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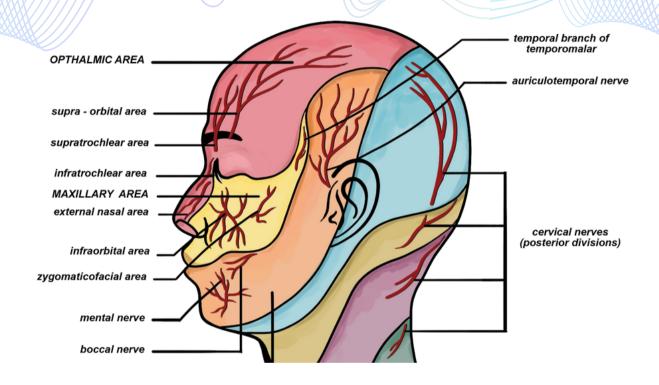
# **FACIAL NERVE**

The facial nerve has five main branches, although the anatomy can vary somewhat between individuals.

The branches are, from top to bottom: frontal (or temporal), zygomatic, buccal, marginal mandibular, and cervical. Each of these branches provides input to a group of muscles of facial expression.



# IMAGE DESCRIPTION



- A detailed anatomical illustration depicting the facial nerve's detailed pathway.
- Facial Nerve's Role: Controls facial muscles and senses around external ear.
- Chorda Tympani: Transmits taste, travels through middle ear to tongue.
- Parasympathetic Supply: Innervates glands, including salivary and lacrimal glands.
- Intricate Pathway: Originates in pons, exits via stylomastoid foramen.
- Clinical Significance: Lesions can lead to facial paralysis and taste loss.





# INTERNAL AUDITORY CANAL (IAC) SEGMENTS

#### Fundus (Lateral End):

Marks the beginning of the IAC, situated laterally.

## **Labyrinthine Segment:**

Only intra-temporal segment not within the bony labyrinth.

## **Tympanic/Horizontal Segment:**

Shortest and narrowest, within the middle ear's medial wall.

## **Mastoid/Vertical Segment:**

Extends into the mastoid, running along the posterior middle ear wall.

## **Stylomastoid Foramen:**

Marks the end of the IAC, leading to the facial nerve exit.





# GENU AND FALLOPIAN CANAL COURSE

#### 1st Genu:

Marks the first sharp turn within the IAC.

#### 2nd Genu:

Represents the second turn within the canal.

#### **Geniculate Ganglion:**

Located at the 1st genu, houses the sensory cell bodies of the facial nerve.

#### Fallopian Canal:

Housing the facial nerve, it extends from the geniculate ganglion to the stylomastoid foramen.

## **Length Variation:**

Segments range in length, with the labyrinthine being notably short.





# MEATAL AND PORUS REGIONS

## **Meatal Segment:**

Encompasses the internal acoustic meatus and extends to the porus acousticus.

#### **Porus Acousticus:**

Marks the exit point from the IAC to the cerebellopontine angle.

#### **Acoustic Meatus:**

Represents the canal leading to the inner ear.

#### Medial Middle Ear Run:

The tympanic segment runs medially within the middle ear.

#### Posterior Middle Ear Run:

The mastoid segment traverses the posterior middle ear wall.





## **Question:**

Which part of the facial nerve gives rise to the chordae tympani, responsible for taste transmission and glandular regulation?

- a.) Temporal branch
- b.) Buccal branch
- c.) Vertical segment (4th part)
- d.) Cervical branch

Correct Answer: c.) Vertical segment (4th part)

