



---

CANADIAN CHIROPRACTIC ASSOCIATION

---

*Chair* Dr. David Peeace, BSc, DC

---

JCCA STAFF

---

*Editor* Kent Stuber, DC, MSc  
Division of Graduate Education & Research  
Canadian Memorial Chiropractic College, Calgary, Alberta

*Editor Emeritus* Allan Gotlib, C.M., DC  
Toronto, Ontario

*Associate Editors* Jeffrey Quon, DC, PhD  
School of Population & Public Health  
Faculty of Medicine, University of British Columbia, Vancouver, British Columbia

André Bussi eres, DC, FCCS(C), PhD  
Faculty of Medicine, McGill University, Montr al, Qu ebec  
D partement chiropratique, Universit  du Qu ebec   Trois-Rivi eres, Trois-Rivi eres, Qu ebec

Dana J. Lawrence, DC, MMedEd, MA  
Palmer College of Chiropractic, Davenport, Iowa

*Assistant Editors* Pierre C t , DC, PhD  
University of Ontario Institute of Technology, Oshawa, Ontario

B. Kim Humphreys, DC, PhD  
Head of Chiropractic Medicine, Faculty of Medicine, University of Zurich and  
University Hospital of Balgrist, Zurich, Switzerland

Gregory N. Kawchuk, DC, PhD  
University of Alberta, Edmonton, Alberta

Mohsen Kazemi, RN, DC, MSc, FRCCSS(C), FCCPOR(C)  
Faculty of Clinical Education, Graduate Studies and Research,  
Canadian Memorial Chiropractic College, Toronto, Ontario

Jill Hayden, DC, PhD  
Department of Community Health & Epidemiology  
Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia

*Production Co-ordinator* Tami Ehrlich

*Advertising* Editor, Journal of the Canadian Chiropractic Association  
186 Spadina Avenue, Suite 6, Toronto, Ontario M5T 3B2  
Tel: 416-585-7902 877-222-9303 Fax: 416-585-2970  
Email: Dr. Kent Stuber <kstuber@jcca.ca>  
Website: www.jcca-online.org

---

TYPESETTING

---

Thistle Printing Limited  
35 Mobile Drive, Toronto, Ontario M4A 2P6

# JCCA

## Journal of the Canadian Chiropractic Association

*(Formerly the Canadian Chiropractic Association Journal)*

*Copyright Registered © by the Canadian Chiropractic Association 1961*

*Copyright: The Canadian Chiropractic Association, 2017*

All rights reserved. Without limiting the rights under copyright above, no part of this publication may be reproduced, stored in or introduced into any retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise), without the prior written permission with the copyright owner and the publisher.

Published by the Canadian Chiropractic Association and issued quarterly

EDITORIAL AND EXECUTIVE OFFICES,  
186 SPADINA AVENUE, SUITE 6, TORONTO, CANADA M5T 3B2

General Information: The Journal of the Canadian Chiropractic Association is the official quarterly publication by the Canadian Chiropractic Association. The JCCA is published quarterly by the Canadian Chiropractic Association as a medium of communication between the Association and its members and is a forum for fair comment and discussion of all matters of general interest to the chiropractic profession and the Association. Readers are invited to comment and express their opinions on relevant subjects. Views and opinions in editorials and articles are not to be taken as official expression of the Association's policy unless so stated. Publication of contributed articles does not necessarily imply endorsement in any way of the opinions expressed therein and the Journal and its publisher does not accept any responsibility for them. Business correspondence should be addressed to: the Editor of JCCA, 186 Spadina Avenue, Suite 6, Toronto, Canada M5T 3B2.

### INDEXING SERVICES

JCCA is indexed by PubMed Central, Scopus, CINAHL (Cumulative Index to Nursing and Allied Health Literature), MANTIS (formerly CHIROLARS), AMED, PASCAL, Index to Chiropractic Literature, and selectively by SPORTDiscus.

# Contents

JCCA Vol 61 No 3 ISSN 0008-3194 (Print) and ISSN 1715-6181 (Electronic)

## *Original Articles*

- 178 Research resource environment in Canada. Gathering knowledge in advance to inform chiropractic research priorities

Kent Stuber, BSc, DC, MSc

Greg Kawchuk, DC, PhD

Andre Bussi eres, DC, PhD

## **JCCA 60<sup>th</sup> Anniversary Issue**

### *Editorial*

- 184 The Journal of the Canadian Chiropractic Association's 60<sup>th</sup> Anniversary Issue: Time to consider the future

Kent Stuber, BSc, DC, MSc

### *Commentary*

- 186 Canadian Chiropractic Guideline Initiative (CCGI) progress and future directions: December 2017

Andr  Bussi eres, DC, PhD

### *Commentary*

- 190 Informing a research agenda for the Canadian chiropractic profession

Simon D French, PhD, MPH, BAppSc(Chiro)

Ronda Parkes, BFA

Paul Bruno, BHK, DC, PhD

Steven Passmore, Hons BKin, MS, DC, PhD

Jill A Hayden, PhD, DC

John Srbely, DC, PhD

Greg Kawchuk, BSc, DC, MSc, PhD

### *Commentary*

- 196 World Spine Care: providing sustainable, integrated, evidence-based spine care in underserved communities around the world

Geoff Outerbridge, DC, MSc

Stefan Eberspaecher, BSc, DC

Scott Haldeman, DC, MD, PhD, FRCP(C)

### *Commentary*

- 207 Developing clinical procedures to diagnose specific motor control impairments associated with low back pain: prone hip extension (PHE), active straight leg raise (ASLR), and gait variability

Paul Bruno, DC, PhD

# Contents

JCCA Vol 61 No 3 ISSN 0008-3194 (Print) and ISSN 1715-6181 (Electronic)

## *Commentary*

- 212 Our future in the hands of Millennials  
Michele Maiers, DC, MPH, PhD

## **8<sup>th</sup> Annual Sports Chiropractic Issue**

### *Editorial*

- 218 JCCA Special Issue December 2017 – Sports Chiropractic  
Mohsen Kazemi, RN, DC, MSc, FRCCSS(C), FCCPOR(C), PhD

### *Original Articles*

- 219 ‘I didn’t pay her to teach me how to fix my back’: a focused ethnographic study exploring chiropractors’ and chiropractic patients’ experiences and beliefs regarding exercise adherence  
Peter Stilwell, BKin, DC, MSc  
Katherine Harman, PT, PhD
- 231 Exercise as a vital sign: a preliminary pilot study in a chiropractic setting  
Scott Howitt, BA, CK, MSc, DC, FRCCSS(C), FCCPOR  
Kyle Simpson, BSc  
Darren Suderman, BKin  
Andrew Mercer, BHK  
Susan Rutherford, BA (Hons), MBA (HCM)  
Christopher deGraauw, DC, FRCCSS(C)
- 239 Concussion knowledge among Sport Chiropractic Fellows from the Royal College of Chiropractic Sports Sciences (Canada)  
Mohsen Kazemi, RN, DC, MSc., FRCCSS(C), FCCPOR(C), DACRB, PhD (Candidate)  
Mary Emma Bogumil, BA  
Khushboo Vora, BSc. Kin
- 253 Conservative management of MRI-confirmed knee osteoarthritis with instrument-assisted soft-tissue mobilization, joint manipulation, and platelet-rich plasma  
Arif Karmali, BSc(Kin), DC
- 261 Osteochondral lesion of the distal tibial plafond in an adolescent soccer player: a case report  
Melissa Corso, BSc, MSc, DC  
Christopher deGraauw, DC, FRCCSS(C)  
William Hsu, BSc, DC, DACBR, FCCR(C)
- 269 Ganglion cyst of the wrist treated with electroacupuncture: a case report  
Jaclyn A. Kissel, BSc, DC, FRCCSS(C)  
Calvin Wong, BSc, MSc, DC

# Editorial Board

*Alan H Adams*, DC  
Texas Chiropractic College  
Pasadena, Texas

*Kelly E. Donkers Ainsworth*, DC, MD,  
FRCPC  
Staff Pediatric Radiologist  
McMaster University  
Hamilton, Ontario

*Carlo Ammendolia*, DC, PhD  
University of Toronto

*Samuel Bederman*, MD, PhD, FRCSC  
Department of Orthopedic Surgery  
University of California at Irvine  
Orange, CA

*Paul Bruno*, DC, PhD  
Faculty of Kinesiology and Health  
Studies  
University of Regina

*Brian Budgell*, DC, PhD  
CMCC

*Jason Busse*, DC, PhD  
McMaster University

*J David Cassidy*, DC, MSc, PhD, FCCS(C),  
Dr Med Sc  
University of Southern Denmark

*Scott Cheatham*, PT, DPT, PhD(C), ATC  
California State University  
Dominguez Hills  
Carson, California.

*Raphael K Chow*, MD, FRCPC(C)  
University of Toronto

*Colin M Crawford*, B App Sc (Chiro),  
FCCS(C), MSc, Grad Dip Neuro, MB BS  
Perth, Australia

*Edward Crowther*, DC, EdD  
International Medical University  
Kuala Lumpur, Malaysia

*Diana De Carvalho*, DC, PhD  
Memorial University  
St. John's, Newfoundland

*Martin Descarreaux*, DC, PhD  
Université du Québec à Trois-Rivières

*John A. Dufton*, DC, MSc, MD, FRCPC  
Staff Radiologist  
University Hospital of Northern  
British Columbia  
Prince George, British Columbia

*Peter Emary*, BSc, DC, MSc  
Cambridge, Ontario

*Mark Erwin*, DC, PhD  
University of Toronto

*Brian Gleberzon*, DC, MHSc  
CMCC

*Richard Goldford*, BSc, DC, MBA,  
FRCSS(C), FCCP(C)  
Toronto, Ontario

*Bart Green*, DC, MEd, DACBSP  
Naval Medical Center, San Diego  
San Diego, California

*David Gryfe*, BSc, DC, FRCSS(C)  
Etobicoke, Ontario

*François Hains*, DC, FCCS(C), MSc  
Dorval, Québec

*Scott Haldeman*, DC, MD, PhD, FRCPC(C)  
University of California  
Irvine, California

*Jill Hayden*, DC, PhD  
Dalhousie University  
Halifax, NS

*Walter Herzog*, PhD  
University of Calgary

*Thomas E Hyde*, BA, DC, DACBSP  
N Miami Beach, Florida

*Claire Johnson*, DC, MEd, DACBSP  
National University of Health Sciences  
Lombard, Illinois

*Mohsen Kazemi*, RN, DC, FRCSS(C),  
FCCP(C), MSc, PhD(c)  
CMCC

*Clark R Konczak*, MSc, DC, DABCO,  
FCCO(C), FRCSS(C)  
Victoria, BC

*Deborah Kopansky-Giles*, DC, FCCS(C),  
FICC, MSc  
St. Michael's Hospital  
Toronto, Ontario

*Doug M Lawson*, BA, DC, MSc  
D'Youville College

*Cynthia Long*, PhD  
Palmer Centre for Chiropractic  
Research  
Davenport, Iowa

*William C Meeker*, DC, MPH  
Palmer Chiropractic University System  
San Jose, CA

*Michelle Mick*, DC, DACBR  
St. Paul, Minnesota

*Silvano Mior*, DC, FCCS(C), PhD  
CMCC

*Robert D Mootz*, DC  
Associate Medical Director for  
Chiropractic, State of Washington  
Department of Labor and Industries  
Olympia, WA

*Bernadette Murphy*, DC, PhD  
University of Ontario Institute of  
Technology

*Martin Normand*, DC, PhD  
UQTR

*Jason Pajczkowski*, BSc, BS, DC,  
FRCSS(C), FCCP(C)  
CMCC

*John Papa*, DC, FCCP(C)  
New Hamburg, Ontario

*Steven Passmore*, DC, PhD  
Faculty of Medicine  
University of Manitoba

*Stephen Perle*, DC, MS  
University of Bridgeport  
Bridgeport, CT

*Reed B Phillips*, DC, PhD, DACBR  
Southern California University of  
Health Sciences

*Mathieu Piché*, DC, PhD  
UQTR

*John J Riva*, DC, MSc  
Department of Family Medicine  
McMaster University  
Hamilton, Ontario

*Sandy Sajko*, DC, MSc, RCCSS(C)  
Oakville, Ontario

*John Z Srbely*, DC, PhD  
University of Guelph

*Brynne Stainsby*, BA, DC, FCCS(C)  
CMCC

*Igor Steiman*, MSc, DC, FCCS(C)  
CMCC

*John S Stites*, DC, DACBR  
Palmer College of Chiropractic  
Davenport, Iowa

*John A M Taylor*, DC, DACBR, FCCR(C)  
D'Youville College  
Buffalo, NY

*Haymo Thiel*, DC, MSc (Orth), FCCS(C),  
Dip Med Ed, PhD  
Anglo-European College of  
Chiropractic  
Bournemouth, England

*Gabrielle M van der Velde*, BSc, DC,  
FCCS(C), PhD  
Toronto Health Economics  
and Technology Assessment  
Collaborative  
University of Toronto

*Marja J Verhoef*, PhD  
University of Calgary