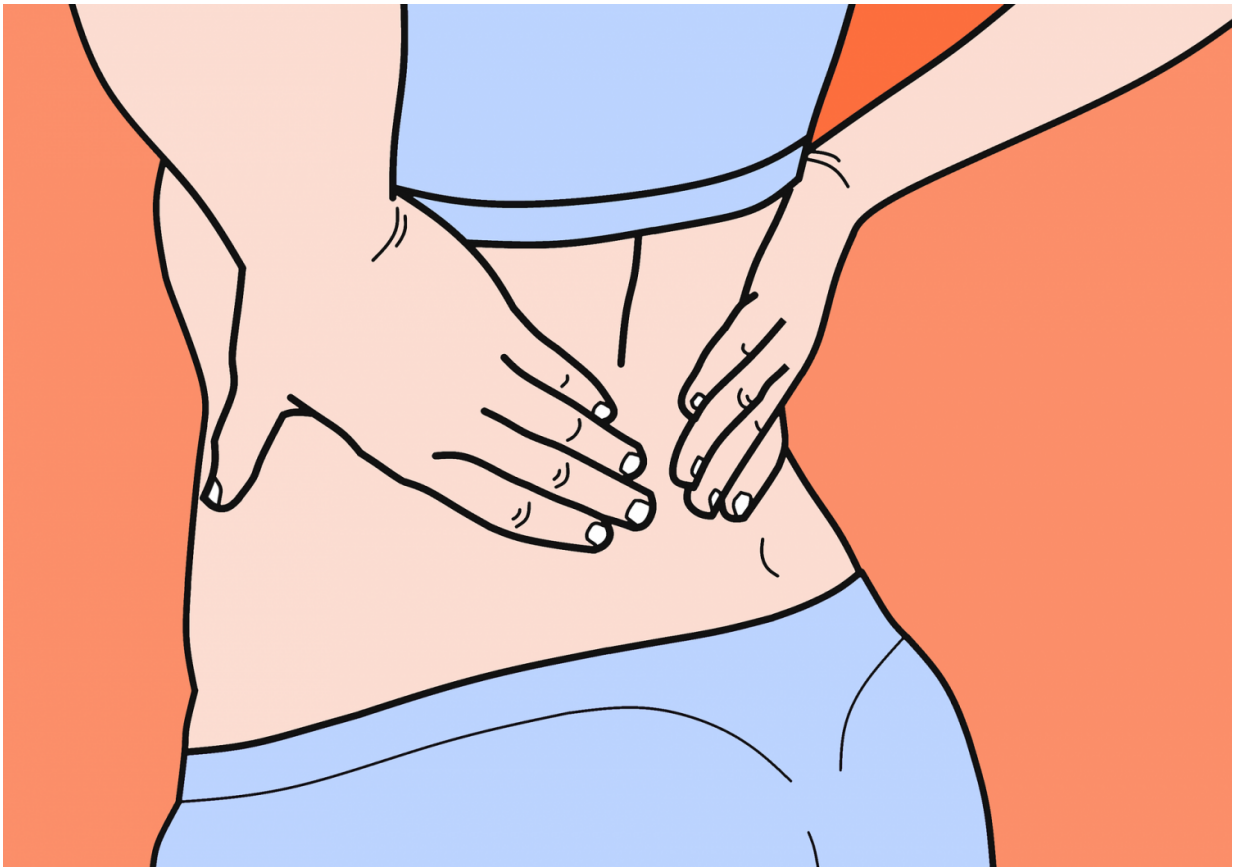


# Diaphragm linked to chronic low back pain, study shows

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Researchers of the Physical Therapy and Medicine departments of the CEU Cardinal Herrera University recently published a study on patients

with chronic, non-specific low back pain, in which they conducted the first clinical trial of the effectiveness of osteopathic manual therapy with or without specific techniques on the diaphragm. The results have been published in *Archives of Physical Medicine and Rehabilitation*. About 69 percent of the Spanish population is said to be suffering chronic lower back pain for a period of over three years, which makes lumbago the most common cause that forces Spaniards to take time off work, and the main cause of disability in under-45s.

The study developed by the Physical Therapy and Medicine researchers of the UCH CEU compared the effectiveness of both types of treatments with osteopathic manual therapy, with and without affecting the diaphragm, performing them on a total 66 people who suffer chronic non-specific [low back pain](#).

The [patients](#) were divided into two groups and received five sessions a week of one treatment or the other, for four weeks. Participating patients were evaluated both right after the treatments, and 12 weeks later.

The results revealed significant improvement among both groups of patients for the different variables measured in the study: [pain](#), disability, fear, pain avoidance, anxiety levels and depression or chronic pain catastrophising. However, the most significant improvement came from the group whose low back pain therapy included techniques that affected the diaphragm.

The researchers write, "The difference among both groups reached the clinically significant minimum difference level in the follow-up of patients after three months. Therefore, our results suggest that the addition of intervention specifically aimed at the diaphragm muscle within a protocol of osteopathic manual therapy adds clinically relevant benefits compared to the isolated application of the protocol, which is

already effective by itself in patients with chronic non-specific low back pain."

**More information:** Mireia Martí-Salvador et al. Osteopathic manipulative treatment including specific diaphragm techniques improves pain and disability in chronic non-specific low back pain: a randomized trial, *Archives of Physical Medicine and Rehabilitation* (2018). [DOI: 10.1016/j.apmr.2018.04.022](https://doi.org/10.1016/j.apmr.2018.04.022)

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