

## Applying yoga and pilates in a comprehensive intervention plan for low back pain

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**Purpose:** The purpose of this review of literature was to determine if the practice of yoga and/or Pilates are effective treatments for low back pain.

**Background:** Low back pain is one of the most prevalent musculoskeletal conditions, affecting many Americans every year. Many individuals are turning to complementary therapies in order to treat their low back pain. Two popular alternative therapies that individuals have begun to practice are yoga and Pilates. Pilates and yoga have become increasingly popular over the past several years within the general population. Currently, some rehabilitation professionals have been integrating yoga and Pilates into their practice for the treatment of low back pain. Yoga is known as a mind-body therapy that blends components of the physical, mental and spiritual realms in order to induce harmony within the individual. Pilates is a unique approach to training the mind-body awareness and control of movement and posture. We are reviewing the literature in order to determine how effective yoga and Pilates are in the treatment of low back pain.

**Methods:** A search for evidence based literature was conducted using the engines Proquest, Google Scholar, First Search, and Medline. Full text articles were obtained from these online sources through the Saint Francis University interlibrary loan program. We reviewed and analyzed 14 studies and all of these demonstrated significant benefits in patients with low back pain.

**Results:** The evidence supports that both yoga and Pilates can successfully aid in the treatment of low back pain. Several different practices of yoga have been studied throughout the years and have been proven to be effective treatments. Hatha yoga, Iyengar yoga, and Yin yoga were shown to improve balance and flexibility, decrease disability and improve functional status. Similarly, Pilates has shown to reduce functional disability in individuals with low back pain. Pilates has been shown to strengthen the deep stabilizers, such as the multifidus and transversus abdominus, which are often an underlying cause of low back pain. In two studies, the Pilates groups had a better compliance rate than other forms of treatment. Superior improvement in symptoms and better satisfaction with the treatment contributed to this improved compliance. Outcome measures used included the Oswestry low back pain scale, RMVAS, SF-12, NRS-101, RMQ and VAS. Throughout all of the studies, participants did not indicate any adverse effects, making both yoga and Pilates safe interventions for individuals with low back pain.

**Relevance:** Yoga and Pilates have been shown to be effective in decreasing low back pain in the patient populations studied. Due to this evidence, yoga and/or Pilates may be suggested to patients experiencing low back pain. Also, clinicians can educate their patients on how yoga and/or Pilates can be used as preventative measures to strengthen core musculature and increase stability of the low back.

**Conclusion:** The limited evidence that is available on the efficacy of yoga and Pilates indicates that they are beneficial treatment programs for individuals with low back pain. Future research is warranted to determine the effectiveness of yoga and Pilates on individuals who are not physically active.

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