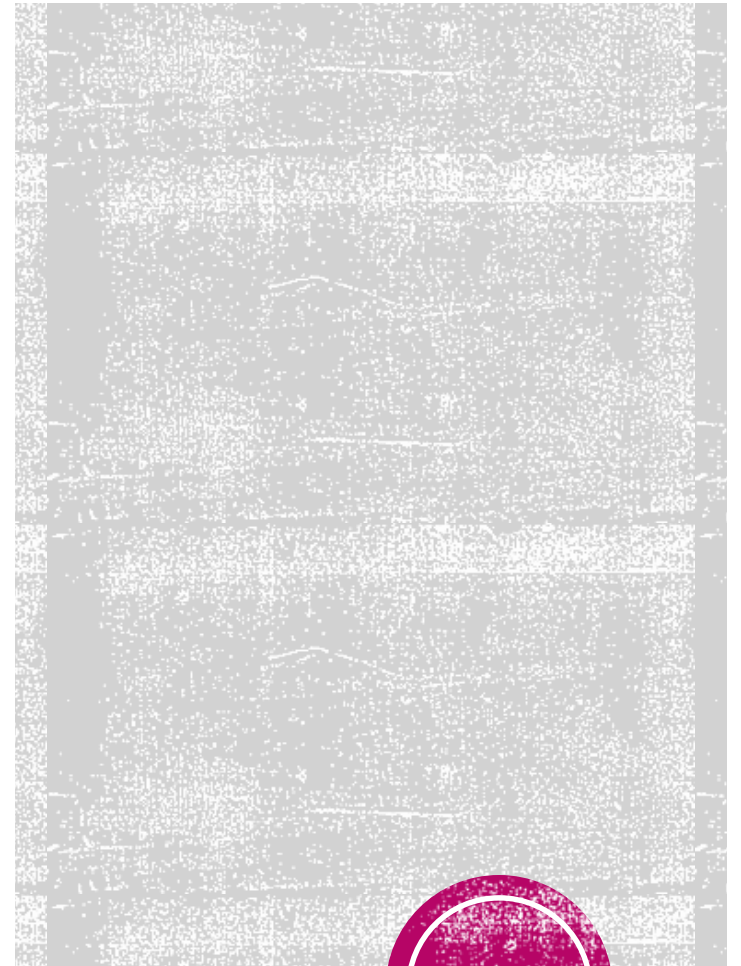


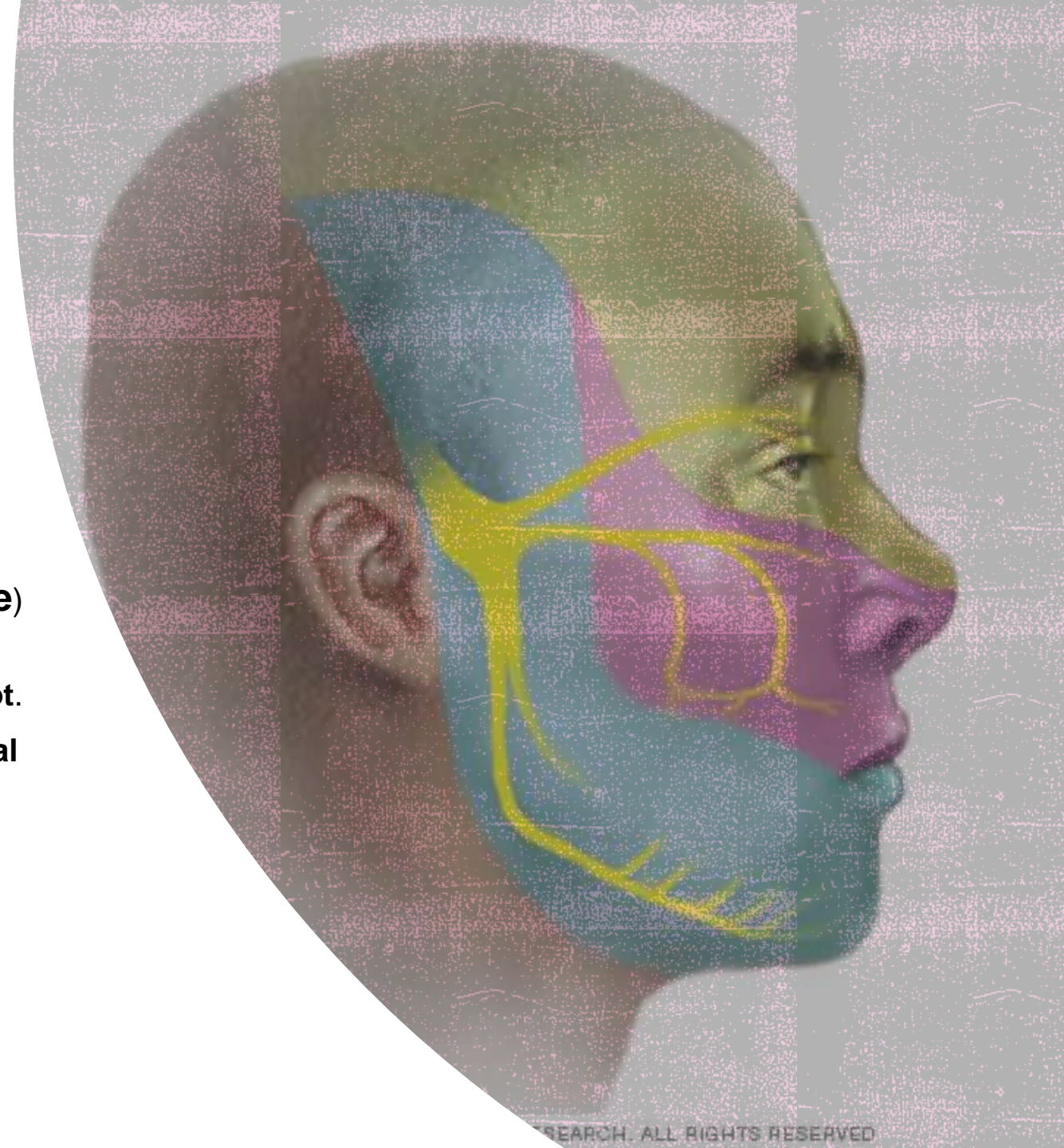
TO
DEMONSTRATE
THE CLINICAL
TESTS FOR
EXAMINATION OF

TRIGEMINAL
NERVE



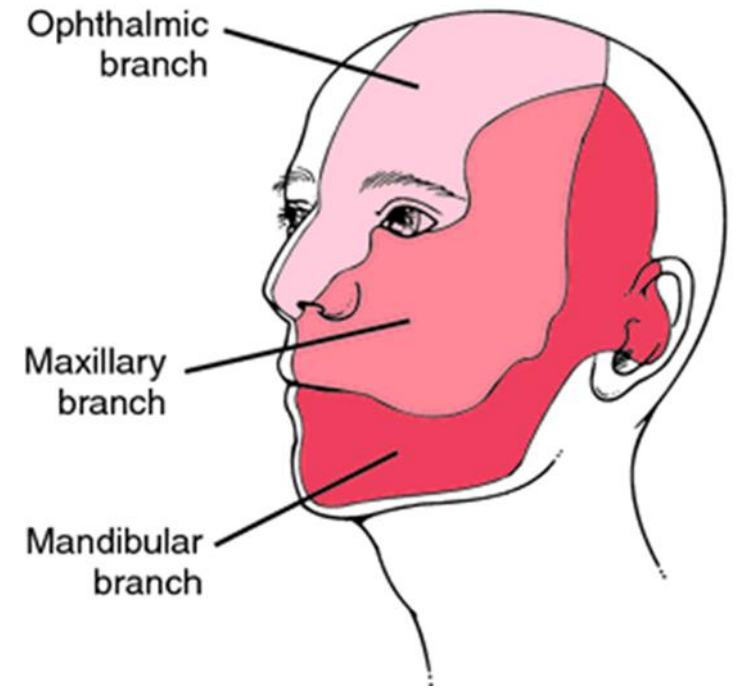
INTRODUCTION

- It is a mixed nerve.
- Originates from 3 **sensory nuclei**:
 - (**mesencephalic**, **principal sensory**, **spinal nucleus of trigeminal nerve**)
- 1 **motor nucleus** (**motor nucleus of trigeminal nerve**) extending from **midbrain to medulla**
- At level of **pons**, sensory nuclei merge to form a **sensory root**.
- In **middle cranial fossa**, sensory root expands into **trigeminal ganglion**, then divides into 3 divisions.
 1. Ophthalmic
 2. Maxillary
 3. Mandibular
- **Motor nucleus** continues to form **motor root**, then fibres are passed only in mandibular branch



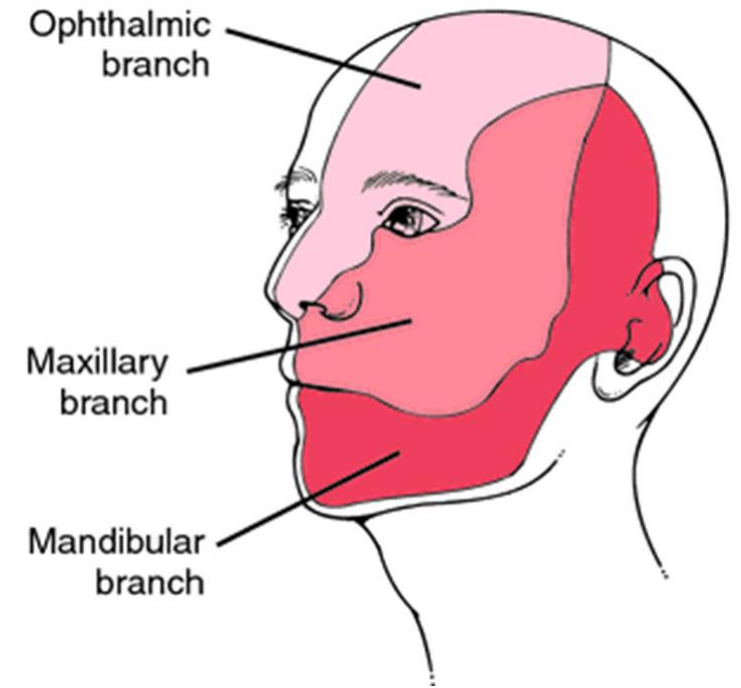
OPHTHALMIC DIVISION

- It supplies the
- skin of upper eyelids
- **cornea**
- medial part of nose as far as its tip
- forehead and scalp
- Frontal and ethmoid sinus



MAXILLARY DIVISION

- It supplies the
- lower eyelid
- front of the temple, cheek, maxillary sinus
- sides of the nose, nasal cavity
- upper lip, upper teeth
- upper part of pharynx, roof of the mouth
- parts of soft palate and tonsils.

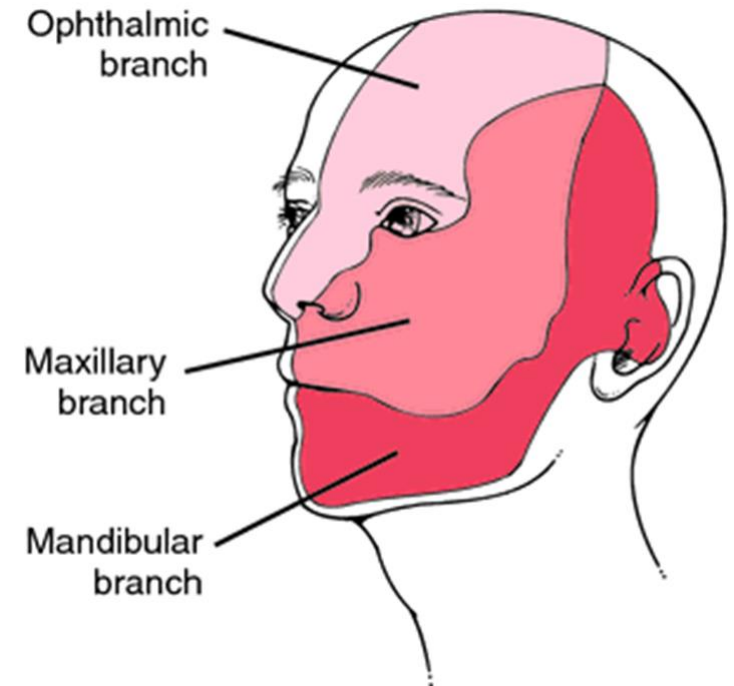


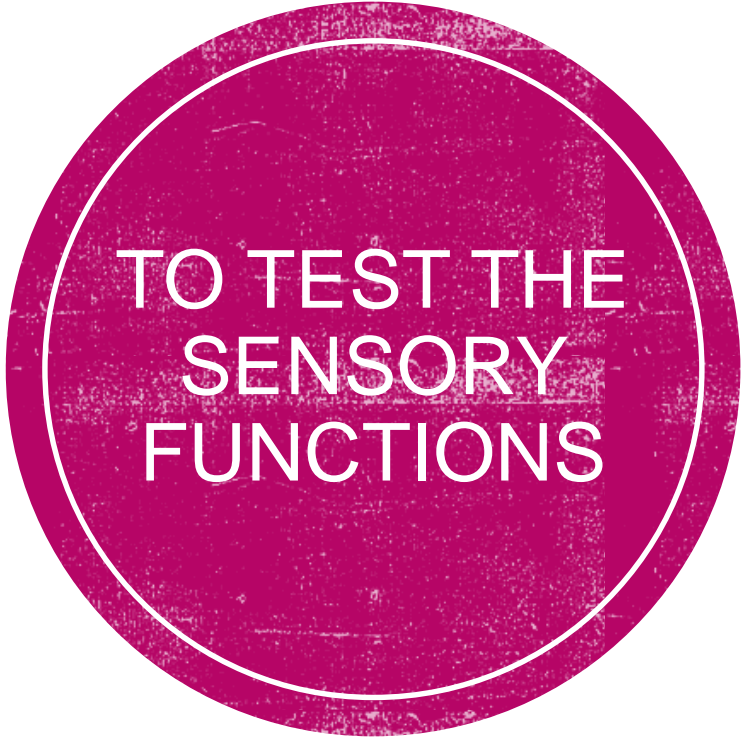
MANDIBULAR DIVISION

- It supplies
- lower part of face, lower lip
- **Ear**
- **Anterior two third of tongue (only general sensation)**
- Lower teeth and salivary glands

- Its motor root supplies **all the muscles of mastication except buccinator.**
- Muscles of mastication: masseter, temporalis, medial and lateral pterygoid.

Also supply anterior belly of digastric, mylohyoid, tensor veli palatini, tensor tympani





TO TEST THE SENSORY FUNCTIONS

- Test for various sensations over the skin and mucus membrane supplied by this nerve
 1. Touch
 2. Pain
 3. Pressure
 4. Temperature
- The subject is asked to close his eyes then his side of the face on the **forehead, cheek and chin** is touched with a pointer and he is asked whether he can feel the sensation and he should tell whether the stimulus is sharp or dull.
- To test the temperature sense over the face, capped test tubes filled with warm and cold water are used.
- Also **test corneal reflex and touch sensation on ant . 2/3 of tongue.**



TO TEST THE
MOTOR
FUNCTIONS

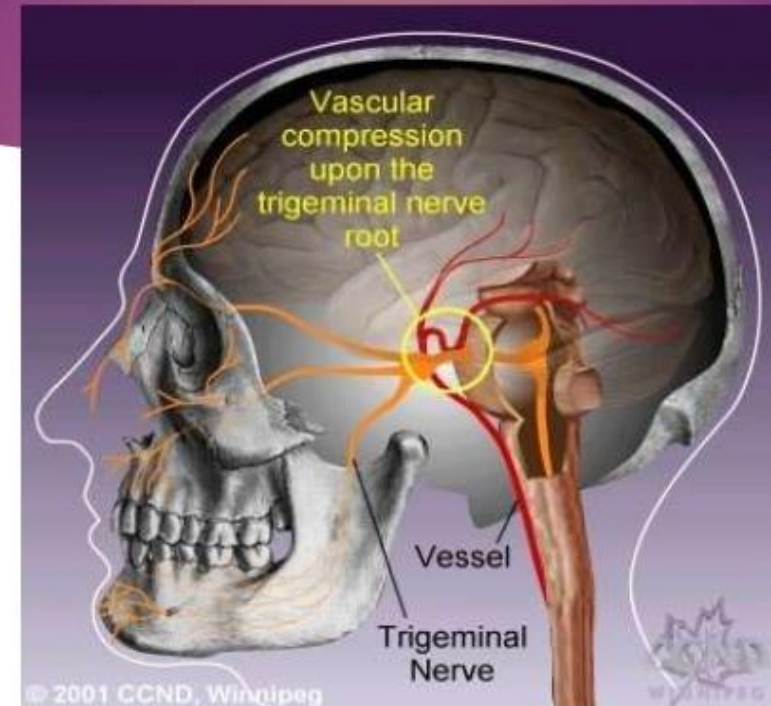
- **Inspect** the face of the subject.
- Look for any **tremors or muscle atrophy**.
- Ask the subject to **clench his teeth**, the **temporalis and masseter muscle stand out** with equal prominence on each side which can be confirmed on palpation.
- Ask the subject to **open the mouth against resistance**, checking for the **medial and lateral pterygoids**
- In case of paralysis **the jaw will deviate towards the paralyzed side** because of push by healthy **external pterygoid muscle** on the opposite side.
- Also check **jaw jerk reflex**.

TRIGEMINAL NEURALGIA

- Also called Tic Douloureux
- Chronic pain condition that affects the trigeminal nerve
- If you have trigeminal neuralgia, even mild stimulation of your face — such as from brushing your teeth or putting on makeup, chewing or talking — may **trigger a jolt of excruciating pain**
- Although the exact cause of trigeminal neuralgia is not fully understood, a blood vessel is often found compressing the nerve.

Vascular compression of V nerve

16



4-May-16



- EAR AND LOWER LIP IS SUPPLIED BY
 1. MANDIBULAR BRANCH OF TRIGEMINAL NERVE
 2. MAXILLARY BRANCH OF TRIGEMINAL NERVE



- EAR AND LOWER LIP IS SUPPLIED BY
 1. MANDIBULAR BRANCH OF TRIGEMINAL NERVE (CORRECT)
 2. MAXILLARY BRANCH OF TRIGEMINAL NERVE



THANK YOU

