

Advancing Chiropractic Through Research

By John Mayer, D.C., Ph.D., Lincoln College Endowed Chair, University of South Florida

The FCA Journal is pleased to bring to you this new department that will give you brief, pointed updates on the latest in chiropractic research and what it can mean for you and your patients. You don't have to sift through long research journals to know the latest and greatest findings for application to your practice. Dr. Mayer will distill the findings from top international research forums and published studies in a convenient format to benefit you. Enjoy!

Last October, I eagerly started my appointment as the Lincoln College Endowed Chair in Biomechanical and Chiropractic Research at the College of Medicine, University of South Florida. I am grateful to hold this position, which is the inaugural chiropractic endowed research chair housed in a college of medicine in the United States. Special thanks are extended to Senator Dennis Jones DC, Florida Chiropractic Association, Lincoln College Education and Research Fund, Florida Chiropractic Foundation, and University of South Florida for making this appointment possible.

Chiropractic research and the Lincoln Chair could not ask for a better home. The University of South Florida is a growing, dynamic university with visionary leaders, and was recently ranked as a Carnegie Tier 1 research university. The Lincoln Chair / University of South Florida partnership truly is a groundbreaking venture that is filled with immense opportunities and challenges for the chiropractic profession.

The biomechanical and chiropractic research program that is being estab-

lished through the Lincoln Chair / University of South Florida partnership is part of an international movement to transform the chiropractic profession through research to build evidence-based practices. This program will focus on conducting translational and clinical research pertinent to chiropractic on the assessment, prevention, and treatment of chronic spinal disorders and related neuromusculoskeletal disorders. Projects underway or planned include:

- **Interventions.** Developing and testing promising therapies that chiropractors can use clinically, such as exercise therapies and heat therapies. This research will also lead to studies about how these interventions work in combination with each other and with spinal manipulation.
- **Outcome instruments.** Developing and testing valid, efficient, and cost-effective strategies to assess clinical outcomes related to physical function.
- **Psychosocial aspects.** Assessing doctors' and patients' perceptions of outcomes for the treatment of spinal pain disorders.

Keep your eyes open for the January 2008 issue of *The Spine Journal*, which is a special focus issue on “Evidence informed management of chronic low back pain without surgery.” I was part of a team of spine practitioners and researchers, including other chiropractors, who contributed articles to this issue. **The best available evidence and most up to date information for 25 categories of non-surgical interventions for chronic low back pain are summarized in this issue using narrative and systematic review methodologies.** The information from this issue will be useful for you to present to your patients, identify topics for future projects, and learn how chiropractic and related interventions fit within the broader world of spine care. **In an upcoming article, I will review the findings of the special issue, emphasizing how these findings relate to chiropractors and chiropractic patients.**

I look forward to being an active part of chiropractic community in the State of Florida and to providing research-related

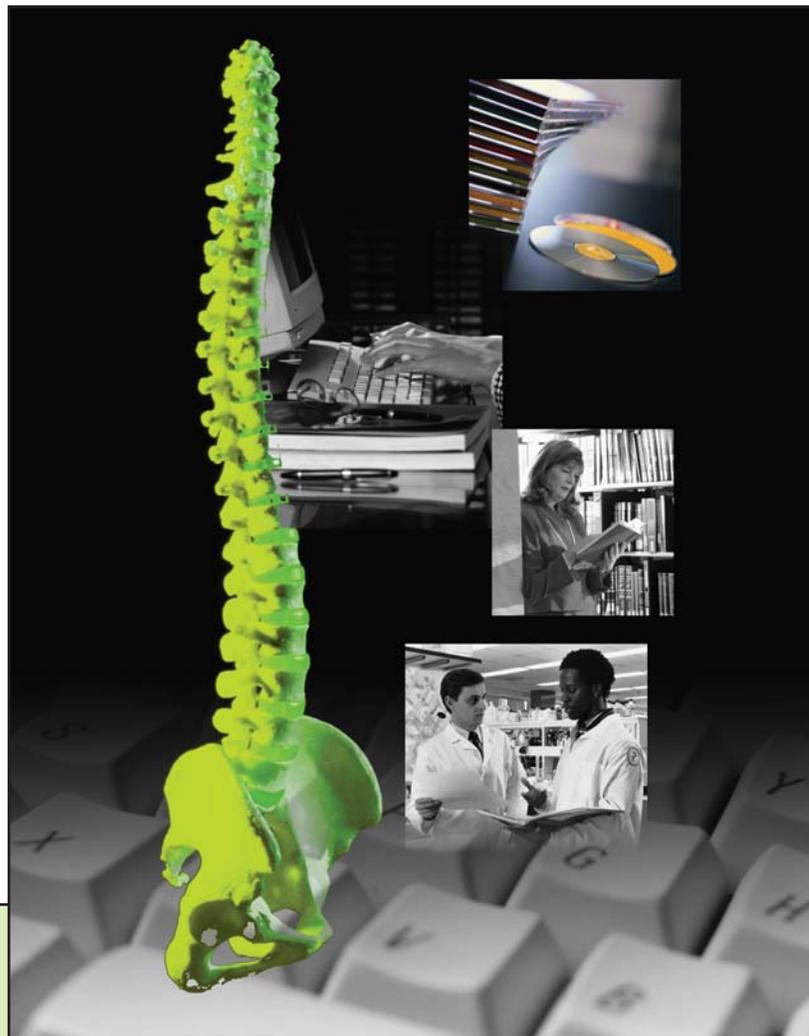


Table 1 Research Study

For treating acute low back pain, is a McKenzie-style exercise program enhanced by adding low-level heat wrap therapy?

A recent study¹ assessed the efficacy of combining continuous low-level heat wrap therapy with directional preference-based (i.e. McKenzie-style) exercise for the treatment of acute low back pain. In this study, 100 individuals with acute low back pain were randomized to one of four groups: Heat wrap therapy alone (heat wrap; n = 25); directional preference-based exercise alone (exercise, n = 25); combination of heat wrap therapy and exercise (heat+exercise, n = 24); or control (booklet, n = 26). Treatment was administered for five consecutive days and included four visits to the study center over one week. At one week, functional improvement for heat+exercise was 84%, 95%, and 175% greater than heat wrap, exercise, and booklet, respectively (p < .05). Disability reduction for heat+exercise was 93%, 139%, and 400% greater than heat wrap, exercise, and booklet, respectively (p < .05). Pain relief for heat+exercise was 70% and 143% greater than exercise and booklet, respectively (p < .05).

This study suggests that combining continuous low-level heat wrap therapy with directional preference-based exercise during the treatment of acute low back pain offers additional benefits compared with either intervention alone or control. Either intervention alone tends to be more effective than control. Although larger, confirmatory studies are needed, chiropractors can use this information to develop more effective treatment strategies for the care of acute low back pain.

1) Mayer JM, Ralph L, Look M, Erasala GN, Verna JL, Matheson LN, Mooney V. Treating acute low back pain with continuous low-level heat wrap therapy and/or exercise: a randomized controlled trial. *The Spine Journal* 2005;5(4):395-403.

information on a regular basis which can benefit you in your daily practice. A “research sidebar” provided with each of my articles this year will point to some latest-and-greatest research study that may directly benefit you and the care of your patients. [◀FCA](#)

John Mayer, D.C., Ph.D. is the Lincoln College Endowed Chair in Biomechanical and Chiropractic Research at the University of South Florida and may be contacted at jmayer2@health.usf.edu. He came to USF from San Diego, CA, where for the last seven years he has directed research for the U.S. Spine & Sport Foundation, a non-profit research and education organization. He was also an adjunct research faculty member in the Department of Biology at San Diego State University.

Dr. Mayer has been an investigator for several projects funded by commercial and federal agencies, including the National Institutes of Health. He helped develop and test several functional assessment and treatment models for low back pain, including a model to experimentally induce low back muscle soreness with strenuous exercise. He studies how muscle activity relates to the cause, prevention and treatment of low back pain, focusing on the role of medical exercise in physical rehabilitation.