

Masticator Space

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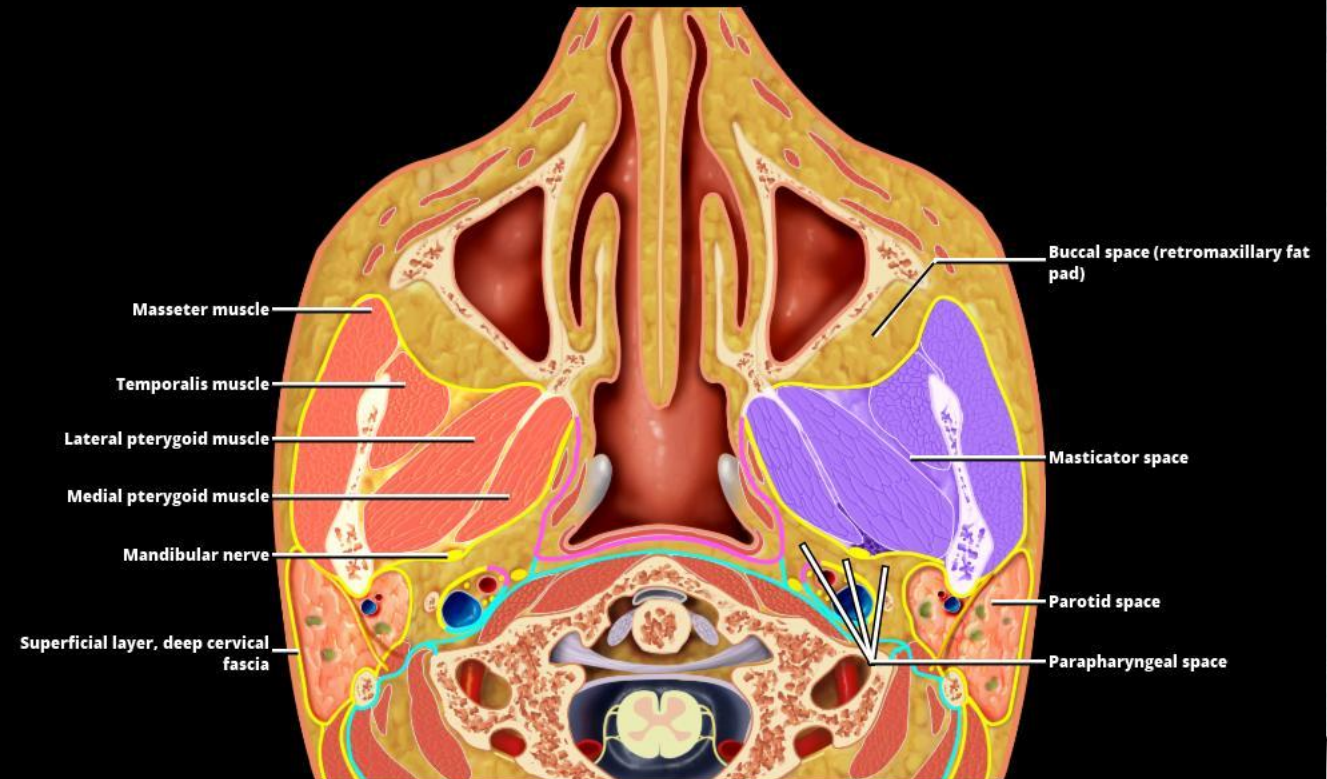
- Medial and lateral pterygoid mm
- Masseter and temporalis mm
- Ascending ramus mandible
- Branches ECA; veins
- Mandibular division CN V

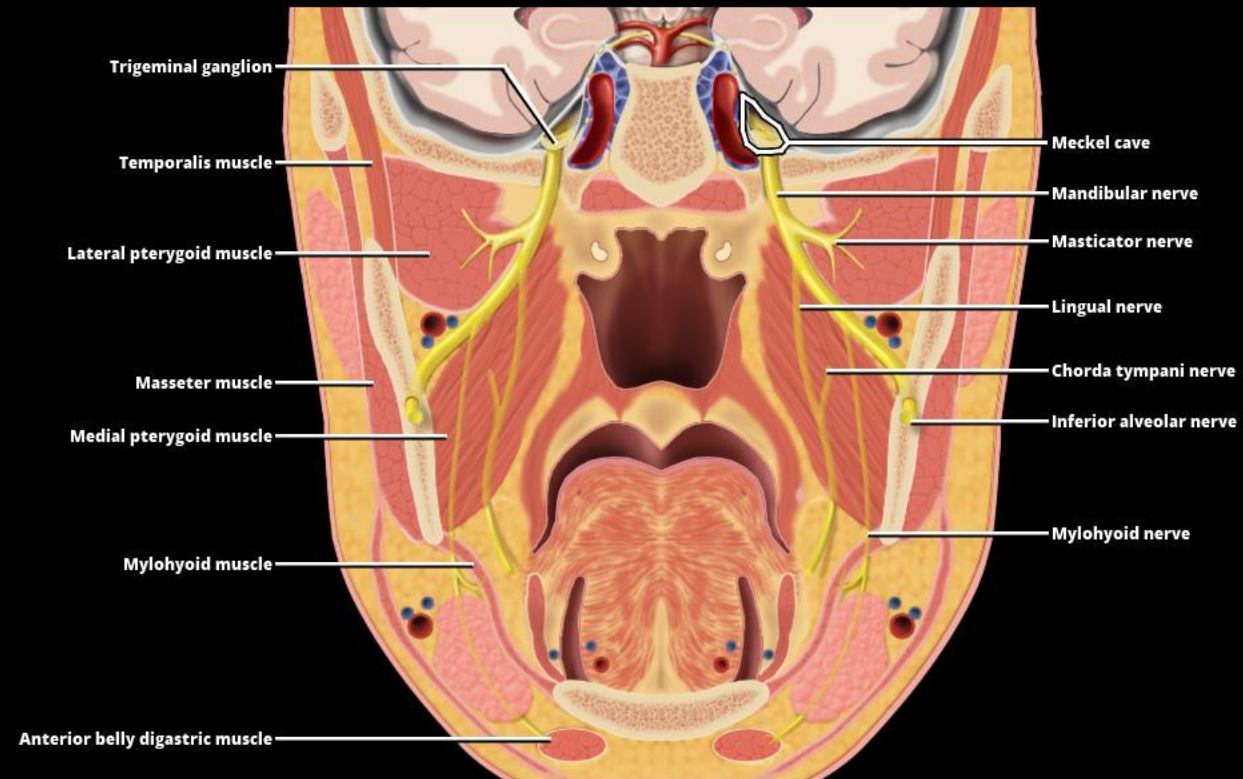
Axial graphic shows the masticator space enclosed by the superficial layer of deep cervical fascia (yellow line).

The muscles of mastication from medial to lateral are the medial and lateral pterygoid, temporalis, and masseter muscles.

Note that the mandibular nerve (CNV3 main trunk) lies just posterior to medial pterygoid muscle inside the superficial layer of deep cervical fascia.

The buccal space is anterior, while the parapharyngeal and parotid space are posterior to the masticator space.

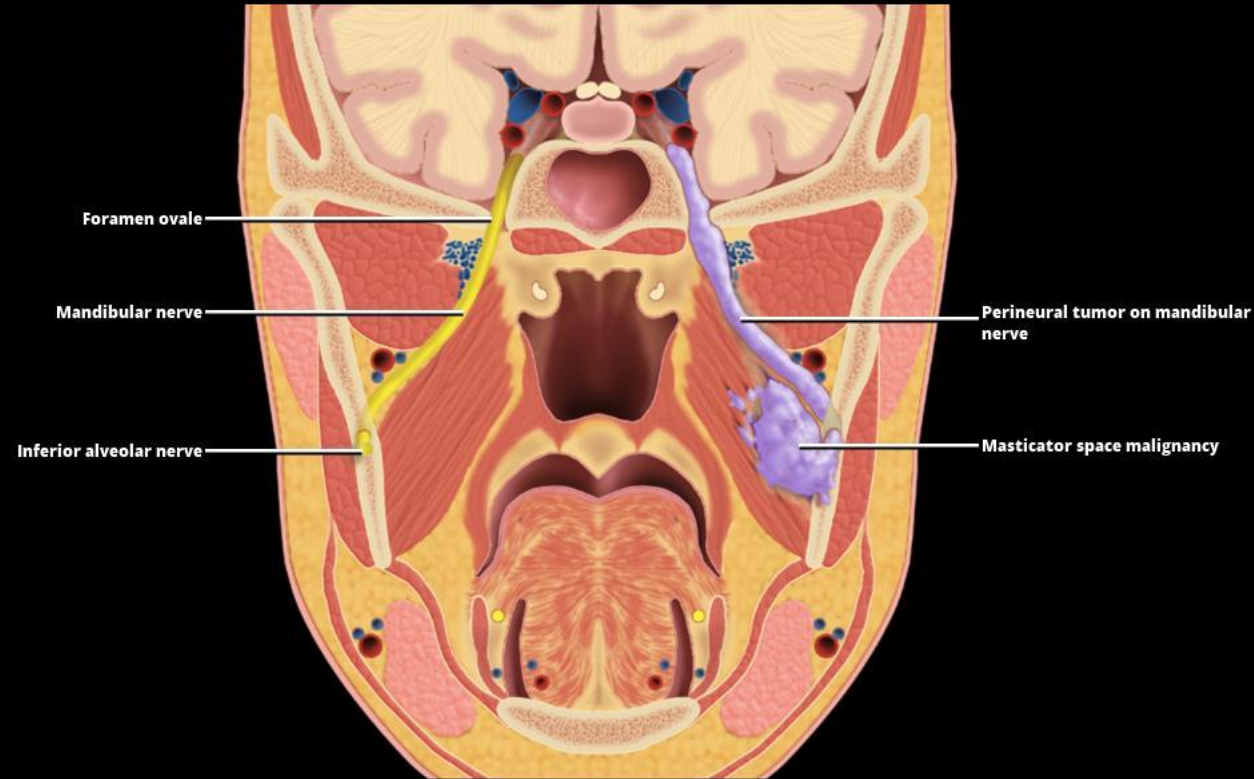




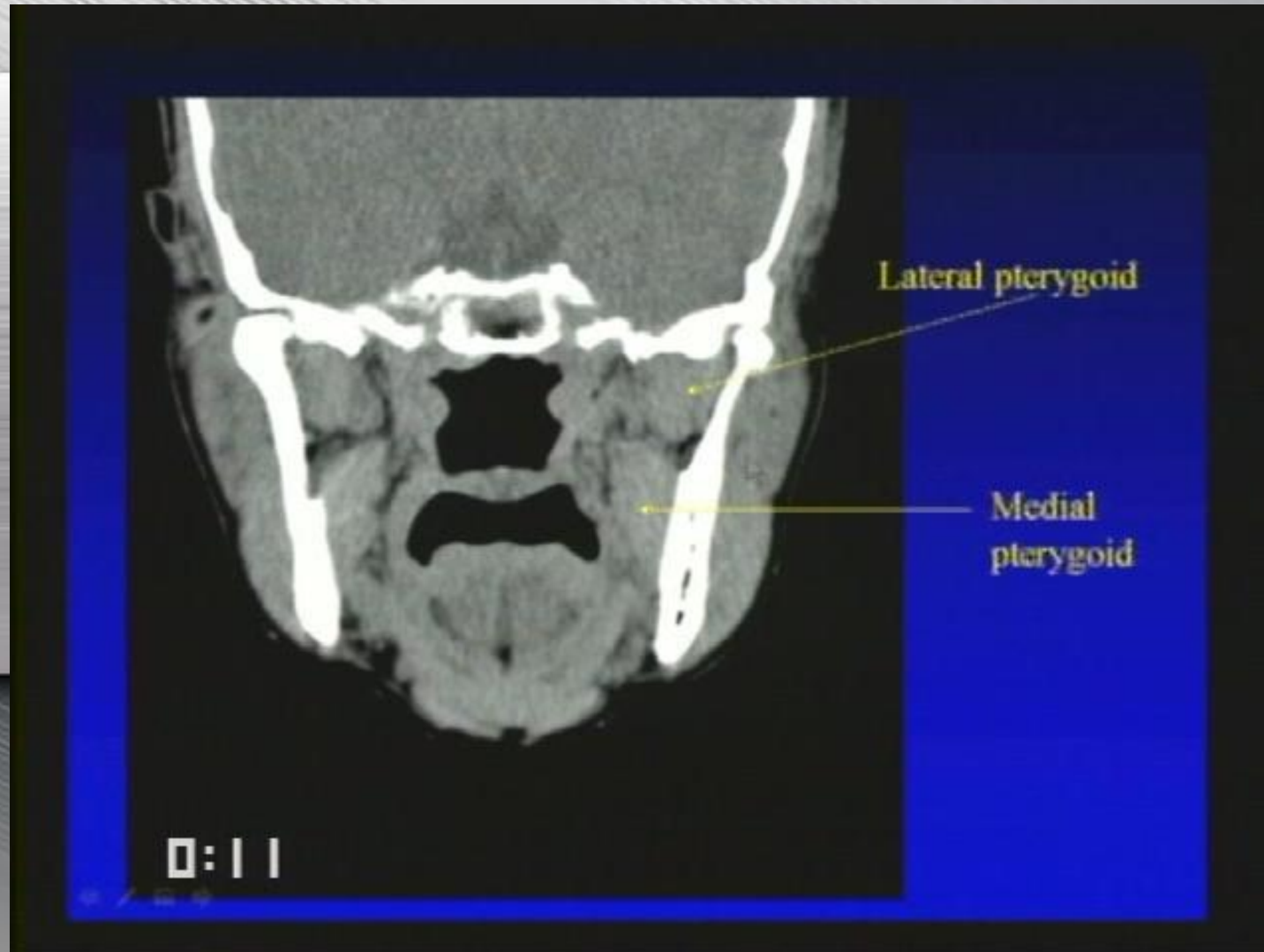
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Coronal graphic shows mandibular division of the trigeminal nerve. Note CNV3 exits skull base without entering the cavernous sinus.

Coronal graphic of the suprahyoid neck shows the masticator space and the mandibular nerve. In this drawing, a generic masticator space malignancy is visible invading the lower masticator space, invading the adjacent mandible, and spreading via a perineural route up the mandibular nerve through the foramen ovale into the intracranial compartment. Both primary masticator space malignancy and squamous cell carcinoma of the oral cavity can access the intracranial compartment in this manner.



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Imaging Pitfalls

- MS pseudolesions
 - Pterygoid venous plexus asymmetry may appear as infiltrating, enhancing "lesion"
 - V3 motor atrophy of muscles of mastication makes normal contralateral MS look like lesion
 - Asymmetric accessory parotid gland may appear as unilateral "mass" over surface of masseter muscle

Clinical Importance

- Trismus (jaw spasm from masticator muscle spasm) is primary symptom of MS tumor or infection
- Primary MS tumor is sarcoma
- Remember to look for perineural V3 tumor whenever MS mass is identified