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# RAPID RESEARCH

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December 2021

## Inside This Week: Exercise for Low Back Pain



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- ✓ Manipulation & Exercise for Chronic Low Back Pain

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  - ✓ Exercise for Acute Low Back Pain

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  - ✓ Most Effective Exercise Types for Low Back Pain



# MANIPULATION & EXERCISE FOR CHRONIC LOW BACK PAIN

[Click for Full Text](#)  
[\(Shulz et al 2019\)](#)

This randomized controlled trial assessed effectiveness of adding spinal manipulative therapy (SMT) or a supervised exercise program (SEP), to a home exercise program (HEP), compared to HEP alone, for adults 65 years of age and older with low back pain.





# KEY FINDINGS

230 participants completed treatments over **12-weeks**.

**Pain outcomes** were collected at 4, 12, 26, and 52 weeks.

Group differences in **pain over 1 year not statistically significant**.

**Pain severity** was **reduced by 30 to 40%** after treatment in **all 3 groups** with the largest difference favoring SMT and home exercise over home exercise alone.

1 year **post-treatment pain reductions diminished in all 3 groups**.

Satisfaction with care in the SMT and SEP groups were **consistently superior** to home exercise alone.

## MAIN TAKEAWAYS

Adding spinal manipulation or supervised rehabilitative exercise to home exercise alone **does not appear to improve pain or disability outcomes**.

This was the case in both the short- or long-term in older adults with chronic LBP.

However it did **improve satisfaction of care**.

# EXERCISE FOR ACUTE LOW BACK PAIN

[Click for Full Text](#)  
[\(Karlsson et al. 2020\)](#)

This umbrella review assessed the overall evidence for the effects of exercise therapy, compared with other interventions, on pain, disability, recurrence, and adverse effects in adult patients with acute low back pain.



# KEY FINDINGS

Of 134 articles, 24 systematic reviews included.  
21 randomized controlled trials with 2685 participants.  
**Methodological quality** ranged from low to high.

## **Exercise therapy was categorized into:**

General exercise therapy  
Stabilization exercise  
McKenzie therapy.

**No difference in pain or disability** when exercise was compared with:  
Sham ultrasound, Usual care, Spinal manipulative therapy, Advice to stay active or with Educational booklet.

**Neither McKenzie therapy nor Stabilization exercise** yielded any important difference in effects compared with other types of exercise therapy.

# MAIN TAKEAWAYS

Very low-to-moderate certainty evidence suggests:  
Exercise therapy provides **little or no important difference for pain or disability** for acute LBP, compared with other interventions.

It is **uncertain whether stabilization exercise** in the acute phase reduces the risk of recurrence.

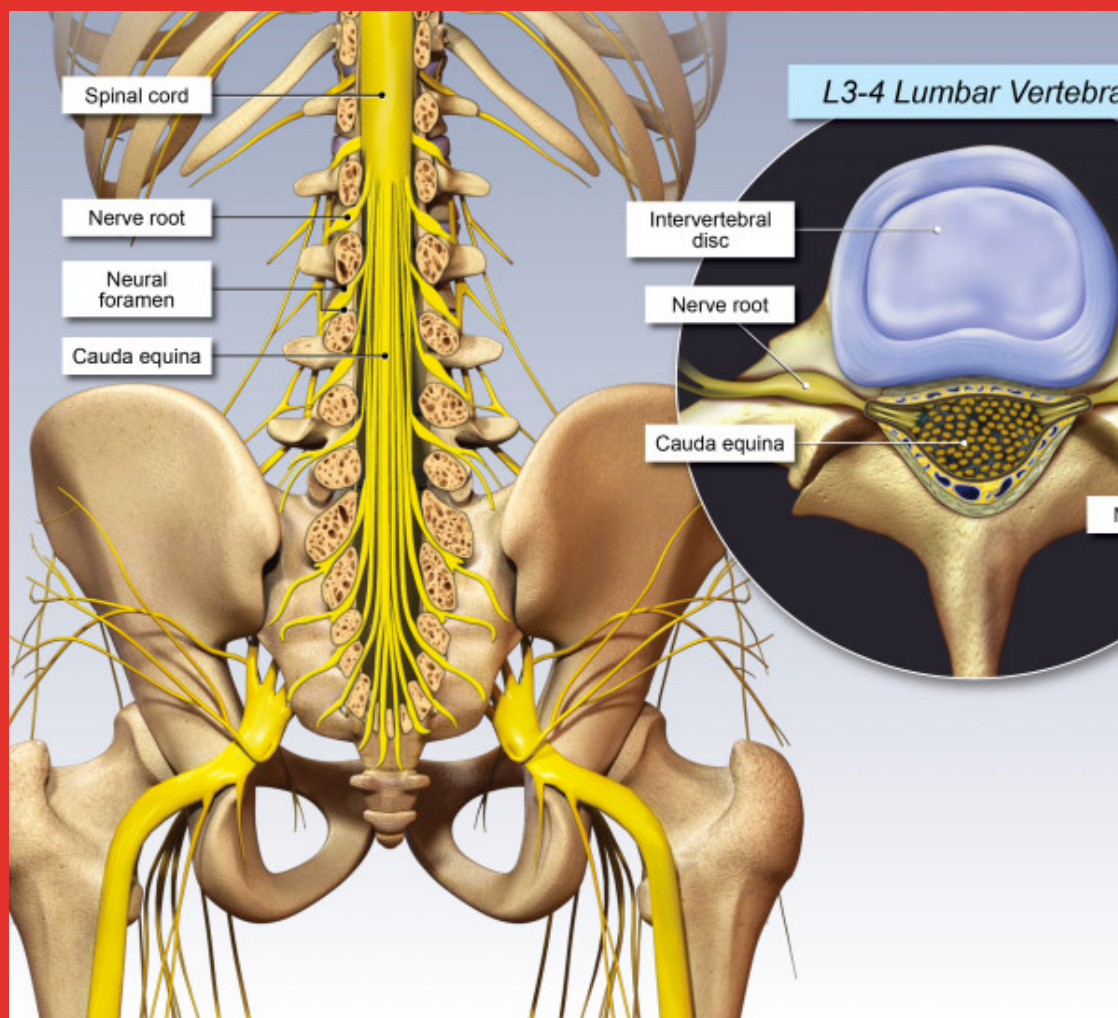
Adverse effects seem rare.

This knowledge should be communicated to the patient, together with other treatment options, so that a fully informed, joint decision about treatment can be made.

# MOST EFFECTIVE EXERCISE TYPES FOR LOW BACK PAIN

[Click for Full Text  
\(Owen et al. 2020\)](#)

This systematic review assessed the effectiveness of specific kinds of exercise training in adults with non-specific Chronic Low Back Pain (CLBP)



## **89 studies with 5578 patients;**

70 (Pain), 63 (Physical Function), 16 (Mental Health), 4 (Trunk Muscle Strength).

## **Exercise Types with Highest Probability of Best Outcomes:**

Pilates for Pain

Resistance & Stabilization/motor control for Physical Function

Resistance & Aerobic for Mental Health.

## **Most Likely to be Worst Treatment for All Outcomes:**

True Control

Therapist hands-off (control) for Pain and Physical function

Therapist hands-on (control) for Mental Health

Stretching and McKenzie exercise did not differ to true control for pain or function.

Quality of the synthesized evidence was low.

# MAIN TAKEAWAYS

Pilates, stabilization/motor control, aerobic and resistance exercise training are possibly the most effective treatments for adults with non-specific chronic low back pain.

Exercise training may also be more effective than hand-on therapist treatments.



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