

### What is Chiropractic and does it work?

#### An overview of the alternative medicine Chiropractic

By John Jackson © 2006

Chiropractic was invented in 1895 by Canadian-born Daniel David Palmer; a medically unqualified layman. He had been a grocer before becoming a "magnetic healer" (transferring "healing energy" to patients by touching or waving hands over them) in Burlington, Iowa, USA.

He also dabbled in Phrenology (the belief in a relationship between the shape of a person's skull and their intelligence and personality), and he was influenced by mesmerism (a mystical healing force believed to work through hypnotic induction), spiritualism and vitalism. Vitalism is the belief in "vital energy" or a "spark of life" which distinguishes living from non-living matter; the same concept as its Chinese equivalent "chi" and its Indian equivalent "Prana".



DD Palmer

Palmer called his vital energy: "Innate Intelligence". His belief was that this Innate Intelligence flowed through the body from the brain, through the spine, the nerves and on to the various organs of the body.

The theory of chiropractic which Palmer developed states that all disease is caused by the misalignment of vertebrae. A vertebra that is out of alignment, known as a "subluxation", blocks the natural flow of the vital "Innate Intelligence" through the body; thus leading to disease.

Palmer claimed to have cured a man of deafness (apparently after discussing it with him first) by realigning a vertebra that he found was out of place; he also claimed to have cured others of various diseases by the same method. Interestingly, the nerves that are involved with hearing do not connect to the brain via the spine.

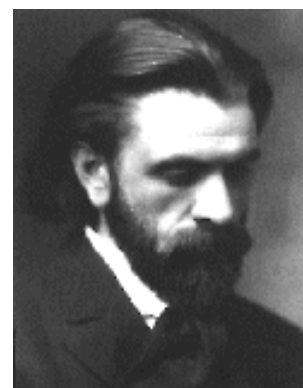
As chiropractic states that the subluxation is the cause of all disease, it rejects one of the greatest discoveries in medicine: germ theory; the discovery that much disease is caused from infection by micro-organisms.

The rejection of germ theory also leads to the rejection of another hugely beneficial discovery: vaccination.

Palmer and his son Bartlett Joshua, considered vaccination a form of poisoning.

Despite the fact that medical knowledge was advancing rapidly by the early 20<sup>th</sup> century, Palmer and son continued their belief in chiropractic as the way to cure disease, and they turned it into a business.

B.J. Palmer stated: *"Our school is on a business, not a professional basis ... We manufacture chiropractors... Give me a simple mind that thinks along single tracks, give me 30 days to instruct him, and that individual can go forth on the highways and byways and get more sick people well than the best, most complete, all around, unlimited medical education of any medical man who ever lived."*



BJ Palmer

#### Scientific evidence and chiropractic

Chiropractors claim to take a **holistic** approach to treatment, believing that the body is self-healing; although it sometimes needs help to heal itself. The human body does have a multitude of self-repair mechanisms, which have evolved naturally, and it does heal itself. Whether or not pseudoscientific intervention helps is open to question: a consideration that is applicable to all alternative treatments.

Most evidence that chiropractors put forward to back their claim is that of personal testimonies. This is not

scientifically acceptable: even though someone may have felt they were helped by a chiropractic procedure, personal testimony is too unreliable to be considered as evidence (see: [anecdotes](#)).

In the 1997 Journal of Canadian Chiropractic Association, it was cited that 74% of chiropractors "do not accept the view that controlled clinical trials are the best way to validate chiropractic methods".

Controlled clinical trials are the method by which genuine treatments are differentiated from bogus ones. One of the hallmarks of a [pseudoscience](#) is that it fails to work under rigorous testing. The defence that scientific testing is not the way to test the claim is known as "special pleading"; it is another hallmark of [pseudoscience](#).

The belief in "Innate Intelligence" often more simply referred to as "Innate" is a [metaphysical](#) belief and as such is not testable or scientific: it is a matter of faith.

Most pseudoscientific claims are untestable; however, the subluxation as a physical property lends itself to scientific testing. The fact of the matter is that chiropractors cannot even agree what a subluxation actually is: the original concept of misaligned vertebrae having lost favour with some in the field, perhaps because (x-ray) radiographs show no difference between before-treatment and after-treatment exposures.

There is no evidence that subluxations actually exist, never mind that they can be manipulated to cure disease or promote well-being. This is after more than a century of Chiropractic's existence.

The one area that there is evidence that Chiropractic can be beneficial is in treating lower-back pain (see: [RAND paper](#)) although RAND are not so supportive of Chiropractic cervical (relating to the neck) spine manipulation.

Despite the fact that Chiropractors can achieve beneficial results using spinal manipulative therapy (SMT), this does not endorse Chiropractic itself: SMT is not unique to Chiropractic, it is also offered by qualified doctors and physiotherapists, for example. It is the inappropriate use of SMT that is the concern with Chiropractic.

The RAND report has been misused by chiropractors who have claimed that the RAND finding of SMT to be beneficial endorses Chiropractic itself. This is not the case. RAND spokesman, Dr. Paul Shekelle, released this statement in 1993:

*"...we have become aware of numerous instances where our results have been seriously misrepresented by chiropractors writing for their local paper or writing letters to the editor....RAND's studies were about spinal*

*manipulation, not chiropractic, and dealt with appropriateness, which is a measure of net benefit and harms. Comparative efficacy of chiropractic and other treatments was not explicitly dealt with."*

## The dangers of chiropractic

- **The practitioners are not qualified doctors.**

Many people wrongly assume that chiropractors are a part of the medical community. They are not: they are a part of the alternative medicine industry. Unlike many other alternative practitioners, Chiropractors are thought by many to be medically qualified doctors, and as such people may place as much trust in their advice as they would in that of a qualified doctor.

- **Anti-vaccination stance.**

Chiropractic is based on the idea that all disease is the result of subluxations. It does not agree with the germ theory of disease, and it also rejects the idea of vaccination.

Many chiropractors routinely advise against the vaccination of children. They do not give this advice from a solid medical point of view: it is based on dogmatic adherence to the principles of chiropractic, which has its roots in mysticism and vitalism.

- **Dynamic Thrust.**

This is a Chiropractic adjustment delivered suddenly and forcefully to move vertebrae, often resulting in a "popping" sound. It is usually done without prior warning. This manoeuvre, which may be performed purely for the sound effect, poses a risk of inflicting spinal injury.

- **X-ray overuse.**

Chiropractors use x-rays for diagnostic purposes. Using x-rays in the search for subluxations is believed to have little or no diagnostic value. They are therefore needlessly exposing patients to x-rays: the 24" x 36" full spine x-ray exposing patients to a substantial amount of radiation.

- **Neck manipulation and strokes.**

Neck manipulation is a treatment used by Chiropractors to relieve upper-back pain, headache and migraine suffering.

A Canadian study by the Institute of Clinical Evaluative Sciences in Ontario found that patients younger than 45 who had experienced stroke related to posterior circulation are "5

*times more likely than controls to have visited a chiropractor within a week of the event"* (Stroke 2001;32:1054-60).

Chiropractors admit that neck manipulation can cause strokes; however, they claim that the risk is one in a million. The exact risk is not known, but there is evidence that the likelihood of neck manipulation causing strokes is far higher than the one in a million figure they suggest.



Another study states:

"The researchers reported that patients under age 60 who had strokes or transient ischemic attacks from tears in the vertebral artery were six times more likely to have had spinal manipulative therapy in the 30 days prior to their stroke than patients who had strokes from other causes." (Source: eurekaalert).

Sudden rotary neck movement, sometimes called "vaster cervical" or "rotary break", is probably the most dangerous practice that Chiropractors perform.

- **Targeting children.**

As with many alternative practitioners, chiropractors are looking to increase their presence in an expanding, lucrative market. One target market seems to be children who, apparently, cannot be too young to have their spines examined and manipulated.

Chiropractors have claimed that conditions that may respond to chiropractic care in babies and young children include: asthma; ear infections; Attention Deficit Disorder; learning disorders; respiratory problems; clumsiness; bed-wetting; stomach problems; hyperactivity; colic; and immune system problems.

Chiropractic has been described as "a treatment in search of a disease". An illustration of this effect was shown when Stephen Barrett, M.D took a perfectly healthy young girl to five different chiropractors, and each one gave a misdiagnosis based on finding subluxations (see: [chirobase article](#)).

This form of subjective diagnosis is common in alternative therapies. Each practitioner coming up with a different diagnosis and treatment to all others practising in exactly the same field.

A claim chiropractors make is that by treating babies and children, they are preventing disease from developing. Proving this type of negative is not possible, and the claim is an emotional [appeal to fear](#).

Paediatricians are qualified doctors who specialise in the treatment of children and many are opposed to so-called Paediatric Chiropractors' claims to be able to cure or prevent childhood illnesses with spinal manipulations.

## Qualification and regulation

There are three institutions in the UK offering chiropractic courses. They offer either a BSc honours degree or a Diploma. Two of the institutions describe themselves as a "college of chiropractic", and the other, the University of Glamorgan, has seen fit to offer a [BSc \[Hons\] Chiropractic](#) amongst its degrees (interestingly listed under "health science").

The worth of a degree in a subject that cannot prove its basic tenet, the subluxation, seems rather dubious. The fact that an established university is prepared to offer such a degree may be a reflection of the cash-starved situation universities are in; however, it can only diminish the university's standing and reputation to so do.

In the UK, Chiropractors are regulated by the General Chiropractic Council (GCC). It is illegal to practise as a Chiropractor in the UK without being registered with the GCC. This form of regulation is important as it sets standards, has a complaints procedure and has regulatory powers which will hopefully repel the more unscrupulous types who are attracted by the moneymaking potential of alternative medicine.

The main drawback with this type of regulation is that it does not question the validity of that which it is designed to regulate. For example, a Chiropractor who manipulates a baby's spine, who routinely advises against immunisation, or who x-rays children in the search for a subluxation, is *not* breaking the basic tenets of Chiropractic, and may not be considered to have done wrong by the regulatory body.

Qualification and regulation is welcome and should offer some consumer protection; however, they do nothing to prove that Chiropractic is a useful treatment.

The following questions should be considered: How can you be qualified in something that can't be shown to work? How can truly effective regulation be achieved in a pseudoscience, by proponents of that pseudoscience?

## Conclusion

Chiropractic is a [pseudoscientific](#) approach to health care. The thinking behind it has no basis in fact, and even after more than a century, its core belief, the subluxation, cannot be shown to exist; even though it is a scientifically testable theory.

Some of the beliefs, such as the anti-vaccination stance, actually go against scientific evidence, medical opinion and government policy. Opposing germ theory exposes the 19<sup>th</sup> century thinking that Chiropractic is based upon.

Chiropractic is not one technique that can treat one class of illness or disease. It is promoted as a panacea and an all-encompassing preventative measure to be used from the moment we are born onwards.

A healing system that is based on a mystical life-force that gets blocked by imaginary subluxations, and that relies on anecdotal evidence; special pleading; [the placebo effect](#); and subjective diagnoses is clearly an irrational concept: no matter how much credence is given to it with qualifications and self-regulation.

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### Further information:

<http://www.ebm-first.com/?cat=5> (Articles and papers)

<http://www.chirovictims.org.uk/> (for victims of Chiropractic)

<http://gmweb1.net/> (for victims of Chiropractic)

<http://www.chirowatch.com/>

<http://www.chirobase.org/>

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