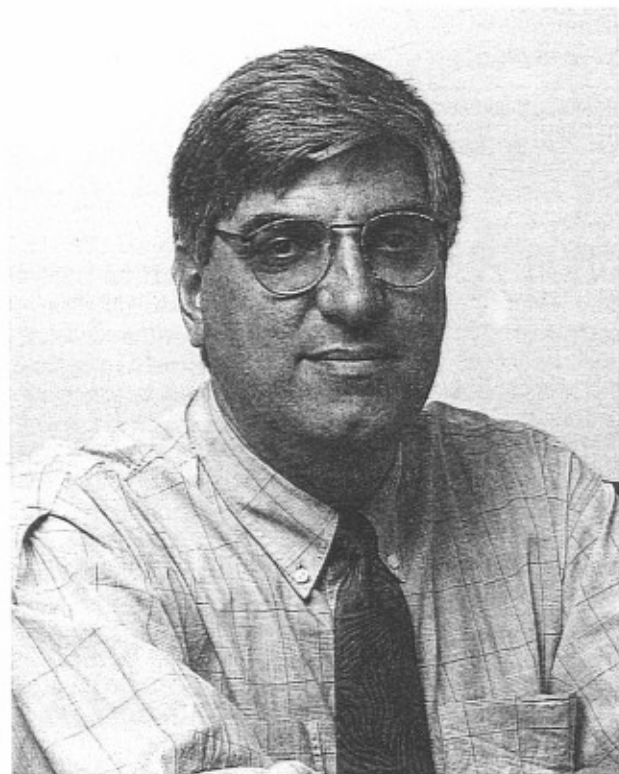


Profile



Dr. Howard Vernon BA, DC, FCCS(C)
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Dr. Howard Vernon is a 1977 graduate of CMCC. Prior to coming to the Chiropractic College, Dr. Vernon completed his Hons. B.A. at York University. Treatment by one of the world's leading chiropractors, Dr. Ronald Gitelman, introduced Dr. Vernon to the profession. He counts it as one of the real blessings of his career that he had the opportunity to work closely and establish great friendships with Dr. Gitelman and his good friend, Dr. Adrian Grice, another giant in chiropractic education.

Upon graduation, Dr. Vernon entered the CMCC Clinical Sciences Residency, working closely with Dr.'s Grice,

Gitelman, and Robert Johnston. He completed the program in 1979 and sat his Chiropractic Clinical Sciences Fellowship exam in 1981. He was actually elected President of this organization in the following year, proving that wisdom was not a prerequisite for that job.

In 1984 he was appointed as the Assistant to the Dean in charge of the CMCC Research Board and in 1986 he was appointed as Director of Research by another of his mentors, Dr. Ian Coulter. Since that time, he has developed numerous research and clinical programs at CMCC; he has authored over 50 scientific articles, 12 of which have been published in prestigious non-chiropractic scientific journals; he has become an Editorial Board member of the *Journal of Manipulative and Physiologic Therapeutics*, the *Journal of the Canadian Chiropractic Association*, the *European Journal of Chiropractic* and the *Journal of the Neuromusculoskeletal System*. He also edited the 1988 textbook on "the Upper Cervical Syndrome: Chiropractic Diagnosis and Management" which included a number of CMCC and FCCS authors.

Dr. Vernon is a member of the International Association for the Study of Pain, the Canadian Pain Society and the World Cervicogenic Headache Society.

In 1993 he was awarded as the FCER Researcher of the Year and, in 1997, he was awarded as the CCA Researcher of the Year. He has also received the annual Vernon family "Father of the Year" award for the last 19 years running.

He has lectured widely in scientific forums, both chiropractic and biomedical, and in continuing education programs throughout the US and Europe. He has never developed a special technique nor named a chiropractic system after himself. He discourages disciples, although he will accept anonymous donations.

His research career has been varied and multi-faceted, including aspects of both basic and clinical sciences. His main research interests are in the area of pain, more generally, and in the cervical spine, more specifically.

In 1986, he and his colleagues published the results of a

small randomized, controlled trial of the effect of a cervical manipulation as compared to a mobilization and a controlled test on plasma beta-endorphin levels, showing evidence of a slight elevation 5 minutes following the manipulation. A 1991 study provided evidence of the improvement in pressure pain threshold levels (a measure of paraspinal tenderness) with a cervical manipulation as compared to a mobilization procedure. These studies provide support for the importance of the manipulative articular release in the reduction of pain and tenderness in cervical pain patients. In 1991, Dr. Vernon, along with his colleague Dr. Sil Mior, published a study on the Neck Disability Index (NDI). At that time, this questionnaire became the only instrument available to measure self-rated disability due to neck pain, particularly from whiplash-type injury. This instrument has become widely recognized and used in clinical trials, private practices and outcomes measures texts. Dr. Vernon presented an update of the NDI at the 1995 PMRF Conference on Neck Pain and Headache in Banff AB, the proceedings of which were published in a text by Haworth Press, making the NDI even more widely recognized.

In 1992 and 1996, Dr. Vernon published articles on the measurement of neck strength in normal and neck pain subjects with a modified sphygmomanometer dynamometer. In the second paper, the device used was a simple hand-held instrument devised by a Saskatchewan chiropractor – Dr. Al Schulte. Both devices were found to be highly reliable. Normals and sincere neck pain patients were found to be able to provide consistent measurements on repeated trials. Neck pain subjects had significantly lower values than normal subjects. They also had a greater reduction of cervical flexor muscle strength as compared to the strength of the extensors – the flexor-extensor ratio – than normals.

Both the NDI and original strength assessment study were cited in the 1995 Quebec Task Force Report on Whiplash-Associated Disorders as valid and useful measures for whiplash patients. In a recent article published in the *Journal of the Canadian Pain Society* (Pain Research and Management), NDI scores in chronic whiplash patients were compared to neck range of motion scores and found to be moderately highly correlated, possibly indicating that pain, impairment and disability are more closely linked in chronic whiplash sufferers than was previously thought.

Dr. Vernon's main area of clinical research interest has been in headaches. In 1982, he published a prospective study of chiropractic manipulation for tension and migraine headaches, showing very high levels of benefit and patient satisfaction with chiropractic care. He has since authored several more papers reviewing the literature on the chiropractic treatment of headache, including a 1985 article in the *JCCA*, a 1989 article in the *Journal of Manual Medicine*, articles in 1992 and 1995 in the *JMPT* and several book chapters including one in his 1988 textbook. He was also the principle author of a 1992 study which demonstrated that both migraine and tension-type headache sufferers had similarly high levels of cervical myofascial and joint dysfunction (chiropractic subluxation) findings, further strengthening the role of the cervical spine in these benign but important forms of headache.

His most recent work centers around a large-scale randomized, placebo-controlled clinical trial of chiropractic and medical care for Episodic Tension-Type Headache. As preparation for this clinical trial, which is a collaborative effort between researchers at CMCC and the Sunnybrook Health Sciences Center in Toronto, several smaller studies are currently underway or completed:

- 1 A systematic review of clinical trials for drug therapy of tension-type headache.
- 2 A systematic review of clinical trials of amitriptyline for tension-type headache.
- 3 A systematic review of clinical trials of complementary medicine treatments for tension-type headache, including chiropractic manipulation, mobilization, acupuncture, physiotherapy and homeopathy.
- 4 A survey of Ontario family medicine physicians in their management of tension-type headache.
- 5 A survey of chiropractic Clinical Specialists in their management of tension-type headache (completed).
- 6 The development of reliable and valid simulated spinal manipulation procedures for use in future randomized controlled clinical trials.

The large-scale proposal is expected to be funded by the Ontario Ministry of Health and has received preliminary support from the Ontario Chiropractic Association and the National Chiropractic Mutual Insurance Company (US), as well as from CMCC. This study will involve a large sample of tension-type headache sufferers who will be randomized to receive combinations of real or simulated chiropractic as well as real or placebo medication. The

trial will run for 6 weeks, with three treatments per week. We hope to determine if chiropractic treatment is more effective than placebo; if amitriptyline is better than placebo; and, if the combination of real chiropractic and medication is more effective than either treatment alone. This is not a study comparing chiropractic vs. medication. The study will likely last about three years. It has already resulted in CMCC researchers developing excellent collaborative ties with headache researchers in several prestigious settings.

Dr. Vernon is also involved in two other exciting collaborative projects. The first involves his work with University of Toronto, Faculty of Dentistry pain researchers, led by a world-leader in the field, Dr. Barry Sessle. This work involves the development of an animal model of upper cervical deep tissue pain and its effects on cranio-cervical muscles as well as upper cervical pain processing in the spinal cord. Since this area of the cord also participates in pain transmission in the head, this work is aimed at elucidating the mechanisms whereby upper cervical spinal joint dysfunction produces referred pain to the head, in other words, cervicogenic headache. This collaboration has already resulted in the publication of eight papers in prestigious journals such as *Pain*. For a time, this

project had received funding from the Foundation for Chiropractic Education and Research. It has received ongoing funding from CMCC in the form of support for the primary U of T researcher, Dr. James Hu.

The other exciting collaboration is with University of Waterloo researchers, led by Dr. Stuart McGill. CMCC has successfully established the UW/CMCC Research Clinic in the Applied Health Sciences Research Unit at UW. Along with developing a successful Resident-based treatment clinic in the University setting, this clinic has provided an opportunity to conduct studies of the biomechanical issues related to chiropractic such as range of spinal motion, EMG and torque studies of the spine before and after chiropractic treatment. This clinic represents the fruition of a long history of successful collaboration with UW researchers, particularly Dr. Robert Norman and Dr. McGill.

As CMCC inches forward toward affiliation with York University, the future of chiropractic research in Canada has never looked brighter. The Canadian Chiropractic Association has taken a strong leadership role in supporting this development, and CMCC looks forward to providing leadership to an invigorated Canadian Chiropractic scientific community.

The Canadian Chiropractic Association acknowledges with deepest gratitude the contributions of Dr. Vernon to the research community. His dedication and commitment to excellence provide a beacon of inspiration in meeting the challenges of our profession.