

Sphenoid wing meningioma surgery

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[Microsurgery](#) may be the most effective method for the large and giant medial sphenoid wing meningiomas ¹⁾.

Once the tumor is exposed a partial internal [debulking](#) is performed. Then the point of attachment (to the [sphenoid bone](#)) is peeled away using bipolar cautery to divide feeding vessels. Then the main portion of the tumor may be separated from the brain, with the tumor being avascular once the vascular pedicle has been transected.

Some [sphenoid wing meningiomas](#) are associated with a significant [hyperostosis](#) of the adjacent [sphenoid ridge](#) that may even exceed the size of the [intradural](#) mass. The decision-making process and [surgical planning](#) based on neuroanatomic knowledge are the mainstays of management of this group of lesions. Given their [natural history](#) and biologic behavior, many hyperostosing [meningiomas](#) at this location require long-term management analogous to a chronic disease. This is particularly true when making initial decisions regarding treatment and [planning](#) surgical intervention, when it is important to take into consideration the possibility of further future interventions during the patient's life span ²⁾.

Videos

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player" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media;
gyroscope; picture-in-picture; web-share" allowfullscreen></iframe></html>
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<https://jomi.com/article/143/resection-sphenoid-wing-meningioma>

Position

The neck is extended to allow gravity to retract the brain of the floor of the skull.

Craniotomy

A pterional craniotomy for [sphenoid wing meningioma](#) is utilized. Most [medial sphenoid wing meningiomas](#) can be resected through the extended [pterional craniotomy](#). If the lesion harbors a significant suprasellar component, the orbitozygomatic craniotomy affords an excellent exposure of the suprasellar extent of the tumor with minimal frontal lobe retraction.

Approaches

[Lateral sphenoid wing meningiomas](#): The approach to these tumors is often similar to [convexity meningiomas](#). The height of the skin incision and bone opening should be high enough to encompass the tumor.

González-Darder JM. Combined Extradural and Intradural [Pterional Transzygomatic Approach](#) to Large [Sphenoid Wing Meningiomas](#). Operative Technique and Surgical Results. J Neurol Surg B Skull Base. 2019 Jun;80(3):244-251. doi: 10.1055/s-0038-1668538. Epub 2018 Aug 21. PubMed PMID: 31143566; PubMed Central PMCID: PMC6534744.

[Lateral Orbitotomy](#) Approach for Resection of Intraosseous Sphenoid Wing Meningioma: 3-Dimensional Operative Video ³⁾.

see Lateral [transzygomatic approach](#)

Medial sphenoid wing meningioma surgery

see [Medial sphenoid wing meningioma surgery](#).

Lateral sphenoid wing meningioma surgery

[Lateral sphenoid wing meningioma surgery.](#)

1)

Yang J, Ma SC, Liu YH, Wei L, Zhang CY, Qi JF, Yu CJ. Large and giant medial sphenoid wing meningiomas involving vascular structures: clinical features and management experience in 53 patients. *Chin Med J (Engl)*. 2013 Dec;126(23):4470-6. PubMed PMID: 24286409.

2)

Kirollos RW. Hyperostosing sphenoid wing meningiomas. *Handb Clin Neurol*. 2020;170:45-63. doi: 10.1016/B978-0-12-822198-3.00027-6. PMID: 32586508.

3)

Chabot JD, Stefko ST, Fernandez-Miranda JC. Lateral Orbitotomy Approach for Resection of Intraosseous Sphenoid Wing Meningioma: 3-Dimensional Operative Video. *Oper Neurosurg (Hagerstown)*. 2017 Jun 1;13(3):399. doi: 10.1093/ons/opw026. PubMed PMID: 28521357.

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