Definition: it is the largest salivary gland...

Shape: irregular wedge shaped to adapte to the adjacent structures.

Site:
- It lies on the side of the face, below the auricle
- It occupies a wedge-shaped space, which is bounded by
  1. Anteriorly: the ramus of the mandible.
  2. Posteriorly: by the mastoid process.
  3. Medially: by the styloid process.
  4. Superiorly: by the external auditory meatus.
  5. Interiorly: separated by the stylomandibular ligament from the submandibular gland.

Division: it is divided into
  1. superficial lobe
  2. deep lobe
  3. accessory lobe
- the superficial and the deep parts connected to each others by an isthmus while the accessory lobe lies above the parotid duct

The gland has
- 3 surfaces: superficial or lateral surface, antero-medial and postero-medial surfaces
- 3 borders: anterior and posterior and medial borders
- 2 poles: upper and lower poles

Capsules: the gland is surrounded by two capsules:
- False capsule: derived from the investing layer of the deep fascia, the later splits to enclose both submandibular and parotid glands and inbetween it is thickened to from the stylomandibular ligament, this one can be peeled from the surface of the gland
- True capsule: which is a condensation of the connective tissue of the gland
Relations:

1. Lateral surface:
   - Covered with skin, superficial fascia containing
     * platysma,
     * great-auricular nerve
     * parotid lymph nodes

2. Antero-medial surface:
   - related to the ramus of the mandible and related muscles (masseter and medial pterygoid muscles)
3. **Postero-medial surface (Parotid Bed):** related to

1. The mastoid process and related muscles (posterior belly of digastic and sternomastoid muscle)

2. The styloid process: and attached structures
   - Stylohyoid muscle
   - Styloglossus muscle
   - Stylopharyngeus muscle
   - Stylomandibular ligament
   - Stylohyoid ligament

3. Carotid sheath: deep to the styloid process: contain
   - the internal jugular vein
   - internal carotid artery
   - Vagus nerve
**Anterior border of the gland:**

- It is convex border
- It lies over masseter muscle
- It has the following structures come out from it
  1. Zygomatic branch of the facial nerve
  2. Transverse facial artery
  3. Parotid duct and the accessory parotid lobe
  4. Buccal branch of facial nerve
  5. Mandibular branch of the facial nerve

**Poles of the gland:**

**Upper pole of the gland:**

- It is concave surround the external auditory meatus
- The following structures come out from it:
  1. Temporal branch of the facial nerve
  2. Auriculo-temporal nerve
  3. Superficial temporal vessels

**The lower pole of the gland**

- It is tapering lies between the angle of the mandible and the sternomastoid muscle superficial to the posterior belly of digasteric
- The following structures come out from it
  1. Cervical branch of the facial nerve
  2. Posterior facial vein and its anterior and posterior divisions
  3. External carotid artery
Structures within the substance of the gland:

1. Facial nerve
2. Posterior facial vein (retromandibular vein)
3. External carotid artery and superficial temporal arteries
4. Auriculotemporal nerve

1. The facial nerve:

Course: It enters the posteromedial surface of the gland.

Termination: It divides into two parts:

- Upper branch from which are given off the temporal, zygomatic and upper buccal branches
- Lower branch from which arise the lower buccal, mandibular and cervical branches

2. The retromandibular vein:

Origin: It is formed within the gland substance by the union of the superficial temporal and maxillary veins.

Termination: It divides near the lower pole into the anterior and posterior divisions:

- The anterior division: joined by the anterior facial vein to form the common facial vein.
- The posterior division: joined by the posterior auricular vein to form the external jugular vein.

3. The external carotid artery:

Course: Pierces the lower pole of the gland

Termination: Divides into two terminal branches; the superficial temporal artery and the maxillary artery behind the neck of the mandible
Motor (Parasympathetic):
- The secretomotor fibers to the gland are derived from the **glossopharyngeal nerve**
  - tympanic branch (to the middle ear) ▶ Tympanic plexus ▶ lesser superficial petrosal nerve ▶ through Foramen ovale to otic ganglion ▶ to join the auriculo temporal nerve ▶ to the gland

**Sympathetic**: They are vasomotor to the blood vessels of the gland. They reach the gland through sympathetic plexus around the external carotid artery they originate from the superior cervical sympathetic ganglion.

**Sensory:**
- To the capsule of the parotid gland: through the greater auricular nerve.
- To the parotid gland: parenchyma through the auriculotemporal nerve.
Duct of the parotid gland (Stensen's duct)

**Beginning:** the duct of the gland appears at its anterior border.

**Length:** it is about 5 cm long. **Course:**
- Passes forwards across the masseter muscle.
- Curves medially at the anterior border of the masseter to **pierce the buccinator muscle and the mucous membrane of the cheek and open into the vestibule of the mouth cavity opposite to the second upper molar too**

**Termination:**
- At birth: the orifice of the duct is opposite the first deciduous molar.
- **In the adult: the orifice of the duct is opposite to the upper second permanent molar tooth.**

**Surface anatomy:** Is represented by the middle third of the line drawn from the tragus of the *ear*, to the midpoint between the ala of the nose and the red margin of the upper lip