw muscles; and 10mg of the powerful migraine drug amitriptyline, administered daily.

The results of the study found that while both therapies are equally effective in reducing headache severity, Dr Shevel's PMA has none of the serious and long lasting side effects of the medication use. These include upset stomach, vomiting, drowsiness, excessive sweating, and changes in appetite or weight. "This should serve as a guideline to patients who want to have healthier alternatives to medication" concludes Dr Shevel.

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