

## Exercise and Scoliosis: The Good, the Bad, and the Ugly Written by Tyson Swigart

Scoliosis is most commonly defined as a lateral spinal curvature of at least 10 degrees that often results in a visible rib bump when an individual bends forward at the waist. Mild cases of scoliosis are equally present in males and females, but severe cases are more common in women. Back pain is a common symptom and most cases of scoliosis are from unknown causes.

Conventional management options for scoliosis have traditionally included observation, bracing, and surgery, depending on the severity of the condition. Additional treatment options that have had success include massage therapy, traction, spinal manipulation, and acupuncture. Although not shown to reduce spinal curvatures, these therapies aid in reducing the pain associated with the condition.

Much controversy exists regarding exercise for patients with scoliosis. A 1941 study by the American Orthopedic Association erroneously demonstrated that exercise will cause scoliotic curvature to worsen in 60% of cases. This early study led a generation of physicians to recommend against exercise for their scoliosis patients.

In 2009, a worldwide literature review of all relevant studies regarding exercise and scoliosis was published. The good news was that the general consensus supported physical activity in patients with scoliosis with some limitations and specific exclusions. Exercise was recommended for all cases when pain was not present and no progression of spinal curvature was observed. Exercise seems to help both physically and psychologically in most cases. Flexibility training was highly recommended by some authors.

The bad in regards to exercise for scoliotic patients is that some authors recommend against specific types of sports and exercises that involve the potential for spinal trauma and excessive torque. Among the sports mentioned are gymnastics, diving, cheerleading, and combat sports. However, each case must be evaluated individually, and no absolute limitations were recommended by the authors.

A disturbing association between elite level competition in certain sports at an early age and scoliosis was noted by seven different researchers. However, there is no clear evidence that a particular sport can directly contribute to the scoliosis. More research and observation needs to be conducted.

Exercising with scoliosis can be challenging- in particular if there is pain or concern about curvatures worsening. Establishing a relationship with a physician who is familiar with both exercise and scoliosis is highly recommended before beginning any fitness regimen. This is true regardless of age or gender. Under the right guidance, everyone can enjoy the benefits of exercise.