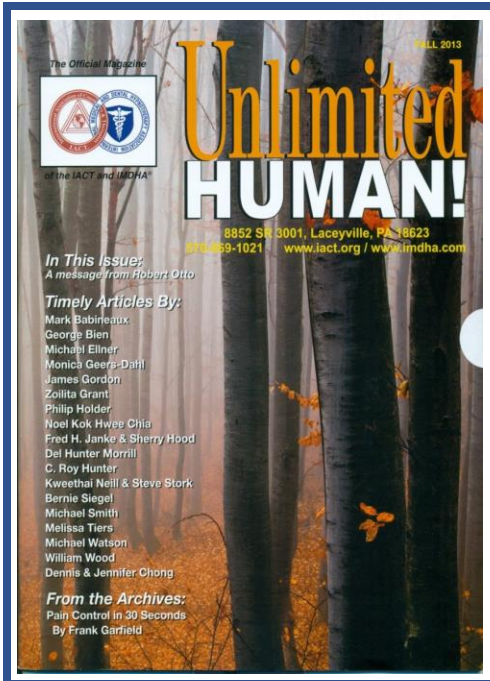


# HYPNOTHERAPY AND HEADACHE



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Headache is a common presentation of chronic pain. In the USA, 80-90% of adults report a history of recurrent headache, of which 30-50% are reported as severe.<sup>1</sup> The annual prevalence of chronic headache in the USA is 45 million people.<sup>2</sup> The 1999 Canadian National Health Survey reports that 7.9 % of Canadians over the age of 12 had been diagnosed with migraine headache.<sup>3</sup>

The economic impact of headache is large and complicated. Headache makes up 2-4% of visits to primary care physicians. Thirty three per cent of Canadians with migraines see a healthcare professional 7 or more times a year.<sup>3</sup> There are many co-morbidities associated with headache. The incidence of migraine is three times higher among those experiencing depression.<sup>3</sup> Indirect costs include workdays lost, decreased effectiveness when working with a headache and lost career or education opportunities. It is estimated that trying to work with a migraine headache reduces an employee's productivity by 35%.<sup>4</sup> Headache is associated with a lower socioeconomic status which likely relates to negative influences on finances and higher education.<sup>4</sup> There are additional impacts on marriage and family life.

In the United States alone, the total costs related to headache reach an estimated \$50 billion per year. The annual cost to business in lost productivity is \$6 - \$17 billion.<sup>5</sup> In the United Kingdom, 25 million working or school days are lost yearly because of migraine alone.<sup>2</sup> In Canada the cost of migraine in the workplace is approximately \$500 million per year. Globally, headache costs the world economy 155 billion euros per year.<sup>6</sup>

A common misconception, is that any severe headache is a "migraine." Many patients refer to their headache this

way, when in fact the headache may well be due to another cause. Effective treatment, either traditional or nontraditional, depends on the proper diagnosis. Hypnotherapists may not only have the same misconceptions, but are subject to the bias of what clients tell them. Although one can apply any generic pain management approach to any person suffering from headaches, it is the authors' contention that understanding the physiological mechanism of the pain may allow for a more effective therapeutic strategy. Therefore it is imperative that clients have seen their own physician to obtain a valid diagnosis.

Common types of headache include migraine headache, episodic tension type headache (muscular contraction headache) and cluster headache. Both migraine and tension type headache may become chronic, however, other chronic headache patterns exist.

Headaches may also be secondary, meaning caused by other medical disorders. These include cervicogenic headache (related to disorders in the neck), post-traumatic headache (related to head injury) and temporomandibular headache (related to problems with the temporomandibular joint). Treating the underlying cause is the penultimate way of managing the head pain.

Another form of secondary headache, which is crucial to understand, is that of medication overuse. Headaches from medication overuse are caused by rebound or withdrawal from pain medications leading down a never-ending spiral of medication use to treat the headache. Practitioners and patients alike do not appreciate medication overuse enough. A client presenting for hypnotherapy, may not be aware of or disclose their medication dependency. Therapy

may be inappropriately directed at pain control when in fact the underlying issue is addiction and without addressing the addiction, therapy will always be ineffective.

Although hypnotherapists should not step into the role of diagnostician, anyone treating patients with headache needs to be aware of emergency or urgent situations. It is unlikely that a client might present to a hypnotherapist with an emergency, however being aware is always beneficial. Emergency red flags, in which a patient should be seen immediately in an emergency room include: thunderclap headache (a very severe headache that reaches peak intensity in less than one minute), headache associated with fever and neck stiffness, any headache associated with altered levels of consciousness and acute angle closure glaucoma (head pain associated with dilated pupil, acutely inflamed eye and visual disturbance). Urgent red flags, in which a patient should be seen by a physician within hours to days include: any patient with cognitive changes, any patient over the age of 50 with the new onset of headache, any new headache or major change in headache pattern, especially in a patient with other systemic illnesses (such as cancer), any patient with neurological symptoms (such as numbness or weakness).

Migraine headache is quite common with a lifetime prevalence of 24% of women and 9% of men in Canada.<sup>7</sup> Migraine is usually a one-sided pulsating or throbbing headache and is often associated with loss of appetite, nausea, vomiting, photophobia and phonophobia. There may or may not be an "aura" which develops over 5-20 minutes, often lasts less than an hour and often heralds the onset of headache. Aura symptoms are usually visual, such as flashing lights, but may include other neurological symptoms such as facial numbness. Migraines tend to have physical triggers such as certain foods or exposure to environmental phenomena, barometric pressure changes as an example. Migraine has traditionally been thought to be of vascular origin, caused by sudden arterial dilation in specific areas of the brain. In fact one of the more effective family of medications to treat migraine works by constricting the arteries. One MRI study comparing women with migraine to women without migraine shows a progression of white matter hyperintensities (or changes in neural axons) over the course of 8.5 years.<sup>8</sup> Such appearances on MRI are related to vascular changes and suggest long term impact of decreased oxygen in these areas.

Addressing the vascular component, in addition to the pain, during hypnotherapy would seem an effective approach for the hypnotic management of migraine headache. Since medication for migraine is designed to work by stabilizing the arteries, then the mind can also be employed to do the same. Accessing the client's creative receptivity around this phenomenon can be quite powerful, more so than suggesting the therapist's own concepts to a client. It is a normal practice of one of the authors to ask clients to create their own method to accelerate a process of healing or

management. Release work may be a part of this. A client can come up with a concept that is much more meaningful to them because it is coming from their own mind. This is the same principle that is employed when a therapist uses a client's own organic language in suggestion. It is personal and it has more meaning to the client.

A client could imagine using a tool to stabilize the artery such as adjusting a dial or drinking an elixir that works as a powerful medication to do the job. Part of a hypnotherapist's work is to be able to take a concept and expand upon it in the most creative way to benefit the client.

Given the recent awareness of progressive brain changes with migraine, a therapist could find ways to halt and reverse these. Transformation using something as creative as Calvin's "transmogrifier" (From the cartoon "Calvin and Hobbes") could make perfect sense to the individual client and therefore a therapist can encourage brain regeneration. Such creative reframing could even be fun.

Aura's such as flashing lights could be turned off with a simple switch or deleted from an internal computer program, which in turn abolishes the progression of the headache. It is important to incorporate and amplify the client's emotions as these positive changes are taking place within their brain.

Episodic Tension Type Headache is also very common. Based on one cohort study done in Switzerland in which 591 individuals were followed for a period of 30 years, the one year prevalence of tension headache is 11.5% and there is a cumulative experience over 30 years of 30%.<sup>9</sup> The cause of tension type headache is muscle contraction over the cranium and is often associated with stress which leads to the label tension type headache. The headache typically originates at the base of the skull posteriorly and radiates forward on both sides of the head. It is often described as a squeezing pain or feeling as if the head is in a vice. There is usually no associated nausea, vomiting or aura. It is often present on awakening.

In the case of tension type headache a therapeutic approach could involve relaxation techniques as well as determination of stress triggers and dealing with these by personal release work. For example, one could have the client imagine or visualize removing the vice grip from their head. One could also have the client visualize relieving the pressure such as imagining unzipping a zipper from the base of the skull. Teaching the client self-regulation so that they continue in their own care is very important.

Dr. Lawrence Sugarman is a pediatrician who uses hypnotherapy in his practice. One strategy of self-regulation he teaches young patients with headache is the use of biofeedback cards.<sup>10</sup> The biofeedback card not only measures galvanic response or skin temperature but serves as a visual indicator of mind-body connection. When skin is cold and clammy, indicating tension, self-regulation techniques are used to relax. The biofeedback card is used as a visual monitor to relaxation strategies. Such biofeedback cards



are easily available and creatively could be a double-sided business card.

There are biofeedback computer programs that use mind body training such as "Journey To Wild Divine".<sup>11</sup> Wild Divine measures a player's Skin Conductance Level (SCL) and Heart Rate Variability (HRV). Increased SCL indicates increased autonomic nervous system activation, which is associated with increased energy-both positive, such as excitement, or negative, indicating fear. The strategy behind "Journey To Wild Divine" is to teach self-regulation of these autonomic responses in a fun way.

Cluster headache is much less common and far more frequent in men (7.5 times as common). It is described as a severe lancinating pain around one eye. Clusters may occur in incidents of up to 8 times a day lasting 15 - 180 minutes. These episodes may last for weeks to months. Often there is redness in the affected eye, swelling in the eyelid and congestion in the nose of the same side. The exact cause is unknown however there is associated activation of the hypothalamus.

Turning down the activation of the hypothalamus in the hypnotic state would seem an appropriate additional therapeutic approach. Showing a client a graphic of the brain and the exact location of the hypothalamus could help them imagine or visualize the desired change taking place. Perhaps removing a sharp object in that area could relieve a stabbing pain. A dial or a slider could be inserted to reduce the discomfort or to increase comfortable feelings. Setting a timer within the hypothalamus that reduces the amount of time a cluster headache is experienced and reduces the episodes per day to a more manageable level could be very helpful. In time it may be possible to eliminate the episodes all together.

Much of the more recent literature on hypnotherapy and headache is focused on its use in children and adolescents. In a recently updated Cochrane Library systematic review of the literature, Eccleston and his colleagues found that relaxation techniques and cognitive behavioural therapy were effective in reducing chronic headache in children and adolescents.<sup>12</sup> Kohen published an outline of two case reports using self-hypnosis to help adolescents with chronic daily headache.<sup>13</sup>

Anbar and Zoughbi recently published an interesting study from the State University of New York Upstate Medical University.<sup>14</sup> They completed a retrospective chart review in which they identified 113 pediatric patients who were referred for hypnotherapy for persistent headaches. Of these 113 patients, 77 returned for a second hypnotherapy session. Of these 77 patients, 12 reported a stressor that might be related to the development of headache. An additional 18 agreed to try hypnosis to identify stressors, all of which then did. Although 96% of children reported a decrease in headache frequency and/or intensity with hypnotherapy, this improvement seemed to be compounded by the addition of what the authors term "insight generation" as to

the stressors causing the headache.

Kohen has published further work on self-hypnosis training for recurrent headaches in children and adolescents. He and a colleague completed a retrospective chart review of youths referred for recurrent headache to the Behavioural Pediatrics Program at the University of Minnesota, from 1998 -2001. Data was available for 144 patients who underwent a program to learn self-hypnosis to manage headache. They reported a reduction in frequency, intensity and duration of headache.<sup>15</sup> Kohen then went on to survey these same patients in 2010. The results showed an enduring positive effect for many years following the training and there was some spontaneous generalizability of self-hypnosis by young people applying these techniques to life stresses.<sup>16</sup>

There are some publications providing support for the effectiveness of hypnotherapy in the management of headache in adults. Unfortunately many of the publications are old (dating from the 1970's, 80's and 90's). Much has changed in the understanding, diagnosis, categorization and treatment of headaches since the 1970's. In some of these older publications, interventions are compared against medications no longer in use.

Kanji and colleagues did a systematic review of controlled trials to determine whether autogenic training was effective as sole therapy for tension type headache. After a search through six major literature databases, only seven trials were extracted that matched their pre-defined criteria and all of these were rated as low quality.<sup>17</sup> Their conclusions were that autogenic training was no different from hypnotherapy and inferior to biofeedback in effectiveness.

Hammond conducted a review of the literature on the efficacy of clinical hypnosis with headaches and migraines.<sup>18</sup> It seems unfortunate that in a review published in 2010, the most recent publication included, is dated 1999. The conclusions are that the efficacy of hypnosis is equivalent or superior to commonly used (in 1990's) medications and other interventions.

One of the authors recently sat on the committee, which developed the TOP Guideline for the management of headache.<sup>19</sup> Unfortunately the lack of up to date high quality research studies regarding hypnotherapy eliminated it from being included as a form of non-medication therapy on the guideline. This highlights the need for hypnotherapists everywhere to become involved in high quality research. There are many headache clinics or headache research centres that would welcome a hypnotherapist on the team. Such research would help to put hypnotherapy in the mainstream. This is a challenge to hypnotherapists across North America to make this happen. "Never doubt that a small group of thoughtful, committed people can change the world. Indeed, Its the only thing that ever has." Margaret Mead

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