

Is Your Headache Really Coming from Your Neck?

Headaches have plagued the human race since the beginning of recorded history. There have been many theories and hypotheses about what causes headaches but few of them recognize that problems in the neck can cause the head to hurt. It may be that the headache most often misunderstood is the one where headache pain is the result of an injury in the neck.

As many as 50 million people in the United States regularly suffer from headaches. Some are debilitating while others are simply annoying. There are 18 million visits to the doctor each year by people whose primary complaint is severe headache. An additional 26 million people suffer from migraines (a future article).

What is it?

Headache pain may be felt at the back of the head, at the forehead or in one or both temple areas. Sometimes it may be localized in one or both eyes or even behind the eyes. A headache may appear as a band-like pain around the head just above the ears or over the top of the head. The pain may be throbbing or stabbing, eyesight and hearing may be altered, and if head pain is severe, thinking processes may be effected.

Many headaches begin in one specific area and then spread to other regions of the head. For example, many headaches

originate at the occipital region at the back of the head where the neck muscles meet the skull. Tension often mounts at this important juncture, and headache pain often begins there. In some people it just remains in this area, but for many it then spreads to the temples, forehead or other parts of the head.

Brain surgeons have discovered that specific head structures cause head pain. These include: the scalp, the skin of the forehead, the tissues immediately under the skin, the muscles of the scalp and those attached to the skull, blood vessels outside and within the skull, the covering of the bones of the skull, the eyes, the ears, the sinuses, some nerves, muscles, and ligaments in the neck.

Excessive stimulation to any of these parts may result in a headache. Most often, when mental or physical stress upsets the hormonal and chemical balance within the body, the blood vessels carry adverse concentrations of these chemicals to the brain and trigger pain in any of the above structures. Disease conditions can also disrupt the chemical and hormonal balance of the body and cause headache.

Headaches are usually multi-factorial, meaning that many factors often combine to bring about a headache. If the causes of headaches are clearly identified they can often be successfully treated.

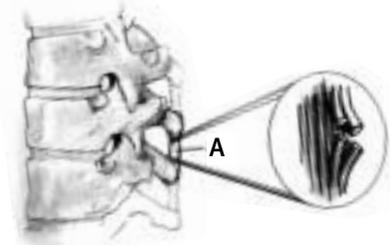
Headache due to Musculoskeletal Injury

Injuries to the upper ligaments of the neck and to the muscles at the back of the head are common causes of both mild and severe headaches. This cause of headache may not be easily identified by some practitioners because of the phenomenon of referred pain.

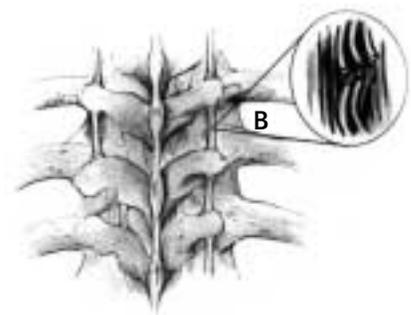
Referred pain can be a difficult concept to grasp because pain is actually experienced in a different location from where the body tissue is injured. People often call referred pain counter intuitive because it doesn't feel like what you are experiencing.

A whiplash type injury (see diagrams A and B) frequently causes referred head pain due to damaged muscles, tendons and ligaments of the neck.

(continued on the next page.)



Supraspinous ligament injury: the ligament at the back of the neck (A) is torn.



Intertransverse ligament injury: the ligament at the side of the neck (B) is torn.

Is Your Headache Really Coming from Your Neck? (continued)

Some headaches due to head or neck injuries may come on a few weeks after the injury was sustained such as in the case of a whiplash. Often the injury has been forgotten or it is not associated with the headache because the neck does not hurt at all.

Other situations can contribute to the delayed onset of a headache. Prolonged minor trauma to the neck such as sitting at a computer or gardening for many hours each day can also lead to headaches that begin gradually. Emotional or excessive physical stresses often exacerbate headaches due to a pre-existing injury in the neck. Treatment of these individuals must be directed at eliminating or reducing the causes of the stress and treating the scar tissue that has resulted from the injury.

Adhesive scar tissue is usually the primary factor in causing this type of referred pain headache (see diagram below). When muscles, tendons or ligaments of the neck are torn and therefore injured, the torn fibers often heal in a matted scar. When normal movement pulls upon this adhesive and matted scar tissue, it tears again and again causing more referred pain. Ridding the body of this unwanted scar tissue can break this pain cycle. Friction therapy to the neck ligaments is an effective treatment for this type of headache.

Treatment

Each treatment program must be tailored to the uniqueness of the

particular individual for success to occur. For some people several modalities in combination are necessary for relief of a headache problem. A person experiencing chronic headaches may have multiple issues to deal with such as an injury, a stressful life circumstance, improper nutrition, poor exercise habits, and frequent ingestion of toxic substances.

Friction Therapy

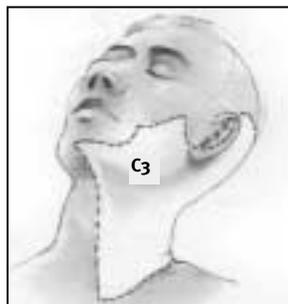
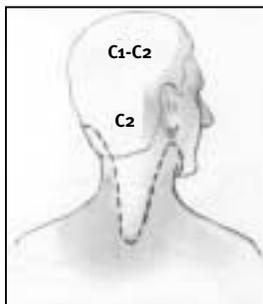
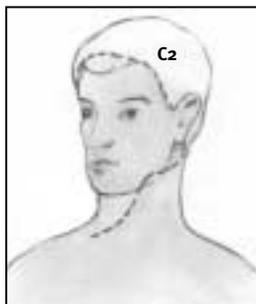
If the person is suffering from scar tissue adhesions in neck ligaments or the muscles at the base of the skull friction therapy can be effective.

By eliminating the scar tissue and re-establishing free movement in the neck these injury-related headaches usually disappear. Friction therapy should be accurately administered and combined with massage and scar tissue reducing exercises.

Massage Therapy and Therapeutic Bodywork

When high levels of stress and tension are contributing to a headache pattern, massage therapy or bodywork is often an effective treatment. It has been shown that people who regularly receive massage and bodywork are less stressed and experience fewer headaches.

Neck injury pain patterns: if you feel pain in these areas (C1, C2, and C3), you may have injured the ligament that attaches the first, second or third cervical vertebra.



Other Types of Headaches

Muscle Tension Headaches

Muscle tension headaches are the most common type of headache. They are commonly brought on by excessive emotional and physical stress which can cause an accumulation of tension and chemical waste products in the muscles of the head and neck.

Cluster Headaches

These are a severe series of headaches which occur daily for a period of days or weeks and then disappear of their own accord for months at a time. These headaches are similar to migraines and happen more frequently in adult men. Little is known about the origin of these headaches and treatment options are limited and often ineffective.

Post Traumatic Headaches

These headaches usually follow a head injury which has caused a contusion to the brain or rupture of a blood vessel within the skull. Contusions to the brain are usually treated by rest and medication. Intracranial bleeding requires immediate surgical attention.

Sinus Headaches

The sinuses which measure about an inch by an inch and a half in diameter have a direct connection to the cranial cavity. Sinus headaches are due to infections and/or allergic reactions and are treated successfully by ear, nose, and throat specialists and allergists respectively.

Toxic and Rebound Headaches

Toxic and rebound headaches are very common and often go undetected. This headache is caused by the toxic products accumulated in the body from the overuse of painkillers such as aspirin, tylenol, ibuprofen, and prescribed medications. Because of the way the body processes pain sensations, the very medications that were once helpful may eventually cause headaches or make headaches much worse. The first step is finding the real cause of the headaches and treating them. The second is a slow weaning off of all medication under your doctor's supervision.

— Authored by Ben Benjamin, PhD

Did you know?

- The National Center for Complementary and Alternative Medicine (NCCAM) is the newest center at the National Institutes of Health (NIH), with a fiscal year 2000 budget of \$70 million! Massage therapy is one of the top modalities included for potential research studies.



- You can boost your levels of HDL—the good cholesterol—if you don’t smoke, do exercise regularly, and do maintain a healthy weight. HDL cholesterol in the blood gathers up excess LDL cholesterol (bad cholesterol) and carries it back to the liver to be excreted by the body. It may also remove some of the cholesterol already deposited on the artery walls.

– AOL Alt. Medicine, 9/18/00

Did you know?

- ...In the United States 25 million Americans make 60 million visits to 85,000 massage therapy practitioners each year, including the US Department of Justice, which offers massage in the work place.

– AOL Alt. Medicine, 9/18/00

- ...Employees given a 15-minute back massage completed a math problem in about half the time with 50 percent fewer errors after the massage than before.

(Tiffany Field’s Touch Research Institute, FL.)

Massage & Aging

Massage is known to be extremely effective and beneficial in treating stress by lowering the body’s level of the hormone, cortisol, which has been shown to become elevated during the body’s stress response.

Unfortunately, the hectic pace of modern life—our reactions to numerous daily stressors—causes us to produce more cortisol than we need.

As a result, we may age more quickly and develop a number of stress-related diseases that can further shorten our lives. In fact, Dr. A. T. Sapse, co-organizer of the “Second International Conference on Cortisol and Anti-Cortisol”, sees growing evidence that “elevated levels of cortisol produced chronically under the effect of stress are a cause, or the cause of chronic diseases, rather than a result.”

– AOL Alt. Medicine, 9/18/00

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Questions to Ask Yourself

1

Self — Do you like yourself and take care of yourself?

2

Primary Relationship, Family and Friends — Do these relationships support you?

3

Work — Do you enjoy your work and is it fulfilling?

4

Health — Are you taking care of your health? Getting adequate exercise, eating a balanced diet, having regular medical care when you need it?

5

Money — Do you earn enough money to live comfortably? Do you live within your means? Do you have savings or investments that make you feel financially secure?

6

Fun — Are you laughing enough? Do you spend enough time having fun?

7

Community/Religion — Are you connected to a supportive community?

If you answered “no” to some of the above questions, your physical stress level may be on the increase. It is a challenge for all of us to create the balance we need to maintain our health in the busy, complex lives most of us lead.

President's Award

(As presented at the National AMTA Convention by AMTA President, Maureen Moon. 9/21/00)

The President's Award was founded in 1988 and is selected by the AMTA President to openly honor someone who has contributed to the massage profession in an outstanding manner. This year's recipient has been a pioneer in the field of massage therapy providing innovative thinking and leadership to an emerging profession. He has provided significant education to the general public, made numerous contributions within the profession as an educator, writer, and

He is the well-known author of: *Are You Tense, The Benjamin System of Muscular Therapy; Exercise Without Injury; and Listen to Your Pain: The Active Person's Guide to Identifying, Assessing, and Treating Pain and Injury.*

Over the past 26 years he has made dozens of radio and TV appearances to educate the public about massage therapy. He has been very involved in the professional ethics of massage therapy and bodywork, addressing issues of ethics, standardization of training programs, and regulation/licensing of practitioners.

He has been a major contributor to the *AMTA Massage Therapy Journal* since 1987 in his famed "Ben's Corner", addressing issues of concerns to practitioners.

He is an advocate of professional supervision for massage therapists in training, and post-graduate practice.

His active leadership role within the AMTA consists of serving on the leadership team of the AMTA Council of Schools as Vice Chair from 1991-1994; he started and chaired the "Professional and Sexual Ethics Task Force" in the AMTA Council of Schools which produced many significant articles and papers; significantly contributed in improving licensing standards in Massachusetts, working with the AMTA MA Chapter and MA Coalition of Hands-On Practitioners; and was very involved in ongoing efforts to further establish the profession by working with the Bell Atlantic Yellow Pages on the advertisement section for massage therapists.

He received the AMTA MA Chapter 2000 Distinguished Service Award, was nominated as one of the "Eight Who Matter" by readers of *Massage and Bodywork* as

having made a difference in the somatic profession within the last decade, and named one of the "Stars of the Century" in the Jan/Feb issue of *Massage Magazine*. I am very honored to present the AMTA 2000 President's Award to Ben Benjamin.



*Maureen Moon, AMTA President; Ben; and Cheryl Gorey, AMTA MA Chapter President.
Photo by George Marcelonis*

leader, and has been active in a leadership role within AMTA.

He has been a practicing massage therapist for 37 years and received a Ph.D. in Sports Medicine and Education from Union Graduate School in 1979. He founded the Muscular Therapy Institute in Cambridge, Massachusetts, in 1974.

He is a leading educator in the massage therapy profession regarding assessment and treatment of pain and injury problems, giving workshops at massage therapy schools in the U.S., Canada, and Spain, and presenting at numerous state and national conferences and conventions throughout the country.