

Profile



Jean B. Boucher, PhD, FACSM

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Dr. Boucher graduated from a bachelor degree in exercise science in 1978, and a masters degree in human performance in 1980 from Laval University in Quebec city. Working as a research assistant in Dr. Pierre P. Lagassé's laboratory in the last year of his bachelor degree, made him realise how much more there was to learn and that he wanted to learn as much as he could about the control of human performance. He then went on to the University of Massachusetts where he worked with Dr. Kroll on his PhD. in exercise science, specialised in neuromuscular control, from which he graduated in 1984. During the last

year of his doctorate, he was recruited by the Kinanthropology department of the University of Quebec in Montreal, where he has been teaching functional anatomy, in the physical education undergraduate program, and statistics, in the graduate program specialised in neurokinetics. Since then, he was promoted to the rank of full professor in 1994. That same year, he became a Fellow of the American College of Sports Medicine (FACSM), an international and multidisciplinary college dedicated to the advancement of sports medicine in which he became active in 1980.

His graduate work lead to the development of techniques in functional electrical stimulation, called modelled electrical stimulation. This work, supported by different granting agencies (such as NSERC) and other groups (such as the Spinal Cord Society), brought Dr. Boucher to focus his research on clinical problems such as spinal cord lesions and overuse dysfunction. For the past several years, understanding the evaluation and treatment of patello-femoral dysfunction became one of his major areas of research. It is this focus on clinical applications that led chiropractors to be interested in his work and, in turn, for Dr. Boucher to be fascinated by chiropractic research questions.

The fundamental question driving Dr. Boucher's research in general is the following: What is the relationship existing between a physical and physiological stimuli applied to the human system and the neurophysiological and functional adaptations that ensues? The chiropractic treatment, consisting essentially into the application of mechanical stimuli to the system, lent itself well to addressing that question. That's why, when he was approached, first, by Drs. Charbonneau and Desmarais, he made sure that they would be accepted in the masters program in neurokinetics and that a new chiropractic research program would be started in his laboratories. A 2-month stay at LACC, made possible by Drs. R. Phillips and A. Adams, during a sabbatical leave in 1990, confirmed the importance of chiropractic research in Dr. Boucher's research priorities.

Since then, the “*Ordre des Chiropraticiens du Québec*”, the “*Association des Chiropraticiens du Québec*”, and the “*Fondation Chiropratique du Québec*”, have supported different research projects conducted by Dr. Boucher’s research group. He is presently involved in organising the “**Chiropractic research group on cervical care**”. This research group involves 15 researchers (PhD, DC, and MD) from three universities under the administrative leadership of the “*Fondation Chiropratique du Québec*” and co-ordinated by Drs. Boucher and Pierre B. Boucher of the University of Quebec in Trois-Rivières. The general research objectives pursued by Dr. Boucher and this research group are the following: further our understanding of the chiropractic treatment and evaluation in order to (1) increase the understanding, (2) increase the efficiency, (3) protect the patients and chiropractors, and (4) develop new methodologies and technologies for the chiropractic community.

Through the years, Dr. Boucher also got involved in the accreditation process of chiropractic colleges in Canada. He was invited to be part of visitation teams organised by the CCE Canada. He was then part of the process that renewed the accreditation for CMCC and the initial accreditation for the chiropractic program at the University of Quebec in Trois-Rivières.

Partial list of publications related to chiropractic research

- Leroux A, Lefebvre R, Poumarat G, Guillot M, Vannelville G, Boucher JP. Vastus medialis: anatomical and functional consideration and implications. *J Manipulative Physiological Therapeutics*. (submitted for publication).
- Hébert J, Boucher JP. Effect of manual segmental vibration on neuromuscular excitability. *J Manipulative Physiological Therapeutics* 1998; 21(8):528–533.
- Leroux A, Poumarat G, Boucher JP. Quadriceps femoris function investigated through electrical stimulation. *J Athletic Training* 1997; 32(2):115–118.
- Boucher JP, Chapter 3 – Training and Exercise Science. In C. Liebensen (ed.), *Rehabilitation of the spine – A practitioner’s manual*. Baltimore: Williams & Wilkins, 1996:45–56.
- Leroux A, Bélanger M, Boucher JP. Pain effect on monosynaptic and polysynaptic reflex inhibition. *Archives Physical Medicine Rehabilitation*, 1995; 76:576–582.
- Siatras T, Poumarat G, Boucher JP, Le Flohic J-C. Normal and paralyzed muscle force and fatigability induced by electrical stimulation. *J Manipulative and Physiological Therapeutics* 1994; 17(5):321–328.
- Boucher JP, Hodgdon JA. Anatomical, mechanical, and functional factors in patello-femoral pain syndromes. *Chiropractic Sports Medicine* 1993; 7(1):1–5.
- Lefebvre R, Boucher JP, King MA, Cyr A. Patello-femoral dysfunctions and the vastus medialis: activation and reactivation considerations. In *Proceedings of the 1993 International Conference on Spinal Manipulation*, FCER: Arlington, VA, 1993, 22–23.
- Leroux A, Boucher JP, Lefebvre R. Patello-femoral dysfunctions and the vastus medialis: anatomical and functional considerations. In *Proceedings of the 1993 International Conference on Spinal Manipulation*, FCER: Arlington, VA, 1993, 24–25.
- Desmarais F, Boucher JP. Anatomical, mechanical and functional characterization of sacroiliac fixation. In *Proceedings of the 1993 International Conference on Spinal Manipulation*, FCER: Arlington, VA, 1993, 53–53.
- Zarow F, Boucher JP, Hsieh J. Anatomical, mechanical and functional characterization of chronic low back pain. In *Proceedings of the 1993 International Conference on Spinal Manipulation*, FCER: Arlington, VA, 1993, 54–55.
- Lefebvre S, Charbonneau M, Boucher JP. Modulation of segmental spinal excitability by mechanical stress upon the sacroiliac joint: preliminary report. In *Proceedings of the 1993 International Conference on Spinal Manipulation*, FCER: Arlington, VA, 1993, 56–57.
- Boucher JP, King MA, Lefebvre R, Pépin A. Quadriceps femoris activity in patellofemoral pain syndrome. *American J Sports Medicine*, 1992; 20(5):527–532.

- Boucher JP, Hodgdon JA. Anatomical, mechanical, and functional factors underlying over-use syndromes. In Proceedings of the International Conference on Spinal Manipulation, FCER: Arlington, VA, 134–138, 1991.
- Desmarais FL, Boucher JP. A lower limb asymmetry model: anatomical, mechanical, and functional factors. In Proceedings of the International Conference on Spinal Manipulation, FCER: Arlington, VA, 129–133, 1991.
- Boucher JP, Pépin A, Lefebvre R. Using the vastus medialis to vastus lateralis IEMG ratio as a neuromuscular imbalance index for the diagnosis of patello-femoral syndrome. In Proceedings of the International Conference on Spinal Manipulation, FCER: Arlington, VA, 274–281, 1990.
- Charbonneau M, Boucher JP. Segmental modulation of T and H reflexes and M wave following a chiropractic adjustment: a pilot study. In Proceedings of the International Conference on Spinal Manipulation, FCER: Arlington, VA, 393–398, 1990.
- Charbonneau M, Boucher JP, Geoffrion R. Quantitative evaluation of chiropractic adjustments of a sacroiliac joint upon asymmetries in weightlifting. In Proceedings of the International Conference on Spinal Manipulation, FCER: Arlington, VA, 138–141, 1989.

Chiropractic Research Journal Editors Council (CRJEC)

The Canadian Chiropractic Protective Association (CCPA) has provided a grant in the amount of \$10,000 CDN to the CRJEC. These funds will provide for travel expenses in order for the members to continue to meet annually and the CRJEC to administer its mandate. The CCPA has taken a leadership role in supporting the scientific chiropractic milieu, by promoting the awareness of scholarship, as well as promoting safe, effective and competent practice through responsible journalism. This cannot be accomplished any other way than through peer reviewed publications. The support of the CCPA minimizes conflicts of interest, perceived apprehension of bias, and enhances the absolute need for scholarly journal editors to remain completely independent from political influence.

It is vital to the profession that this Council continue to meet and exchange ideas and concepts, to remain a valid participant in the biomedical community. The absence of a synthesized strategy from our profession with respect to the scientific biomedical literatures is inconsistent with professional growth and maturity and would serve to marginalize and isolate the profession. The profession simply cannot afford to lose this specialized group and its collective experience. Scientific and scholarly journal editing requires shared expertise and mentoring currently

unavailable through any other means within the chiropractic profession.

The members of Council express their sincere gratitude to the Canadian Chiropractic Protective Association for providing the means allowing this group to discharge its duties.

Member Journals/Editors

Chiropractic History (Dr. John Willis),
Chiropractic Journal of Australia (Dr. Mary Ann Chance and Dr. Rolf Peters),
Chiropractic Research Journal (Dr. Sarah Webster),
Chiropractic Technique, Journal of Chiropractic Humanities, Journal of Manipulative and Physiological Therapeutics, Journal of Sports Chiropractic and Rehabilitation (Dr. Dana Lawrence),
European Journal of Chiropractic (Dr. Simon Leyson),
Journal of Chiropractic Education (Dr. Robert Ward),
Journal of the Canadian Chiropractic Association (Dr. Allan Gotlib),
Journal of the Neuromusculoskeletal System (Dr. Bill Meeker),
Topics in Clinical Chiropractic (Dr. Robert Mootz),
Topics in Diagnostic Radiology and Advanced Imaging (Dr. John Stites).

Dr. Allan Gotlib, DC
Chair/ CRJEC