

# Trigeminal nerve imaging

see [Trigeminal nerve tractography](#).

Ruiz-Juretschke et al., describes the vascular relations of the [trigeminal nerve](#) in the [cerebellopontine angle](#) (CPA) in 100 subjects without known [Trigeminal neuralgia](#) (TN) studied with 3.0T [FIESTA](#) (Fast Imaging Employing Steady-state Acquisition) MRI sequence. An NVC was observed in 142 (71%) of the 200 nerves with a 75% rate of bilateral NVC. Of the nerves with NVC, 92.3% showed a mere contact (Grade 1) without distortion and 78% occurred at the cisternal segment. The most common vessel causing the NVC was a vein (66%) followed by the superior cerebellar artery (28%). No significant reduction in diameter suggesting atrophy was seen in the nerves with NVC. The results indicate a high rate of mild, distal, and predominantly venous vascular contact with the trigeminal nerve at the CPA in asymptomatic individuals. This clearly contrasts with the usual pattern of NVC observed in TN that is generally a severe, proximal, and arterial compression. Knowledge about the frequent NVC in asymptomatic individuals and its features is essential for interpreting preoperative MRI in patients with refractory classical TN considered for surgery <sup>1)</sup>.

<sup>1)</sup>

Ruiz-Juretschke F, González-Quarante LH, García-Leal R, Martínez de Vega V. Neurovascular Relations of the Trigeminal Nerve in Asymptomatic Individuals Studied with High-Resolution Three-Dimensional Magnetic Resonance Imaging. *Anat Rec (Hoboken)*. 2018 Apr 16. doi: 10.1002/ar.23818. [Epub ahead of print] PubMed PMID: 29659161.

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