

# Chapter 1

## The Chiropractic Profession

Because of its remarkable effectiveness, and also because of a growing public awareness for natural and non-surgical methods of treatment, chiropractic is one of health care's fastest growing professions.

Chiropractic is the nation's third largest primary health care profession, surpassed in numbers only by practitioners of medicine and dentistry. Over half of its ranks have graduated since 1977, and, as of this writing, there are approximately 50,000 chiropractors in North America alone, with many more throughout the world. Recent studies show that one in every 20 Americans consults a chiropractor for treatment in the course of a year.

All 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands officially recognize chiropractic as a health profession. In addition, chiropractors in the following nations are legally recognized, or they are allowed to practice without official sanction:

Australia	Finland	Jamaica	South Africa
Belgium	Germany	Japan	Spain
Belize*	Greece	Jordan	Sweden
Bermuda	Guam	Liechtenstein	Switzerland
Brazil	Guatemala	Mexico	The Netherlands
Canada	Hong Kong*	Namibia*	United Kingdom
Colombia	Iceland	New Zealand	Venezuela
Cyprus	Iran	Norway	Zimbabwe
Denmark	Ireland	Panama	
Ecuador	Italy	Peru	

*\*Legislation Pending*

Chiropractic services are authorized in all 50 states, the District of Columbia, the U.S. Virgin Islands, and Puerto Rico, as part of the State Worker's Compensation program. Chiropractic care is provided through Medicare, Medicaid, the Vocational Rehabilitation Act, Federal Workers' Compensation laws, the Railroad Retirement Act, the Longshoreman's & Harbor Workers' Compensation Act, and most other Federal Employees' Health Benefits programs (FCER 1992). The GI Bill of Rights covers chiropractic education for qualified veterans. In addition, chiropractic services are tax deductible and covered by virtually all major health insurance carriers.

# Principles of Chiropractic

Chiropractic is generally a natural, conservative, medication-free, and non-invasive form of health care. Some principles common to chiropractic can be found in the writings of Hippocrates (460-370 B.C.), Galen (130-200 A.D.), and even ancient manuscripts of the Egyptians, Hindus, and Chinese. Its place in modern health care is largely attributed to Daniel David Palmer who founded the first chiropractic college in Davenport, Iowa, in 1895.

Doctors of chiropractic refer patients to and receive referrals from medical practitioners, and in many instances, chiropractic can provide a viable alternative to drugs and surgery. Chiropractic principles are applicable to a wide range of conditions.

The chiropractic approach to wellness typifies a new and changing attitude toward health care in the United States. The original chiropractic philosophy began with the principle that an individual's health is determined largely by the nervous system and that interference with this system impairs normal functions and lowers resistance to disease. The study of chiropractic includes the mechanisms involved in compression, stretching, irritation, and resulting aberrant reflex pathways of the nervous system.

Chiropractic is also based on the premise that the body is capable of achieving and maintaining health through its own natural recuperative powers, provided it is given the necessary ingredients including proper food, water, adequate rest, exercise, clean air, adequate nutrition, and a properly functioning nervous system.

## Chiropractic Case Management

Doctors of chiropractic (D.C.s) address various physiological and biomechanical aspects including structural, spinal, musculoskeletal, neurological, vascular, nutritional, emotional, somatic, and environmental relationships. Case management of problems in any of these areas may include, but not be limited to, such procedures as adjustment and manipulation of the articulations and adjacent tissues of the human body, particularly the spinal column (ACA). In many cases, spinal X-rays, and other diagnostic procedures are used to identify the source of a patient complaint, along with physical examination and questions concerning medical history, dietary and lifestyle habits, etc.

Central to chiropractic is the corrective structural adjustment or manipulation of spinal vertebrae or pelvic segments which have become displaced and/or have restricted movement, possibly with signs of neurological and/or vascular involvement. Several terms are used by chiropractors to describe this concept, most commonly *joint dysfunction* and/or *spinal subluxation*. The causative factors resulting in these joint dysfunctions (static or dynamic) include various types of stresses or congenital anomalies.

By manually manipulating vertebrae into their normal physiological relationship, interference with the nervous system is thus relieved, along with accompanying symptoms. The

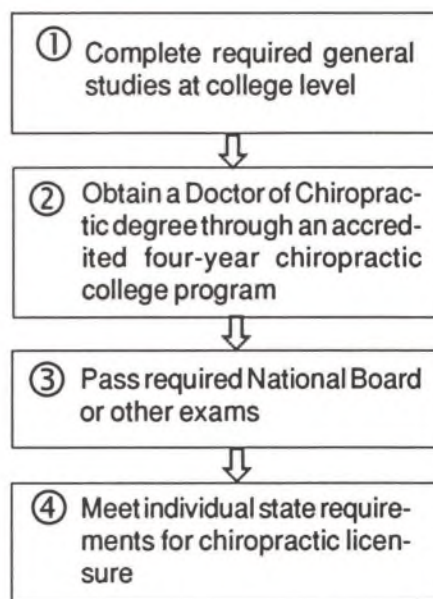
correction of joint dysfunction re-establishes normal mobility and comfort. A chiropractic corrective adjustment requires special acquired palpation skills to deliver a precise, delicate maneuver to achieve a predetermined goal.

Over time, chiropractic methods evolved along with medical science. Some studies indicated that, in addition to orthopedic conditions such as backache, headache and whiplash, those that involve organs and internal glands of the body might also respond to chiropractic adjustments (Plaugher 1993). In many instances, modern chiropractic care includes the supplementing of spinal adjustments with a variety of extremity joint adjustments or certain physiotherapeutic modalities, exercise, and nutritional counseling.

## Chiropractic Requisites

By law, licensed chiropractors are entitled to use the titles "Doctor of Chiropractic," "D.C.," or "Chiropractic Physician." The chiropractic physician is engaged in the treatment and prevention of disease as well as in the promotion of public health and welfare. As such, doctors of chiropractic must meet stringent testing, educational, and performance standards before being granted a license to practice.

Currently, there are four major steps an individual must complete in order to become a practitioner of chiropractic (Figure 1.1). Completion of these same four steps formed the qualifications for many respondents to the NBCE Job Analysis Survey of Chiropractic Practice. An individual chiropractic practitioner must generally have: 1) successfully completed a minimum of two years of pre-professional college education, 2) graduated from chiropractic college, 3) passed the National Board or other exams required by the state in which he/she practices and, 4) met individual state chiropractic licensing requirements.



**FIGURE 1.1**  
**Steps Leading to Chiropractic Practice**

## Education

Government inquiries (described in the following chapter), as well as independent investigations by medical practitioners, have affirmed that today's chiropractic undergraduate training is of equivalent standard to medical training in all pre-clinical subjects (Chapman-

Smith 1988). A doctor of chiropractic's training generally requires a minimum of six years of college study and an internship prior to entering private practice. Chiropractic colleges exist in the United States, Canada, the United Kingdom, France, Australia, Japan, Denmark, and South Africa.

In the United States, the primary accrediting agency for the chiropractic profession (accrediting 14 chiropractic colleges) is the Council on Chiropractic Education (CCE) and its Commission on Accreditation, which are recognized by the United States Department of Education.

To ensure that high standards in education are maintained, all accredited chiropractic colleges must meet certain requirements. Criteria address curriculum, faculty qualifications, faculty-student ratio, library holdings, facilities, school governance, administration, and financial stability.

In addition, incoming students must furnish proof of having acquired at least two years (60 semester hours) of college course study leading to a baccalaureate degree in the arts and sciences. Prerequisites for entering chiropractic college generally include coursework in the following areas:

Anatomy	History
Biology	Humanities
Chemistry	Organic Chemistry
Economics	Physics
English	Physiology
Geography	Psychology
Government	Sociology

According to the *1992-93 Chiropractic College Directory*, the academic background of 83.1% of the students entering chiropractic college was in Life Science/Biology. The remaining 16.9 % had studied liberal arts, business, economics, physical science, engineering, and education. The candidate must also have met minimum overall and course-specific grade point averages. The requirements of some colleges are even more rigorous than the CCE's minimum requirements.

The chiropractic curriculum typically consists of either four or five academic years. The most common calendar covers this in 10 trimesters of classroom and laboratory work. Courses which a first-year chiropractic student can expect to study are the following:

Philosophy	Neuroanatomy
Gross Anatomy	Embryology
Physics	Spinal Anatomy
Endocrinology	Biochemistry
Organ Histology	Fundamentals of Pathology
Microbiology	Immunology

Second-year chiropractic students can expect coursework that involves adjustive techniques as well as the following health sciences:

Digestion and Nutrition	Renal Physiology
Public Health	Systems Pathology
Toxicology	Hematology & Clinical Laboratory
Radiology	Cervical Technique
Orthopedic & Neurologic exam	Thoraco-lumbar Technique
Pelvic Technique	Neuromusculoskeletal Diagnosis
Psychology	Human Development

Third-year and fourth-year chiropractic students focus primarily on chiropractic technique and practice management options:

Radiology Positioning	Visceral Disorders
Biomechanics	Female Disorders
Extremity Adjusting	Biostatistics & Research
Practice Management	Business & Personnel Management
Diagnosis	Differential Diagnosis

The total curriculum includes a minimum of 4,200 classroom hours including the requirement that students receive substantial supervised clinical experience examining patients, taking and interpreting X-rays, diagnosing patient conditions, adjusting patients, analyzing various case management protocols, and writing reports. A problem-based approach is utilized by some programs. Each curriculum is designed to provide the necessary instruction, laboratory and clinical experiences in order for students to become proficient in the cognitive, affective, and psychomotor skills necessary for the competent practice of chiropractic. The Doctor of Chiropractic (D.C.) degree is awarded upon graduation, signifying successful completion of the required program.

## Specialization

Postdoctoral training is available in a variety of clinical disciplines and specialties. Accredited colleges and specialty councils offer postdoctoral programs on either a residency or non-residency basis.

The residency programs generally require a minimum of 4,000 hours of full-time training over two academic years, while non-residency programs are typically a minimum of 300 hours of training over three academic years. To become a candidate in specialty programs such as those offered through the American Chiropractic Association (ACA) or the International Chiropractors Association (ICA), the practitioner must hold a Doctor of Chiropractic degree

issued by an accredited chiropractic college, must be licensed within the jurisdiction in which he/she practices, and must have successfully completed all aspects of an approved program. Each specialty board may have other requirements that are not common to all boards.

ACA or ICA postdoctoral specialty participants are awarded Diplomate status after successfully completing a board-certified examination. Certification is available in the following areas:

Applied Sciences  
Diagnosis  
Neurology  
Nutrition  
Orthopedics

Pediatrics  
Roentgenology  
Sports Injuries and Physical Fitness  
Thermography

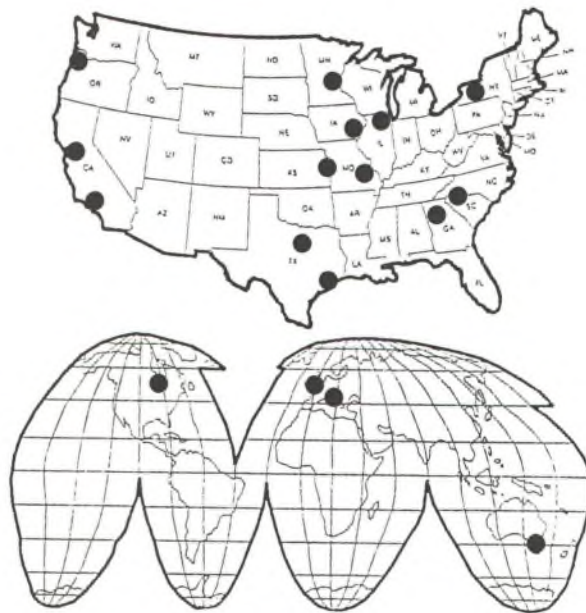
## National Board Exams

In addition to holding a D.C. degree, a chiropractic practitioner is generally required to pass the National Board examinations prior to applying to a state for evaluation and licensure. Some of the required subjects are taken prior to graduation from a chiropractic college.

The National Board of Chiropractic Examiners is the national testing agency for the chiropractic profession. National Board examinations are administered at 17 chiropractic college test sites (Figure 1.2).

In its testing and measurement role, the NBCE develops, administers, and scores standardized examinations which assess knowledge in various basic science and clinical science subjects relative to chiropractic. The NBCE examinations currently consist of:

- **PART I** - six basic science areas (general anatomy, spinal anatomy, physiology, chemistry, pathology, and microbiology and public health)
- **PART II** - six clinical science areas (general diagnosis, neuromusculoskeletal diagnosis, X-ray, principles of chiropractic, chiropractic practice, and associated clinical sciences)
- **PHYSIOTHERAPY** - an elective single-subject examination



**FIGURE 1.2**  
**NBCE Test Sites**

- **PART III** - nine clinical competency areas (case history, physical examination, neuromusculoskeletal examination, roentgenologic examination, clinical laboratory and special studies examination, diagnosis or clinical impression, chiropractic techniques, supportive techniques, and case management)
- **SPEC** - a special purposes examination designed for previously licensed individuals

Scores from National Board examinations are made available to licensing agencies throughout the United States and in some foreign countries including Canada, the United Kingdom, France, and Australia.

## State or National Licensing

Approximately 800 occupations in the United States are regulated by state licensing authorities. Legislation regulating the practice of chiropractic is established in the United States and in over 30 countries worldwide.

The chiropractic regulatory agency that exists in each state (or country) has an examining board on which doctors of chiropractic, lay persons, and/or doctors of medicine serve. These individuals assess the qualifications of those who wish to administer chiropractic care within their jurisdictions. The requirements for chiropractic licensure vary from state-to-state (and country-to-country).

To assist the various states in assessing licensure candidates, National Board examinations are taken by individuals who are in a chiropractic educational system or who have completed a chiropractic educational program. Transcripts of scores from National Board examinations are utilized by licensing authorities in evaluating the qualifications of candidates for licensure.

A directory of state-mandated requirements and procedures is compiled and published annually by the Federation of Chiropractic Licensing Boards (FCLB). Established in 1933, the FCLB promotes unified standards for chiropractic licensing boards and colleges, and maintains a computerized record of chiropractic licensure violations and disciplinary actions nationwide. The FCLB also provides a forum in which state licensing board members may meet and address common areas of interest and concern, thereby strengthening the licensure process.