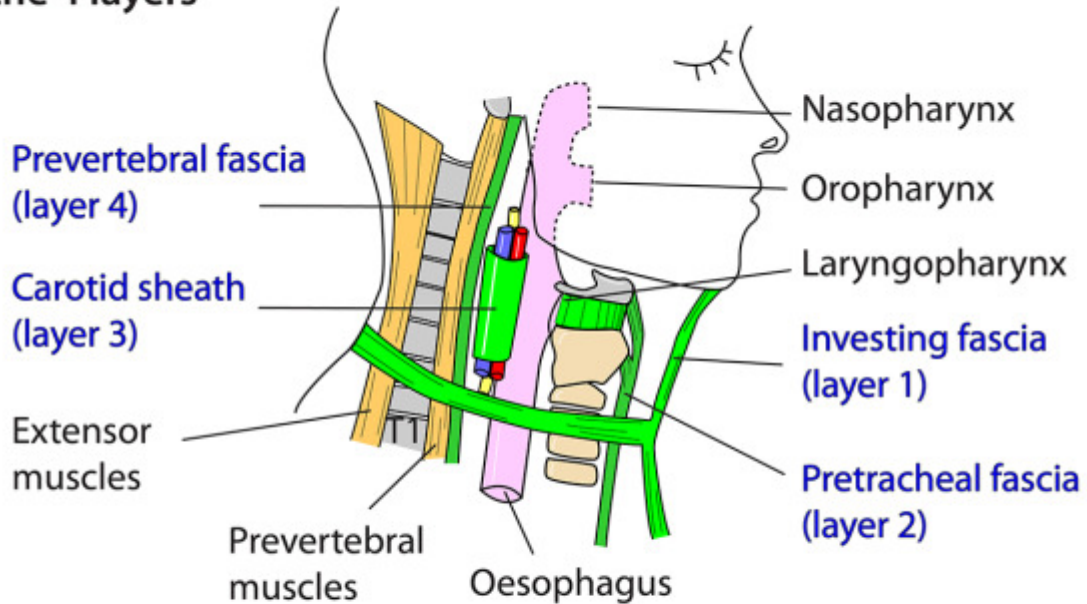
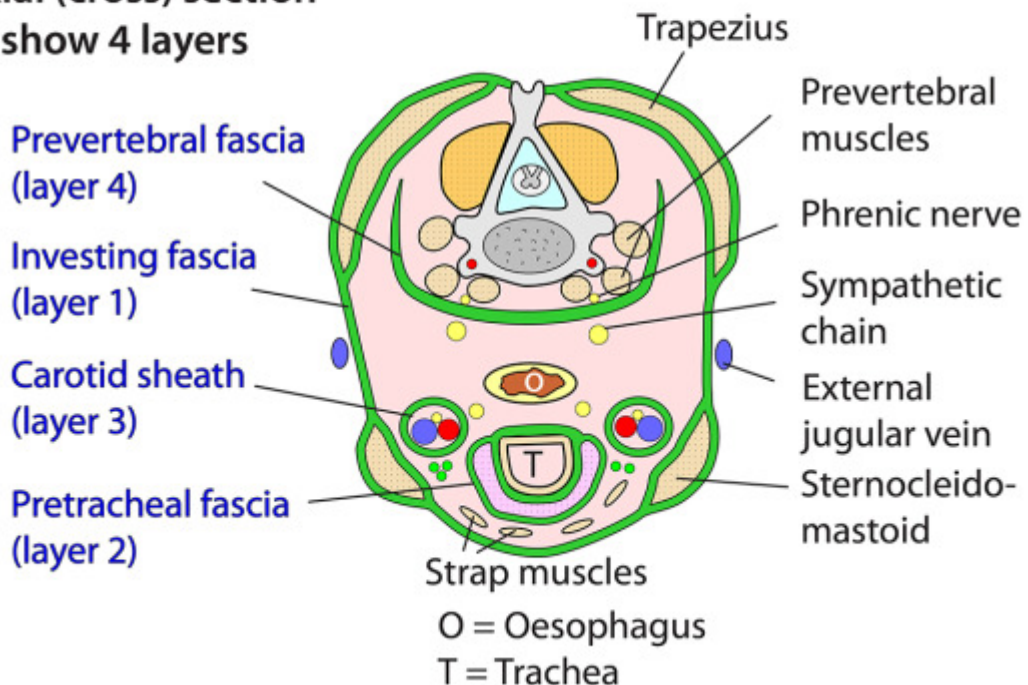


## DEEP FASCIA OF NECK

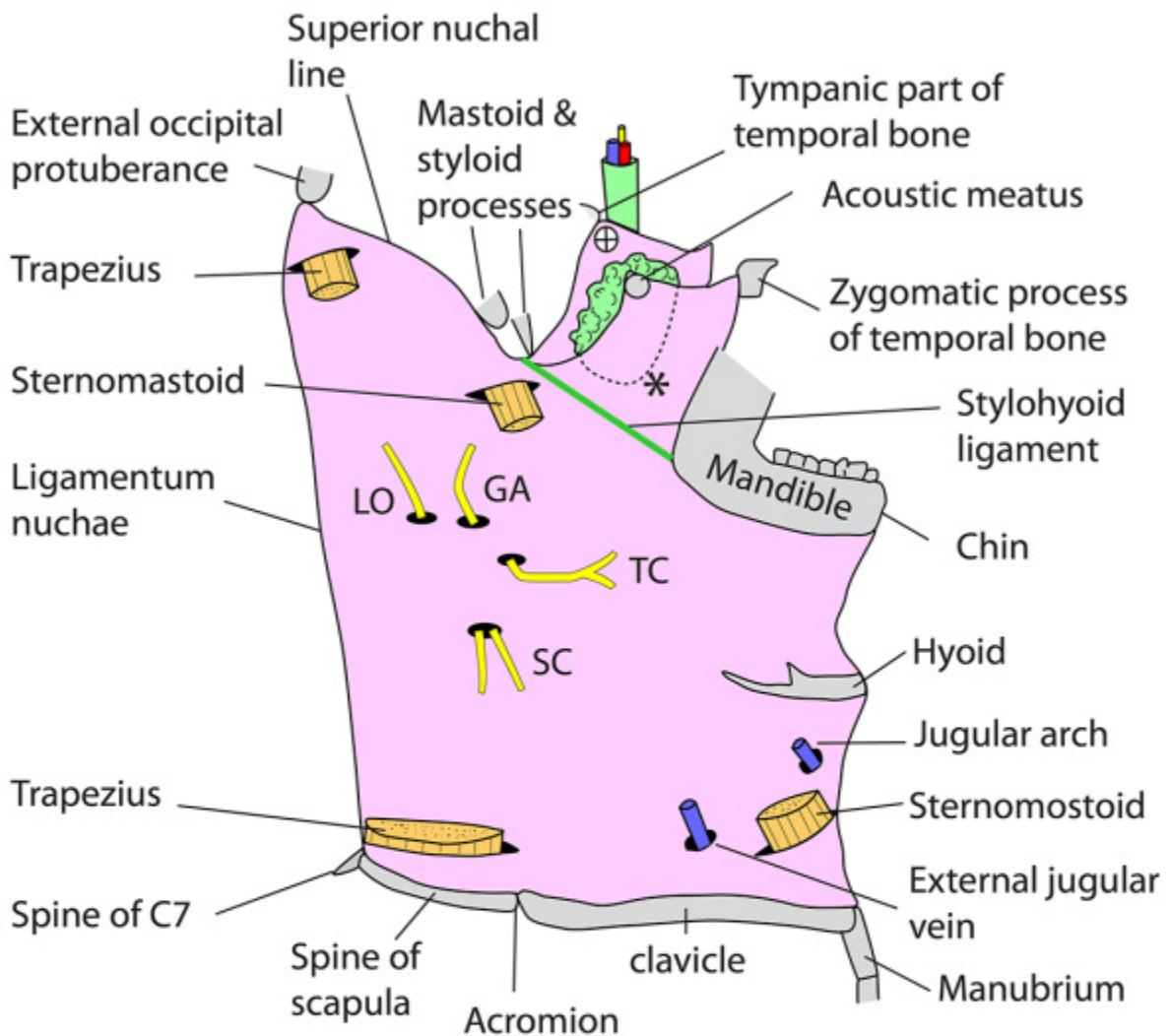
Lateral view to show the 4 layers



Axial (cross) section to show 4 layers



## INVESTING LAYER OF DEEP FASCIA OF NECK

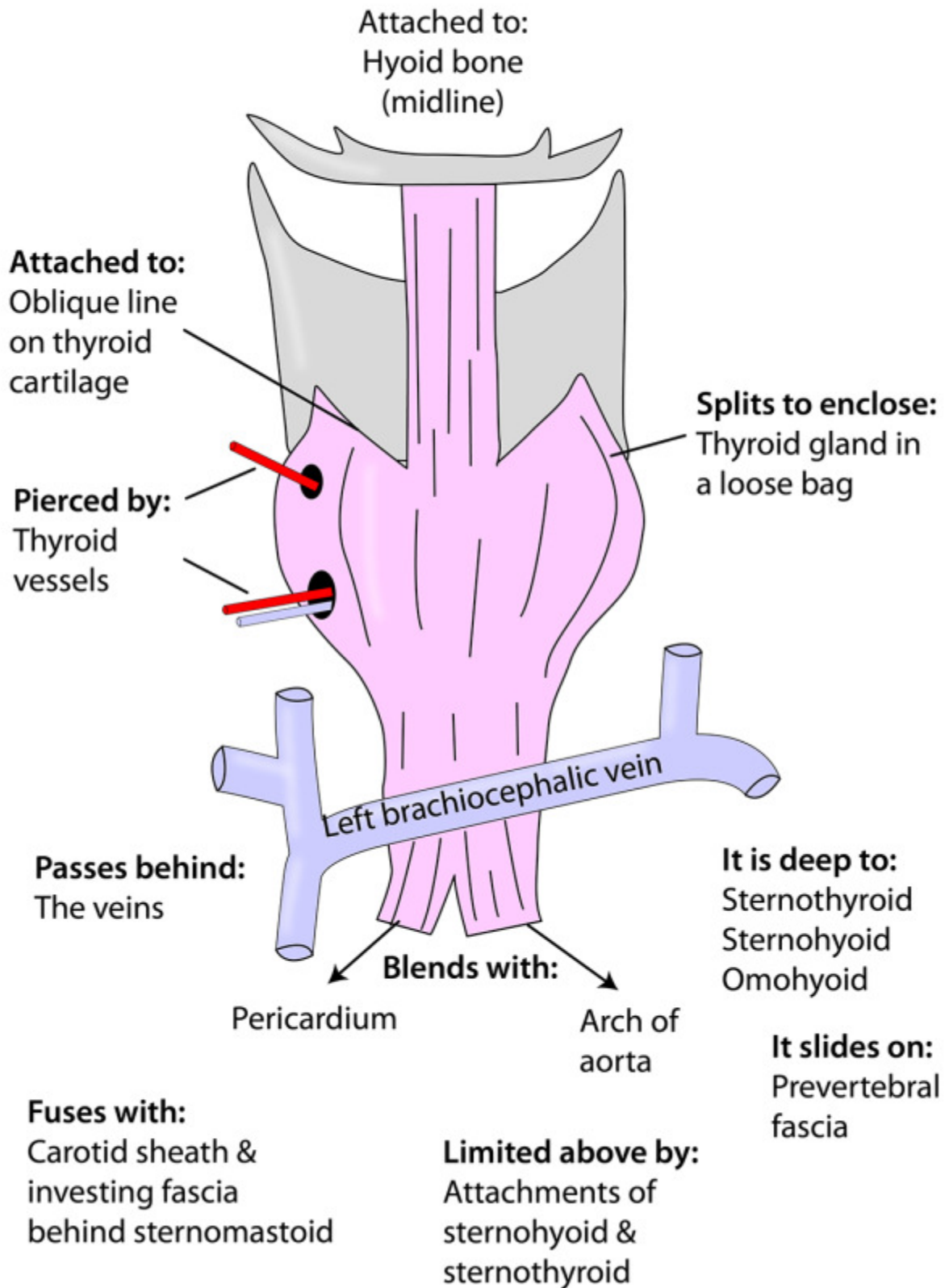


\* Anterior layer of parotid fascia is the superficial layer of the investing fascia that has split from the stylohyoid ligament

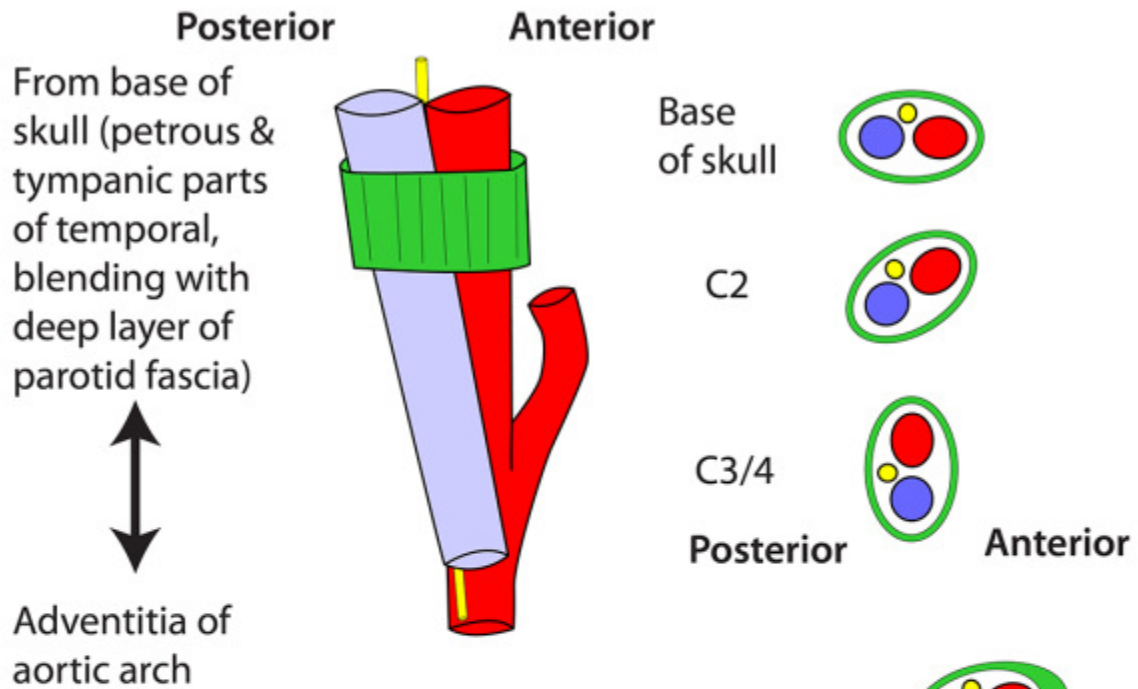
⊗ Posterior layer of parotid fascia is the deep layer of the investing fascia that has split from the stylohyoid ligament. It fuses with the parotid gland

**LO** Lesser occipital  
**GA** Great auricular  
**TC** Transverse cervical  
**SC** Supraclavicular

# PRETRACHEAL PART OF DEEP FASCIA OF NECK



# CAROTID SHEATH

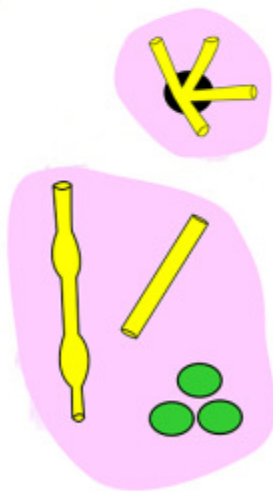
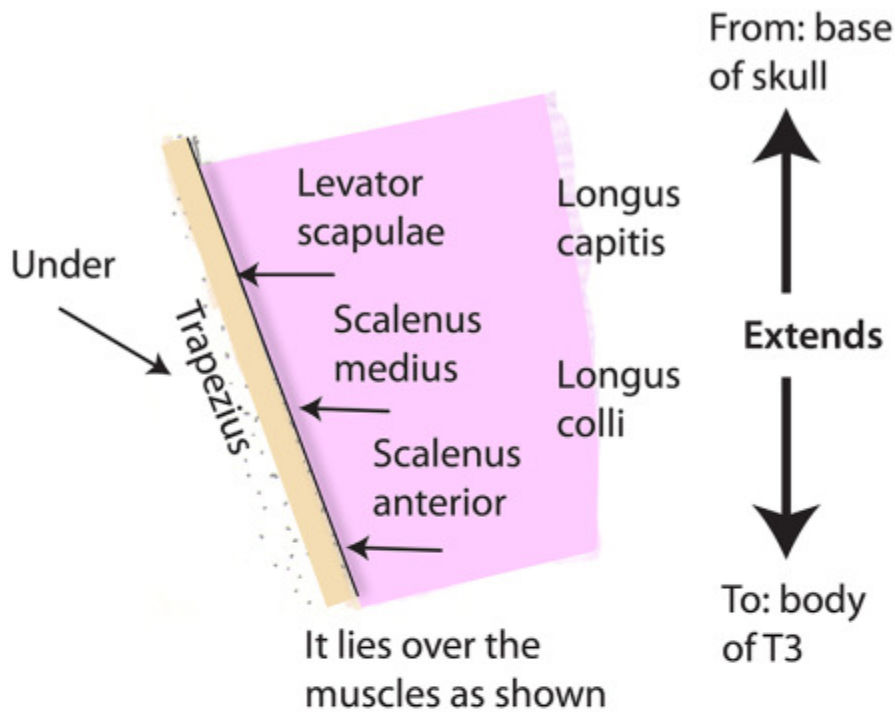


- It fuses with pretracheal fascia and the investing fascia under sternocleidomastoid
- The ansa cervicalis is in the carotid sheath over the internal jugular vein
- Escaping from the upper sheath are:  
Glossopharyngeal (IX), superior laryngeal  
Branch of vagus (X), spinal root of accessory (XI)  
and hypoglossal (XII) nerves



Sheath is  
thinnest  
over vein

## PREVERTEBRAL PART OF DEEP FASCIA OF NECK



- Pierced by:**
- Great auricular nerve
  - Lesser occipital nerve
  - Transverse cervical nerve
  - Supraclavicular nerves
  - Inferior root of ansa cervicalis

- Lying on it:**
- Sympathetic chain
  - Lymph nodes
  - Spinal root of accessory nerve

- Deep to it:**
- Cervical plexus
  - Trunks of brachial plexus
  - 3rd part of subclavian artery
  - Phrenic nerve

It blends with the anterior longitudinal ligament. Its lower border laterally is the lower border of scalenus anterior

## **TISSUE SPACES IN THE NECK**

### **PREVERTEBRAL SPACE**

Closed space behind prevertebral fascia which allows infection to track down into axilla via the axillary sheath which is, itself, part of the prevertebral fascia that is dragged off by the subclavian artery as it emerges from behind scalenus anterior

### **RETROPHARYNGEAL SPACE**

Immediately anterior to prevertebral fascia. Below, it extends behind oesophagus to diaphragm via superior and then posterior mediastinum. Infection may spread from here, laterally, behind the carotid sheath into the posterior triangle

### **PARAPHARYNGEAL SPACE**

Lateral continuation of retropharyngeal space

### **SUBMANDIBULAR SPACE**

Extends above investing layer of deep cervical fascia, between hyoid and mandible to mucous membrane of floor of mouth. Contains mylohyoid muscle, sublingual gland above this muscle and submandibular gland hooking around its posterior border. Infection here gives cellulitis known as

### **LUDWIG'S ANGINA**