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Presented by Katie Gravesen, DC

New Review Study: Bed Rest Not Good for Back Pain

Doctors of chiropractic, like Dr. Gravesen, have long been critical of advising bed rest for all patients with low-back pain (LBP). However, the outdated notion that bed rest helps speed recovery persists among many medical practitioners, despite a wealth of research to the contrary.

Now a major review study by the prestigious Cochrane Library confirms what doctors of chiropractic typically advocate: Most patients with low-back pain should stay as active as possible. This comprehensive study is exciting news, which Dr. Gravesen wants to share with patients. Read on for a full explanation of the report.

Who conducted the study?

The review was conducted by four researchers in Oslo, Norway. The lead author, Kristin Thuve Dahm, is a researcher at the Norwegian Centre for the Health Services.

Where was the study published?

The study appears in *The Cochrane Library*, a publication of the Cochrane Collaboration, a highly respected international organization that evaluates medical research. Cochrane reviews draw conclusions about healthcare practices after considering both the content and quality of existing studies on a topic.

Who was included in the analysis?

The review pooled data from 10 trials that met stringent criteria for quality. In total, the study included 1,923 people with acute low-back pain (LBP). “Acute” pain is defined as lasting for less than six weeks.

The analysis evaluated patients both with and without sciatica. Although the term “sciatica” is often applied to low-back pain that radiates down one or both legs, the reviewers defined it

as “low-back pain accompanied by signs of nerve compression or damage, like numbness, tingling or weakness in the leg.”

What were the results of the report?

The comparison between bed rest and normal activity for low-back pain without sciatica used data from three

studies that included 481 patients. All three found improvements in pain intensity with both treatments, with no significant differences between them.

One of the studies, however, involved a highly specific group of patients — 80 young combat trainees who were hospitalized for their back pain — “and thus, it’s applicability to the general population is questionable,” the authors note.

When the reviews pooled data from the other two studies, patients who stayed active experienced reductions in pain that were more significant, although the difference was “of limited clinical importance,” they add. The difference in pain persisted at follow-up 12 weeks later.

The same two studies found significantly greater improvements in the ability to function in the group that stayed active, four weeks and 12 weeks after treatment.



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In comparing treatments for sciatica, the reviewers analyzed data from two studies of 348 patients. No difference existed in pain intensity, directly after treatment or 12 weeks later, between sciatica patients who received advice to stay active and those whose doctors prescribed bed rest. Similarly, there was no difference between groups in patients' ability to function.

The reviewers also compared bed rest and activity with other treatments. Pooled data of three studies including 931 low-back pain patients found little or no difference in pain or ability to function between patients on bed rest and those prescribed exercises.

Similarly, results of a single trial with 186 patients suggested that "exercises add no clinically relevant benefit for patients with acute low-back pain when compared to advice to stay active."

They came to the same conclusion about physiotherapy compared to either bed rest or activity for sciatica, from a single study involving 167 patients.

What did the study conclude?

The study's authors write that "moderate quality evidence shows that patients with acute LBP may experience small improvements in pain relief and ability to perform everyday activities if they receive advice to stay active compared to advice to rest in

bed. However, patients with sciatica experience little or no difference between the two approaches."

"Low quality evidence suggests those patients with or without sciatica experienced little or no difference in pain relief or function, regardless of whether they received advice to stay active, exercises or physiotherapy."

What does this all mean for patients?

Although the study found only a small improvement in pain for patients who stay active, it is important to keep in mind that pain is only part of the story. Bed rest is associated with deterioration in muscle strength and function.

For instance, the investigators point out that research done in the 1950s showed that people lose 2 percent to 5 percent of their strength *per day* of bed rest.

Inactivity inhibits physical fitness, in turn restricting the immune response and limiting the body's ability to heal. Prolonged immobilization causes muscles to weaken and promotes the formation of scar tissue, which may spawn future disorders of the muscles and joints.

In addition, lack of movement inhibits the production of the nutritional medium that "feeds" joints called synovial fluid. Over weeks or months, a deficiency of synovial fluid may up a patient's risk of developing osteoarthritis.

What are experts saying?

"Normal daily activity seems to be the best way for patients with low-back pain to get better," says Kristin Thuve Dahm, a researcher at the Norwegian Centre for the Health Services and lead author of the review.

"The available evidence neither supports nor refutes that advice to stay active is better than resting in bed for people with sciatica," Dahm adds. "However, considering that bed rest is associated with potential harmful side effects, we think it is reasonable to advise people with sciatica to stay active."

"Everyone is fairly convinced there's not much benefit to bed rest," adds Joel Press, MD, professor in physical medicine and rehabilitation at the Feinberg Northwestern School of Medicine in Chicago.

In general, Press said, "we're almost always better moving than not moving. Structures in your back get their nutrition from movement; they have no real vascular system and are supplied with blood by motion, soaking it up like little sponges."

Where can I read the study?

The free study abstract is available at www.thecochranelibrary.com. The full-text study may be ordered through the Cochrane Library. The full citation of the study is: Dahm KT, et al. *Advice to rest in bed versus advice to stay active for acute low-back pain and sciatica*. The Cochrane Database of Systematic Reviews 2010, Issue 6.

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