Screening for Scoliosis in Adolescents

The US Preventive Services Task Force (USPSTF) has recently published updated recommendations on screening for adolescent idiopathic scoliosis.

What Is Adolescent Idiopathic Scoliosis?
Scoliosis is a term for when the spine (backbone) is curved sideways, so that instead of forming a straight line down the middle of the back, it forms an S or C shape. Adolescent idiopathic scoliosis refers to scoliosis that develops later in childhood, after age 10 years. Idiopathic means that there is no clear cause. Adolescent idiopathic scoliosis accounts for most scoliosis cases and can range from mild to severe. The curvature often worsens during adolescence as the bones grow. Most mild cases do not cause symptoms and do not require treatment. More severe cases can cause back pain or trouble breathing because of the spine getting in the way of the lungs as well as cosmetic and psychological issues. Severe cases may require treatment with a back brace or surgery.

What Tests Are Used to Screen for Adolescent Idiopathic Scoliosis?
Screening is usually done by visual inspection of the spine as well as the back, shoulders, and hips looking for curvature and asymmetry. Some clinicians use the forward bend test, in which a patient slowly bends forward at the waist from a standing position. Sometimes additional office devices such as a scoliometer are used. If the screening test suggests possible scoliosis, the diagnosis is confirmed by x-ray or magnetic resonance imaging.

What Is the Patient Population Under Consideration for Screening for Adolescent Idiopathic Scoliosis?
The USPSTF recommendation applies to children and adolescents aged 10 to 18 years who do not have symptoms or obvious signs of scoliosis.

What Are the Potential Benefits and Harms of Screening for Adolescent Idiopathic Scoliosis?
The potential benefit of screening for adolescent idiopathic scoliosis is that it can lead to proper treatment before bone growth is complete, which can lessen the eventual degree of spine curvature. However, there are currently not enough data on whether this helps with long-term health outcomes (lung problems, disability, back pain, reduced quality of life) in adulthood. There are currently no studies of direct harms of screening, but there may be potential harms related to overtreatment (unnecessary bracing and psychological distress).

How Strong Is the Recommendation to Screen for Adolescent Idiopathic Scoliosis?
Overall, the evidence for both potential benefits and potential harms of screening for adolescent idiopathic scoliosis is limited, and there is not enough evidence to say that the benefits of screening outweigh the harms.

Bottom Line: Current Recommendation for Screening for Adolescent Idiopathic Scoliosis
The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for adolescent idiopathic scoliosis (an "I" statement).

Screening for Adolescent Idiopathic Scoliosis

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<tr>
<th>Population</th>
<th>USPSTF recommendation grade</th>
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<tr>
<td>CHILDREN AND ADOLESCENTS aged 10-18 years who do not have symptoms or signs of scoliosis</td>
<td>There is insufficient evidence to make a recommendation.</td>
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For more information
US Preventive Services Task Force

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