

# **CIGNA MEDICAL COVERAGE POLICIES - MUSCULOSKELETAL CMM-616: Vertebral Body Tethering for Adolescent Idiopathic Scoliosis**

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**EviCore**  
By EVERNORTH

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## **Instructions for use**

The following coverage policy applies to health benefit plans administered by Cigna. Coverage policies are intended to provide guidance in interpreting certain standard Cigna benefit plans and are used by medical directors and other health care professionals in making medical necessity and other coverage determinations. Please note the terms of a customer's particular benefit plan document may differ significantly from the standard benefit plans upon which these coverage policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a coverage policy.

In the event of a conflict, a customer's benefit plan document always supersedes the information in the coverage policy. In the absence of federal or state coverage mandates, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of:

1. The terms of the applicable benefit plan document in effect on the date of service
2. Any applicable laws and regulations
3. Any relevant collateral source materials including coverage policies
4. The specific facts of the particular situation

Coverage policies relate exclusively to the administration of health benefit plans. Coverage policies are not recommendations for treatment and should never be used as treatment guidelines.

This evidence-based medical coverage policy has been developed by EviCore, Inc. Some information in this coverage policy may not apply to all benefit plans administered by Cigna.

These guidelines include procedures EviCore does not review for Cigna. Please refer to the [Cigna CPT code list](#) for the current list of high-tech imaging procedures that EviCore reviews for Cigna.

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# CMM-616.1: General Guidelines

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# CMM-616.1: General Guidelines

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## Application of Guideline

- The determination of medical necessity for the performance of replacement, revision, or removal of a thoracic/thoracolumbar vertebral body tethering system is always made on a case-by-case basis.
- For additional timing and documentation requirements, see **CMM-600.1: Prior Authorization Requirements**.

## Definitions

**Adolescent Idiopathic Scoliosis (AIS)** a form of scoliosis (deviation of the lateral curvature of the spine beyond 10°). This form occurs among pediatric population between 10 and 18 years of age and is a three-dimensional deformity that includes a lateral deviation of the spine, reduced thoracic kyphosis, and a rotation of the vertebral bodies. As the name implies, adolescent idiopathic scoliosis (AIS) is of unknown etiology and is not related to a congenital, syndromic, or neuromuscular condition.

**Vertebral Body Tethering (VBT)** a compression-based surgical treatment for adolescent idiopathic scoliosis (AIS) and is based on the concept of growth modulation.

- During vertebral body tethering, a surgeon places screws in the vertebrae on the convexity of the curve. A surgeon then connects the screws with a tether (flexible cord) that is placed under tension. The tether slows the growth on the curved side of the spine allowing for straighter spine growth as the other side of the spine catches up in growth and lengthens during the adolescence period.

## Health Equity Considerations

Health equity is the highest level of health for all individuals; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which individuals are born, grow, live, work, and age. Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include the following:

safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

# CMM-616.2: Indications

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## CMM-616.2: Indications

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Replacement, revision, or removal of an existing thoracic/thoracolumbar vertebral body tethering system is considered **medically necessary** when performed for ANY of the following clinical scenarios:

- hardware failure (e.g., tether breakage, screw pullout/loosening, etc.)
- progression of curvature with/without hardware failure
- undercorrection/overcorrection of curvature
- infection
- pulmonary complications (e.g., atelectasis, pleural effusion, pulmonary edema, pneumothorax, etc.)
- neurological injury
- vascular complications

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# CMM-616.3: Non-Indications

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## CMM-616.3: Non-Indications

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### Not Medically Necessary

- Replacement, revision, or removal of an existing thoracic/thoracolumbar vertebral body tethering system performed without meeting the criteria in the **General Guidelines** and in the **Indications** section is considered **not medically necessary**.

### Experimental, Investigational, or Unproven (EIU)

- Primary vertebral body tethering is considered **experimental, investigational, or unproven**.

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# Codes (CMM-616)

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## Codes (CMM-616)

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The inclusion of any code in this table does not imply that the code is under management or requires prior authorization. Refer to the applicable health plan for management details. Prior authorization of a code listed in this table is not a guarantee of payment. The Certificate of Coverage or Evidence of Coverage policy outlines the terms and conditions of the member's health insurance policy.

Code	Code Description/Definition
<b>22836</b>	Anterior thoracic vertebral body tethering, including thoracoscopy, when performed; up to 7 vertebral segments
<b>22837</b>	Anterior thoracic vertebral body tethering, including thoracoscopy, when performed; 8 or more vertebral segments
<b>22838</b>	Revision (e.g., augmentation, division of tether), replacement, or removal of thoracic vertebral body tethering, including thoracoscopy, when performed
<b>0656T</b>	Anterior lumbar or thoracolumbar vertebral body tethering; up to 7 vertebral segments
<b>0657T</b>	Anterior lumbar or thoracolumbar vertebral body tethering; 8 or more vertebral segments
<b>0790T</b>	Revision (e.g., augmentation, division of tether), replacement, or removal of thoracolumbar or lumbar vertebral body tethering, including thoracoscopy, when performed

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# Evidence Discussion (CMM-616)

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# Evidence Discussion (CMM-616)

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## Vertebral Body Tethering for Adolescent Idiopathic Scoliosis

Vertebral body tethering is a relatively new surgical technique for the treatment of adolescent idiopathic scoliosis. There have been no prospective, randomized or nonrandomized controlled trials comparing vertebral body tethering (VBT) to fusion. Although studies have demonstrated effective deformity correction, complication rates have ranged as high as 23%–52% and reoperation rates have ranged from 11%–16%.<sup>6,9,11,14</sup>

Reasons for re-operation have included the following: hardware failure (e.g., tether breakage, screw pullout/loosening, etc.); progression of curvature with/without hardware failure; undercorrection/overcorrection of curvature; infection; pulmonary complications; neurological injury; and vascular complications.<sup>8,11,14</sup>

At this point in time, there is insufficient high-level evidence to support the long term safety and effectiveness of vertebral body tethering and further studies are required. For this reason, spinal fusion surgery is still considered the gold standard for the surgical treatment of scoliosis.<sup>11</sup>

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