

Investigating laterality of lumbar spondylolysis in adolescent baseball players

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Lumbar spondylolysis is a fatigue fracture of the lumbar spine and one of the most common sports injuries that occur during adolescence. Prevention and early detection of lumbar spondylolysis are essential since these fractures cause chronic low back pain and require suspension of all sports activities during treatment.

Lumbar spondylolysis more commonly occurs on only one side in sports such as [baseball](#), in which the trunk twists to only one side. However, an association in the frequency of lumbar spondylolysis between the pitching side (right-handed or left-handed pitching) and nonpitching side or between the batting side (right-handed or left-handed batting) and nonbatting side in fielders remains unclear.

A [new study](#) published in the *Asian Spine Journal*, aimed to determine the site of lumbar spondylolysis between pitchers and fielders among adolescent baseball players.

The results revealed that lumbar spondylolysis occurred more frequently on the nonpitching side in pitchers. In fielders, however, there was no significant difference in the frequency of lumbar spondylolysis between the batting and nonbatting sides. Twisting and turning of the trunk occurs simultaneously during pitching.

The findings indicate that the lumbar pars interarticularis, where spondylolysis occurs, is repeatedly stressed on the nonpitching side more in pitchers than in fielders.

This research group has reported many findings on adolescent lumbar spondylolysis, including the accuracy of diagnostic imaging findings, the bone union rate of conservative treatment with a [brace](#), characteristics of patients who failed after conservative [treatment](#), and the development of new surgical methods and their results.

The present study results were obtained from examination of adolescent baseball players. Dissemination of these results to players, instructors, parents, and others involved in [adolescent](#) sports may help prevent occurrences of lumbar spondylolysis.

More information: Shotaro Teruya et al, Characteristics of Lumbar Spondylolysis in Adolescent Baseball Players: Relationship between the Laterality of Lumbar Spondylolysis and the Throwing or Batting Side, *Asian Spine Journal* (2024). [DOI: 10.31616/asj.2023.0360](https://doi.org/10.31616/asj.2023.0360)

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