

# The Coccyx: Your Neurological Anchor

Charles Masarsky, DC, FICC

Each patient education article in this column details research documented in *Somatovisceral Aspects of Chiropractic: An Evidence-Based Approach*, co-edited by Dr. Masarsky and Marion Todres-Masarsky, DC.

The coccyx is often overlooked, not only in patient education, but also in clinical work. The following patient education article may prove useful in this regard. Feel free to use it on your bulletin board, in your patient newsletter, or for tableside talks. It is my hope that this material will be of use to you in making wise health care decisions and informed referrals.

---

At the end of your vertebral column is a remnant of what was probably a tail in early human evolution. Sometimes called the "tailbone," the coccyx helps anchor many important structures.

Many of the muscles of the lower pelvis attach to the coccyx. These muscles form a "pelvic floor." When these muscles do not function properly, bowel, bladder and sexual problems are more likely to occur. Malposition of the coccyx (coccygeal subluxation) may be a factor in the dysfunction of these pelvic floor muscles.

Coccygeal subluxation can also disturb bladder, bowel and sexual function more directly. There is an important collection of nerves directly in front of the coccyx called the "ganglion impar." These nerves are partially responsible for the control of the pelvic organs.

Chiropractic researchers recently reported the case of a 12-year-old girl who lost bladder control and experienced back pain after a slip-and-fall injury in which she struck her tailbone on the ground.<sup>1</sup> Chiropractic adjustments included correction of the coccygeal subluxation. After four such visits, the girl experienced her first pain- and leakage-free days in more than 18 months.

The ganglion impar is part of a chain of important nerve structures running along both sides of the vertebral column (the "sympathetic chain ganglia"). This chain of nerves affects the function of many internal organs. Coccygeal subluxation can create a spreading electrical disturbance up this chain. A prominent chiropractic author has described cases in which coccygeal subluxation has contributed to disturbance in heart rhythm, probably due to this electrical disturbance.<sup>2,3</sup>

Possibly the most important anchoring function of the coccyx has to do with the connective tissue envelopes protecting the brain and spinal cord - the meninges. A filament of meningeal tissue connects the spinal cord to the inside of the coccyx (the "filum terminale"). Due to this connection, coccygeal subluxation can contribute to symptoms almost anywhere in the body. Patients suffering from headache may be amazed when their doctor of chiropractic checks their coccyx, yet headache can

indeed be a symptomatic expression of subluxation at this level.<sup>4</sup>

The widespread consequences of coccygeal subluxation seem unlikely when the coccyx is viewed simply as a tailbone - but when viewed as a neurological anchor, the importance of this small bone becomes clear.

### *References*

1. Stude DE, Bergmann TF, Finer BA. A conservative approach for a patient with traumatically induced urinary incontinence. J Manipulative Physiol Ther 1998;21:363-367.
2. Homewood AE. The Neurodynamics of the Vertebral Subluxation, p. 247. Valkyrie Press, St. Petersburg, FL, 1977.
3. Masarsky CS, Cremata EE. Chiropractic Care and the Cardiovascular System. In Masarsky CS, Todres-Masarsky M (Editors): Somatovisceral Aspects of Chiropractic: An Evidence-Based Approach. Churchill Livingstone, New York, 2001.
4. Schafer RC (Editor). Symptomatology and Differential Diagnosis - A Conspectus of Clinical Semeiographies, p. 908. American Chiropractic Association, Arlington, VA, 1986.

*Charles Masarsky, DC*  
*Vienna, Virginia*  
neurofitness@aol.com

NOVEMBER 2004