

## Anatomy -- Who Needs It?

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Just this last weekend I returned from a marvelous seminar on the lower extremities given by Dr. Innes. It was apparent at the seminar that we as chiropractors lack one all-important bit of knowledge. This "bit" of knowledge is anatomy. Anatomy can be divided into two basic categories for our purposes -- basic anatomy and functional anatomy. Basic anatomy would include an understanding of anatomical landmarks, origin and insertion of all muscles, joint structure, type, etc. Functional anatomy would include all of basic anatomy, plus joint architecture, joint biomechanics, and gait. The alleged importance of anatomy to the chiropractic profession presumes that the doctor is utilizing a diagnostic approach that incorporates joint movement as a diagnostic criteria. It is obvious that doctors using x-ray marking techniques (not lines of mensuration, i.e., Cobb's angle) or knocking down high spots will not need a thorough understanding of joint structure and function because the sole purpose of the adjustment is then to replace misaligned bones and allow innate its freedom.

A knowledge of functional anatomy allows the doctor to "see" the diagnosis from beginning to end. For example, a patient has an inversion sprain of the ankle. What joints are involved in this process? What effect do the peroneus muscles have on the eventual joint dysfunction of the cuboid articulation? How is the subtalar joint involved in this injury? How does the doctor arrive at a decision of which articulation to adjust? As you can see from this example, a knowledge of functional and basic anatomy is very important to any chiropractor. There are those chiropractors who do not treat extremities because of some belief system; however, an understanding of functional anatomy might change this attitude. If we expound on our ankle sprain model, we find that dysfunction of the subtalar joint via pronation of the foot can create subluxation as high as the occiput-atlas articulation. If chiropractors truly treat the cause and not the effect, then in a great number of our patients we miss the real cause by ignoring the extremities.

We all know how easy it is to become complacent. It is so easy to just palpate for joint play and adjust. A true understanding of joint play and the diagnostic procedures associated with motion palpation require a surgeon's knowledge of anatomy. You must know what surfaces are convex and which are concave. These things are required to understand which movements each joint surface will allow and which movements are not possible due to the architecture of the joint. Do each of us have this thorough understanding of anatomy? If you don't then you need to do what I have been doing these last two years -- study -- then go to MPI seminars and study some more.

It is not good enough to say it works and blame everything on innate. For years chiropractors have touted the miracles of upper cervical adjusting and its effect on everything from stomach pain to vertigo, due to the restoration of normal nerve function and allowing innate its freedom. In reality, there is a very simple anatomical reason for these great results -- the cervical adjusting affects the trigeminal cross-over pathway. Although study of the trigeminal cross-over pathway is difficult, it gives valid reasons to the effect of cervical adjusting instead of relying on a belief system to validate our results.

Whose responsibility is it to obtain this knowledge? It is ours individually. I feel that the schools should eventually begin to revise their curriculums to include a more cohesive program in

functional anatomy. Most curriculums are currently too wrapped up in philosophy and technique. I personally had terrific teachers in anatomy and in general all my instructors were great, however the program as a whole was not structured to analyze a patient anatomically. For example, taking an x-ray of a patient and analyzing the x-ray does not provide any information concerning joint function; the alignment of vertebrae is not relevant at any other time except at autopsy. At all other times, the vertebrae are moving and patient evaluation should be based on a diagnostic model that is designed for living patients with spines that move.

Chiropractic colleges should have the ultimate responsibility to provide the most recent thoroughly researched information concerning each area of knowledge that they teach. The misalignment model of chiropractic is at best historical; if taught, it should be taught as a history course. Innate also falls into this same category. In 1895, D.D. Palmer did not have the information available to provide a scientific basis for what he accomplished with Harvey Lillard. Today we no longer need to shroud our practices in a belief system to provide answers for the unknown. Not all is known but the practice of manipulation has been validated time and time again through real scientific research. I want my skill as an adjuster to be matched by knowledge in what structures I am treating. The answer to the question, "Anatomy, who needs it?" We all do.

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JULY 1993