OPTIMAL HEALTH UNIVERSITY

Presented by Katie Gravesen, DC

Does Your Child Have TMD?

Headache, earache, dizziness, neck stiffness and pain that radiates outward from the temporomandibular joints (TMJs) — the "hinges" of the jaw — are all symptoms of temporomandibular joint dysfunction (TMD). While most people have heard of this disorder, they are often surprised to learn that it affects children as well as adults.

Misaligned teeth are one cause of TMD. When this condition occurs, it throws the temporomandibular joints out of synchronization. Patients suffering from TMJ problems will often hear a clicking, grinding or crunching sound when opening and closing their mouths.

But TMD isn't just a dental problem. Dr. Gravesen says studies show this all-too-common condition is often linked to misalignment of spinal bones (vertebrae) in the neck (cervical spine): a condition known as *vertebral subluxation*. Which is why chiropractic is playing an increasingly important role in the reversal of TMD: both in children and adults.

According to researchers, TMD may cause changes in the cervical spine and adjacent muscles (*J Manipulative Physiol Ther* 1999;22:32-7). The reverse is also true: Changes in the cervical spine and adjacent muscles may lead to TMD.

These changes can have serious conse-



quences if they aren't corrected, particularly in children. Unidentified vertebral subluxations can set a child up for a lifetime of pain and illness.

Dr. Gravesen uses safe and effective maneuvers called *chiropractic adjust-ments* to correct vertebral subluxations. These maneuvers are modified for children and are extremely gentle.

The temporomandibular joints themselves may also be subluxated, requiring adjustment by Dr. Gravesen along with the spine.

Studies Show Chiropractic Effective for TMD

In one study, a doctor of chiropractic cared for nine patients suffering from TMD. Patients were seen three times a week for two weeks and received adjustments to the spine and jaw. At the end of two weeks, 90 percent of the patients reported significant improvement (*J Manipulative Physiol Ther* 2003;26:421-25).

Another study tracked a woman who suffered from TMJ pain for seven years. She finally found relief when she sought care from a chiropractor.

After receiving no relief from drugs or dental treatments, chiropractic care substantially decreased the patient's jaw pain and increased her ability to eat solid foods. Her headache intensity and frequency also diminished, and she was able to open her mouth six millimeters wider than prior to chiro-



practic care (*Altern Ther Health Med* 2005;11:70-3).

Causes of TMD

Now you know what TMD is and one of its primary instigators. But how do the cervical vertebrae become misaligned in the first place? And are there other factors that contribute to childhood TMD? Read on to find out.

Trauma

Traumas, such as a vehicular accident or sports injury, are examples of how cervical vertebrae can become misaligned and lead to TMD.

Even subtle, repeated traumas — like teeth clenching, excessive gum chewing, nail biting, computer work with improper neck posture or cradling a phone between your shoulder and the side of your head — can cause TMD.

In children, the birthing process often produces vertebral subluxations in the neck. Later on, repeated falls while learning to walk also spark this common condition.

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Pacifiers & Bottles

Research suggests that avoiding pacifiers and opting to breastfeed may help keep your little one free of TMD.

One analysis looked at 1,130 youngsters between the ages of 3 and 5. The investigators had records on these children from their first year of life detailing the type of feeding they received, and if they engaged in "nonnutritive sucking activity" (sucking on an object, such as a pacifier, that isn't related to feeding).

The analysis concluded that nonnutritive sucking "is the main risk factor for development of altered occlusion [closing the mouth in an imbalanced fashion] and open bite," two risk factors for TMD.

In addition, the researchers found that "breast feeding seems to have a protective effect on development of posterior cross-bite," another risk factor for TMD (*Arch Dis Child* 2004;89:1121).

Hip Sprain

Surprisingly, spraining the sacroiliac joints on either side of your sacrum (the large triangular bone at the base of the spine) can lead to TMD. Of course, children learning to walk often endure this sacroiliac sprain, as they are constantly landing on their bottoms.

Researchers from the Palmer College of Chiropractic West in San Jose, Calif., note that there appears to be a cause-effect relationship between TMD and sacroiliac sprain. They conclude that "concurrent, coordinated chiropractic and dental treatments may improve the success rate of TMD resolution." (*J Manipulative Physiol Ther* 1993;16:256-65.)

The link between the lower spine and the jaw doesn't surprise doctors of chiropractic, who know that the spine — and the body as a whole — functions as an integral unit, not a group of isolated parts. Dysfunction at any spinal level influences the overall balance of the entire spine.

Asthma

Researchers uncovered a link between TMD, cervical spine disorders (CSD)

and asthma in children. One study included 30 asthmatic children; 30 non-asthmatic, predominantly mouthbreathing children; and 30 nonasthmatic, predominantly nasalbreathing children. "Results showed a positive correlation between the severity of TMD and CSD signs in asthmatic children."

The researchers offered the following explanation: "The possible shortening of neck accessory muscles of respira-



tion and mouth breathing could explain the relationship observed between TMD and CSD symptoms in asthmatic children and emphasize the importance of the assessment of temporomandibular and cervical spine regions in asthmatic children." (*J Clin Pediatr Dent* 2005;29:287-92.)

According to the Centers for Disease Control and Prevention (CDC), about one in six high-school students report that they are currently suffering from asthma. Of these, 38 percent suffered an attack within the last year.

Fortunately, experts from the Foundation for Chiropractic Education and Research say that patients afflicted with asthma "may benefit from spinal manipulation [chiropractic adjustments] in terms of symptoms, immunological capacity and endocrine effects." Benefits, they note, that have the potential to ward off subsequent asthma attacks.

Over-Yawning

It's a well-known fact that children need more sleep than adults. In addition to promoting cognitive function and boosting overall well-being, adequate sleep reduces the likelihood of extreme yawning, which is linked with TMD.

Excessive mouth opening while yawning is the most common cause of TMD joint dislocation, according to researchers who studied 96 patients between the ages of 9 and 85 (*Int J Oral Maxillofac Surg* 2005;34:499).

Psychological Factors

Researchers noted an emotional connection to TMD in youths. A study of 217 adolescents between the ages of 12 and 18 reveals that psychological factors may play an important role. Anxiety and depression were present in 16.6 percent and 26.7 percent of subjects, respectively. "However, only anxiety was correlated with clinical signs of TMD, primarily muscle tenderness." (*Int J Prosthodont* 2005;18:347-52.)

Get Your Little One Checked for TMD

If you or anyone in your family particularly children — has not been checked for TMD, schedule an appointment with your doctor of chiropractic. This is vital even in the absence of symptoms, because the jaw joint may deteriorate significantly before the onset of pain.

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