

## Science News

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### Hands-On Treatment Improves Chronic Low Back Pain, Reduces Medication Use

*Mar. 18, 2013* — The numbers are staggering. More than 632 million people worldwide suffer from low back pain, and it is a leading cause of disability. According to the Institute of Medicine, one-third of all Americans suffer from chronic pain, which exceeds the number of people who are affected by heart disease, diabetes and cancer combined. In the United States alone, approximately 100 million adults are affected by chronic pain, and the economic costs of medical care and lost productivity total more than \$550 billion annually.

"Chronic low back pain is an important component of these costs," said John Licciardone, D.O., executive director of The Osteopathic Research Center at the UNT Health Science Center in Fort Worth (UNTHSC) and author of a study published today in the *Annals of Family Medicine*. "Our research offers hope in the form of a hands-on treatment that provides moderate to substantial improvement in pain, and that reduces the use of prescription medication."

This study, conducted at UNTHSC, used osteopathic manual treatment (OMT) and ultrasound therapy to treat chronic low back pain in 455 adults. Patients in the study who received ultrasound therapy did not see any improvement, but the patients who received OMT did see significant improvement in pain, used less prescription medication and were more satisfied with their care over the 12 weeks of the study than those patients who did not receive OMT.

In study patients who received OMT, nearly two thirds had a 30 percent reduction in their pain level, and half had a 50 percent reduction in their pain level. Patients received six treatments during the course of the study.

"One of the great benefits of OMT is that it has few side effects compared with other common treatments for low back pain that often involve serious side effects," Licciardone said. "In our study, patients who had higher levels of pain saw even greater reductions in pain. Thus, not only does OMT work to reduce pain, it seems to work even better in people who experience higher pain levels. These are the very people who are often treated with potentially addictive drugs such as OxyContin and Vicodin, epidural steroid injections or surgery. If we can reduce the use of these drugs and invasive procedures by helping people to feel better with a hands-on treatment that has few side effects, that is a plus for our patients, and it makes a significant contribution to the management of chronic pain."

Licciardone explained, "People will frequently ask how OMT is different from chiropractic care or physical therapy. While some of these techniques may be similar to those used in our study, our comprehensive approach using a combination of techniques that were aimed at the lower back and adjacent body regions, provided more pain relief when compared to results of previous studies." "For more than 100 years, osteopathic physicians have focused on the relationship between structure and function in the human body. Using these interrelationships to diagnose and treat patients has helped patients get better, and now we have scientific evidence that these methods produce moderate to substantial benefits in treating chronic low back pain, which is notoriously difficult to manage," he added.

Licciardone concluded, "Now that we have evidence of moderate to substantial pain relief and a reduction in the use of prescription medications over 12 weeks, we need to look at a longer follow-up period to see if we can maintain or improve these results."

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The UNT Health Science Center comprises the Texas College of Osteopathic Medicine, Graduate School of Biomedical Sciences, School of Public Health, School of Health Professions and the UNT System College of Pharmacy (opening in fall 2013). Key research areas include aging and Alzheimer's disease, applied genetics, primary care and prevention.

In addition to its flagship school, the Texas College of Osteopathic Medicine, the UNT Health Science Center houses The Osteopathic Research Center, which is a leading research center in osteopathic medicine focusing on the effectiveness of OMT and other distinct aspects of osteopathic medical care.