

Vertebral Body Tethering

Policy Number: 064

	Commercial and Qualified Health Plans	MassHealth	Medicare Advantage
Authorization Required	X		
No Prior Authorization			
Not Covered		X	X

Overview

The purpose of this document is to describe the guidelines Mass General Brigham Health Plan uses to determine the medical necessity for vertebral body tethering (VBT) to treat idiopathic scoliosis. The treating provider must be a qualified spine /orthopedic specialist trained and experienced in VBT.

Coverage Guidelines

The use of an FDA approved vertebral body tethering (VBT) device to treat idiopathic scoliosis of the thoracic and/or lumbar spine may be considered medically necessary when ALL the following conditions are met:

1. The treating provider has completed an in person evaluation and documented the members suitability for VBT and the rationale for the procedure.
2. The member's radiographic imaging confirms all of the following:
 - a. Skeletal immaturity defined as Risser Grade 0-2 and under, or Sanders Skeletal Maturation stage less than 5; and
 - b. Major Cobb angle of 35 to 65 degrees and osseous structure is dimensionally adequate to accommodate screw fixation; and
 - c. Cobb angle decreases in magnitude below 30 degrees on bending films
3. The member has progressive curvature that has not responded to one of the following conservative treatment options:
 - a. Failed external bracing defined as curvature progression greater than 5 degrees despite external brace wear;
 - b. External bracing is not/no longer indicated secondary to skeletal maturity or severe scoliosis (greater than 45 degrees);
 - c. There is clinical documentation of intolerance to external brace wear as prescribed despite reasonable efforts to improve brace comfort, fit, and wear compliance.
4. The surgery is to be performed at a facility with appropriate experience and expertise in the VBT procedure.

Exclusions

1. The member has congenital scoliosis
2. The member has achieved Skeletal maturity with no spinal growth remaining
3. The member has hyperkyphosis (40-50 degrees)
4. Kyphosis in the lumbar spine or at the thoracolumbar junction
5. Vertebral or chest wall deformity malformation in addition to scoliosis (e.g., pectus excavatum, severe rib prominence defined as trunk rotation greater than 20 degrees as measured by a scoliometer)

6. Previous surgery at the spinal levels where scoliotic curve(s) exist, unless related to prior tether correction
7. Member is non-ambulatory
8. Altered muscle function as a result of progressive neuromuscular disease

CPT/HCPCS Codes

The following codes are included below for informational purposes only; inclusion of a code does not constitute or imply coverage.

This list of codes applies to Commercial and MassHealth plans only.

Authorized CPT/HCPCS Codes	Code Description
22836	Anterior thoracic vertebral body tethering, including thoracoscopy, when performed; up to 7 vertebral segments
22837	Anterior thoracic vertebral body tethering, including thoracoscopy, when performed; 8 or more vertebral segments
22838	Revision (eg, augmentation, division of tether), replacement, or removal of thoracic vertebral body tethering, including thoracoscopy, when performed
0656T	Vertebral body tethering, anterior; up to 7 vertebral segments
0657T	Vertebral body tethering, anterior; 8 or more vertebral segments
0790T	Revision (eg, augmentation, division of tether), replacement, or removal of thoracolumbar or lumbar vertebral body tethering, including thoracoscopy, when performed

Effective

January 2024: Off-cycle Review. Codes updated.

July 2023: Effective Date

References

Baker CE, Milbrandt TA, Larson AN. Anterior Vertebral Body Tethering for Adolescent Idiopathic Scoliosis: Early Results and Future Directions. *Orthop Clin North Am.* 2021 Apr;52(2):137-147.

Baroncini A, Trobisch PD, Migliorini F. Learning curve for vertebral body tethering: analysis on 90 consecutive patients. *Spine Deform.* 2021 Jan;9(1):141-147. Epub 2020 Aug 21. PMID: 32827085.2013 AHA/ACC/TOS

Hoernschemeyer DG, Boeyer ME, Robertson ME. et. al. Anterior Vertebral Body Tethering for Adolescent Scoliosis with Growth Remaining: A Retrospective Review of 2 to 5-Year Postoperative Results. *J Bone Joint Surg Am.* 2020 Jul 1;102(13):1169-1176. doi: 10.2106/JBJS.19.00980. PMID: 32618924.

Samdani AF, Pahys JM, Ames RJ, Grewal H, Pelletier GJ, Hwang SW, Betz RR. Prospective Follow-up Report on Anterior Vertebral Body Tethering for Idiopathic Scoliosis: Interim Results from an FDA IDE Study. *J Bone Joint Surg Am.* 2021 Sep 1;103(17):1611-1619. PMID: 34185722.

Samdani AF, Ames RJ, Kimball JS, et al. Anterior vertebral body tethering for idiopathic scoliosis: two-year results. *Spine (Phila Pa 1976).* Sep 15 2014; 39(20): 1688-93. PMID 24921854

Scoliosis Research Society (SRS), American Academy of Orthopaedic Surgeons (AAOS), Pediatric Orthopaedic Society of North America (POSNA), and American Academy of Pediatrics (AAP) Position



Statement: Screening for the Early Detection of Idiopathic Scoliosis in Adolescents. [1122-Screening-for-the-Early-Detection-of-Idiopathic-Scoliosis-in-Adoles 12-28.pdf \(posna.org\)](#)

U.S. Food and Drug Administration (FDA), Center for Devices and Radiologic Health (CDRH). The Tether™ - Vertebral Body Tethering System. Summary of Safety and Effectiveness Data. Humanitarian Device Exemption (HDE) (H190005). Rockville, MD: FDA; August 16, 2019. Available at: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfhde/hde.cfm?id=H190005>

