

SALIVARY GLANDS

by:

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LEARNING OBJECTIVES

- **INTRODUCTION.**
- **ANATOMY.**
- **DISORDERS OF GLANDS.**
- **CLINICAL APPROACH.**

INTRODUCTION

Salivary glands:

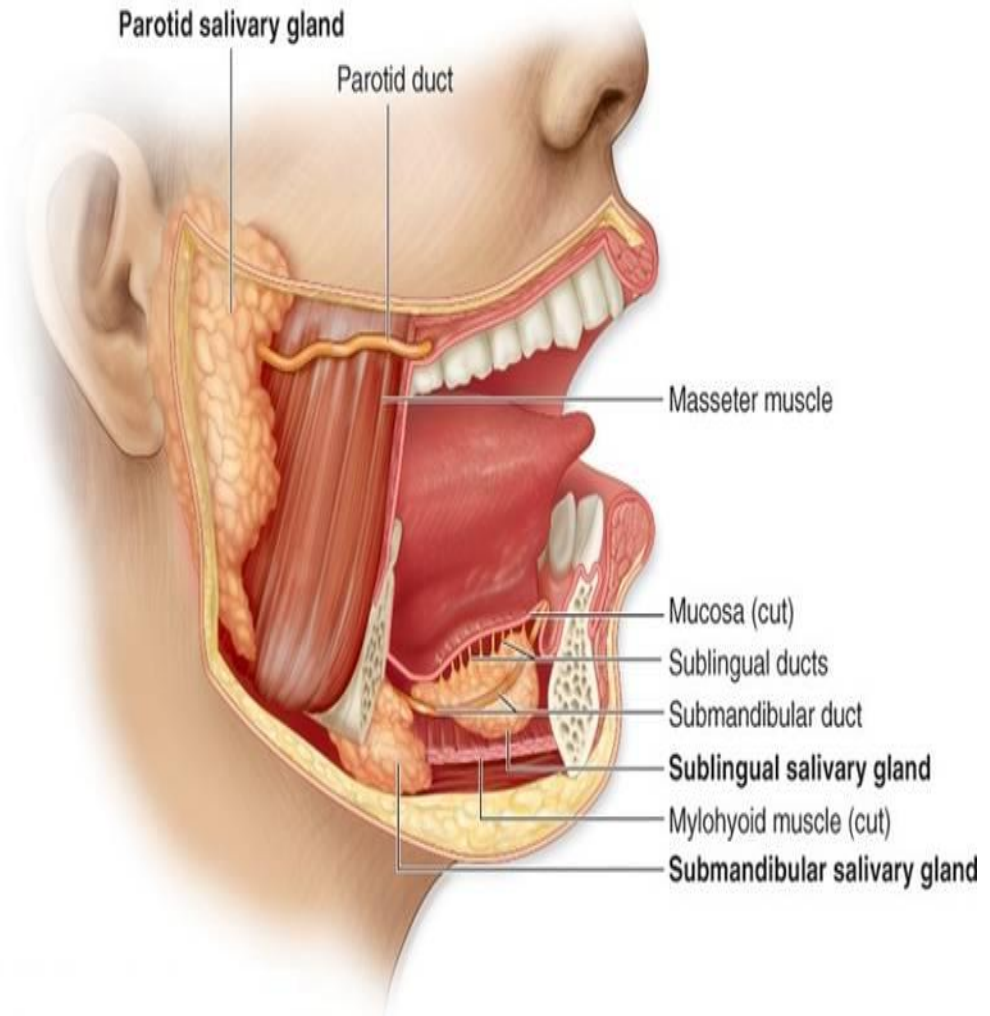
are composed of 4 major glands, in addition to minor glands.

Major:

- 2 parotid glands.
- 2 submandibular glands

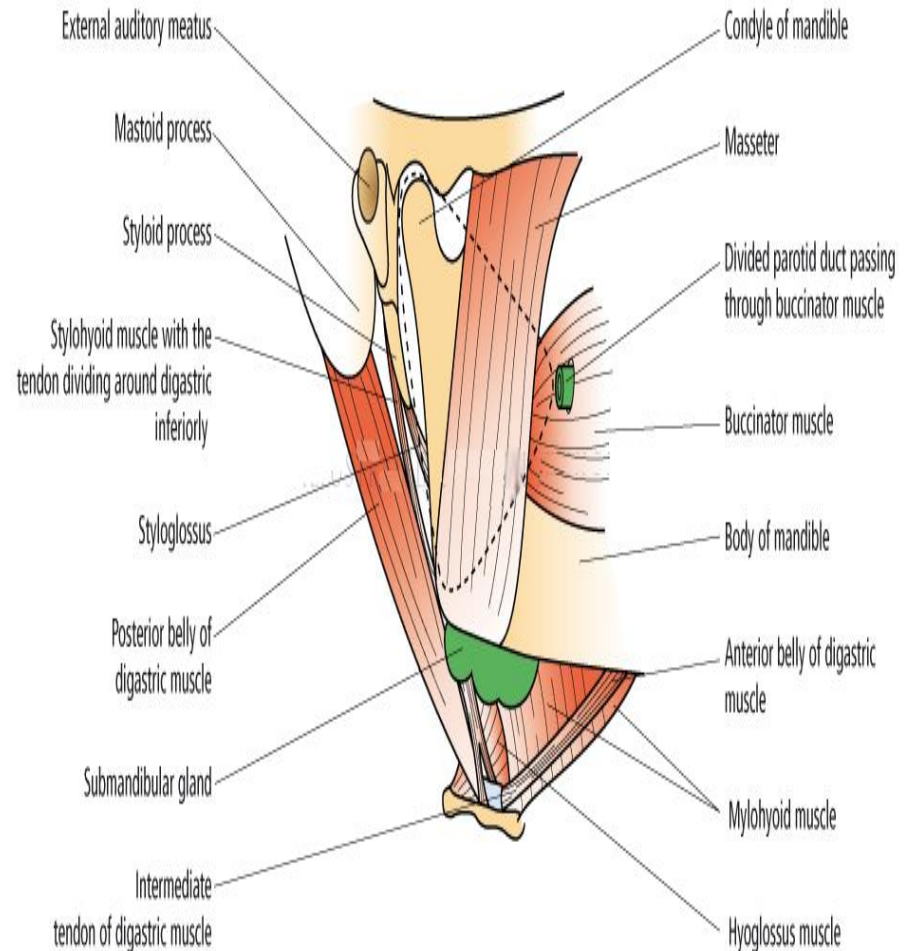
Minor:

- Sublingual.
- Multiple minor glands



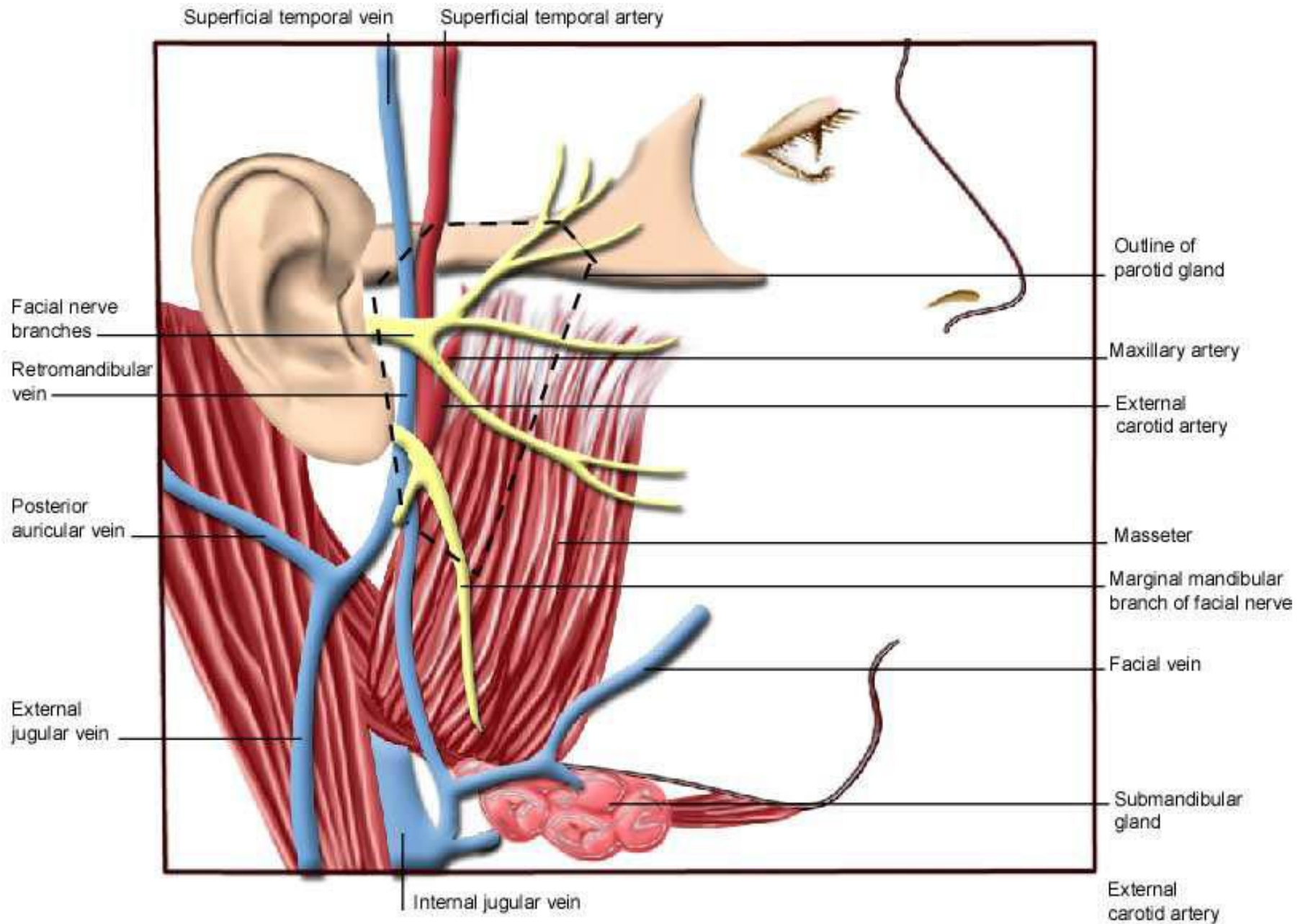
ANATOMY OF PAROTID GLAND

- Largest salivary gland
- Mostly **serous acini**
- **Lies deep to** external auditory meatus, behind the ramus of mandible
- In front of sternocleidomastoid muscle



Important structure that run through the parotid gland:

1. Branch of facial nerve divides the gland into superficial and deep lobes.
2. The parotid duct emerges from the anterior border of the gland and passes forward over the lateral surface of the masseter.
3. Terminal branch of external carotid artery that divided into maxillary & superficial temporal artery.
4. The retromandibular vein (post. Facial).
5. Intraparotid lymph node.



EXTERNAL FEATURES

- Resembles a 3 sided pyramid, apex directed downward
1. Superior surface
 2. Superficial
 3. Anteromedial
 4. Posteromedial

- **BORDERS**

1. Anterior
2. Posterior
3. medial

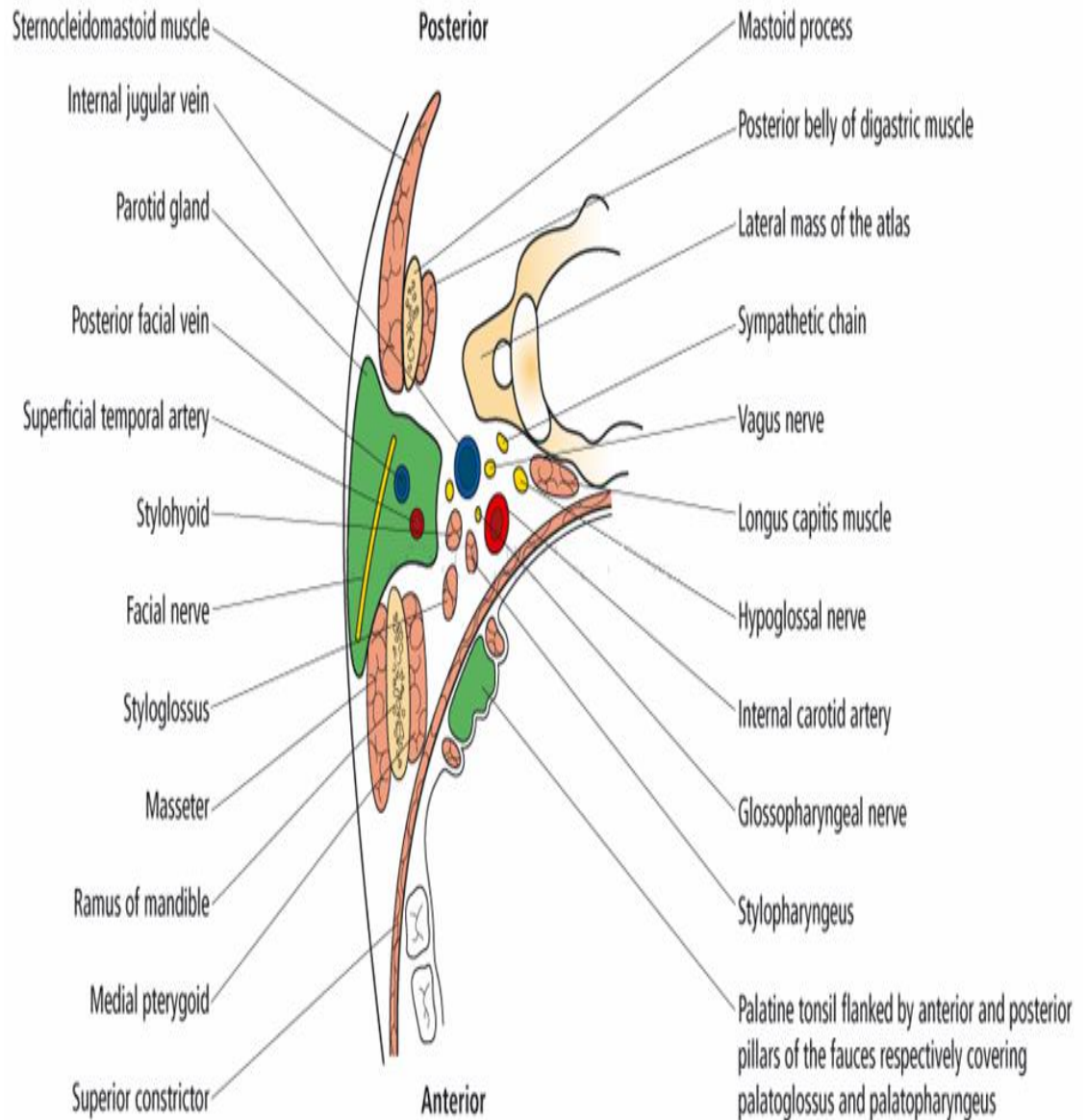
RELATIONS

Apex:

- **Overlies posterior belly of digastric muscle and carotid triangle.**
- **The two division of retromandibular vein and facial nerve.**

Superior surface:

- **Posterior surface of temporomandibular joint.**
- **Superficial temporal vessels**
- **Auriculotemporal nerve**



Superficial surface:

- Skin
- Superficial fascia
- Parotid fascia
- Few parotid glands

Anteromedial surface:

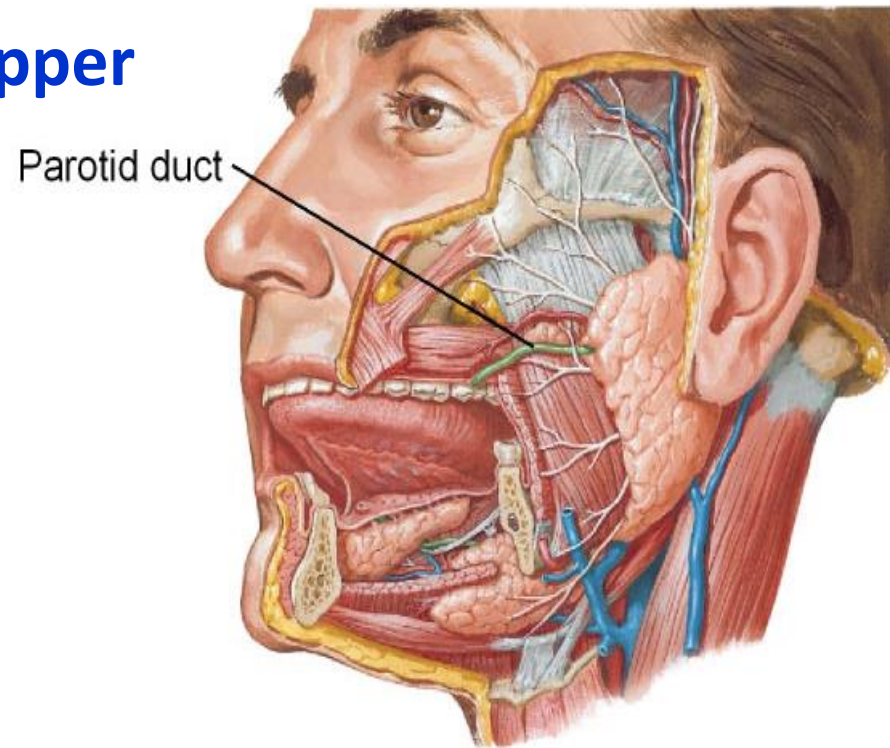
- The masseter
- Lateral surface of temporomandibular joint
- The medial pterygoid
- Facial nerve

Posteromedial surface:

- The mastoid process
- The styloid process

THE PAROTID DUCT:

- **Stensen's duct** is 5 cm long.
- open opposite the **second upper molar tooth**



PAROTID GLAND:



2-INFLAMMATORY DISORDERS

A- viral infections:

- Mumps...
- Mode of infection

Complications:

- Orchitis
- oophoritis
- pancreatitis
- sensorineural deafness.

RECURRENT PAROTITIS OF CHILDHOOD:

- This occurs in 3-6 years of age and the symptoms last for 3-7 days accompanied with fever and malaise...
- Diagnosis is made by HX and sialography showing a characteristic snowstorm appearance...
- Treatment: -Antibiotics
-prophylactic antibiotics
-parotidectomy..



4- TUMORS:

- **The parotids are the commonest glands for tumors of salivary glands...**

Slowly painless growing tumor below the ear, or Infront of it

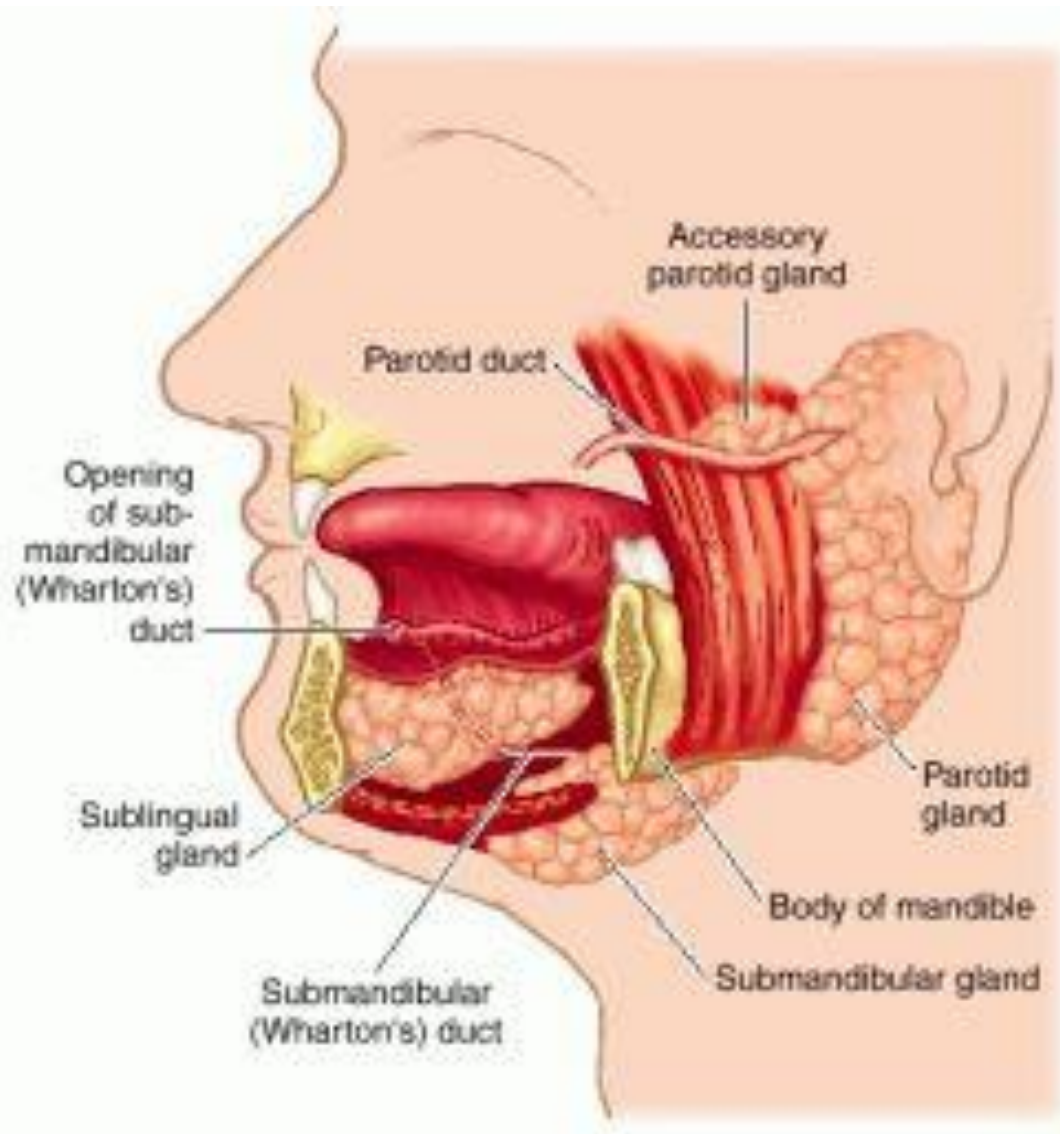


2. SUBMANDIBULAR GLAND

- It's paired of gland that lie below the mandible on either side.
- Has 2 lobes, superficial & deep.
- Warthon's duct, drained submandibular gland that opens into anterior floor of mouth.

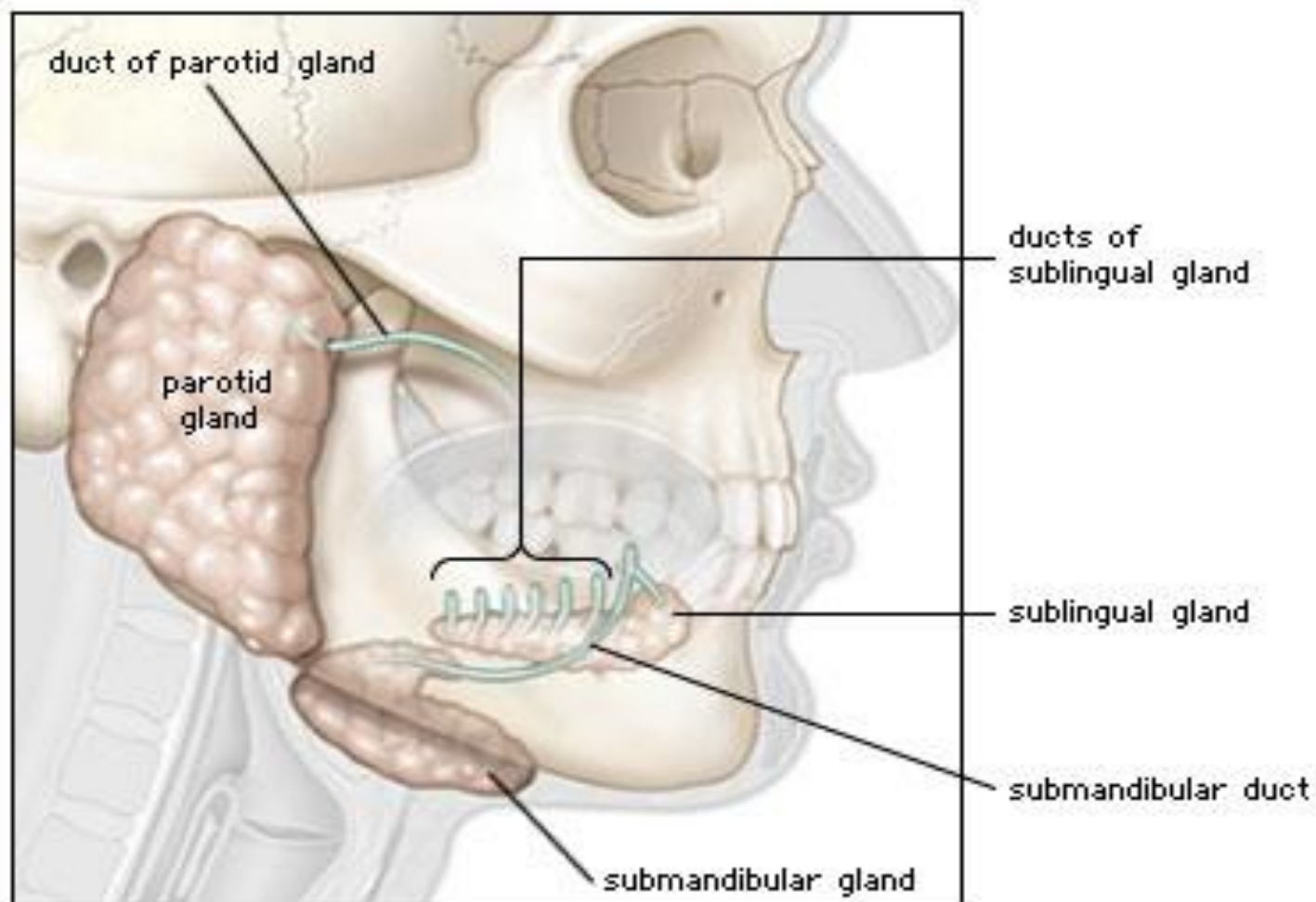
Anatomical relationship:

1. Lingual nerve.
2. Hypoglossal nerve.
3. Anterior facial vein.
4. Facial artery.
5. Marginal mandibular branch of facial nerve.



3. SUBLINGUAL GLAND

- Lie on the superior surface of the mylohyoid muscle and are separated from the oral cavity by a thin layer of mucosa.
- The ducts of the sublingual glands are called Bartholin's ducts.



4. MINOR SALIVARY GLAND

- About 450 lie under the mucosa
- They are distributed in the mucosa of the lips, cheeks, palate, floor of mouth & retro molar area
- Also appear in oropharynx, larynx & trachea

DISORDERS OF MINOR & SUBLINGUAL SALIVARY GLAND

CYST

It's either:

- Extravasation cyst result from trauma to overlying mucosa.
- Mucous retention cyst in the floor of the mouth due to obstruction.
- **RANULA** extravasation cyst that arises from sublingual gland.



TUMORS

- Tumors of minor & sublingual salivary gland are extremely rare.
- 90% are malignant.
- Most common site: upper lip, palate & retromolar region.

SUBMANDIBULAR GLAND



2- INFLAMMATORY DISEASES OF THE SUBMANDIBULAR GLAND:

sialadenitis



ACUTE INFECTIONS:

viral

mumps

Other viral infections are extremely rare

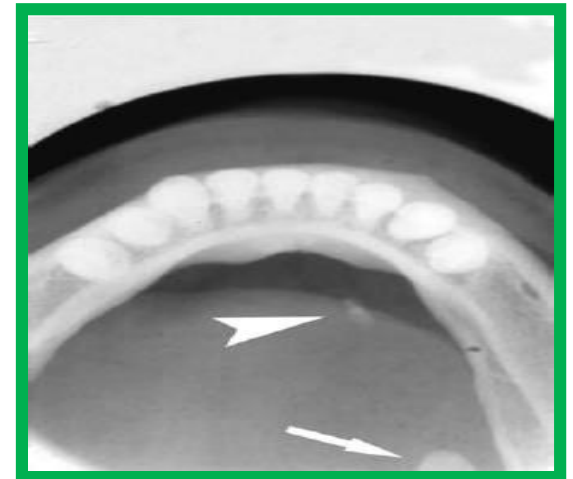
bacterial

Most commonly due to obstruction...

**Treatment:
antibiotics and
surgically**

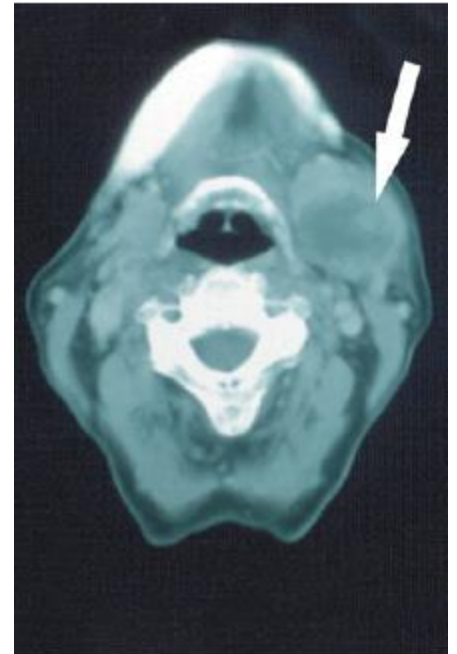
3-TRAUMA AND OBSTRUCTION:

- Most common cause is sialolithiasis which 80% happens in the submandibular gland...
- Presentation: painful swelling in submandibular area



4-TUMORS

- They are very rare in this gland and 50% are benign...
- Investigations:
CT and MRI...



B- stone formation:

As mentioned before it is 80% in submandibular but only 20 % in parotid

Treatment is surgical...

A- SJOGGRAN'S SYNDROME:

- It is an autoimmune condition causing progressive destruction of the salivary glands and the lacrimal glands.....
- Presentation is xerostomia and keratoconjunctivitis...
- They also present with pain and ascending infection
- females more than males 10:1
- Parotitis is more common