

Should Chiropractors Treat Children?

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Parents should be made aware of possible risks associated with chiropractic treatment of children, particularly the services offered by “pediatric chiropractors.”

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On March 18, 1993, *The Wall Street Journal* published a front-page article dealing with chiropractic treatment of children. Labeling chiropractic as a nineteenth-century philosophy wearing the white smock of science, the article castigated chiropractors for treating children for “legions of childhood afflictions” (Smith 1993).

A year later, on February 4, 1994, ABC’s *20/20* aired “Handle with Care,” an episode based on secretly videotaped visits to the offices of seventeen chiropractors who treated ear infections in children. All of the chiropractors offered treatment lasting from several weeks to a lifetime. Treatment methods were based on diagnoses ranging from subluxated vertebrae to nutritional deficiency, weak glands, food sensitivity, and a short leg.

Chiropractic treatment of children has not been curtailed by such bad publicity. Today, building on a program that began in 1993, the International Chiropractic Association offers a postgraduate “Diplomate in Clinical Chiropractic Pediatrics” (DICCP) and publishes the “peer reviewed” *Journal of Clinical Chiropractic Pediatrics*. The diplomate program is a thirty-module, 360-plus-hour classroom course that takes place during weekends over a three-year period. There is no hospital training and no contact with diseased or injured children—only a “mandatory observational/training weekend at a chiropractic center for special needs children under multidisciplinary care” (ICA Council 2009).

Both American chiropractic associations endorse chiropractic care for children. In a June 2008 joint press release, for example, the American Chiropractic Association’s (ACA) Council on Chiropractic Pediatrics and the Council on Chiropractic Pediatrics of the International Chiropractors Association (ICA) announced that the DICCP is now recognized by the ACA and its council as the official credential for specialization in chiropractic pediatrics (ACA 2007).

Noting increasing public support for chiropractic treatment of children, a January 2009 press release from the ACA offered this observation: “Survey data indicates that the percentage of chiropractic patients under 17 years of age has increased at least 8.5 percent since 1991. . . . Studies are beginning to show that chiropractic can help children not only with typical back and neck pain complaints, but also with issues as varied as asthma, chronic ear infections, nursing difficulties, colic and bedwetting” (ACA 2009).

A trend toward greater use of chiropractic by children has not gone unnoticed by the medical profession. An article in the January 2007 issue of *Pediatrics* (the official journal of the American Academy of Pediatrics) described chiropractic as the most common complementary and alternative medicine practice used by children, who made an estimated thirty million visits to U.S. chiropractors in 1997 (Vohra 2007). In 1998, children and adolescents constituted 11 percent of patient visits to chiropractors (Lee 2000).

Promoting a broad scope of practice for chiropractors who treat children, the ICA Council on Chiropractic Pediatrics offers links to abstracts from chiropractic journals that support chiropractic treatment for a variety of childhood ailments (ICA Pediatrics 2009). Chiropractors commonly claim to have an effective treatment for otitis media, asthma, allergies, infantile colic, and enuresis. While many of the pediatric conditions treated by chiropractors are self-limiting, treatment is offered for such serious conditions as cerebral palsy, epilepsy, myasthenia gravis, uveitis, ADHD, and Tourette’s syndrome. For the most part, treatment for all these conditions is based upon detection and correction of vertebral misalignment (*subluxation*) or spinal joint dysfunction (*vertebral subluxation complex*). An article titled “The Child Patient: A Matrix for Chiropractic Care” in the *Journal of Clinical Chiropractic Pediatrics*, for example, stated that “any alteration in form or function in the child may signal the presence of subluxation, and the subluxation may in turn alter the physiology of the child” (Fallon

2005). For wellness and preventive care, parents are advised that children should be checked for subluxations by a chiropractor six to twelve times per year (Fallon 2005).

A 2009 survey of chiropractors and parents of chiropractic pediatric patients, conducted by the International Chiropractic Pediatric Association, revealed that “the indicated primary reason for chiropractic care of children was ‘wellness care’” (Alcantara 2009). The reasons given for such care would indicate that normal spines of healthy children are being manipulated for “subluxation correction.”



Photograph by Judith Carlson/Sam Jose Mercury News

There is no credible evidence to support the contention that subluxation correction will restore or maintain health or that such subluxations even exist (College 1996; Mirtz 2009). Chiropractic journals publish hundreds of subluxation-based studies supporting chiropractic treatment for children but only a few studies disputing such treatment. Most medical researchers feel that claims based on the chiropractic vertebral subluxation theory do not have sufficient basis to warrant investigation. But such claims should not go unchallenged, especially when they involve treatment of children.

Contrary Opinions

To date, legitimate properly controlled studies have failed to support the claims of chiropractors who treat children for organic ailments. In the case of asthma, for example, a randomized, controlled trial of chiropractic spinal manipulation for children with mild or moderate asthma published in the *New England Journal of Medicine* revealed that “the addition of chiropractic spinal manipulation to usual medical care provided no benefit” (Balon 1998). A randomized, controlled trial of infantile colic treated with chiropractic spinal manipulation, published in a 2001 issue of *Archives of Diseases in Childhood*, concluded that “chiropractic spinal manipulation is no more effective than placebo in the treatment of infantile colic” (Olafsdottir 2001). A recent systematic review of randomized clinical trials concluded that “there is



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no good evidence to show that spinal manipulation is effective for [treating] infant colic” (Ernst 2009).

There is evidence to indicate that soft-tissue manipulative techniques applied over the neck area might aid recovery from secretory otitis media (inflammation of the middle ear) by opening the eustachian tube to facilitate drainage of fluids from the middle ear (Mills 2003). Chiropractors who manipulate a child’s neck to correct subluxations might provide some symptomatic relief for otitis media by inadvertently stretching the eustachian tube. But the risk of such treatment would outweigh any possible benefit. (Although otitis media is normally self-limiting, it should be kept under observation by a pediatrician who can prescribe antibiotics, if needed, when there is acute otitis media with bacterial infection. Otitis media commonly occurs in children under three years of age. As the child grows older, an increase in the length and angle of the eustachian tube reduces chances of bacteria or viruses traveling from the throat to the middle ear.)

I have always suspected that chiropractors who say they can use their fingertips to feel subluxations in a baby’s spine are either deceiving themselves or misinterpreting what they feel.

Considering the implausibility of the chiropractic vertebral subluxation theory, there is good reason to question the ability of chiropractors to diagnose and treat childhood ailments. A correct diagnosis notwithstanding, there is no evidence to support the belief that manipulating the spine of a child to correct vertebral subluxations would be appropriate treatment. A 1993 risk–benefit analysis of spinal manipulative therapy (SMT) for relief of lumbar or cervical pain, published in *Online Neurosurgery*, advised neurosurgeons that “potential complications and unknown benefits indicate that SMT should not be used in the pediatric population” (Powell 1993).

Considering the damage that manipulation might do to cartilaginous growth centers, there is no known justification for using spinal manipulation on an infant or a preadolescent child. Yet, many chiropractors recommend that the spine of a newborn baby be adjusted at birth to correct subluxations. According to the ICA Council on Chiropractic Pediatrics, “chiropractic care can never start too early” (ICA Home 2009).

Generally, pediatricians classify a child as being under eighteen years of age—before vertebral end plate growth is complete. In a child under the age of eight to ten years, the cartilaginous growth centers are too immature and too vulnerable to injury to be subjected to spinal manipulation. There is some speculation that injury to growth plates might result in spinal deformity (such as scoliosis or Scheuermann’s kyphosis) as growth progresses (O’Neal 2003). Such injury might not be

detectable. “The incidence of subtle growth plate fractures following high-velocity [manipulation] techniques in children is surely under-appreciated because of the occult nature of these injuries” (O’Neal 2003).

The cartilaginous, flexible spine of a child is not as easily injured as an adult’s spine under normal circumstances. Referred pain caused by organic disease is not commonly experienced by children. When back pain in a child does occur, it is potentially more serious than back pain in an adult and should always be brought to the attention of a board-certified pediatrician.

Although spinal manipulation has the potential to injure the spine of a child, few such injuries have been reported in the literature. A systematic review of thirteen studies, published up to June 2004, uncovered fourteen significant manipulation-related injuries in children up to eighteen years of age, nine of which were serious (e.g., subarachnoidal hemorrhage, paraplegia) and two of which were fatal (one child died from a brain hemorrhage and another from dislocation of the atlas following neck manipulation). Ten of the injuries were attributed to manipulation done by chiropractors, one to manipulation by a physiotherapist, and one to manipulation by a medical doctor; two injuries were caused by unspecified providers of manipulation. In twenty cases of harm caused by delayed diagnosis as a result of using manipulation, seven involved a delayed diagnosis of cancer; two children died because of delayed treatment for meningitis (Vohra 2007). The incidence of spinal injuries in children is reported to be 2 to 5 percent of all spine injuries (Hayes 2005).

A Questionable Approach

High-velocity, low-amplitude thrusting, commonly used by chiropractors, is usually the type of manipulation that injures a child’s spine. Most chiropractors who manipulate an infant’s spine may simply use light thumb pressure to “adjust” an allegedly misaligned vertebra, thus reducing possibility of injury. Although such treatment may be harmless, it has no known beneficial effect other than the calming effect of human touch. Some chiropractors may use a spring-loaded stylus or an electrically powered mallet in an attempt to tap vertebrae into alignment. Chiropractors who adjust newborn babies to correct subluxations may concentrate on the upper cervical (neck) area of the spine. The upper neck is more likely to be injured by delivery during birth and is most vulnerable to injury caused by manipulation. Pediatricians have observed that “the most common traumatically injured region of the immature spine is the first and second cervical vertebrae” (O’Neal 2003).

There is no credible evidence that chiropractors are able to find subluxations in the spine of an infant. It seems unlikely that a chiropractor could detect vertebral misalignment by palpating the flexible, cartilaginous spine of an infant through a thick layer of baby fat. I have always suspected that chiropractors who say they can use their fingertips to feel subluxations in a baby’s spine are either deceiving themselves or misinterpreting what they feel.

Some chiropractors use surface electromyography, thermography, leg-length checks, or some other questionable device or

approach to locate subluxations. It goes without saying that chiropractors should not expose a child to unnecessary radiation by x-raying his or her spine in a search of elusive or nonexistent subluxations. In Canada, the Alberta Society of Radiology has recommended that radiologists refuse requests from chiropractors who ask for diagnostic imaging of any type involving children aged eighteen years or younger (Editorial 1998).

Of all the claims made by chiropractors, I regard the claims made by those who treat children to be the most problematic. I have always advised against manipulating the spine of a small child or a newborn baby for any reason. Manipulation of the spine of an adolescent child under the age of eighteen should be done in concert with an evaluation and a diagnosis provided by an orthopedist, preferably a pediatric orthopedic specialist. Caring for children is very different from caring for adults and requires a special expertise. Board-certified medical and osteopathic pediatricians are best qualified to provide appropriate care based on a correct diagnosis.

Although spinal manipulation is often recommended as a treatment for back pain, this recommendation does not often apply to children. When the U.S. Department of Health and Human Services published guidelines suggesting that spinal manipulation might be helpful in treating low back pain without radiculopathy (sciatic pain) when used within the first month of symptoms, its recommendations did not apply to children younger than eighteen years of age “since diagnostic and treatment considerations for this group are often different than for adults” (Bigos 1994). An adolescent child might benefit from appropriate manipulation designed to relieve symptoms caused by uncomplicated, mechanical-type back problems, but only if a definitive diagnosis has been provided by an orthopedist or a pediatrician. Use of unnecessary spinal manipulation in the treatment of children up to eighteen years of age for subluxation correction may delay appropriate treatment based on a correct diagnosis.

Some chiropractors believe that manipulating a child’s spine will stimulate the immune system and help prevent infection. On September 8, 2009, for example, the *Journal of Pediatric, Maternal and Family Health Chiropractic* issued a press release titled “Chiropractic Part of Swine Flu Prevention Program in Children.” The editor of the journal recommended that all children should be checked for vertebral subluxations before and during the flu season: “Since the nervous system has a direct effect on the immune system and because the spine houses and protects so much of the nerve system it is important to have your child’s spine checked for any interference” (McCoy 2009).

Such extreme views find support in the basic definition of chiropractic and in official chiropractic publications. The National Board of Chiropractic Examiners, for example, advises that “psychoneuroimmunology has revealed an interrelationship between the central nervous system and immunity (consistent with chiropractic philosophy). . . . By manually manipulating vertebrae into their normal physiological relationship, chiropractic practitioners relieve interference with the nervous system along with accompanying symptoms.” Thus, “chiropractic management of childhood disorders primarily consists of adjusting concomitant spinal subluxations and providing specific nutri-

tional advice and/or support and other palliative measures” (Christensen 2005).

All things considered, it’s an understatement to say that “pediatric chiropractic care is often inconsistent with recommended medical guidelines” (Lee 2000). Recommendation of any complementary alternative medicine (CAM) therapy that has a risk–benefit ratio that is not acceptable and is not supported in medical literature may make a referring physician liable for negligence if the referral causes harm by delaying necessary conventional treatment (Cohen 2005). For this reason, and with the best interest of children in mind, few physicians would consider referring a child to a chiropractor. □

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