



# Childhood Asthma

by Peter N. Fysh, D.C.

Asthma is one of the leading causes of both acute and chronic illness in children. Childhood asthma causes more time to be lost from school than any other single pediatric disorder.

Childhood asthma can best be described as a recurrent and reversible obstructive lung disease associated with hereditary, hyper-reactive bronchial airways. The cause of the bronchial hyper-reactivity is unclear, but the reaction within the bronchial tissue is well defined and known to be associated with various triggering mechanisms. These mechanisms can include biochemical allergens, such as pollens, house dust and animals, physiological conditions such as exposure to cold, and psychogenic stress factors. In addition to this list, many other triggers exist for asthma, and fre-

quently an exhaustive search may prove elusive in specifically identifying a particular patient's triggering mechanisms.

Although the situations which trigger an asthma attack differ markedly from one individual to another, the effects are relatively consistent. Obstruction of the bronchial system results from a combination of smooth muscle contraction, increased mucus secretion and edema and inflammation of the mucous membranes. Bouts of asthma are usually episodic and although it can occur at any age, it usually has its onset in the first 5 years of life.

upper cervical spine, at C1-C2 level and at T3-T4 in the upper thoracic spine. Bryan, like so many patients with chronic bronchial problems, was also found to have an anterior saucering of the spine in the mid-scapular region; a phenomenon which had been identified by the British MD, Pottenger, more than 100 years earlier.<sup>2</sup>

In Bryan's case, the treatment showed a dramatic improvement in his condition. After several sessions of spinal adjusting his mother noted a significant reduction in both the frequency and intensity of his asthma attacks. After one month his asthma was resolved to occasional chest congestion. Evaluation over the ensuing three months showed no re-occurrence of the asthma attacks.

Bryan's case is not an unusual one. It is one of thousands of similar case reports on file in chiropractors' offices throughout the country. The sad part is that there are possibly millions of asthmatic children who are destined to a life dependent upon medication; children who may never have the chance to see if chiropractic spinal adjustments can help their asthma and so provide them with a better quality of life.

### **Chiropractic literature review**

A search of the chiropractic literature dealing with childhood asthma reveals little which might be of benefit to a parent wishing to try chiropractic care as an option for their asthmatic child. Only seven articles have been published since 1980.

In 1986, Jamieson, et al, conducted a pilot study at Philip

Institute, Melbourne, Australia, using respiratory function as an objective measure in assessing whether any improvement in children with asthma. This study concluded that respiratory function appeared to be unaffected by chiropractic adjustments. The interesting feature of this study (n=15) was that all patients reported satisfaction with their chiropractic

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care and verbally conveyed to their clinicians their impression that chiropractic had been of benefit. In addition, while under treatment, six patients voluntarily elected to reduce their medication and one patient stopped medication completely.<sup>3</sup>

A later study in 1988, by Nilsson and Christiansen, was a retrospective case record based study (n=79). This study reported that the age of onset of asthma was a significant factor in the probability of patient re-

sponse. Younger patients had better response to the treatment than did older patients. This study also identified that patients who reported improvement did so, on average, after five treatments and after an average of at least one month's treatment. The authors of this study concluded that patients who were young at the time of asthma onset and have a less severe form of asthma are most likely to benefit from chiropractic spinal adjustments.<sup>1</sup>

In 1981, Monti published an article describing the "mechanisms and chiropractic management of bronchial asthma." This paper gave an eloquent description of the pathophysiology of asthma but was short on treatment description; confining chiropractic treatment to a combination of DeJarnette's Chiropractic Manipulative Reflex Technique, adjustments to the lower cervical and upper thoracic spinal areas and patient home care exercises. No treatment periods or adjustment frequencies were noted.<sup>4</sup>

In 1982, Wiles and Diakow presented the results of a survey of members of the Manitoba Chiropractic Association. The survey (n=17 respondents) focused on treatment modalities used and spinal regions adjusted in patients with bronchial asthma. All but two of the respondents treated patients with bronchial asthma; all used spinal adjustments, and the following frequencies were reported: C0-C2 47%, C3-C7 33%, T1-T6 80%, T7-T12 40%, Lumbar 7%, Sacro-iliac 13%. Other ancillary modalities included nutrition 59%, exercise 29%, soft tissue

## Epidemiology

Asthma is one of the leading causes of both acute and chronic illness in children. Childhood asthma causes more time to be lost from school than any other single pediatric disorder. A U.S. study conducted in 1988 identified that 4.3 percent of children (2.7 million) under the age of 18 years suffered from this potentially fatal respiratory disease. The study found that childhood asthma resulted in 10.1 million missed school days that year, 7.3 million days restricted to bed, 12.9 million contacts with doctors and 200,000 hospitalizations totaling 1.9 million days.

## Signs and symptoms

During an acute attack of asthma the patient appears anxious and dyspneic and respirations have a prolonged expiratory phase. The lungs demonstrate hyper-inflation and chronically affected children may exhibit a barrel chest, with increased anterior-posterior diameter. The relative difficulty which the asthmatic patient has with exhalation is primarily due to the pressure of the thoracic cage against the lungs causing compression of both the alveoli and small bronchi, thereby increasing airway resistance. As a result of this increased airway resistance and increased mucus secretions, the patient characteristically demonstrates an expiratory wheeze.

## Medical treatment

The traditional medical treatment for asthma is with anti-inflammatory and bronchodilator drugs. Many patients however, find continued use of

bronchodilators a necessary way of life since these drugs lose their effectiveness over time requiring patients to take increasing doses of the medication to maintain relief.

Young children with chronic asthma can present a sad and often desperate picture. When increasing doses of medication fail to help, parents often turn to a chiropractor in the hope of finding an answer to their child's plight. The following report presents the case of one child whose chronic asthma responded well to chiropractic care. Cases such as this occur with such regularity in chiropractic offices that further studies need to be conducted to identify the effectiveness of chiropractic adjustments for children with this condition.

## Case report

Bryan, at three years of age, had been suffering from bronchial asthma for most of his short life. His attacks were now coming several times each week and he was on increasing doses of medication. His mother, who was a nurse practitioner, was naturally very concerned about her son's condition. She had just been told by Bryan's pediatrician that his medication dosage could not be increased any further at his age, even though his asthma attacks were increasing in frequency.

"Is there anything chiropractic can do for my son's asthma?" Bryan's mother asked her chiropractor. The chiropractor explained that although not all cases of asthma responded to spinal adjusting, enough did to suggest that her son should undergo a thorough spinal evaluation to determine if spinal problems

might be the cause. The chiropractor reported to the mother that, based on a 1988 study, younger asthmatic patients usually had a better response to chiropractic treatment than did older patients. In this study of 79 subjects improvement was reported, on average, after five treatments and after just one month of care. The authors of this study concluded that patients who were young at the time of asthma onset and had a less severe form of asthma were most likely to obtain benefit from chiropractic spinal adjustments.<sup>1</sup>

The chiropractor explained to Bryan's mother that while not all childhood asthma responded to spinal adjustments, a short course of care was usually all that was necessary to identify if her son was likely to respond. The rationale for chiropractic care is a simple one, in which the goal is to restore normal function to the structural components of the vertebral column and to the nervous system, thereby attempting to correct the asthma condition. The chiropractor further explained that working with the spine may not always provide a quick solution for asthma but that improvement might come gradually over a period of months. During this time the child would probably need to have his spine evaluated each week. To a parent who had cared for her son through the many helpless nights of asthma, the slightest prospect of success was acceptable and Bryan's mother agreed that he should have a spinal examination followed by a course of spinal adjustments.

Evaluation of Bryan's spine identified subluxations in the

manipulation 24%, electrotherapy 18% and psychotherapy 12%.<sup>5</sup>

In 1982, Mega discussed the biochemistry of asthma as being related to toxicity and acidosis. Treatment discussed in that paper involved dietary changes to reduce body toxicity, together with spinal adjustments starting with the sacro-iliacs, followed by lumbar and upper thoracics then upper cervical and occipital adjustments. Instruction in proper breathing technique was also stressed.<sup>6</sup>

In 1988, Cohen published a case study of an 8-year-old asthmatic patient, with onset at age two. The apparently successful treatment of this patient was described, and included nutritional changes, which eliminated sugar, refined foods and preservatives, together with a spinal adjustment schedule of three times a week for one month then reducing to two times per week. Length of treatment period and no treatment techniques or spinal adjustment levels were discussed.<sup>7</sup>

Finally, in 1989, Cessna published a paper titled, "The asthmatic patient", stressing the importance of distinguishing between extrinsic (symptoms due to external allergens) and intrinsic forms of asthma where symptoms are due to other lung diseases. Cessna believes that "adjustments are best served in the relief of the neuromuscular components (fibrositis, myalgia, etc.) resulting from the asthmatic disease." The paper concludes that "nutrients, when prescribed in combination with chiropractic care, in addition to avoiding exposure to offending allergens, can produce a powerful therapeutic strategy."<sup>8</sup> ♦

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