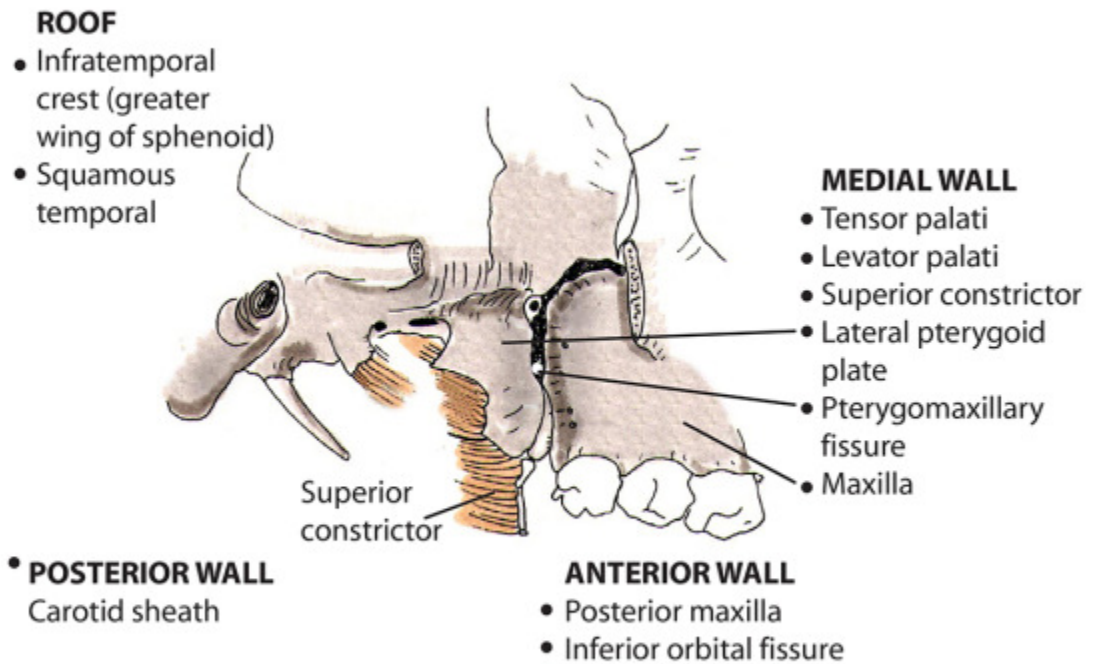
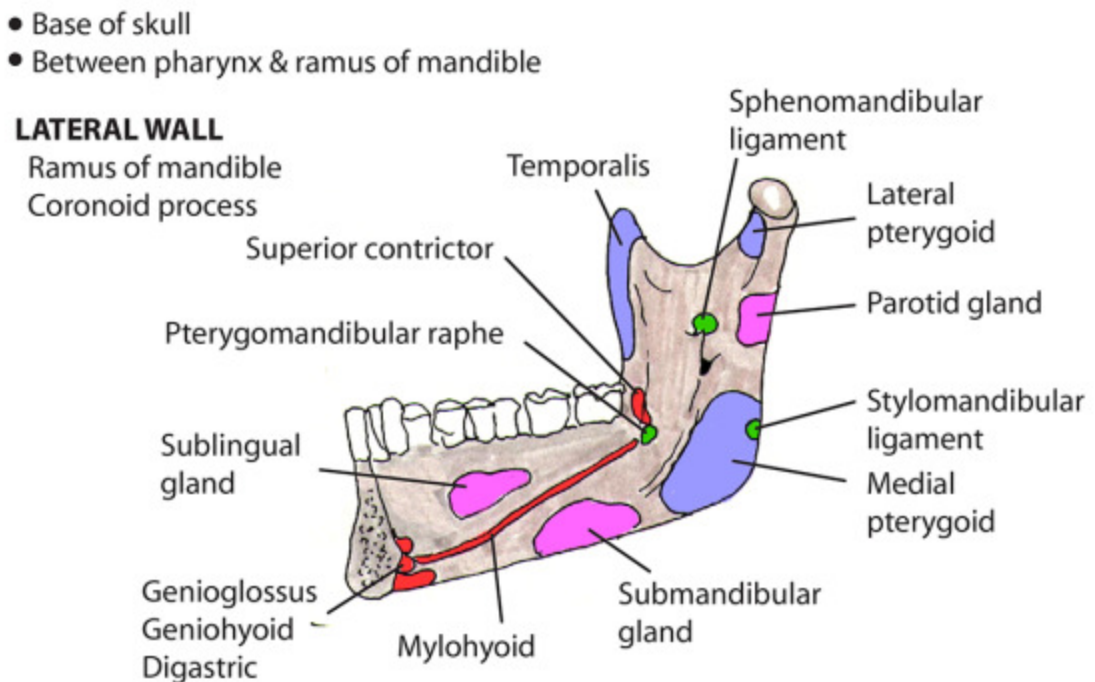


The Infratemporal Fossa

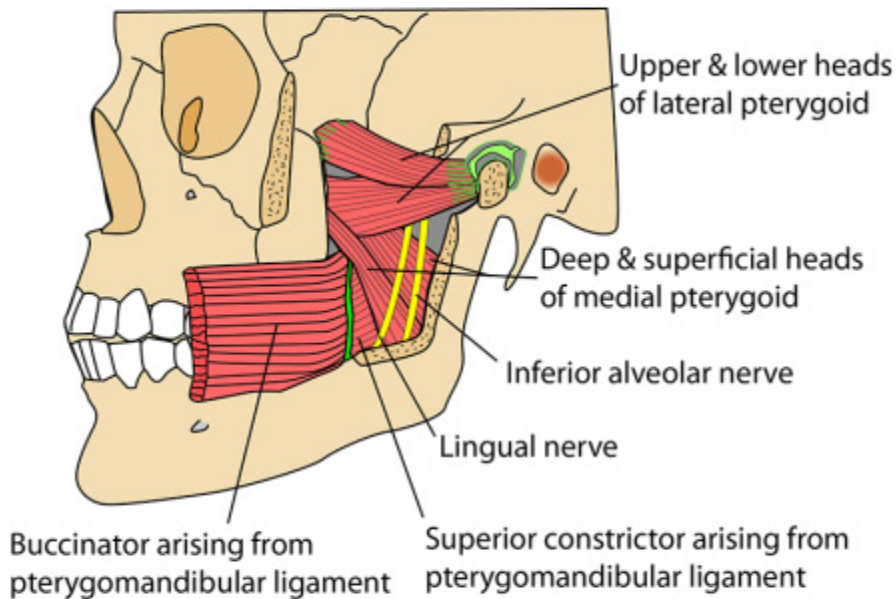
INFRA TEMPORAL FOSSA - BOUNDARIES 2



INFRA TEMPORAL FOSSA - BOUNDARIES 1



MUSCLES & NERVES IN INFRATEMPORAL FOSSA



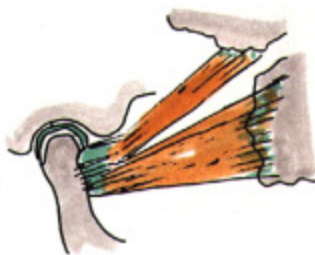
Pterygoid muscles contain venous plexuses that connect with veins both inside (cavernous sinus) and outside the skull (facial veins)

MUSCLES OF MASTICATION

- Temporalis
- Masseter
- Medial pterygoid
- Lateral pterygoid

All supplied by:

- Mandibular division of Trigeminal (Vc)
- All derived from 1st pharyngeal arch



LATERAL PTERYGOID

Arises: 2 heads: Upper: infratemporal surface sphenoid
Lower: lateral surface of lateral pterygoid plate

Inserts: pterygoid fossa below head of mandible, disc, & capsule of temporomandibular joint

Action: protrudes jaw and opens mouth



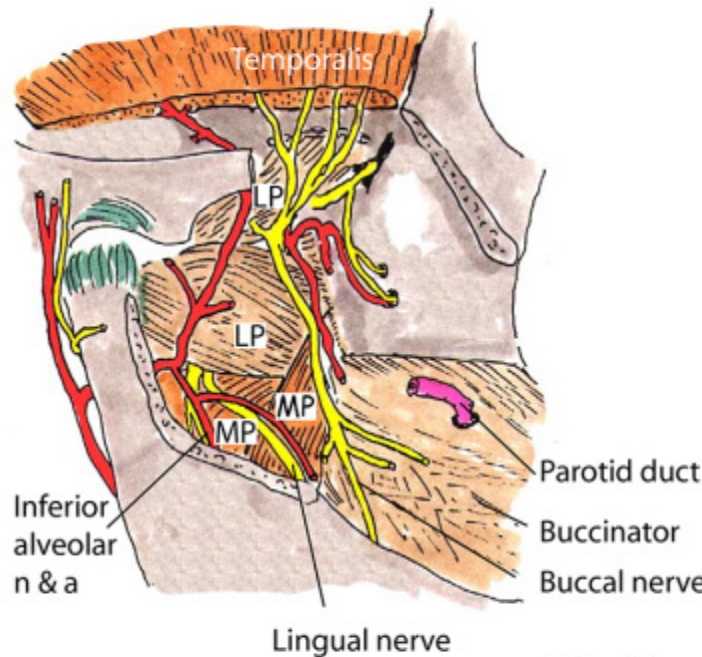
MEDIAL PTERYGOID

Arises: 2 heads: Deep: medial side of lateral pterygoid plate and fossa between plates
Superficial: smaller. Tuberosity of maxilla and pyramidal process of palatine bone

Inserts: Medial ramus of mandible

Action: pulls mandible upwards, forwards and medially (closes mouth and chews)

INFRATEMPORAL FOSSA - SUPERFICIAL DISSECTION

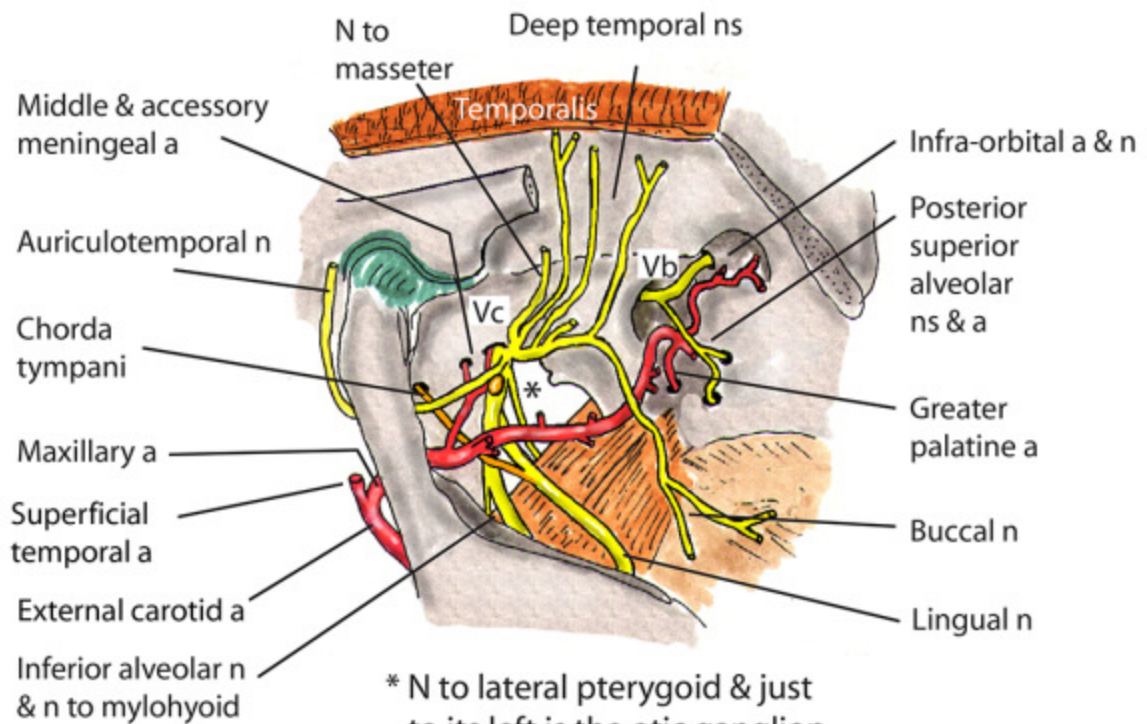


CONTENTS

- Pterygoid muscles
- Pterygoid venous plexus
- Fat
- Mandibular nerve & branches
- Insertion of temporalis
- Otic ganglion
- Chorda Tympani
- Maxillary artery & branches
- Posterior superior alveolar branches of maxillary N (Vb)

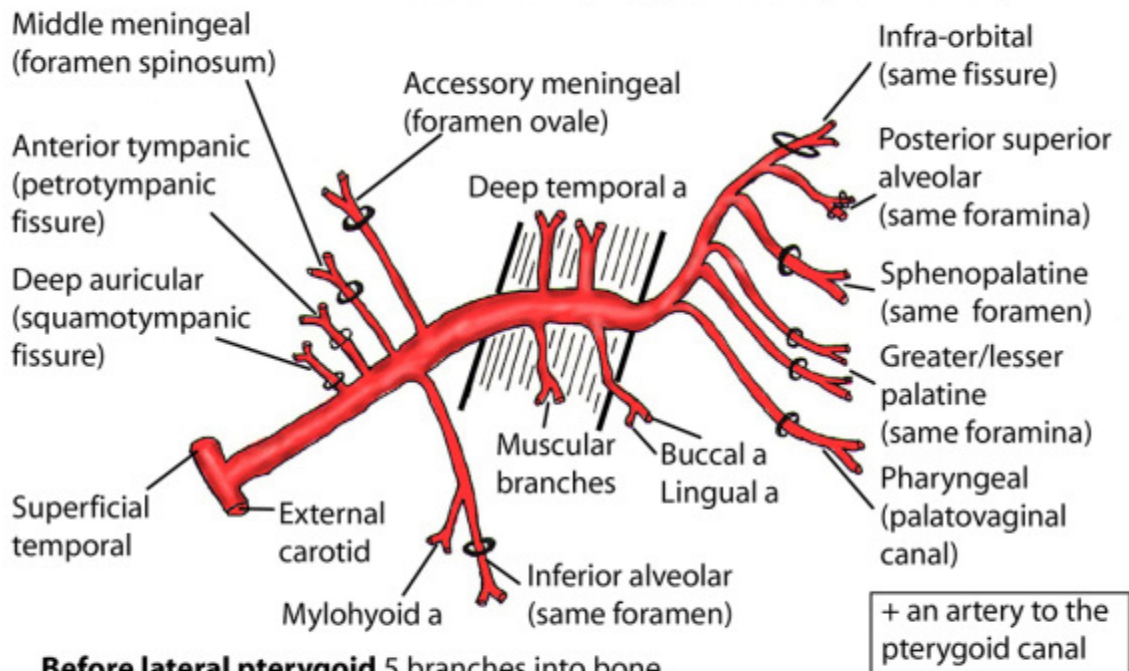
LP = lateral pterygoid
MP = medial pterygoid

INFRATEMPORAL FOSSA - DEEP DISSECTION



* N to lateral pterygoid & just to its left is the otic ganglion

MAXILLARY ARTERY In infratemporal fossa, within or lateral to superficial head of lateral pterygoid muscle (shown below)

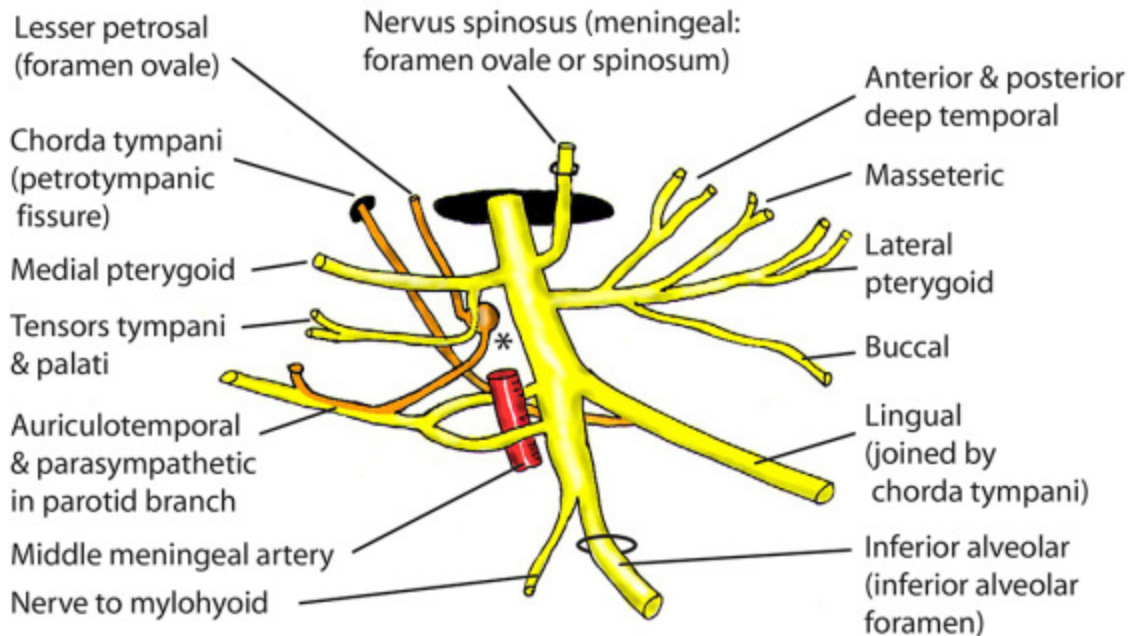


Before lateral pterygoid 5 branches into bone.

Lateral or within lateral pterygoid. 4/5 branches to soft tissue.

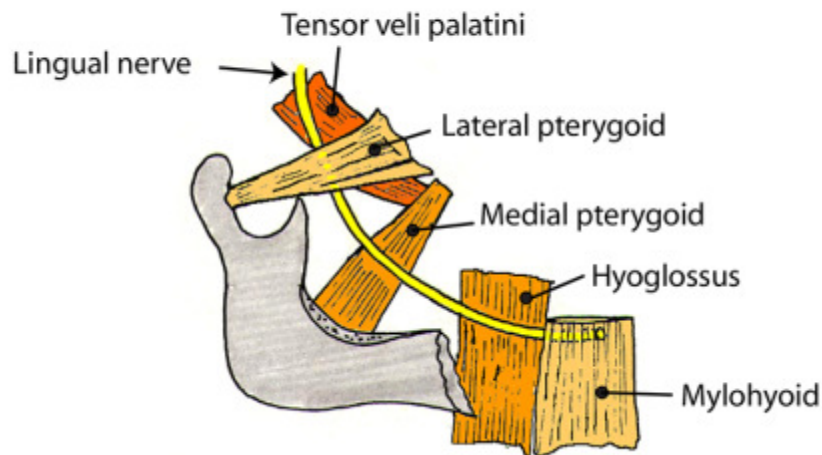
Beyond lateral pterygoid 5/6 branches with nerves.

**MANDIBULAR NERVE (Vc):
FORAMEN OVALE TO INFRATEMPORAL FOSSA**



* Otic ganglion: Parasympathetics from lesser petrosal nerve synapse within it & postganglionic fibres are taken to parotid gland by auriculotemporal nerve

LINGUAL NERVE: RELATION TO MUSCLES



The lingual nerve is best considered as a **"2-way nerve"**:

General sensory: ant. 2/3 tongue

Taste (via chorda tympani): ant 2/3 tongue

Secretomotor (via chorda tympani): submandibular
& sublingual glands

QUICK RULES FOR IDENTIFYING STRUCTURES IN INFRATEMPORAL FOSSA

1. Any muscle lying horizontally is lateral pterygoid.
2. Any muscle lying vertically is medial pterygoid.
3. Any large artery is the maxillary.
4. Two large nerves: posterior one into mandible is inferior alveolar. Anterior one is lingual.
5. A muscle lying anteriorly and perforated by parotid duct is buccinator.