

CHILDREN AND HEADACHES

A Research Review

by Keith W. Wassung

When you think about someone having a headache, you probably think of an adult. However, an increasing number of children experience chronic headaches.

The National Headache Foundation estimates 60 percent of all children suffer from occasional headaches.¹

The majority of school-age children get headaches, and many have headaches on a recurrent basis. Even before entering school, roughly one-third of children experience a headache at some point. Children miss more than one million days of school each year because of headaches.² Recurrent pediatric headache is a common disorder that may affect half of the population.



The incidence in migraine headaches in children tripled from 1974-1992 and more than half of the people who suffer migraine as adults had their first migraine experience during adolescence.

Headaches Hurt Children in Many Ways

Children with frequent headaches may suffer more in some respects than children with more physically devastating conditions like cancer and arthritis, according to a new study. Researchers found headaches can affect children's emotional development and school performance more than some other serious health problems. The study, published in the July issue of *Pediatrics*, suggests that headaches have a significant impact on children's overall quality of life. The fact that the impact of these headaches is at least equal to that of childhood illnesses often considered more severe and debilitating suggests that physicians should place more emphasis on their recognition, diagnosis and effective treatment." The negative impact of migraine on the children's quality of life was similar to the effects associated with cancer and arthritis. The children with headaches were adversely affected in all areas of functioning, including school performance, emotional development, and physical health. In particular, children with migraines reported a higher level of impairment in school and emotional functioning than children with other chronic diseases.³

"A history of migraine may set children up for a lifetime of underachievement,"

Richard Lipton, MD. (Headache, 1996)

CHILDHOOD HEADACHES & FUTURE HEALTH PROBLEMS

A study published in the British Medical Journal showed that children who experience frequent headaches are more likely to develop health problems in adulthood, including psychiatric disorders. The findings follow a survey of a random study group over 40 years and could have implications for the health of today's children and their future wellbeing. The research team found that children with frequent headaches were more likely to experience psychosocial problems and to grow up with an excess of both headache and other physical and psychiatric symptoms. These findings confirm that children with headaches do not simply "grow out" of their physical complaint, but may instead "grow into" others, say the authors.⁵

TYPES OF HEADACHES

The brain itself is insensitive to pain. Headache pain occurs in the following locations:

- The tissues covering the brain.
- The attaching structures at the base of the brain.
- Muscles and blood vessels around the scalp, face, and neck.



Although the International Headache Society lists 129 different types of headaches, the general categories are tension, cluster and migraine with associate pain being described as sharp, stabbing, dull, throbbing and vice-like. Migraine with or without aura is the most common form of acute-recurrent headache in children.

Different types of physical, chemical and emotional stress—including fatigue, worry, noise, fluorescent lights, travel, improper sleep, smoke and food additives such as MSG and nitrates, often trigger headaches.

Although these things may trigger a headache, the actual cause of the headache is often a series of traumatic or repetitive micro-traumatic events—including motor vehicle accidents, contact sports, postural habits, whiplash and occupational tasks. Headaches and other symptoms may take weeks, months and even years to show up following these events.

“The negative impact of chronic headaches on quality of life, families, and productivity can be significant and is generally underrated by the medical profession.”⁶

University of Maryland Medical Center

CONVENTIONAL TREATMENT

Headaches have commonly been treated with medications such as aspirin or Tylenol. Americans consume 80 billion aspirin tablets each year. Aspirin, which is the active ingredient in more than 50 over the counter medications, may temporarily relieve the discomfort of the headache, but it does little to correct the cause of the problem. Moreover, its use has been associated with bleeding ulcers, Reyes syndrome and kidney disorders. Taking painkillers on a regular basis can make subsequent headaches even worse, causing a condition known as “rebound headache” or “medical overuse headache”.

“Chronic use of aspirin actually promotes chronic tension headaches.”⁷

Lee Kudrow, MD
California Center for Headaches



“Though Medical Overuse Headache (MOH) is common in children, adolescents, and adults, it is under-recognized and under-diagnosed. It is the most common cause of daily or near-daily chronic headaches. It is also the most common cause of chronic daily headaches in adult patients presenting to headache specialty clinics in the United States. Failure to address MOH in children could lead to dependence on narcotics or other addictive drugs in adulthood, as patients with MOH may develop tolerance to over-the-counter analgesics.”⁸

NEUROLOGY CLINIC JOURNAL

LEADING CAUSE OF HEADACHES

Although headaches are not caused by just one specific source, a large amount of research clearly demonstrates that the majority of headaches are caused by problems in the cervical (neck) region of the spine.



The vertebra of the cervical spine can become misaligned because of excessive or repetitive stress. These misalignments, also known as “vertebral subluxations” irritate the nerves in the neck and cause excessive muscle tension, all of which can contribute to a wide variety of headaches.

“Over 70% of all headaches arise from problems with the cervical spine and its related structures”⁹

Canadian Family Physician

“Headaches are frequently caused by compression of cervical nerve roots and prolonged tension of the neck muscles”¹⁰

Basic Neurology

“Anatomical, physiological, and clinical evidence exists which indicate that disorders in the structure of the cervical spine are a frequent cause of headaches”¹¹

Modern Manual Therapy of the Vertebral Column

“Headaches are more frequently caused by spinal stress than any other condition”¹²

Journal of Occupational Trauma

CHILDHOOD SPINAL PROBLEMS

The birth process, even under normal conditions, is frequently the first cause of spinal stress. As the head of the child appears, the physician grabs the baby’s head and twists it around in a figure-eight motion, lifting it up to receive the lower shoulder and then down to receive the upper shoulder. This creates significant stress on the spine of the newborn

Dr. Godfrey Gutmann, a German physician, conducted a study of over 1,000 newborns shortly after birth. He discovered that over 80% of the infants had suffered trauma to their cervical spine, which resulted in vertebral subluxations.¹³

“Brachial plexus injuries follow stretching caused by shoulder dystocia, breech extraction, or hyper abduction of the neck in cephalic presentations. Injuries can be due to simple stretching or avulsion of the roots with associated cervical cord injury. Associated traumatic injuries, such as subluxations of the cervical spine may occur.”¹⁴

The Merck Manual,

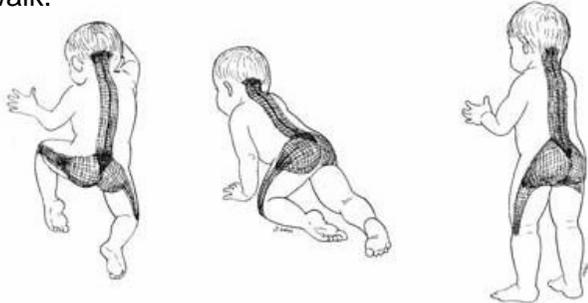


“Spinal cord and brainstem injuries occur often during the process of birth, but frequently escape diagnosis. In infants who survive there may be lasting neurological defects reflecting the primary injury.”¹⁵

Abraham Towbin, M.D.

THE GROWTH YEARS

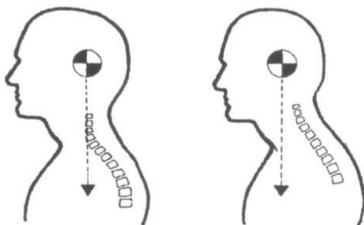
Birth is just the beginning of growth for children. Babies are constantly moving, falling down and bumping into things as they explore their new world. The typical child will fall an average of twenty-five times each day while learning to walk.



Children fall while learning to walk, fall at the playground and off bicycles, bump their heads, and get into numerous injuries in sports. These early subluxations build up in the body over their lifetime.

FORWARD HEAD POSTURE

Ideally, the head should sit directly on the neck and shoulders, like a golf ball sitting on a tee. As the head protrudes forward, an increased load is placed on the muscles of the neck and upper back. In fact, for every inch that the head projects forward, the weight experienced by the muscles of the neck doubles.



This “forward head posture” can be caused by heavy book bags, repetitive tasks and excessive time spent in front of video screens. Studies show that children spend more time sitting in front of electronic screens than any other activity besides sleeping. The average time spent with various media (televisions, computers, and video games) is nearly four and one half-hours per day among two to 17 year olds.¹⁶

HEADACHES & CHIROPRACTIC

An increasing number of headache victims are turning to Chiropractic for help. This only makes sense as the Doctor of Chiropractic specializes in the structure of the spine and its protective relationship to the nervous system.

Chiropractors detect and correct spinal misalignments by physically adjusting the spine to restore its proper structural position. This removes the spinal stress and allows the nervous system to function correctly. The effectiveness of Chiropractic in resolving headaches has been well documented in research and case studies all over the world.

“Cervical spine manipulation was associated with significant improvement in headache outcomes in trials involving patients with neck pain and/or neck dysfunction and headache.”¹⁷

Duke Evidence Report

Five children presented with varying types of headaches to a family-based chiropractic practice. In each case, spinal subluxations were present. Following reduction of those subluxations through chiropractic adjustment, the child's chief complaint remised. Adjunctive therapy (education of diet, posture and exercise) was not given until the headaches remised. Thus, it was felt that the headache reduction might have been due to the restoration of nervous system function through the chiropractic adjustment.¹⁸



“Every newborn should receive a neck and spine examination and a Chiropractic adjustment if necessary. Is that idea too difficult to accept?”¹⁹

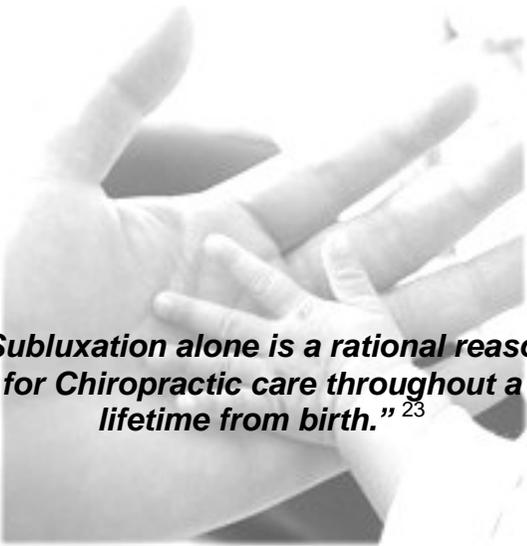
Lendon Smith, MD
Pediatrician & health author

Headaches are among the most common of health problems. The public increasingly seeks out Chiropractic and other non-medical practitioners. Twenty-seven percent of Americans who visit health care providers outside of the medical field do so for headache relief, according to the New England Journal of Medicine.²⁰

Spinal manipulative therapy is an effective treatment for tension headaches. Four weeks after cessation of treatment the patients who received spinal manipulative therapy experienced a sustained therapeutic benefit in all major outcomes in contrast to the patients that received amitriptyline therapy, who reverted to baseline values.”²¹

The following table lists just a few of the studies that have been conducted that demonstrate the effectiveness of spinal adjustments on headache conditions.

| Clinical Studies of Spinal Adjustments on Headaches | |
|---|------------|
| Author & Date Results | # Subjects |
| Vernon, 1983 85-90% successful | 33 |
| Jirout, 1983 80% successful | 200 |
| Droz, Crot, 1985 80% successful | 332 |
| Turk, 1984 75% successful | 100 |
| Wight, 1978 75% successful | 87 |
| <i>Journal of Manipulative & Physiological Therapeutics</i> ²² | |



“Subluxation alone is a rational reason for Chiropractic care throughout a lifetime from birth.”²³

Dr. Lee Hadley, Syracuse Memorial Hospital REFERENCES

1. National Headache Foundation, www.headaches.org
2. Rothner AD. Headaches in children: a review. *Headache*, 1978; 18:169-174.
3. Powers, S. Patton, S, Hommel, K. "Quality of Life in Childhood Migraines: Clinical Impact and Comparison to Other Chronic Illnesses." *PEDIATRICS*, Vol 112 #1 July 2003 p. 1-5
4. Lipton, R. 1996, *Headache*
5. Fearon P, Hotopf M. Relation between headaches in childhood and physical and psychiatric symptoms in adulthood: national birth cohort study *British Medical Journal* 2001 (May 12); 322 (7295): 1145
6. Simon H, MD, "How serious are tension type headaches." Medical Press, University of Maryland Medical Center, 2002
7. Kudrow, L. MD, California Headache Clinic,
8. Mathew NT: Transformed migraine, analgesic rebound, and other chronic daily headaches. *Neurology Clinic Journal*, 1997: 15(1) 167
9. Boake, H. Cervical Headache, *Canadian Family Physician* 1972 p. 75-78
10. Gilroy, J. MD *Basic Neurology*, P. 92
11. Jull, G *Modern Manual Therapy of the Vertebral Column*, p. 322
12. Matthews, S. *Journal of Occupational Trauma*, 1993
13. Gutmann, G. Blocked Atlantal Nerve Syndrome in babies and infants. *Manuelle Medizin*, 25:5-10, 1987
14. Beers, M, *The Merck Manual*, Disturbances in Newborns and Infants, 18th edition,
15. Towbin, A. MD Latent spinal cord and brain stem injury in newborns and infants. *Develop, Med., Child Neurology* 1969, II, 54-78
16. Ackman, D. The Amazing Efficiency Of America's Youth. *Forbes*, 3-10-2005
17. McCrory DC, et al. "Evidence Report: Behavioral and Physical Treatments for Tension-type and Cervicogenic Headache" *Duke University Evidence-Based Practice Center*, Durham, NC 2001
18. Anderson-Peacock, E. Chiropractic care of children with headaches: five case reports. *Journal of Clinical Chiropractic Pediatrics*, Vol 1, No. 1 1996
19. Smith, L. MD, *The Facts*, 1999
20. Eisenberg, D. Unconventional Medicine in the United States" *New England Journal of Medicine*, 1993 (328) 4 246-252
21. Boline PD, Kasaak K, Bronfort G, Nelson C, Spinal manipulation vs. Amitriptyline for the treatment of chronic tension-type headaches: a randomized clinical trial, *JMPT*, 1995; 18: 148-154.
22. *Journal of Manipulative Therapeutics*, Vol. 12 #6 Dec. 1989 p.457
23. Hadley, L "Anatomical & Roentgenographic studies of the spine", Thomas, 1981

FOR MORE INFORMATION

**Contact Dr. Luigi DiRubba at
Central Connecticut Chiropractic
(203) 272-3239**

