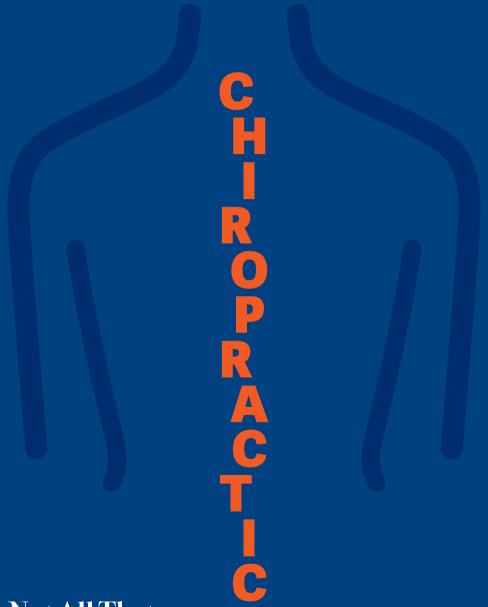
EDZARD ERNST



Not All That It's Cracked Up to Be



Chiropractic

Edzard Ernst Chiropractic

Not All That It's Cracked Up to Be



Edzard Ernst Cambridge, UK

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Contents

1	Introduction	1
2	The History of Chiropractic	3
3	Current Popularity of Chiropractic	17
4	Subluxation	25
5	Spinal Manipulation	37
6	Other Alternative Modalities Used by Chiropractors	45
	Acupuncture	46
	Applied Kinesiology	47
	Chelation Therapy	48
	Cupping	48
	Detox	50
	Dietary Supplements	50
	Energy Healing	51
	Homeopathy	51
	Massage	53
	Mind-Body Therapies	55
	Vega Test	56

İS

7	Therapeutic Claims by (and Ambitions of) Chiropractors	59
8	Other Manual Therapies	73
	Bowen Technique	73
	Craniosacral Therapy	74
	Dorn Method	75
	Khalifa Therapy	76
	Naprapathy	76
	Osteopathy	77
	Polarity Therapy	80
	Rolfing	81
	Tragerwork	82
	Visceral Osteopathy	83
9	What Is Evidence?	85
10	Effectiveness of Spinal Manipulation for Spinal Problems	91
	Treatment of Acute Low Back Pain	92
	Treatment of Chronic Low Back Pain	93
	Treatment of Neck Pain	98
11	Effectiveness of Spinal Manipulation in Other Problems	103
	Migraine	105
	Other Forms of Headache	106
	Otitis Media	106
	Carpal Tunnel Syndrome	107
	Fibromyalgia	108
	Treatment of Shoulder Problems	108
	Osteoarthritis	109
	Sport Injuries	110
	Any Non-spinal Pain	111
	Opioid Over-Use	112
	Hypertension	113
	Gastrointestinal Problems	114

		Contents	vii
12	Chiropractic for Children		117
	Potential for Harm		124
13	Disease Prevention		129
14	Direct Risks of Spinal Manipulation		135
	Minor Problems		137
	Cerebral Accidents		138
	Eye Injuries		144
	Other Serious Complications		147
	Deaths		151
	Relative Safety		154
15	Indirect Risks		157
	Risks of Useless Treatments		157
	Risks of Diagnostic Methods		158
	Vaccinations		161
16	Professionalism and Education		167
	Regulators		167
	Professional Organisations of Chiropractors		171
	Individual Chiropractors		176
17	Ethical Issues		181
	Nonsensical Research		182
	Informed Consent		185
18	Postscript		191
Glossary			193
Useful Links and Books			195

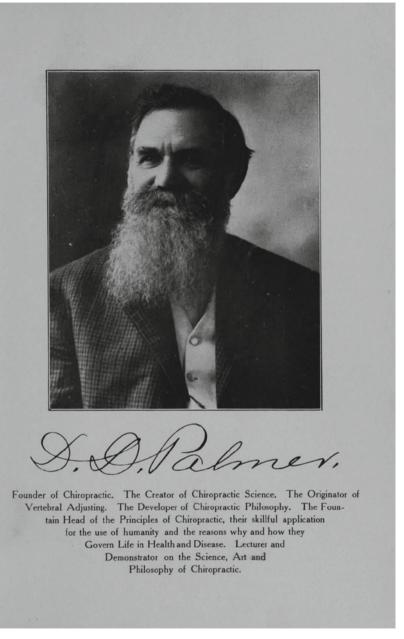


Fig.-Daniel David Palmer; source: US National Library of Medicine



1

Introduction

"There is no alternative medicine. There is only scientifically proven, evidence-based medicine supported by solid data or unproven medicine, for which scientific evidence is lacking." These words of Fontanarosa and Lundberg were published 22 years ago. Today, they are as relevant as ever, particularly to the type of healthcare I often refer to as 'so-called alternative medicine' (SCAM), and they certainly are relevant to chiropractic.

Invented more than 120 years ago by the magnetic healer DD Palmer, chiropractic has had a colourful history. It has now grown into one of the most popular of all SCAMs. Its general acceptance might give the impression that chiropractic, the art of adjusting by hand all subluxations of the three hundred articulations of the human skeletal frame,³ is solidly based on evidence. It is therefore easy to forget that a plethora of fundamental questions about chiropractic remain unanswered.

I wrote this book because I feel that the amount of misinformation on chiropractic is scandalous and demands a critical evaluation of the evidence. The book deals with many questions that consumers often ask:

- How well-established is chiropractic?
- What treatments do chiropractors use?
- What conditions do they treat?

¹Fontanarosa PB, Lundberg GD. Alternative medicine meets science. *JAMA*. 1998;280(18):1618–1619. http://doi.org/10.1001/jama.280.18.1618.

²Ernst E. SCAM: So-Called Alternative Medicine. Societas (2018).

³Palmer DD. Text-Book of the Science, Art and Philosophy of Chiropractic. Rev. edn. Echo Point Books & Media (2019).

- What claims do they make?
- Are their assumptions reasonable?
- Are chiropractic spinal manipulations effective?
- Are these manipulations safe?
- Do chiropractors behave professionally and ethically?

Am I up to this task, and can you trust my assessments? These are justified questions; let me try to answer them by giving you a brief summary of my professional background.

I grew up in Germany where SCAM is hugely popular. I studied medicine and, as a young doctor, was enthusiastic about SCAM. After several years in basic research, I returned to clinical medicine, became professor of rehabilitation medicine first in Hanover, Germany, and then in Vienna, Austria. In 1993, I was appointed as Chair in Complementary Medicine at the University of Exeter. In this capacity, I built up a multidisciplinary team of scientists conducting research into all sorts of SCAM with one focus on chiropractic. I retired in 2012 and am now an emeritus professor. I have published many peer-reviewed articles on the subject, and I have no conflicts of interest. If my long career has taught me anything, it is this: in the best interest of consumers and patients, we must insist on sound evidence; not opinion, not wishful thinking; evidence.

In critically assessing the issues related to chiropractic, I am guided by the most reliable and up-to-date scientific evidence. The conclusions I reach often suggest that chiropractic is not what it is often cracked up to be. Hundreds of books have been published that disagree. If you are in doubt who to trust, the promoter or the critic of chiropractic, I suggest you ask yourself a simple question: who is more likely to provide impartial information, the chiropractor who makes a living by his trade, or the academic who has researched the subject for the last 30 years?

This book offers an easy to understand, concise and dependable evaluation of chiropractic. It enables you to make up your own mind. I want you to take therapeutic decisions that are reasonable and based on solid evidence. My book should empower you to do just that.

May 2020, Edzard Ernst.



2

The History of Chiropractic

I was the first to adjust the cause of disease.

— D. D. Palmer

Who better to summarise the beginnings of chiropractic than Daniel David Palmer, the man who never left any doubt that it was he, and he alone, who invented it? Here is the start of his article¹ entitled 'A Brief History of the Author and Chiropractic':

I was born on March 7, 1845, a few miles east of Toronto, Canada. My ancestors were Scottish and Irish on my maternal and English and German on my paternal side.

When my grandparents settled near the now beautiful city of Toronto, there was but one log house, the beginning of that great city. That region was then known as 'away out west'.

I came within one of never having a mamma. My mother was one of a pair of twins one of which died. The one who lived weighed only one and a half pounds.

When a baby I was cradled in a piece of hemlock bark. My mother was as full of superstition as an eff is full of meat, but my father was disposed to reason on the subjects pertaining to life.

¹Palmer DD. Text-Book of the Science, Art and Philosophy of Chiropractic. Rev. edn. Echo Point Books & Media (2019).

4 E. Ernst

I was a magnetic healer for nine years previous to discovering the principles which comprise the method known as Chiropractic. During this period much of what was necessary to complete the science was worked out. I had discovered that many diseases were associated with derangements of the stomach, kidneys and other organs...

One question was always uppermost in my mind in my search for the cause of disease. I desired to know why one person was ailing and his associate, eating at the same table, working in the same shop, at the same bench, was not. **Why?** What difference was there in the two persons that caused one to have pneumonia, catarrh, typhoid or rheumatism, while his partner, similarly situated, escaped? Why? This question had worried thousands for centuries and was answered in September 1895...

September 18, 1895 is the day when Daniel David (DD) Palmer invented chiropractic. On that occasion, he manipulated the spine of a deaf janitor by the name of Harvey Lillard, allegedly curing him of his deafness (Box 2.1). An examination showed a vertebra racked from its normal position, Palmer wrote, I reasoned that if that vertebra was replaced, the man's hearing should be restored (see footnote 1). Palmer's second patient was a man suffering from heart disease (Box 2.2). Palmer wrote: I examined the spine and found a displaced vertebra pressing against the nerves which innervate the heart. I adjusted the vertebra and gave immediate relief... (see footnote 1)

Palmer had been one of 6 children of parents who had immigrated from Canada to the US in search for work. During the first 20 years of his adult life, he worked in various professions (Box 2.3). His attraction to all things medical then made him try his luck as a magnetic healer,³ and it was then that the fateful encounter with his janitor changed his life for ever.

Palmer later wrote in his book, 'Chiropractor's Adjuster', that he learned about manipulation during a séance from the ghost of a medical practitioner named Jim Atkinson whose work, 50 years earlier, had formed the basis of Palmer's new method:

The knowledge and philosophy given to me by Dr. Jim Atkinson, an intelligent spiritual being, together with explanations of phenomena, principles resolved from causes, effects, powers, laws, and utility, appealed to my reason. The

²Senzon SA. The Chiropractic Vertebral Subluxation Part 2: The Earliest Subluxation Theories From 1902 to 1907. *J Chiropr Humanit*. 2019;25:22–35. Published 2019 Apr 6. http://doi.org/10.1016/j.echu.2018.10.009.

³Ernst E. Chiropractic: a critical evaluation. *J Pain Symptom Manage*. 2008;35(5):544–562. http://doi.org/10.1016/j.jpainsymman.2007.07.004.

⁴Palmer DD. *The chiropractic adjuster: A compilation of the writings of D.D. Palmer*. Palmer School of Chiropractic (1921).

method by which I obtained an explanation of certain physical phenomena, from an intelligence in the spiritual world, is known in biblical language as inspiration. In a great measure, The Chiropractor's Adjuster was written under such spiritual promptings.

Palmer stated that chiropractic was not evolved from medicine or any other method, except that of magnetic (see footnote 2). A friend of Palmer's, Rev Samuel Weed, is credited with creating the word 'chiropractic', but Palmer coined the term "innate intelligence" (or "innate") for the assumed "energy" or "vital force," which, according to his belief, enables the body to heal itself. Palmer claimed that the "innate" controls all body functions. In the presence of "vertebral subluxation," the innate was blocked, he postulated. Thus, subluxations are the cause of all disease. Palmer developed spinal manipulations to correct subluxations and thus unblock the flow of the innate and defined chiropractic as a system of healing based on the premise that the body requires unobstructed flow through the nervous system of innate intelligence (see footnote 2).

Palmer wrote: by daily adjusting the vertebrae ... I was not only performing a normal obligation, but also a religious duty. He was convinced that the representative of the "Innate Intelligence" was God within each person and that he had discovered a natural law that pertained to human health in the most general way. At one stage, DD and his son BJ Palmer even toyed with the idea of becoming the founders of a new religion and wrote that the religion of chiropractic and the religious duty of a chiropractor are one and the same (see footnote 4). DD declared that he had discovered the answer to the time-worn question, what is life?, and added that chiropractic made this stage of existence much more efficient in its preparation for the next step—the life beyond (see footnote 2).

Spinal manipulations or adjustments were not originally meant by Palmer as techniques for treating spinal or musculoskeletal problems; he saw them as a cure for all human illness and stated that disease is caused by displaced vertebrae or other joints pressing against nerves (see footnote 4), and that 95% of all diseases are caused by displaced vertebrae, the remainder by subluxations of other joints (see footnote 2). Early chiropractic pamphlets rarely mentioned back or neck pain, but asserted that, chiropractic could address ailments as diverse as insanity, sexual dysfunction, measles and influenza. Palmer was convinced that he had created a science of principles that has existed as long as the vertebra (see footnote 2). He envisioned man as a microcosm of the universe where

⁵Palmer DD. The Chiropractor: The Philosophy and History of Chiropractic Therapy, Care and Diagnostics by its Founder. lulu.com (2018).

"innate intelligence" determines human health as much as "universal intelligence" governs the cosmos; the discovery of the "innate intelligence" was in his view a discovery of the first order, a *reflection of a critical law that God used to govern natural phenomena* (see footnote 2).

Palmer's gospel spread fast. By 1925, more than 80 chiropractic schools had sprung up in the US. Most were mere "diploma mills" promising an easy way to make money. Chiropractors believed they had established their own form of science, which emphasized observation rather than experimentation, a vitalistic rather than mechanistic philosophy, and a mutually supportive rather than antagonist relationship between science and religion. The gap between conventional medicine and chiropractic soon widened from a fissure into a canyon.

Such rivalry was not confined to conventional medicine, but extended also to osteopaths. DD Palmer taught his students: *don't do anything as an osteopath does* (see footnote 4). Some osteopaths asserted that chiropractic was a bastardized version of osteopathy (see footnote 1). In papers dated 1899 and held at the Palmer College of Chiropractic DD Palmer admitted to have 'borrowed' from osteopathy:

Some years ago I took an expensive course in Electropathy, Cranial Diagnosis, Hydrotherapy, Facial Diagnosis. Later I took Osteopathy [which] gave me such a measure of confidence as to almost feel it unnecessary to seek other sciences for the mastery of curable disease. Having been assured that the underlying philosophy of chiropractic is the same as that of osteopathy...Chiropractic is osteopathy gone to seed.⁶

In 1924, BJ Palmer introduced the neurocalometer, a heat-sensing instrument purported to detect subluxation.⁷ The instrument was advertised as a remarkable innovation with multiple uses and advantages:

The Neurocalometer is a very delicate, sensitive instrument which, when placed upon the spine:

- 1 Verifies the proper places for adjustments.
- 2 It measures the specific degree of vertebral pressures upon nerves.
- 3 It measures the specific degree of interference to transmission of mental impulses as a result of vertebral pressure.
- 4 It proves the exact intervertebral foramina that contains bone pressure upon nerves.

⁶Leach, Robert: *The Chiropractic Theories: A Textbook of Scientific Research.* Lippincott, Williams and Wilkins. 2004, p. 15.

⁷Keating JC Jr. Introducing the Neurocalometer: a view from the Fountain Head. *J Can Chiropr Assoc.* 1991;35(3):165–178.

- 5 It proves when the pressure has been released upon nerves at a specific place.
- 6 It proves how much pressure was released, if any.
- 7 It verifies the differences between cord pressure or spinal nerve pressure cases.
- 8 It establishes which cases we can take and which we should leave alone.
- 9 It proves by an established record which you can see thereby eliminating all guesswork on diagnoses.
- 10 It establishes, from week to week, whether you are getting well or not.
- 11 It makes possible a material reduction in time necessary to get well, thus making health cheaper....(see footnote 7)

In reality, the neurocalometer was a useless scam. Yet, BJ forced all his followers to lease it at exorbitant costs. It has been called a model of unethical promotions in health care, (see footnote 7) and divided the Universal Chiropractors' Association thus precipitating the formation of the National Chiropractic Association (NCA), forerunner of today's American Chiropractic Association.

Critical voices were soon raised against chiropractic. In 1924, Henry Louis Mencken (1880–1956) published an essay on chiropractic, many aspects of which are still relevant today⁸:

This preposterous quackery [chiropractic] flourishes lushly in the back reaches of the Republic, and begins to conquer the less civilized folk of the big cities. As the old-time family doctor dies out in the country towns, with no competent successor willing to take over his dismal business, he is followed by some hearty blacksmith or ice-wagon driver, turned into a chiropractor in six months, often by correspondence... [Chiropractic] pathology is grounded upon the doctrine that all human ills are caused by pressure of misplaced vertebrae upon the nerves which come out of the spinal cord — in other words, that every disease is the result of a pinch. This, plainly enough, is buncombe. The chiropractic therapeutics rest upon the doctrine that the way to get rid of such pinches is to climb upon a table and submit to a heroic pummeling by a retired pianomover. This, obviously, is buncombe doubly damned...

The first article on chiropractic listed in 'Medline', the world's largest database of medical papers, was published in 1913 in the 'California State Journal of Medicine'9:

⁸Available at https://www.chirobase.org/12Hx/mencken.html.

^{9&}quot;Chiropractic" modesty. Cal State J Med. 1913;11(6):213.

Some people are really so terribly modest that it is a mystery how they can live, or even be willing to live, in a world so filled with pushing braggarts and rampant commercialism. For example, note the list of things that E. R. Blanchard D.C., (graduate chiropractor), intimates that he can cure:

"Adhesions, anemia, asthma, appendicitis, blood poison, bronchitis, backache, biliousness, catarrh, constipation, chills and fever, diabetes, dropsy, dizziness, drug and alcohol habits, diarrhoea, deafness, eczema, eye diseases, female diseases, gallstones, gravel, goitre, hay fever, indigestion, lumbago, locomotor ataxia, malaria, nervousness, neuralgia, paralysis, piles, pneumonia, rickets, ruptures, rheumatism, St. Vitus' dance, suppressed or painful menstruation, scrofula, tumors, worms, bed wetting and other child's diseases, leucorrhoea, or whites, stricture, emissions, impotence and many other diseases."

This is almost as long a list as that compiled by the wealthy and admired Law brothers in connection with what they say they can cure with the wonderful Viavi, that prize of all fakes!

Chiropractors' distain for the medical profession is evident in DD Palmer's early texts: physicians deal with the physical only; chiropractors with both the physical and the spititual (see footnote 4). The American Medical Association (AMA) had always insisted that all competent healthcare providers must have adequate knowledge of the essential subjects such as anatomy, physiology, pathology, chemistry, and bacteriology. By that token, the AMA claimed, chiropractors were not fit for practice.

Prosecutions against chiropractors for practising medicine without a licence, often instigated by state medical boards, became increasingly common. By 1930, about 15,000 chiropractors had thus been taken to court. In turn, chiropractors started conducting political lobbying to secure licensing statutes. They eventually succeeded in all US states, from Kansas in 1913 to Louisiana in 1974. In turn, chiropractors accused doctors of merely defending their lucrative patch and claimed that orthodox science was morally corrupt and lacked open-mindedness. They attacked the "germo-anti-toxins-vaxiradi-electro-microbioslush death producers" and promised a medicine "destined to the grandest and greatest of this or any age (see footnote 2)." Eventually, the escalating battle against the medical establishment was won in what chiropractors like to call "the trial of the century." In 1987, the U.S. medical establishment were found "guilty of conspiracy against chiropractors". ¹⁰

But such victories came at the price of "taming" and "medicalizing" chiropractic, a process that formed the basis of a conflict within the chiropractic

¹⁰US judge finds medical group conspired against chiropractors, New York Times, 29 August 1987.

profession: the dispute between "mixers" and "straights", a conflict which continues to the present day. Put simply, the "straights" religiously adhere to Palmer's notions of the "innate intelligence" and view subluxation as the sole cause and manipulation as the sole cure of all human disease. They do not mix any non-chiropractic techniques into their therapeutic repertoire, dismiss physical examination (beyond searching for subluxations) and consider medical diagnosis irrelevant for chiropractic. The "mixers" are somewhat more open to science and the advances of conventional medicine, use various treatments other than spinal manipulation, and tend to see themselves as back pain specialists. DD and BJ Palmer warned that the "mixers" were polluting and diluting the sacred philosophy of chiropractic. Much of the endless wrangling within the chiropractic profession during the 20th century was due to this tension. Even today, many straight chiropractors agree that the mixers are a discredit to chiropractic.

The International Chiropractic Association represents the "straights" and the American Chiropractic Association the "mixers." What unites all is a determination to dominate healthcare across the globe. In 2019, the World Federation of Chiropractic published their strategic plan for 2019–2022¹¹:

The World Federation of Chiropractic (WFC) envisions a world in which people may enjoy universal access to chiropractic so that populations may thrive and reach their full potential. We exist to support and empower chiropractors and chiropractic associations throughout our 7 world regions to realize this vision by promoting the chiropractic profession and the benefits of the services that chiropractors provide...

In Chap. 3, I will discuss how far this 'universal access' to chiropractic has progressed.

Box 2.1

Mr William Harvey Lillard was cleaner of the Ryan Building where D. D. Palmer's magnetic healing office was located. In 1895, he became Palmer's very first chiropractic patient and thus entered the history books. The foundations of chiropractic are based on this story.

¹¹Document available at https://www.wfc.org/website/images/wfc/docs/Strategic_Plan_2019-2022/WFC_STRATEGIC_PLAN_2019-2022.pdf.

DEAF SEVENTEEN YEARS.

I was deaf 17 years and I expected to always remain so, for I had doctored a great deal without any benefit. I had long ago made up my mind to not take any more ear treatments, for it did me no good.

Last January Dr. Palmer told me that my deafness came from an injury in my spine. This was new to me; but it is a fact that my back was in jured at the time I went deaf. Dr. Palmer treated me on the spine; in two treatments I could hear quite well. That was eight months ago. My hear ing remains good.

HARVEY LILLARD, 320 W. Eleventh St., Davenport, Iowa.

[Testimony of Harvey Lillard regarding the events surrounding the first chiropractic adjustment, printed in the January 1897 issue of the Chiropractor]

The nerve supply of the inner ear, the structure that enables us to hear, does not, like most other nerves of our body, run through the spine; it comes directly from the brain: the acoustic nerve is one of the 12 cranial nerves. Therefore, it is not plausible that spinal manipulation might cure deafness. In other words, the story of the 1st chiropractic cure is bogus.

Box 2.2

DD Palmer's description of his cure of a patient with heart disease

Shortly after this relief from deafness, I had a case of heart trouble which was not improving. I examined the spine and found a displaced vertebra pressing against the nerves which innervate the heart. I adjusted the vertebra and gave immediate relief—nothing "accidental" or "crude" about this. Then

I began to reason if two diseases, so dissimilar as deafness heart trouble, came from impingement, a pressure on nerves, were not other disease due to a similar cause, Thus the science (knowledge) and art (adjusting) of Chiropractic were formed at that time. I then began a systematic investigation for the cause of all diseases and have been amply rewarded.

Box 2.3

Milestones in the life of DD Palmer

1845, 7 March: birth in Port Perry, Canada.

1865, 3 April: Palmer family immigrate to the US.

1867: DD Palmer starts as a teacher in Concord, Iowa.

1869, November: DD and his younger brother TJ become beekeepers in Letts, Iowa.

1871, 20 January: DD marries Abba Lord who calls herself a 'psychometrist, clairvoyant physician, soul reader and business medium'.

1872, 6 July: DD publishes an article in the 'Religio-Philosophical Journal' calling himself an 'atheist'.

1872: DD later states that he started his career as a 'healer' during this period.

1873: Abba leaves DD and later becomes a 'homeopathic physician' in Minneapolis.

1876, 7 October: DD marries Louvenia Landers, a widow; they have 4 children together.

1878, 19 April: the Palmer's 5-month old daughter dies.

1878, May: DD is elected president of the 'Western Illinois and Eastern Iowa Society of Bee Keepers'.

1880: DD publishes a pamphlet about spiritualism and refers to himself as a 'spiritualist'.

1881: BJ Palmer is born; he later takes over the chiropractic business and is often referred to as the 'developer of chiropractic'.

1882: DD sells his beekeeping business, moves to What Cheer, lowa where the rest of his family live.

1883, 30 May: DD opens a grocery store in What Cheer.

1884, 20 November: Louvenia dies of consumption.

1885, February: DD sells his grocery store and 'moves on'.

1885, 25 May: DD marries Martha Henning. The marriage is short-lived; on 8 July of the same year, DD posted a public notice in the 'What Cheer Patriot' disowning her.

1885: DD moves back to Letts where he teaches at the local school.

1886: DD moves to Iola, Kansas where he practices as a magnetic healer and calls himself 'Dr Palmer, healer'.

1886, 3 September: DD advertises his services as a 'vitalist healer' in Burlington, lowa.

1887, 9 October: DD advertises 'dis-ease is a condition of not ease, lack of ease', a theme that he later uses for chiropractic.

1887, 25 October: one of DD's patients has dies and there is an inquest. The local paper describes DD with the term 'dense ignorance' and the coroner states that 'we censure the so-called doctor, DD Palmer, attending physician, for his lack of treatment and ignorance in the case'. DD leaves Burlington to avoid persecution (a new law requires all healers to register with the state medical board. DD does not have such a registration).

1887: DD moves to Davenport and advertises: DD Palmer, cures without medicine...'

1888, 6 November: DD marries Villa; they stay together until her death in 1905.

1894: DD publishes his views on smallpox vaccination: '...the monstrous delusion ... fastened on us by the medical profession, enforced by the state boards, and supported by the mass of unthinking people ...'

1894: DD publishes his views on 'greedy doctors' and the 'medical monopoly'.

1895, January: DD starts a business selling goldfish.

1895, 18 September: DD administers the 1st spinal manipulation to Harvey Lillard (DD later seems confused about this date stating that this 'was done about Dec. 1st, 1895').

1896, 14 January is the date when, according to DD, chiropractic received its name with the help of Reverent Weed.

1896: DD publishes an article in 'The Magnetic' stating 'the magnetic cure: how to get well and keep well without using poisonous drugs'.

1896: DD publishes his theory that bacteria cannot grow on healthy tissue; keeping tissue healthy is therefore the best prevention against infections; and this is best achieved by magnetic healing.

1896: DD claimed that 4 years earlier, in 1892, he had discovered the magnetic cure for cancer; it involved freeing the stomach and spleen of poisons.

1896: DD formulates his concept of treating the root cause of any disease.

1896, 10 July: DD, his wife and his brother turn the 'Palmer School of Magnetic Cure' in Davenport into an officially registered corporation.

1897: DD defines chiropractic as 'a science of healing without drugs'.

1898: DD opens his first school of chiropractic in Davenport, the 'Palmer School of Chiropractic' which has survived to the present day.

1902, 27 April: DD first uses the term 'subluxation' in a letter to his son BJ ('... where you find the greatest heat, there you will find the subluxation causing the inflammation which produces the fever...').

1902: DD leaves suddenly for California, apparently to open a West Coast branch of the Palmer School; he stays for about two years and then returns to Davenport leaving behind substantial debts.

1902, 6 September: DD is arrested in Pasadena when a patient suffering from consumption dies after DD's second adjustment; in October, the charges were dropped because of a technicality.

1903: DD opens the 'Palmer Chiropractic School in Santa Barbara, California, together with his former student Oakley Smith.

1903 DD is charged with practising medicine without licence but, before the case comes to trial, DD moves to Chicago where he opens a school together two other chiropractors (Smith and Paxson); however, the project fails.

1903, 30 April: DD is back in Davenport for the wedding of BJ with Mabel.