

## EDITORIAL

### 589 Advancing Osteopathic Medicine Through Musculoskeletal Health Research

Michael A. Seffinger, DO

## SPECIAL REPORT

### 591 Using Manual and Conventional Therapies to Enhance Musculoskeletal Health: Highlights of The Osteopathic Research Center's 10th Anniversary Conference

John C. Licciardone, DO, MS, MBA

## ORIGINAL CONTRIBUTIONS (continued)

### 607 Precompetition Manipulative Treatment and Performance Among Virginia Tech Athletes During 2 Consecutive Football Seasons: A Preliminary, Retrospective Report

Per Gunnar Brolinson, DO; Michael Smolka, DO; Mark Rogers, DO, MA; Suporn Sukpraprut, PhD, MA, MSc; Michael W. Goforth, MS, ATC; Greg Tilley, DC; and Keith P. Doolan, MS, ATC

Some athletes have claimed that manipulative treatment (eg, osteopathic manipulative treatment) before a game can improve athletic performance. The authors retrospectively investigated the effects of precompetition manipulative treatment on athletic performance. Participants were self-selected Division I football players.

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## ORIGINAL CONTRIBUTIONS

### 596 Associations of Cytokine Concentrations With Key Osteopathic Lesions and Clinical Outcomes in Patients With Nonspecific Chronic Low Back Pain: Results From the OSTEOPATHIC Trial

John C. Licciardone, DO, MS, MBA; Cathleen M. Kearns, BA; Lisa M. Hodge, PhD; and Michael V.W. Bergamini, PhD

The OSTEOPATHic Health outcomes In Chronic low back pain Trial (OSTEOPATHIC Trial) was a randomized controlled trial designed to study the effects of osteopathic manual treatment in managing chronic low back pain. In this article, the authors report the baseline cytokine concentrations in patients with chronic low back pain; the correlations of these cytokine concentrations with clinical measures, including the number of key osteopathic lesions; the changes in cytokine concentrations with osteopathic manual treatment; and the association of such changes with clinical outcomes.

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## BRIEF REPORT

### 617 The Biology of Manual Therapies

Brian C. Clark, PhD; James S. Thomas, PT, PhD;  
Stevan A. Walkowski, DO; and John N. Howell, PhD

Can manual therapies disrupt the pain-spasm-pain cycle? The authors review 4 studies testing this research question and offer a conceptual model of how such treatment affects the skeletal muscles and muscle spindles.

## CLINICAL IMAGES

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Charles S. Pavia, PhD  
Gul Madison, MD

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Solomon M. Pearce, DO

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## About the Cover

In April 2012, in honor of its 10th anniversary, The Osteopathic Research Center hosted a conference, *Using Manual and Conventional Therapies to Enhance Musculoskeletal Health*. This issue of the *JAOA* includes several articles relating to that conference. On page 591, John C. Licciardone, DO, MS, MBA, provides an overview of the conference. Beginning on page 596, readers can find 3 studies based on presentations made during the conference.

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