

# Chapter I

## **The Chiropractic Profession**

One of health care's fastest growing professions on a global basis, chiropractic has earned recognition for its remarkable effectiveness and a growing desire for natural, nonsurgical, and drugless methods of treatment.

Chiropractic is the nation's third largest primary health care profession, surpassed in numbers only by practitioners of medicine and dentistry. As of this writing, there are approximately 69,000 active chiropractic licenses in the United States alone, with many more throughout the world. An estimated 7% to 16% of Americans consult a chiropractor for treatment each year (American Chiropractic Association 1998).

All 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands officially recognize chiropractic as a health care profession. The following list has been adapted from the World Federation of Chiropractic's listing of the countries in which national health authorities recognize chiropractic.

### AFRICAN REGION

Botswana\*  
Ethiopia\*\*  
Kenya\*\*  
Lesotho\*  
Mauritius\*\*  
Namibia\*  
Nigeria\*\*  
South Africa\*  
Swaziland\*  
Zimbabwe\*

### ASIAN REGION

China-Hong Kong\*  
Japan\*\*  
Malaysia\*\*  
Philippines\*  
Singapore\*\*  
Thailand\*\*\*

### CENTRAL AMERICAN REGION

Belize\*\*  
Costa Rica\*\*  
El Salvador\*\*  
Guatemala\*\*  
Honduras\*\*  
Panama\*

### EUROPEAN REGION

Belgium\*\*\*  
Croatia\*\*  
Denmark\*  
Finland\*\*  
France\*  
Germany\*\*  
Hungary\*\*  
Iceland\*  
Ireland\*\*  
Italy\*\*\*  
Liechtenstein\*

Netherlands\*\*  
Norway\*  
Portugal\*\*\*  
Russian Federation\*\*  
Slovakia\*\*  
Slovenia\*\*  
Sweden\*  
Switzerland\*  
United Kingdom\*

### MEDITERRANEAN REGION

Cyprus\*  
Egypt\*\*  
Greece\*\*  
Israel\*\*  
Jordan\*\*  
Lebanon\*\*  
Libya\*\*  
Morocco\*\*  
Qatar\*\*  
Turkey\*\*

Table 1.1 Countries in which Chiropractic is Recognized as a Health Profession

### **NORTH AMERICAN REGION**

Bahamas\*\*  
Barbados\*  
Bermuda\*\*  
British Virgin Islands\*\*  
Canada\*  
Cayman Islands\*\*  
Jamaica\*\*  
Leeward Islands\*  
Mexico\*  
Puerto Rico\*  
Trinidad and Tobago\*\*  
United States\*  
U.S. Virgin Islands\*\*

### **PACIFIC REGION**

Australia\*  
Fiji\*\*  
Guam\*  
New Caledonia\*\*  
New Zealand\*  
Papua New Guinea\*\*

### **PERSIAN GULF REGION**

Iran\*  
Saudi Arabia\*  
United Arab Emirates\*\*

### **SOUTH AMERICAN REGION**

Argentina\*\*  
Bolivia\*\*  
Brazil\*\*  
Chile\*\*  
Colombia\*\*  
Ecuador\*\*  
Peru\*\*  
Venezuela\*\*

\* recognized pursuant to legislation  
\*\* recognized pursuant to general law  
\*\*\* de facto recognition

Table 1.1 Countries in which Chiropractic is Recognized as a Health Profession (Continued)

All state licensing authorities within the United States recognize chiropractic as a primary health care profession distinct from medicine. "Primary care" is accessible, first-contact health care, without the necessity of a referral.

## **Principles of Chiropractic**

Chiropractic is a natural, conservative, medication-free, and nonsurgical form of health care. The writings of Hippocrates (460-370 B.C.), Galen (130-200 A.D.), and even ancient manuscripts of the Egyptians, Hindus, and Chinese reveal some principles common to chiropractic. Its place in modern health care is largely attributed to Dr. 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 changing attitude toward health care in the United States. Chiropractic tenets include the principle that an individual's nervous system is very important to health and that interference with this system impairs normal functions and lowers the body's resistance to disease. The study of chiropractic includes the mechanisms by which the nervous system may be irritated or otherwise interfered with and result in aberrant reflexes. Chiropractic practice incorporates techniques for the correction of these pathological mechanisms. The specific pathology that is the focus of chiropractic practice is known as the *chiropractic subluxation* or *joint dysfunction*. A subluxation is a health concern, which through complex anatomical and physiological relationships, manifests in the joints, affects the nervous system, and may lead to reduced function, disability, or illness. Typically, the symptoms of subluxation include one or more of the following: pain

and tenderness; asymmetry of posture, movement, or alignment; range of motion abnormalities; tone, texture and temperature abnormalities of the adjacent soft tissues. A doctor of chiropractic may detect subluxations through standard physical examination procedures, specific chiropractic assessments, or special tests (Peterson and Bergmann 2002). This process is much more complex than stated; however, this simplification is presented so that those not fairly familiar with the chiropractic profession will have some basic understanding and awareness of what is meant by chiropractic subluxation. For a more complete description and discussion of chiropractic subluxations see, among others, Leach, *The Chiropractic Theories* (2004); Gatterman, *Chiropractic Management of Spine Related Diseases* (2004); and Peterson and Bergmann, *Chiropractic Technique* (2002).

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 receives the necessary health maintenance components, including proper food, water, adequate rest, exercise, clean air, adequate nutrition, and a properly functioning nervous system.

To clarify the model of chiropractic care and to illustrate its roles within the American health care system, the Association of Chiropractic Colleges has prepared a formal statement which is included in Appendix A.

## **Chiropractic Case Management**

Doctors of chiropractic address various physiological and biomechanical aspects of their patients, including structural, spinal, musculoskeletal, neurological, vascular, nutritional, emotional, somatic, and environmental relationships. Case management of problems in any of these areas may include, but may not be limited to, such procedures as adjustment and manipulation of the articulations and adjacent tissues of the human body, particularly the spinal column. In many cases, spinal radiographs and other diagnostic procedures, such as physical examination and questions concerning medical history, diet, and lifestyle, are used to identify the source of a patient complaint.

Central to chiropractic is the corrective structural adjustment or manipulation of subluxations, i.e. vertebral or pelvic segments which have become displaced and/or have restricted movement in some cases with signs of neurological and/or vascular involvement. The causes of these subluxations (static or dynamic) include various types of stresses or congenital anomalies.

By manually manipulating vertebrae into their normal physiological relationship, chiropractic practitioners relieve interference with the nervous system along with accompanying symptoms. This correction of joint dysfunction reestablishes normal mobility and comfort. A chiropractic corrective adjustment requires specially acquired palpation skills to deliver a precise, delicate maneuver to achieve a pre-determined goal.

Some studies indicate that – in addition to orthopedic conditions such as backache, headache, and whiplash – those conditions that involve organs and internal glands of the body might also respond to chiropractic adjustments. (See Chapter 2 of this report.) 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 educational and competency standards before being granted a license to practice.

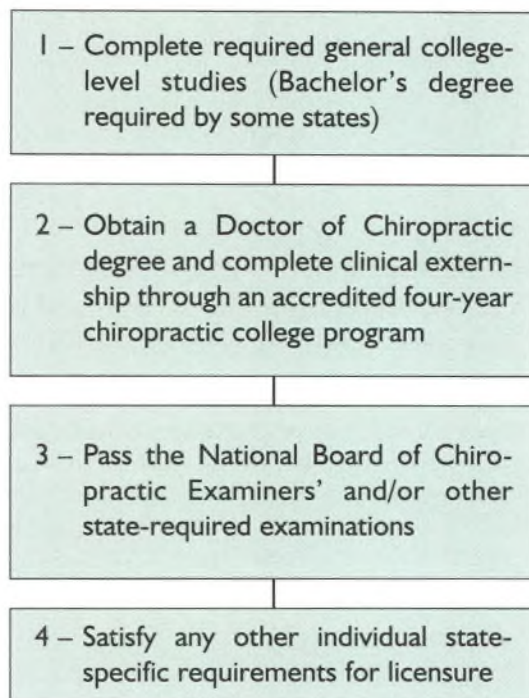
Currently, an individual must complete four major steps to become a practitioner of chiropractic (Figure 1.1). Completion of these same four steps formed the qualifications for most respondents to the 2003 NBCE *Survey of Chiropractic Practice*.

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 examinations – such as ethics and jurisprudence examinations – required by the state in which he/she intends to practice, and 4) met individual state chiropractic licensing requirements.

### Education

Government inquiries, as well as independent investigations by medical practitioners, have affirmed that today’s chiropractic 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 externship prior to entering private practice.

In the United States, the Council on Chiropractic Education (CCE) Commission on Accreditation is granted authority by the U. S. Department of Education to accredit chiropractic programs and institutions. Currently, 17 chiropractic colleges in the United States are accredited, along with six programs outside of the United States



**Figure 1.1**  
Steps Leading to Chiropractic Practice

through affiliated councils (in Australia, Canada, England, and France). Two chiropractic educational programs in South Africa and one in Japan are currently pursuing accreditation.

To ensure that high standards in education are maintained, all accredited chiropractic colleges must meet stringent requirements. Criteria address, among other areas, the program's mission and goals, effectiveness in achieving the mission and goals, an on-going system of evaluation and planning, incorporation, governance, administration, faculty and staff, learning resources, finance, student services, and doctor of chiropractic degree program curriculum. Each program's curriculum must be comprised of a minimum of 4,200 hours of semester/quarter course credits, and course offerings must address specific subjects set out by the CCE (Council on Chiropractic Education 1998).

In addition, incoming students must furnish proof of having acquired at least 60 semester hours, or the equivalent, of college credit leading to a baccalaureate degree at an institution, or institutions, accredited at the college level by an accrediting body that has been nationally recognized by the U.S. Department of Education. Applicants must have a cumulative grade point average of at least 2.50 on a 4.00 scale. In the chemistry, physics, and biology courses required for admission, no grade below 2.00 on a 4.00 scale is acceptable, and only grades earned in a course and its corresponding laboratory may be averaged. Following are the required minimum prerequisites:

Communication and/or Language Skills.....	6 semester hours
Psychology .....	3 semester hours
Social Sciences or Humanities .....	15 semester hours
Biological Sciences with Laboratory .....	6 semester hours
General or Inorganic Chemistry with Laboratory .....	6 semester hours
Organic Chemistry with Laboratory .....	6 semester hours
Physics with Laboratory .....	6 semester hours

According to the 1997-1998 Chiropractic College Directory, the academic focus of 83.1% of the students entering chiropractic college was Life Science/Biology. The remaining 16.9% had liberal arts, business/economics, physical science/engineering, and education backgrounds (McNamee 1997).

The chiropractic curriculum typically consists of either four or five academic years. In a typical trimester-based chiropractic program, courses that a first-year chiropractic student can expect to study are the following:

General Anatomy	Human Biochemistry
Histology	Clinical Chiropractic
Chiropractic Principles	Neuroanatomy and Neurophysiology
Palpation	Normal Radiographic Anatomy
Human Physiology	Fundamentals of Nutrition
Chiropractic Procedures	Functional Anatomy/Biomechanics
Embryology	Spinal Anatomy
Introduction to Physical Examination Skills	

Second-year coursework typically includes the following:

Pharmatotoxicology	Clinical Microbiology
Pathology	Chiropractic Principles
Chiropractic Procedures	Physics and Clinical Imaging
Clinical Orthopedics and Neurology	Nutritional Assessment
Community/Public Health	Physiological Therapeutics
Clinical Nutrition	Research Methods
Practice Management	Imaging Interpretation
Differential Diagnosis	Applied Clinical Chiropractic
Emergency Care	

Third-year coursework typically includes the following:

Integrated Chiropractic Clinical Application	Physiological Therapeutics
Chiropractic Principles	Practice Management
Radiological Positioning and Technique	Imaging Interpretation
Clinical Application of Manual Procedures	Differential Diagnosis
Clinical Internship	Dermatology
Clinical Psychology	Obstetrics/Gynecology
Pediatrics	Geriatrics
Clinical Laboratory Clerkship	Ethics and Jurisprudence
Original Research Project	

The fourth year often consists of a Clinical Internship. 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 U.S. chiropractic colleges offer specialty training through either part-time postgraduate education programs or full-time residency programs. Postgraduate education programs are available in the following areas:

Family Practice  
Clinical Neurology  
Sports Chiropractic  
Nutrition  
Industrial Consulting

Applied Chiropractic Sciences  
Orthopedics  
Pediatrics  
Rehabilitation  
Radiology

Residency programs include:

Radiology  
Family Practice

Orthopedics  
Clinical Sciences

Both postgraduate and residency programs lead to eligibility to sit for competency examinations offered by specialty boards recognized by the American Chiropractic Association, the International Chiropractors Association, and the American Board of Chiropractic Specialties. Specialty boards may confer “Diplomate” status in a given area of focus upon successful examination. The most common specialty certifications are chiropractic orthopedics and sports chiropractic (Cherkin et al. 1997).

## National Board Exams

In addition to holding a D.C. degree, a chiropractic practitioner is generally required to pass Parts I, II, III, and IV of the National Board of Chiropractic Examiners (NBCE) examinations prior to applying to a state for evaluation and licensure. Candidates typically take all of the required examinations prior to graduation from a chiropractic college.

The National Board of Chiropractic Examiners is the international testing agency for the chiropractic profession. NBCE examinations are administered at 23 chiropractic college test sites in the United States, Canada, England, France and Australia. During 2002 and 2003, the NBCE established the infrastructure and organization to expand its standardized testing services globally through the International Board of Chiropractic Examiners.

In its assessment role, the NBCE develops, administers, and scores standardized examinations which assess knowledge and higher-level cognitive abilities including problem-solving in various basic science and clinical science subjects.

The NBCE examinations required for licensure currently consist of the following:

<b>PART I</b>	Six basic science areas (general anatomy, spinal anatomy, physiology, chemistry, pathology, and microbiology and public health).
<b>PART II</b>	Six clinical science areas (general diagnosis, neuromusculoskeletal diagnosis, diagnostic imaging, principles of chiropractic, chiropractic practice, and associated clinical sciences).
<b>PHYSIOTHERAPY</b>	An elective examination.
<b>ACUPUNCTURE</b>	An elective examination.
<b>PART III</b>	Nine clinical competency areas (case history, physical examination, neuromusculoskeletal examination, radiological examination, clinical laboratory and special studies examination, diagnosis or clinical impression, chiropractic techniques, supportive techniques, and case management).
<b>PART IV</b>	An objective structured clinical examination which tests radiological diagnosis and interpretation, chiropractic technique, and case management (including patient-centered skills, clinical judgment, and patient care).
<b>SPEC (Special Purposes Examination for Chiropractic)</b>	This examination is designed only for currently licensed or previously licensed individuals and is frequently used for reciprocity/endorsement; however, it is also designed to assess individuals with revoked or suspended licenses or any special circumstances requiring an objective assessment of clinical knowledge.
<b>NBCE ETHICS AND BOUNDARIES</b>	This <i>optional</i> examination is designed for use in circumstances which require an assessment of knowledge of licensed or previously licensed chiropractors pertaining to ethics and boundaries, including ethical misconduct, sexual misconduct, and sexual harassment.

Scores from NBCE examinations are made available to licensing agencies within and outside the United States.

### **State or National Licensing**

State licensing authorities regulate approximately 800 occupations in the United States. Legislation regulating the practice of chiropractic is established in the United States and in over 75 nations worldwide.

The chiropractic regulatory agency that exists in each state (and some nations) has a regulatory board on which doctors of chiropractic, consumer members, and other



healing arts professionals serve. These individuals review the credentials of those who wish to provide chiropractic care within their jurisdictions.

To assist the various states in assessing candidates for licensure, NBCE examinations are administered semi-annually according to a published schedule. Individuals who are in a chiropractic educational system or who have completed a chiropractic educational program take the NBCE examinations. Licensing authorities use transcripts of scores from National Board examinations in evaluating the qualifications of candidates for licensure.

The Federation of Chiropractic Licensing Boards (FCLB) maintains a directory of state-mandated requirements and procedures. 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.

## **Reimbursement for Chiropractic Services**

Chiropractic care is covered by private insurance plans/programs and by most automobile insurance companies. Medicare, Medicaid, and various managed care programs including preferred provider organizations (PPOs) and health maintenance organizations (HMOs) also offer chiropractic benefits. Most state workers' compensation systems include chiropractic care. The federal workers' compensation system, the Longshore Harbor Workers' Act, and other federal employees' health benefits programs cover chiropractic care (Cherkin et al. 1997).

In 1995, Congress ordered the Department of Health and Human Services to determine the feasibility and advisability of providing chiropractic care for all military personnel and their families. Chiropractic services were then integrated into the military health care system at 10 installations throughout the United States. This demonstration project was successful in terms of integration, acceptance, and use of chiropractic services.

In March 2004, Department of Veterans Affairs (DVA) Secretary, Anthony Principi, announced a greater role for chiropractic services within the massive veterans' health care system in the United States. Now, military veterans will receive full-scope chiropractic care, "including patient care, education, research and response to disasters and national emergencies." The program endorses full integration of doctors of chiropractic as partners in health care teams, includes chiropractic care into the DVA's funding for research, includes chiropractic colleges and students in training programs at DVA facilities, and works to ensure chiropractic care for veterans who have previously received chiropractic care through the Defense Department health care system (Department of Veterans Affairs).