

## Carolyn McMakin, MA, DC

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### EDUCATION

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- 1993**            **Doctor of Chiropractic, Magna cum Laude**  
Western States Chiropractic College - Portland, Oregon
- 1987 –1988**    **Portland State University**  
70 units upper division pre-med science
- 1983**            **Master of Arts in Counseling Psychology, Magna cum Laude**  
National University - San Diego, California
- 1968**            **Bachelor of Arts in Psychology**  
University of Santa Clara - Santa Clara, California

### RELATED EDUCATION

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- 2005**            Institute for Functional Medicine Neuroprotection Module, (24 hours)
- 2002, 2011, 2014**    Applying Function Medicine in Clinical Practice, (42 hours)
- 1999**            American Academy of Disability Examining Physicians Training Course (27 hours)
- 1993**            NIMMO Certificate, (40 Hours) Brian Whitfield, DC
- 1992**            Activator Seminars, Arlen Fuhr, DC
- 1992**            Cranio-Sacral Therapy I, Upledger Institute

### WORK EXPERIENCE

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- 2003 -**            President, Lecturer Frequency Specific Seminars
- 1996-**            Private practice, Fibromyalgia & Myofascial Pain Clinic of Portland
- 2005 - 2007**    Clinical Director; Integrated Pain Solutions, Portland, Oregon
- 2000 - 2002**    Postgraduate Faculty, National University of Health Sciences, Chicago, Illinois
- 1999 - 2004**    Certified Independent Chiropractic Examiner, American Board of Independent Medical Examiners
- 1999 - 2000**    Clinical Associate, Advanced Pain Management Group Portland
- 1997 - 2002**    Adjunct Clinical Professor, National College of Naturopathic Medicine
- 1994 - 2005**    Private Practice, Chiropractic Physician, Chiropractic Family Care
- 1993 - 1994**    Teaching Assistant; Western States Chiropractic College
- 1983 - 1994**    Part time private practice - clinical hypnosis, counseling
- 1971 - 1986**    Pharmaceutical Sales: Riker/3M, Ayerst Laboratories, McNeil Consumer Products

### PROFESSIONAL ACTIVITIES

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- 2017**            Author: The Resonance Effect, North Atlantic Books, Berkeley, CA
- 2016**            Presenter: Frequency Specific Microcurrent in PM&R, Sponsored by Kuwait Physical Medicine and Rehabilitation Society and Kuwait Ministry of Health, Category 1 CME
- 2015**            Presenter: International College of Integrative Medicine, Annual conference, Chicago  
Frequency specific microcurrent in inflammatory conditions, plenary lecture and pre-conference workshop  
Presenter: International Physical Medicine and Rehabilitation Conference, San Antonio  
Keynote: Effective treatment of myofascial trigger points  
Presentation: Non pharmacologic treatment of neuropathic pain
- 2014**            Presenter: Oregon Chiropractic Association Annual Convention: Evidence based practice. Over the counter drugs
- 2013**            Presenter: Oregon Chiropractic Association Annual Convention: Over the counter drugs.
- 2012**            Presenter: Logan Chiropractic College Post- graduate Education Homecoming  
What is it when it is not better in 12 weeks?

Published: Visceral and Somatic Disorders: Tissue Softening with Frequency Specific Microcurrent, McMakin C, Oschman J, Journal of Alternative and Complementary Medicine, 2012, Vol 18 Number 00, pp 1-8

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**2011** Author: Frequency Specific Microcurrent in Pain Management, Textbook for practitioners, Elsevier Science Press, Edinburgh  
Presenter: National Intrepid Center of Excellence, National Naval Medical Center, Bethesda, MD Outcomes in PTSD and TBI using Frequency Specific Microcurrent; Background and case report data.  
Contributing Author: Schleip et al, Fascia in Manual Therapy; Chapter 7.16 Elsevier, UK

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**2010** Published: The efficacy of frequency specific microcurrent therapy on delayed onset muscle soreness, Curtis D, Fallows S, Morris M, McMakin C, Journal of Bodywork and Movement Therapies; 2010; 14 (3): 272-9  
Presenter: Effective treatment of DOMS; European College of Sports and Exercise Physicians, London  
Published: Non-pharmacologic treatment of shingles, McMakin C, Practical Pain Management, 2010, Vol 10; 4; 24-29  
Published: Non-pharmacologic treatment of neuropathic pain using Frequency Specific Microcurrent, McMakin, C, The Pain Practitioner, Fall, 2010, pp 68-73

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**2009** Speaker: American Academy of Anti-Aging Medicine, San Jose, California  
Reducing liver enzymes with Frequency Specific Microcurrent  
Speaker: American Academy of Anti-Aging Medicine, Orlando Florida  
Non-pharmacologic Treatment of Neuropathic Pain  
Contributing author: Microcurrent and Qi in Chronic Fatigue Syndrome and Fibromyalgia - Energy Medicine East and West – A Natural History of Qi, Mayor and Micozzi, Elsevier Science Press, Edinburgh

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**2008** Speaker: 15<sup>th</sup> International Symposium Institute for Functional Medicine, Carlsbad, CA  
Non-pharmacologic Treatment of Neuropathic Pain  
Contributing author: "Microcurrent therapy in the treatment of Fibromyalgia"  
Fibromyalgia Syndrome: A practitioners Guide to Treatment, 3<sup>rd</sup> Edition, Leon Chaitow, Elsevier Science Press  
Speaker: Oregon Pain Society, Portland Oregon  
Non-pharmacologic Treatment of Neuropathic Pain  
Speaker: Grand rounds, Pain and Palliative Care Dept, National Institutes of Health, Bethesda, Non pharmacologic treatment of neuropathic and other pain syndromes  
Lecturer: FSM National Certification Course for Neuromuscular Therapists  
National Training Center, Dublin, Ireland

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**2007** Contributing author: Naturopathic Physical medicine Theory and practice for Manual Therapists and Naturopaths, Edited by Leon Chaitow, ND DO, Elsevier, 2007  
Speaker: International Congress on Natural Medicine, Gold Coast, Australia  
Frequency Specific Microcurrent applications for central nervous system dysfunction in mood and cognitive disorders  
Poster presentation: Abstract: "Retrospective Study of Frequency Specific Microcurrent Therapy for Low Back Facet Joint Pain" International Myopain Society, Washington, DC, August 2007

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**2006** Poster Presentation: Abstract: "Cytokine Changes with frequency specific microcurrent treatment of fibromyalgia associated with cervical spine trauma." North American Research Conference on Complementary & Integrative Medicine, Edmonton, Canada; May 2006  
Consulting Physician: Philadelphia Eagles, various NFL players and teams, MLB teams

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**2005** Published: "Cytokine changes with microcurrent therapy of fibromyalgia associated with cervical trauma." Journal of Bodywork and Movement Therapies, July 2005  
Speaker: International Congress on Natural Medicine, Brisbane Australia  
"Frequency Specific Microcurrent in Neurological and Neuro Inflammatory disorders"  
Speaker: National Neuromuscular Therapy Training Center, Dublin, Ireland  
"Frequency Specific Microcurrent in the treatment of neuromuscular conditions"

Speaker: Upledger Institute National Meeting; Beyond the Dura. Jupiter Beach Florida  
"Energetic Nature of Biological Tissue"

Speaker: Focus on Pain, Jefferson Medical School, Philadelphia, PA

"Cytokine changes with microcurrent treatment of fibromyalgia associated with cervical trauma"

Contract Physician: Philadelphia Eagles, NFL players and teams, MLB teams

President: Frequency Specific Seminars, CE provider US, Ireland, Australia

Contributing author: Textbook of Functional Medicine, Health effects of environmental radiation"

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**2004**

Poster presentation: Abstract: "Cytokine Changes with microcurrent treatment of fibromyalgia associated with cervical spine trauma." OHSU / NIH Fibromyalgia Conference, Washington, DC

Published: Abstract: Anti-inflammatory effects of interferential frequency-specific applied microcurrent. Reilly WG, Reeve VE, McMakin CR Proceedings of the Australian Health and Medical Research Congress

Published: "Microcurrent Therapy: A novel treatment method for chronic low back myofascial pain." Journal of Bodywork and Movement Therapies, 2004, 8, 143-153

Speaker: Upledger/Journal of Bodywork and Movement Therapies Symposium

"Comprehensive Treatment of Lumbar Spine Pain"

Speaker: SWIS, "Comprehensive Diagnosis and Treatment of Shoulder Injuries"

Speaker: American College for the Advancement of Medicine, national meeting

"Modulation of Inflammatory Cytokines with Frequency Specific Therapy"

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**2003**

Speaker: International Congress on Natural Medicine, Melbourne, Australia

Anti-inflammatory effects of Frequency Specific Microcurrent in a mouse model

Published: "The Use of Microcurrent and Autocatalytic Silver Plated Nylon Dressings in Human Burn Patients: A Feasibility Study", Huckfeldt, Mikkelson, Larson, Hammond, Flick, McMakin

Appointed International Advisory Board: Journal of Bodywork and Movement Therapies

Contributing author, "Microcurrent therapy in the treatment of Fibromyalgia"

Fibromyalgia Syndrome: A practitioners Guide to Treatment, 2<sup>nd</sup> Edition, Lleon Chaitow, Elsevier Science Press

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**2002**

Speaker: National Association Myofascial Trigger Point Therapists, National

Convention: Differential diagnosis and treatment of neuropathic pain and myofascial pain

Continuing Education Vendor, State of Oregon for DC's, ND's, MD's, PT's

Frequency Specific Microcurrent, Fibromyalgia; an Alternative View

Differential Diagnosis of Chronic Pain, Over the Counter Drugs in Clinical Practice

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**2001**

Speaker: Capitol University of Integrative Medicine, Georgetown Medical School, MD  
Microcurrent Therapies for Myofascial Pain and Fibromyalgia

Speaker: Texas Chiropractic Association Continuing Education Seminar

16 Hours continuing education - Fibromyalgia, Chronic pain differential diagnosis, Shoulder Diagnosis

Speaker: Fibromyalgia, Chronic Pain and Trauma Conference, Bristol, England

Speaker: Eighth International Symposium on Functional Medicine, Vancouver, BC

Endocrinologic Implications of Microcurrent Therapies in Fibromyalgia

Speaker: International Congress on Natural Medicine, Sydney, Australia

Advances in Pain Management, New Treatments for Fibromyalgia

Expert witness on Fibromyalgia, Federal Court, Montana

Continuing Education Vendor, State of Oregon for DC's, ND's, MD's, PT's

Frequency Specific Microcurrent, Fibromyalgia; an Alternative View;

Differential Diagnosis of Chronic Pain, Over the Counter Drugs in Clinical Practice

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**2000**

Speaker: The Seventh International Symposium on Functional Medicine, Scottsdale, AZ  
"Energy Medicine in Clinical Practice."

Speaker: Grand Rounds, National Institutes of Health, Bethesda Maryland

"Microcurrent treatment of spinal cord mediated pain and neuropathic pain."

Speaker: Anglo European Chiropractic College, British Chiropractic Association  
Joint Spring Conference, "Cervical Trauma and Chronic Pain."

Speaker: National Chiropractic College, Chicago, Illinois, Annual continuing education

"Fibromyalgia, an Alternative View"

Speaker: Comprehensive Management of Shoulder Complaints - Referred Pain in the Shoulder; An interdisciplinary seminar with Paul Puziss, MD, Kelly Barnes, PT, Charles Novak, DC  
Oregon continuing education vendor for DC's and ND's

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- 1999** Speaker; Seattle Fibromyalgia International Team - National Meeting  
"Fibromyalgia – an Alternative View"  
Clinician of the Month, Functional Medicine Update: Jeff Bland, Ph.D., HealthComm  
Certified Independent Chiropractic Examiner, American Board of Independent Medical Examiners  
Speaker Oregon Association of Naturopathic Physicians, Annual Continuing Education  
"Differential Diagnosis of Chronic Pain"
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- 1998** Published: "Microcurrent Treatment of Myofascial Pain in the Head, Neck and Face",  
*Topics in Clinical Chiropractic, Vol5, Number1, March 1998*
- 1997** American Back Society, Faculty 1997 Annual Scientific Meeting  
"Microcurrent Treatment of Resistant Myofascial Pain in the Lumbar and Cervical Spine."  
Founder: Frequency Specific Microcurrent®  
Continuing Education Vendor, State of Oregon for DC's and ND's  
Frequency Specific Microcurrent, Myofascial Pain; The Pain from Somewhere Else, Fibromyalgia; An Alternative View, Differential Diagnosis of Chronic Pain, Over the Counter Drugs in Chiropractic Practice
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- 1995** Executive Board, Secretary/treasurer; Chiropractic Association of Oregon  
Executive Board, Independent Alumni of WSCC
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- 1994** Executive Board, Secretary/Treasurer; Chiropractic Association of Oregon  
Executive Board Secretary; WSCC Alumni Association  
Speaker, American Association Naturopathic Physicians National Convention;  
"Language and Healing; Informal Hypnosis in Clinical Practice."
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- 1993** Published; "Interdisciplinary Symposium Creates Forum for DC's, MD's, ND's."  
*ACA Journal of Chiropractic, October 1993,*  
Presenter, American Chiropractic Assoc., State Relations Round Table, Washington, DC
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- 1989- 1993** Western States Chiropractic College Activities: Guest Lecturer: Patient Practice Management;  
Pharmacology, Gynecological examination student instructor, WSCC, OHSU Medical School
- 1989 – 1994** Founded and produced annual Interdisciplinary Health Care Symposium  
A full day work shop for students and licensed physicians, approved for continuing education credit, with speakers from OHSU medical school, National College of Naturopathic Medicine, and Western States Chiropractic College funded and supported by all three institutions. Organized and publicized the event and moderated the proceedings.

## PROFESSIONAL ASSOCIATIONS

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American Academy of Pain Management,  
International Myopain Society  
Institute for Functional Medicine,  
Advisory Board Journal of Bodywork and Movement Therapies  
Oregon Chiropractic Association