

Chiropractic comes from Greek χείρ kheír, “hand” + πράξις prâxis, “practice”.

Five main body systems control position, posture and movements: **1** Proprioceptors, receptors measuring the stretch of muscles and the position of joints. Their signals travel through **2** the spinal cord (information highway, preprocessing and (postural) reflexes) and are processed, together with signals from **3** the vestibular system (balance systems in the ears), and **4** the eyes (location) by **5** the cerebellum, a part of the brain responsible for fine tuning movements. A chiropractor evaluates these systems (directly or indirectly) to be able to safely (1) treat movement restrictions.

The spine has many joints. Apparently the short, rapid stretch of facet joints and other joints in the back, caused by a chiropractic treatment re-establishes the correct connection between the central nervous system and sensory organs (including the muscles), so the brain accurately knows what is going on, and this influences the brain’s control over the rest of the body (2). Researchers have proposed three theories about what happens in detail during manipulation, the first one biomechanical, the second one muscular reflexogenic, and the third one is neurophysiological (3).

A controlled mechanical impulse by hand near your spine causes a reaction from the nervous system, which then changes the tension in muscles resulting in muscle relaxation, and relief of pain.

The chiropractic spinal care profession has chiropractic schools in more than 15 countries and currently, chiropractors, back specialists, are working in more than 100 countries. Students attend chiropractic college for at least four years. In some countries the university studies chiropractic medicine and human medicine or traditional medicine are the first four years identical, in other countries similar (4). The practice of chiropractic is recognized and regulated by law in approximately 40 countries. In Denmark, Norway, and Switzerland chiropractic is integrated in the primary healthcare system.

Chiropractors thought (medicine, after all, is an inexact science (5)) that they treated subluxations (6), BOOPs (bone-out-of-place), today they know that they re-program (reset) the nervous system. Chiropractors do not “move” vertebrae, they influence the movement patterns of the spine and hence they influence the nervous system: spinal manipulation impacts primary afferent (inwards) neurons from paraspinal tissues, the motor control system and pain processing (7). During manipulation we sometimes hear a noise, this is merely the collapse of a gas bubble released from a joint during gapping.

Chiropractic, when properly practiced, deals with the nervous system. Most chiropractors have abandoned their profession's mystical origins and have adopted a scientific approach to health care. Some people see a regular visit to a chiropractor as an aid to stay healthy, happy and energized.

The initial consultation will typically start with a case history followed by a physical exam. A chiropractor treats often with the hands, or uses an activator (8), and has a special treatment table which allows controlled, fine-tuned impulses to your back and neck. There are other chiropractic techniques, and besides the back, a chiropractor treats also other joints, in particular shoulders, hips, and ribs.

What makes a chiropractor so special? The (holistic (9)) approach taken by chiropractors toward diagnosis and treatment. In addition to evaluating for pathologies as traditional doctors do (10), a chiropractor assesses subtle changes in the function of the nervous system. It is the expertise in detecting these changes in function that sets a chiropractor apart from other specialists.

(1) WHO World Health Organization: When employed skilfully and appropriately, chiropractic care is safe and effective for the prevention and management of a number of health problems

<http://www.who.int/medicines/areas/traditional/Chiro-Guidelines.pdf>

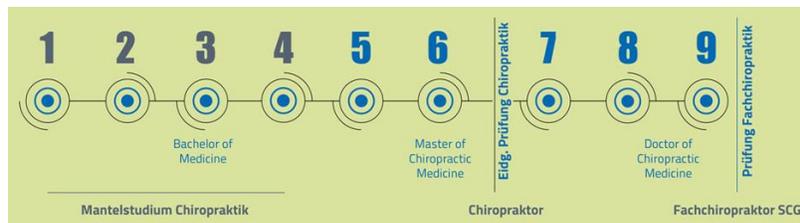
(2) "Chiropractic care seems to impact our brain's inner reality by restoring the proper processing and integration of sensory information, which alters the way our brain controls our body," Heidi Haavik.

<https://www.wddty.com/magazine/2017/june/tuning-up-the-brain.html>

(3) Physical Therapy Reviews 2005; 10: 163–170 PHYSIOLOGICAL EFFECTS OF SPINAL MANIPULATION: A REVIEW OF PROPOSED THEORIES LOUISE POTTER, CHRISTOPHER McCARTHY AND JACQUELINE OLDHAM

[https://www.researchgate.net/publication/233689100\\_Physiological\\_effects\\_of\\_spinal\\_manipulation\\_A\\_review\\_of\\_proposed\\_theories](https://www.researchgate.net/publication/233689100_Physiological_effects_of_spinal_manipulation_A_review_of_proposed_theories)

(4) In Switzerland the university studies chiropractic medicine and human medicine or traditional medicine have identical programmes for the first four years, after six years you can have your master's degree in chiropractic and after 9 years your doctor in chiropractic medicine (Dr. chiro. med.)



Source: <https://www.chirosuisse.ch/de/chiropraktik-studieren/studium-und-weiterbildung>

Chiropractic education around the world: [https://en.wikipedia.org/wiki/Chiropractic\\_education](https://en.wikipedia.org/wiki/Chiropractic_education)

Within the chiropractic profession, there are specialists in radiology, orthopaedics, sports, pediatrics, internal medicine, physical rehabilitation, and (functional) neurology. The practice of functional neurology spans multiple disciplines including chiropractic, psychology, medicine, optometry, audiology, nutrition and physical and occupational therapies.

(5) Medicine, after all, is an inexact science <http://www.nybooks.com/articles/2017/02/09/sick-but-not-sick/>

(6) Vertebral subluxation [https://en.wikipedia.org/wiki/Vertebral\\_subluxation](https://en.wikipedia.org/wiki/Vertebral_subluxation)

(7) <https://www.ncbi.nlm.nih.gov/pubmed/14589467>

(8) An activator is a specialized chiropractic treatment device. It uses low force to treat problems in for example your spine and is excellent for those patients who prefer a more gentle type of treatment.



(9) Holistic medicine is characterized by the treatment of the whole person, taking into account mental and social factors, rather than just the symptoms of a disease. Many alternative medicine practitioners claim a holistic approach to healing. At present it is commonplace in psychosomatic medicine to state that psyche and soma cannot really be separated for practical or theoretical purposes. A disturbance on any level—somatic, psychic, or social—will radiate to all the other levels, too.

<https://en.wikipedia.org/wiki/Holism#Medicine>

(10) How Doctors Think, Jerome Groopman, M.D. Houghton Mifflin Company 2007