

Chapter 1

The Chiropractic Profession

Chiropractic is one of health care's fastest growing professions, partly because of its remarkable effectiveness, and partly because chiropractic typifies a growing trend toward natural, drugless, and non-surgical methods of treatment.

Principles common to chiropractic can be found in the writings of Hippocrates (460-370 BC), Galen (130-200 AD), and even in ancient manuscripts of the Egyptians, Hindus, and Chinese. Examples of manual medicine appeared in the seventeenth and eighteenth centuries when "bonesetters" were used to treat sprains and dislocations.

Chiropractic's place in modern health care is largely attributed to Daniel David Palmer, a Canadian from Port Perry, Ontario, who founded the first chiropractic college in Davenport, Iowa in 1895. Palmer's son, Bartlett, succeeded his father in the development and growth of the chiropractic profession.

The Chiropractic Philosophy

Chiropractic offers a natural, conservative, medication-free, and non-invasive approach to the restoration and maintenance of health. 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.

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 proper food, water, adequate rest, exercise, clean air, adequate nutrition, and a properly functioning nervous system. The Council on Chiropractic Education (CCE) in Canada defines chiropractic as:

"... the science which concerns itself with the relationship between *structure*, primarily the spine, and *function*, primarily the nervous system, of the human body as that relationship may affect the restoration and preservation of health."

Chiropractic Case Management

Doctors of Chiropractic (DCs) address various physiological and biomechanical aspects of health, including structural, spinal, musculoskeletal, neurological, vascular, nutritional, emotional, somatic, and environmental relationships. The study of chiropractic includes the

mechanisms involved in compression, stretching, irritation, and resulting aberrant reflex pathways of the nervous system.

Case management of these problems may include, but may not be limited to, such procedures as adjustment and manipulation of the spinal column, and/or joints and adjacent tissues of the human body. In many cases, spinal X-rays, and other diagnostic procedures are used to identify the source of a patient's complaint, along with physical examination and questions concerning medical history, dietary habits, and lifestyle.

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 of these joint dysfunctions (static or dynamic) include various types of stresses or congenital anomalies.

The manual correction of joint dysfunction requires highly developed psychomotor skills to deliver a precise corrective adjustment. By manually adjusting vertebrae into their normal physiological relationship, interference with the nervous system is thus relieved, and normal mobility and comfort are reestablished.

Chiropractic methods have evolved over time; studies documenting these methods have indicated that, in addition to orthopedic conditions such as backache, headache and whiplash, conditions that involve organs and internal glands of the body might also respond to chiropractic adjustments (Plaughner 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.

Canadian and International Recognition of Chiropractic

As of this writing, there are approximately 50,000 chiropractors in North America. Approximately 3,600 of these are located in Canada. Over half of the practicing chiropractors worldwide have graduated since 1977.

Canada is a federation of ten provinces and two territories covering an area of 3.8 million square miles. Even with the demise of the Soviet Union, Canada is still the second (to Russia) largest country in the world. Ten Provinces, spanning 4,500 miles, link the Pacific and Atlantic coasts: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland. In addition, two territories make up the northern half of Canada: the Yukon and Northwest.

Approximately 90% of the Canadian population lives in the southern part of the country. Eight of the ten provinces are primarily English-speaking, while Quebec is predominately French speaking, and New Brunswick is officially bilingual. Almost 65% of the country's general population reside in either Ontario (in central Canada) or Quebec (on the eastern border), with these two provinces supporting a comparable proportion of chiropractors.

Chiropractic is officially recognized and legally practiced in all ten Canadian provinces, as well as in the Yukon Territory. Chiropractic is not currently recognized in the Northwest Territory, although chiropractic legislation is being considered. In addition to Canada, chiropractors are legally recognized or are allowed to practice without official sanction in the following nations:

Australia	Germany	Japan	South Africa
Belgium	Greece	Jordan	Spain
Belize*	Guam	Liechtenstein	Sweden
Bermuda	Guatemala	Mexico	Switzerland
Brazil	HongKong*	Namibia*	The Netherlands
Colombia	Iceland	New Zealand	United Kingdom
Cyprus	Iran	Norway	United States
Denmark	Ireland	Panama	U.S. Virgin Islands
Ecuador	Italy	Peru	Venezuela
Finland	Jamaica	Puerto Rico	Zimbabwe

* Legislation pending

Chiropractic and Canada's National Health Care System

Chiropractic is Canada's largest drugless health profession and an integral part of the nation's comprehensive health care plan. Since practitioners are recognized as primary contact caregivers, they can administer patient treatment without prior referral.

Chiropractic is currently the third largest primary contact health care profession in both Canada and the United States, surpassed in numbers only by practitioners of medicine and dentistry. In Canada, approximately 10 million visits are made to chiropractors annually, with more than \$100 million spent on chiropractic services (CCA).

Recent Canadian studies suggest that back pain affects up to 30% of the population at any given time and will afflict up to 80% of Canadians at least once in their lifetime. It is estimated that one in every three adults in Canada has received chiropractic treatment sometime during his/her lifetime. In addition, one in every ten Canadian adults has received treatment in the past year, as compared to one in 20 adults in the United States.

For over 25 years, Canada has had a Medicare system administered through the provinces that provides essential medical services at no direct cost to Canadian residents. Under this health care system, the federal government reimburses the provinces for a portion of their health care costs. At the present time, chiropractic care is partially government-funded in some provinces. Generally, private insurers provide coverage for chiropractic in those provinces where the government does not pay a portion of the fee for chiropractic care. In provinces where the government does pay a portion of the fee, the patient is generally responsible for paying the balance.

Chiropractic Requisites and Education

In general, there are four major steps an individual must complete in order to become a practitioner of chiropractic in Canada (Figure 1.2): 1) successfully complete a minimum of two years of university education; 2) graduate from an accredited chiropractic college; 3) pass the Canadian Chiropractic Examining Board (CCEB) examinations or the United States National Board of Chiropractic Examiners examinations (in Quebec only) and; 4) pass appropriate provincial chiropractic examinations.

Licensed Canadian chiropractors are entitled by law to use the titles “Doctor of Chiropractic,” “D.C.,” or as noted in some provinces, “Chiropractic Physician.” The chiropractor 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.

A doctor of chiropractic's training generally requires a minimum of six years of college study. 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).

According to the international *1992-1993 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.

In Canada, as in the United States, the primary accrediting agency for the chiropractic profession is the Council on Chiropractic Education (CCE). Established in 1978, the Council is incorporated under the laws of Canada. The CCE maintains reciprocal status with the chiropractic accrediting agencies in the United States and Australia, and allows graduates to apply for licensure in most jurisdictions in those countries. To ensure that high standards in chiropractic education are maintained, all accredited chiropractic col-

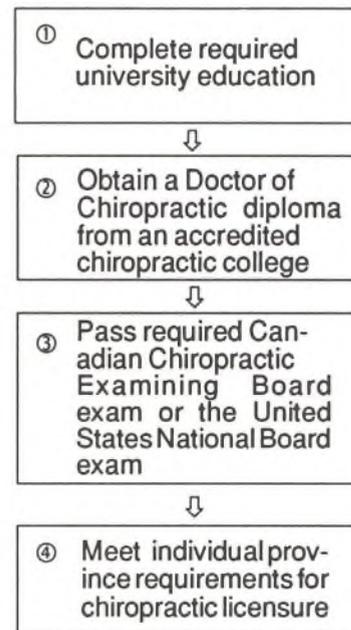


FIGURE 1.2
Steps Leading to Chiropractic Practice

leges must meet certain requirements. Criteria address curriculum, faculty qualifications, faculty-student ratio, library holdings, facilities, school governance, administration, and financial stability. At this time, chiropractic colleges exist in Canada, the United States, the United Kingdom, France, Australia, Japan, Denmark, and South Africa.

The chiropractic curriculum typically consists of either four or five academic years. Courses which a first-year chiropractic student can expect to study are the following:

physiology	neuroanatomy
gross anatomy	chiropractic principles and psychomotor skills
physics	spinal anatomy
endocrinology	biochemistry
organ histology	fundamentals of pathology
microbiology	

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

nutrition	renal physiology
immunology	pathology
toxicology	hematology & clinical laboratory
radiology	neurology
embryology	neuromusculoskeletal diagnosis
biomechanics	human development

In addition to receiving substantial supervised clinical experience, third-year and fourth-year students' coursework includes the following:

radiology technology	visceral disorders
public health	female disorders
extremity adjusting	biostatistics & research
orthopedics	rheumatology
business & personnel management	differential diagnosis
practice management	psychology

Canadian Memorial Chiropractic College

As of this writing, Canadian Memorial Chiropractic College (CMCC) in Toronto is the only CCE-accredited chiropractic college in Canada. Up to 150 Doctor of Chiropractic degrees are awarded annually. (See page 6 for the chiropractic program in Quebec.) CMCC offers a program that meets international standards established for the chiropractic profession.

Established in 1945, CMCC is a non-profit institution chartered under the Companies Act of Ontario and designated a charitable organization by the government of Canada. CMCC receives no government funding. It is supported by tuition fees, membership fees from the

chiropractic profession, donations, and proceeds from the CMCC Supply Centre and Bookstore. Chiropractic students are eligible for funding from the Canadian and Provincial Student Loan programs. There are also scholarships and bursaries available.

Standards for acceptance into the CMCC program are stringent; an average of one in every 2.5 applicants is granted admission. Students must provide the school with proof of having: 1) completed at least three years of university study leading towards a baccalaureate degree; 2) completed courses in biology, organic chemistry, psychology, and humanities and/or social sciences; 3) maintained at least a "B" college course average, and; 4) acquired demonstrable proficiency in the English language.

The chiropractic curriculum consists of three nine-month periods and one twelve-month period of study to be completed in four years (or a minimum of 4,500 classroom hours). In addition, fourth-year students are required to complete an investigative research project.

Chiropractic Doctoral Program

Beginning in the fall of 1993, the Université du Québec à Trois-Rivières began offering a unique five-year program in chiropractic. This is the first time in the history of chiropractic education in North America that a chiropractic college curriculum has been fully integrated into an established university educational system. The five-year publicly funded program accepts 45 students annually and is conducted in French.

The entire program consists of 2,382 hours of theoretical training and 2,587 hours of practical training. Preparation for the practice of chiropractic is concentrated in three areas: basic training in the biological and health sciences, specialized training in all aspects of the chiropractic discipline, and clinical experience.

In addition, the chiropractic student may specialize in certain fields of interest and earn a post-doctoral Fellowship or Diplomate through this program. As of this printing, the program is still awaiting accreditation from the Canadian Council on Chiropractic Education.

Specializations

Field programs which lead to specialty certification in Canada are available to chiropractic practitioners in clinical sciences, radiology, and sports sciences. Courses in these areas are conducted with the cooperation of CMCC, the College of Chiropractic Sciences, the College of Chiropractic Radiology, and the College of Chiropractic Sports Sciences.

Clinical Sciences

Two-year postgraduate residency programs are available at CMCC in chiropractic clinical sciences. As part of the residency program, the practitioner spends six months in a supervised

setting at the chiropractic clinic at the University Hospital in Saskatoon, Saskatchewan. The other 18 months of the program are spent in Toronto at CMCC attaining a specialized level of knowledge, skills and attitudes in areas such as pediatrics, orthopedics, scoliosis, low back pain, and pain management. Upon completion of the program, the candidate is eligible to sit for the examinations leading to certification as a *Fellow* of the College of Chiropractic Clinical Sciences (Canada).

Radiology

A two-year postgraduate residency program is available at CMCC in radiology. As part of this program, the practitioner participates in the six-month residency program at the University Hospital in Saskatoon, in addition to 18 months of study at CMCC. The radiology training emphasizes the technical aspects of radiograph production, radiation health and protection, plain film and contrast study diagnosis, and advanced imaging diagnosis. Throughout the residency program, the practitioner is engaged in duties including film interpretation, publication, rounds, lectures, and tutorials.

To be awarded the *Fellowship* from the College of Chiropractic Radiology (Canada), the practitioner must also become a Diplomate of the American Board of Chiropractic Radiology.

Sports Sciences

The post-graduate sports sciences program is comprised of three levels, each one involves 100 hours of instruction. Examinations are given at the end of each level, and upon successful completion of all three levels, a candidate is eligible to write for the *Fellowship* examinations of the College of Chiropractic Sports Sciences (Canada). Beginning in September 1994, there will also be a two-year sports residency program available at CMCC. The resident will spend six months in the program at the University Hospital in Saskatoon and 18 months at CMCC.

Upon completion of the program, the candidate will be eligible to sit for examinations leading to certification as a *Fellow* of the College of Chiropractic Sports Sciences (Canada). In order to attain *Fellowship* standing, the chiropractor must demonstrate practical and academic excellence in the area of sports sciences. In addition, the candidate for *Fellowship* must demonstrate that he/she is knowledgeably and skillfully diagnosing, treating, rehabilitating, and preventing athletically induced injuries, and promoting chiropractic as a viable and responsible profession within the field of sports sciences.