



## Colorado Chiropractic Association

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### A Case for Chiropractic and the Treatment of Concussion

“Aside from emergency room physicians, chiropractors see more concussion patients than any other group of healthcare professionals... Basic education requirements are no different from those for MDs, RNs, NPs, DOs or PTs,” states Mark Crawford in his article, “Concussions and Chiropractic,” published in the *Journal of American Chiropractic Association* (JACA). Despite the medical and chiropractic fields having very similar training requirements for concussions (Chart I), chiropractors are not allowed to treat concussed individuals or release athletes to play after experiencing a head injury.

The Council for Chiropractic Education requires chiropractors to complete the equivalent of three academic years of undergraduate study (90 semester hours) at an accredited institution(s), including a minimum of 24 semester hours in life and physical science courses. The chiropractic student completes 4,485 hours of class time in the subjects of anatomy, physiology, pathology, chemistry/biochemistry, bacteriology, diagnosis, x-ray and diagnosis, psychiatry, obstetrics and gynecology, and orthopedics--the same as medical doctors. The chiropractic student also has extensive classes in manipulation, adjusting and kinesiology, including the manipulation of C<sub>1</sub>-C<sub>3</sub>—the vertebrae thought to be most connected to concussions.

In addition, the chiropractor must pass four sets of national boards to become licensed. Part I is taken after the 4<sup>th</sup> semester of school and includes general anatomy, spinal anatomy, physiology, chemistry, pathology, and microbiology. Parts II and III are taken together in one weekend after the 7<sup>th</sup> semester. Part II involves general and neuromusculoskeletal diagnoses, diagnostic imaging, principles of chiropractic, chiropractic practice and associated clinical sciences. Part III includes case history, physical examination, neuromusculoskeletal examination, diagnostic imaging, clinical laboratory and special studies, diagnosis or clinical impression, chiropractic techniques, supportive interventions and case management. Part IV is a practical-style examination taken after the student graduates or during their internship. It contains three parts: x-ray interpretation and diagnosis, chiropractic technique and case management. Forty-nine out of fifty states (Illinois excluded) require passing all four boards in order to obtain a chiropractic license.

In the state of Colorado, a chiropractor who holds an active license must obtain a minimum of 15 hours of continuing education (CE) annually, for a total of 30 CE hours during each two-year license renewal period. Four of these 30 hours must be on documentation. The doctor of chiropractic must also maintain a healthcare professional level CPR certification, renewed every two years. To qualify for CE, the education must have as its primary objective the increase of professional competence of licensed chiropractors. It must also include scientific clinics, forums or chiropractic educational study in the field of the healing arts as per Rule 8 of the Colorado State Board of Chiropractic Examiners Rules and Regulations.

Often times when a person is hit hard enough to cause a concussion, the vertebrae shift slightly. As the founder of chiropractic, Dr. D.D. Palmer, stated, “Displacement of any part of the skeletal frame may press against nerves, which are the channels of communication, intensifying or decreasing their carrying capacity, creating either too

much or not enough functioning, an aberration known as disease. The nature of the affection depends upon the shape of the bone, the amount of pressure, age of patient, character of nerves impinged upon and the individual makeup. Pressure on nerves causes irritation and tension with deranged functions as a result.” Chiropractors adjust the spine in order to take pressure off those nerves. This allows for the nerves to function properly, including being able to send uninterrupted signals, relieving symptoms patients may be experiencing after a concussion.

As Dr. Robert Nelson, DC, DACBSP, FICC states:

Chiropractors in Colorado can perform pre-participation physicals for athletes participating in school sports. Chiropractors take a certification course to be eligible to perform examinations and recertify every two years. A portion of the course work includes concussion and the use of assessment tools such as the SCAT 3. Recertifying every two years keeps chiropractors informed on the most current information with regards to the examination, management and treatment of concussion.

As with every field of medicine, chiropractors have board certified specialties including Sports Medicine. Board certification is managed by the American Chiropractic Board of Sports Physicians (ACBSP). The ACBSP offers two levels of certification: Certified Chiropractic Sports Physician (CCSP), and the higher level, Diplomate of the ACBSP (DACBSP). Years of training are required for certification followed by standardized testing before the candidate is granted the certification. In addition, the certificant is required to take continuing education in the area of sports injuries every year to maintain their certification. The concussion subject is covered extensively during these courses and the certificants are encouraged to keep current with the developments in concussion treatment.

It is the position of the American Chiropractic Board of Sports Physicians (ACBSP) that:

1. Doctors of Chiropractic with current ACBSP, DACBSP and CCSP certificates of additional qualifications in sports medicine are qualified to manage the concussed individual in any patient population.
2. Doctors of Chiropractic may evaluate, diagnose and manage concussed individuals. The prerequisite management skills for a concussed athlete can be supported by additional experience and education such as the American Chiropractic Board of Sports Physicians (ACBSP) Concussion Registry.
3. All healthcare providers involved in the management of concussed individuals have an obligation to maintain current knowledge of best practices in concussion management.
4. The ACBSP does not endorse specific methodology of concussion management because methods of assessment and management of concussion are in transition.

All healthcare providers involved in the management of concussed individuals have an obligation to stay up to date on current knowledge and best practices, whether that be a doctor of chiropractic or medical doctor. Education is key for the doctor as well as for coaches, parents and teammates. Under the current Colorado state law, only chiropractors working at the United States Olympic Center (USOC) in Colorado Springs have the right to diagnose, manage and establish return to play guidelines for concussed individuals at the USOC. With the additional continuing education classes on concussions, all chiropractors should be allowed to diagnose, manage and treat concussed individuals, including return to play.

Chart I

Education for chiropractic doctors and medical doctors.

| Chiropractic   |   | Medical School  |
|--|---|---|
| 520  | Anatomy   | 508   |
| 420  | Physiology  | 326   |
| 271  | Pathology   | 335   |
| 300  | Chemistry/Biochemistry  | 325   |
| 114  | Bacteriology  | 130   |
| 370  | Diagnosis   | 374   |
| 320  | Neurology   | 112   |
| 217  | X-Ray   | 148   |
| 65   | Psychiatry  | 144   |
| 65   | Obstetrics & Gynecology   | 198   |
| 225  | Orthopedics   | 156   |
| <b>2,887</b>   | <b>Total Hours for Degree</b>   | <b>2,756</b>  |
| Adjusting, Manipulation, Kinesiology, and other similar basis subjects related to their specialty.<br><b>4,485</b> | Other required subjects for doctors of medicine/doctors of chiropractic | Pharmacology, Immunology, general surgery, and other similar basic subjects related to their specialty. |
|  | GRAND TOTAL CLASS HOURS   | <b>4,248</b>  |

#### Sources:

*American Chiropractic Board of Sports Physicians Position Statement on Sports Related Concussion in Athletics.* N.p.: American Chiropractic Board of Sports Physicians, Apr. 2014. PDF.

*CCE Accreditation Standards Principles, Processes & Requirements for Accreditation.* Scottsdale: The Council on Chiropractic Education, Jan. 2013. PDF.

*Chiropractic Education vs Medical Education.* N.p.: Back to Chiropractic, 2014. PDF.

Crawford, Mark. "Concussions and Chiropractic." *Journal of the American Chiropractic Association* 48.5 (2011): 8-11. American Chiropractic Association. Web. 10 Dec. 2014.