

Adolescent spondylolisthesis

In [adolescents](#) and [teens](#), [spondylolisthesis](#) usually occurs in [athletes](#) subject to repetitive [hyperextension](#) of the [lumbar spine](#). In [girls](#), this is frequently encountered in gymnasts and softball pitching.

In boys, football is common.

In these youngsters, cessation of sports for several months usually produces resolution.

Surgery is sometimes performed for patients who are unwilling to discontinue athletics.

[3D printing](#) patient-specific [models](#) provide added value for initial [clinical diagnosis](#), preoperative surgical and implant [planning](#), and patient and trainee [education](#). 3D [spine models](#) are usually designed using [CT data](#), due to the ability to rapidly image osseous structures with high spatial resolution. Combining CT and [MRI](#) to derive a composite model of bony and neurological [anatomy](#) can potentially provide even more useful information for complex cases. Parthasarathy et al. described such a case involving an adolescent with a grade V [spondylolisthesis](#) in which a composite model was manufactured for preoperative and intraoperative evaluation and guidance. They provide a detailed [workflow](#) for creating such models and outline their potential benefit in guiding a [multidisciplinary](#) team approach ¹⁾.

¹⁾

Parthasarathy J, Sribnick EA, Ho ML, Beebe A. Customised hybrid CT-MRI 3D-printed model for grade V spondylolisthesis in an adolescent. BMJ Case Rep. 2021 Mar 1;14(3):e239192. doi: 10.1136/bcr-2020-239192. PMID: 33649040.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=adolescent_spondylolisthesis

Last update: **2024/06/07 02:57**

