

# Vertebral Artery Surgery

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[Instructions for Use](#)

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Related Policies
None

## Coverage Guidelines

Vertebral artery surgery is covered when Medicare criteria are met.

A vertebral artery surgery is covered when determined medically reasonable and necessary and each of the following conditions are met:

- Symptoms of vertebral artery obstruction exist; Other causes have been considered and ruled out;
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- There is radiographic evidence of a valid vertebral artery obstruction; and
- Contraindications to the procedure do not exist, such as coexistent obstructions of multiple cerebral vessels.

Types of surgical procedures performed to relieve obstructions to vertebral artery blood flow:

- Vertebral artery endarterectomy, a procedure which cleans out arteriosclerotic plaques which are inside the vertebral artery;
- Vertebral artery by-pass or resection with anastomosis or graft;
- Subclavian artery resection with or without endarterectomy;
- Removal of laterally located osteophytes anywhere in the C6 (C7)-C2 course of the vertebral artery; and
- Arteriolytic which frees the artery from surrounding tissue, with or without arterioplexy (fixation of the vessel).

Obstructions which can cause symptoms of blocked vertebral artery blood flow and which can be documented by an angiogram include:

- Intravascular obstructions - arteriosclerotic lesions within the vertebral artery or in other arteries
- Extravascular obstructions
- Bony tissue or osteophytes, located laterally in the C6 (C7) - C2 cervical vertebral area course of the vertebral artery, most commonly at C5 -C6
- Anatomical variations - Anomalous location of the origin of the vertebral artery, a congenital aberration, and tortuosity and kinks of the vertebral artery
- Fibrous tissue - Tissue changed as a result of manipulation of the neck for neck pain or injury associated with hematoma; external bands, tendinous slings, and fibrous bands

Notes:

- Angiograms documenting a valid obstruction should show not only the aortic arch with the vessels off the arch, but also show the vessels in the neck and head (providing biplane views of the carotid and vertebral vascular system). In addition, serial views are needed to diagnose "subclavian steal," the condition in which subclavian artery obstruction causes the symptoms of vertebral artery obstruction.

- Because the symptoms are not specific for vertebral artery obstruction, other causes must be considered. In addition to vertebral artery obstruction, the differential diagnosis should include various degenerative disorders of the brain, orthostatic hypotension, acoustic neuroma, labyrinthitis, diabetes mellitus and hypoglycemia related disorders.

Refer to the [National Coverage Determination \(NCD\) for Vertebral Artery Surgery \(20.1\)](#). (Accessed October 14, 2021)

## Policy History/Revision Information

Date	Summary of Changes
10/19/2021	<ul style="list-style-type: none"> <li>• Routine review; no change to coverage guidelines</li> <li>• Archived previous policy version MCS102.01</li> </ul>

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The benefit information in this Coverage Summary is based on existing national coverage policy; however, Local Coverage Determinations (LCDs) may exist and compliance with these policies are required where applicable.

There are instances where this document may direct readers to a UnitedHealthcare Commercial Medical Policy, Medical Benefit Drug Policy, and/or Coverage Determination Guideline (CDG). In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence ([Medicare IOM Pub. No. 100-16, Ch. 4, §90.5](#)).

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