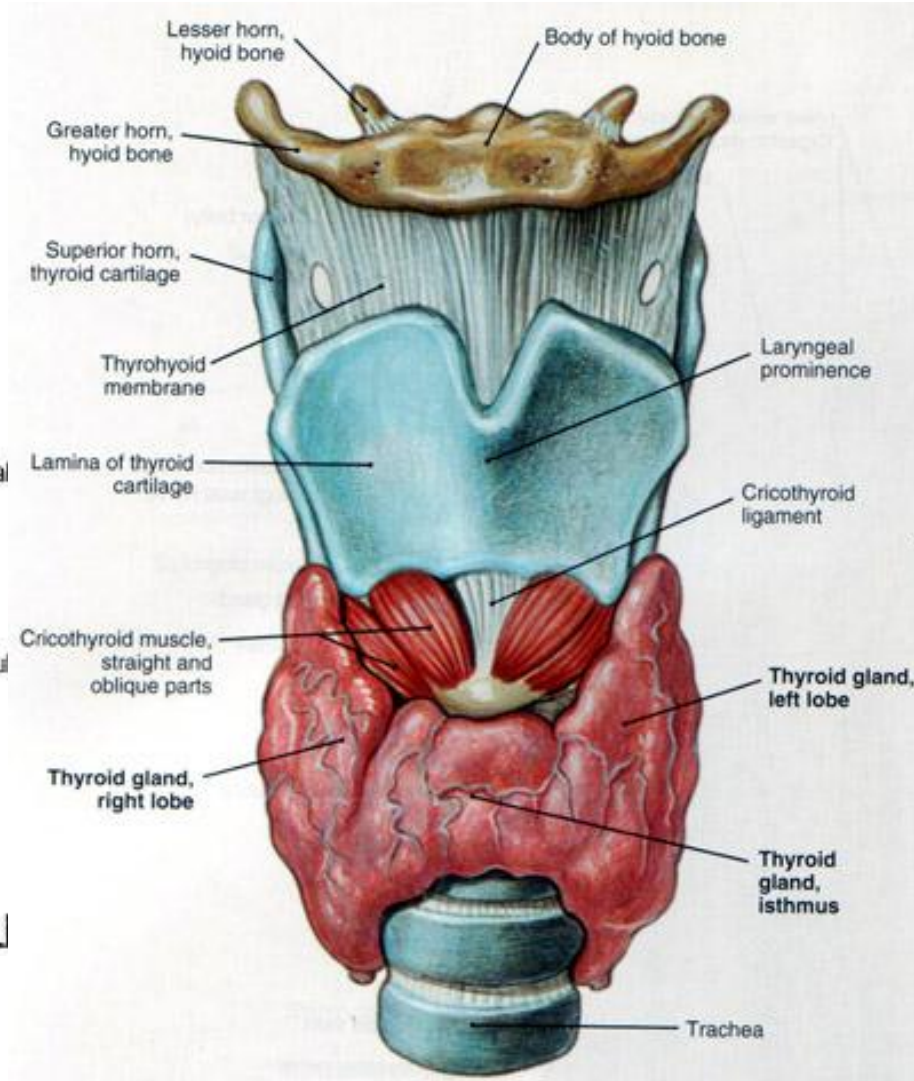
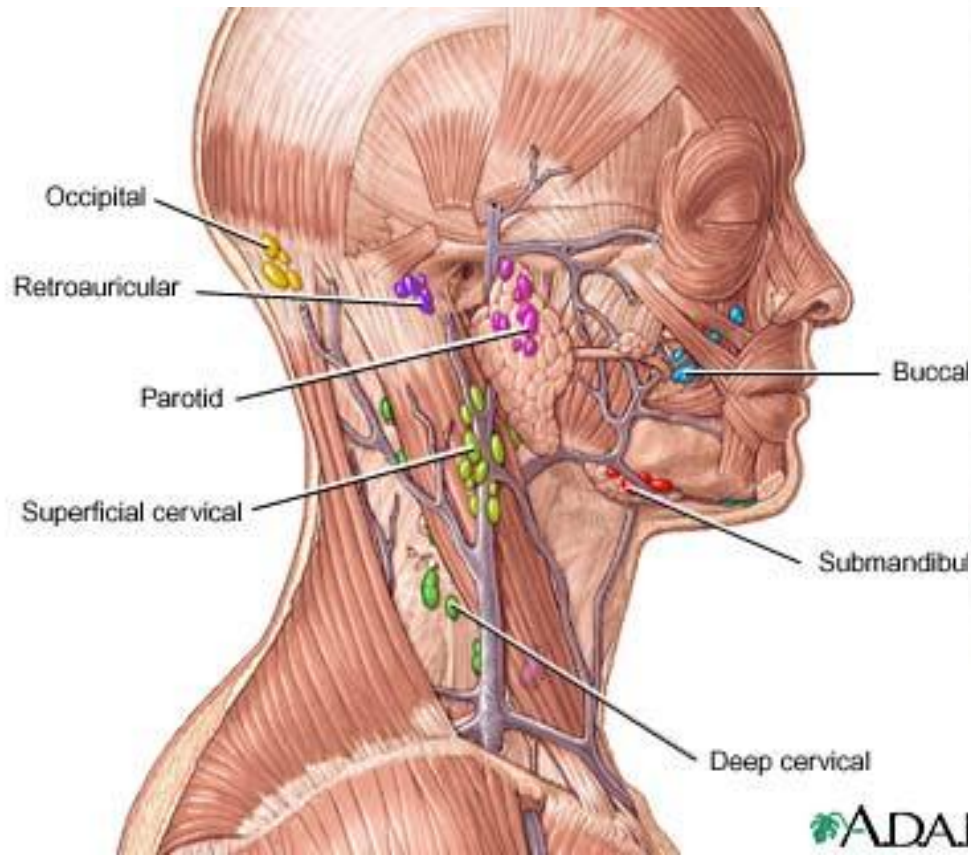
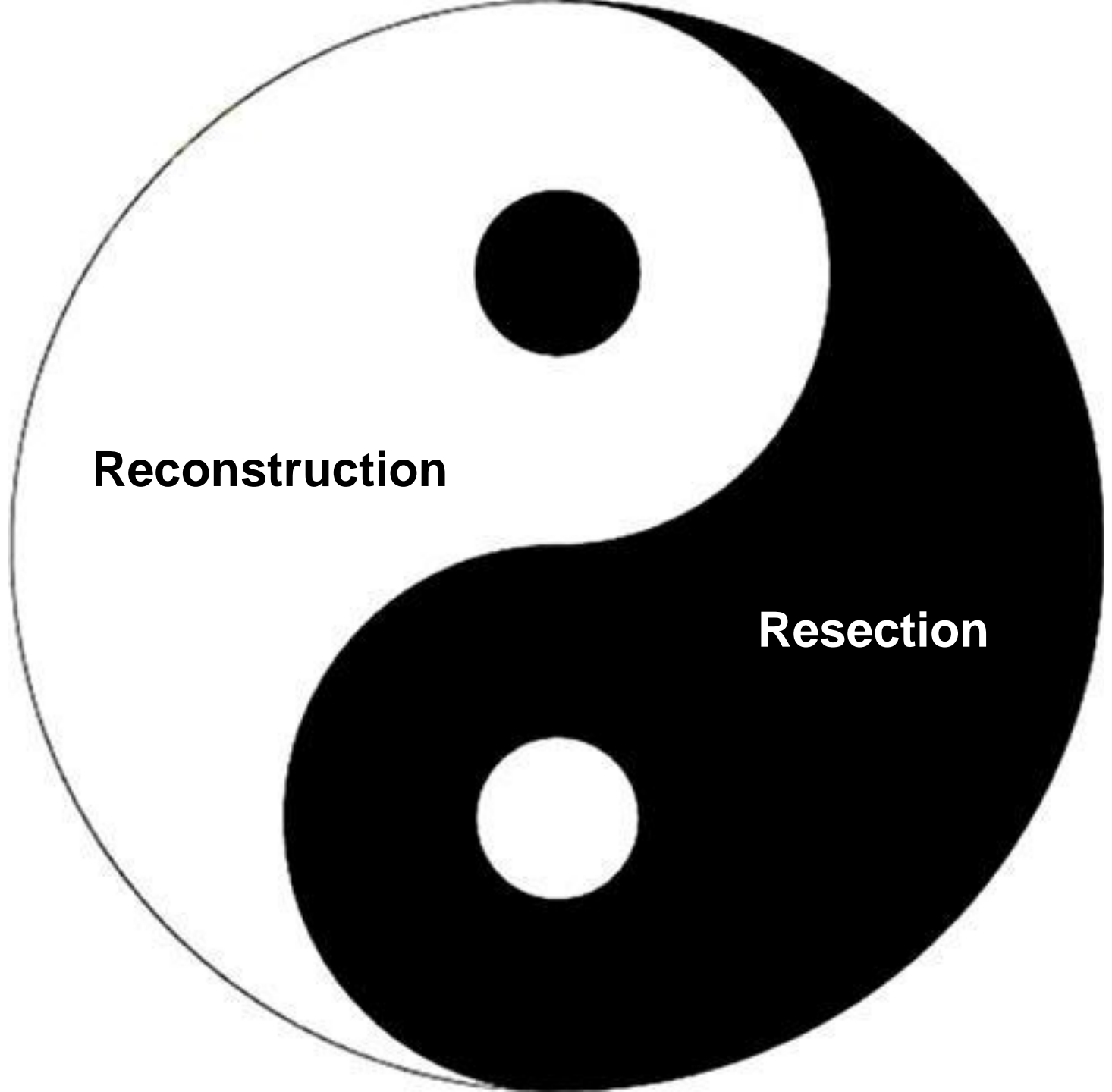


頭頸癌手術治療與術後照護

臺大醫院雲林分院
耳鼻喉部

陳贈成 醫師





Reconstruction

Resection



**Quality of
Life**

**Treatment
outcome**

**1980's:
curative
surgery**

**1990's:
surgery
+radiotherapy
or CCRT**

**2000's:
CCRT+
salvage
operation**

**2010's:
Target
treatment+
Robotic
surgery**

內容大綱：

- Neck dissection
- Laryngectomy
- Salivary gland surgery
- Thyroid gland surgery

Neck dissection 定義與命名:

- Remove metastatic cancer in cervical lymph nodes
- “therapeutic” neck dissection
- “ elective” neck dissection
- “ salvage” neck dissection

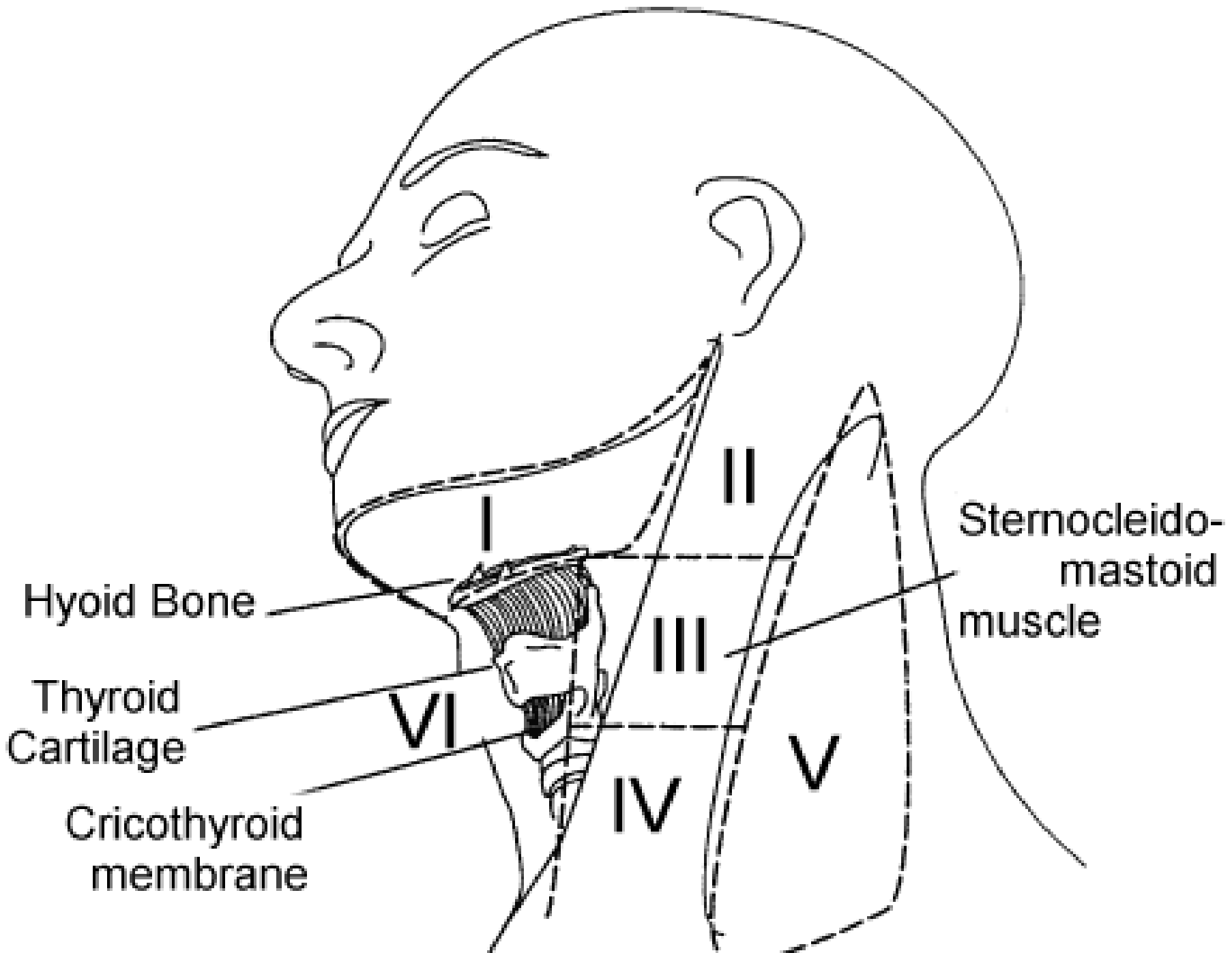
Neck dissection 定義與命名:

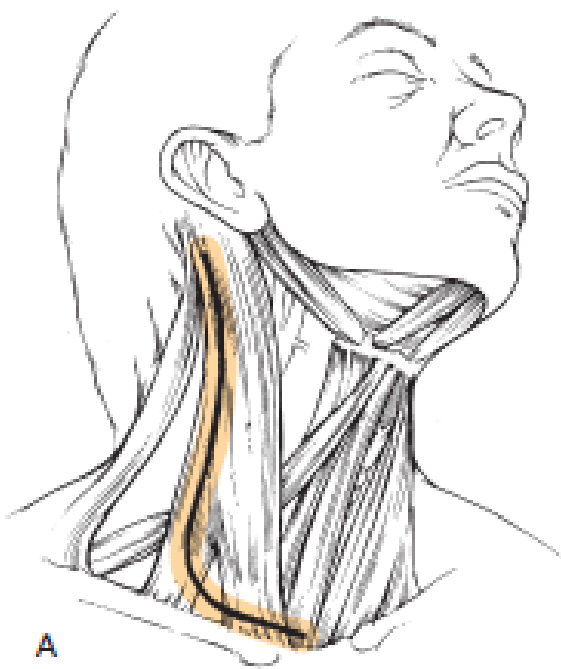
Types of Neck Dissection

Terminology Definition

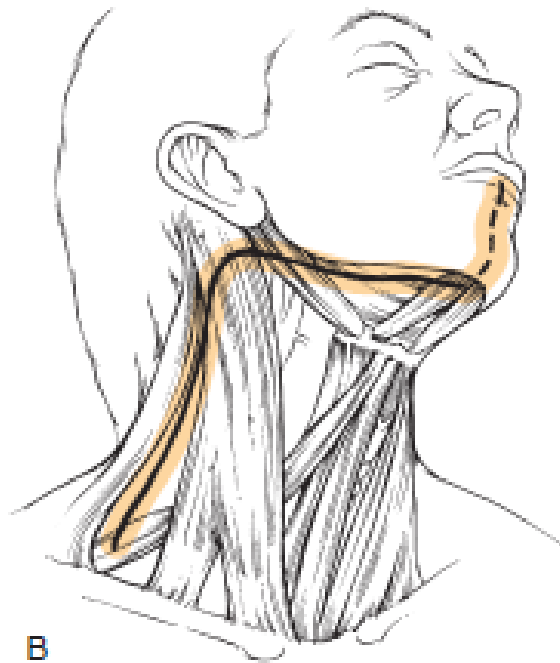
Radical	Removal of lymph node levels I to V, sternocleidomastoid muscle, spinal accessory nerve, and internal jugular vein.
Modified	Removal of lymph node levels I to V (as in radical neck dissection [ND]), but preservation of at least one of the nonlymphatic structures (sternocleidomastoid muscle, spinal accessory nerve, and internal jugular vein).
Selective	Preservation of one or more lymph node levels relative to a radical ND.
Extended	Removal of an additional lymph node level or group or a nonlymphatic structure relative to a radical ND (muscle, blood vessel, nerve). Examples of other lymph node groups are superior mediastinal, parapharyngeal, retropharyngeal, peri-parotid, postauricular, suboccipital, and buccinator. Examples of other nonlymphatic structures are external carotid artery, hypoglossal, and vagus nerves.

- Nonlymphatic structures:
 - Muscle (SCM muscle)
 - Nerve (Spinal accessory n., Hypoglossal n., Vagus n., Sympathetic n.)
 - Vessel (carotid artery, jugular vein)

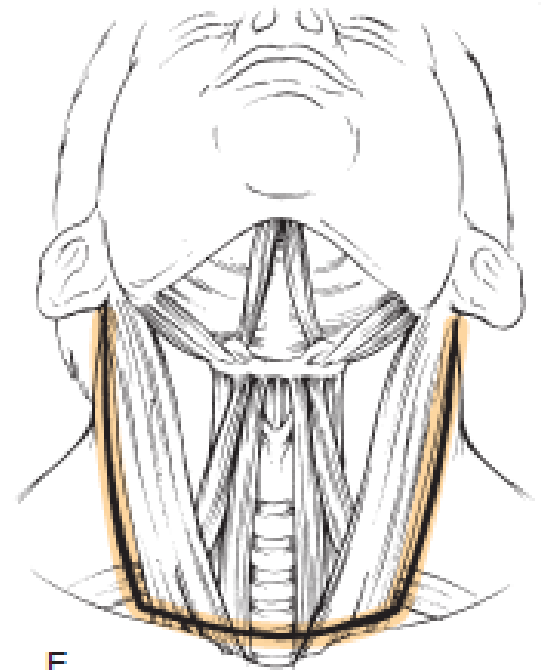




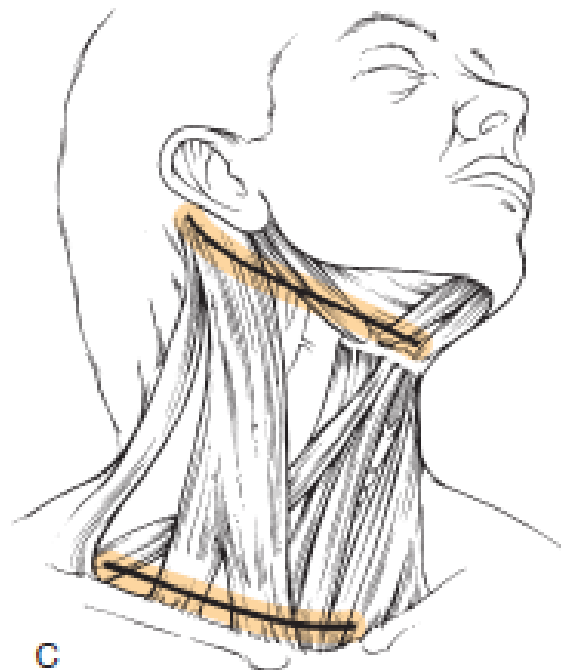
A



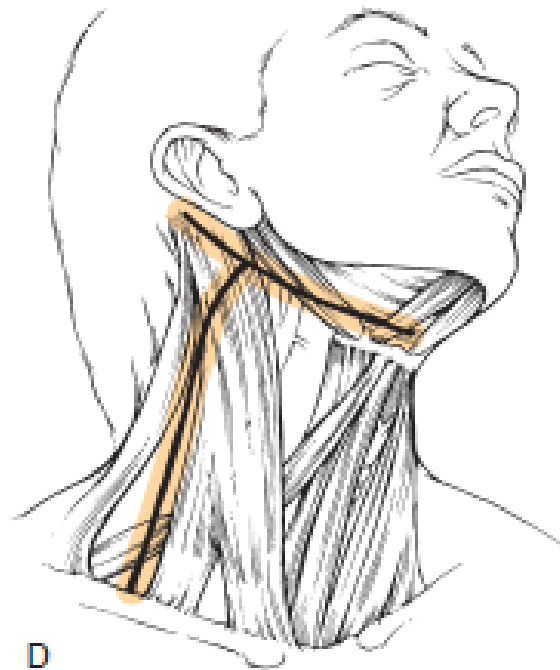
B



E

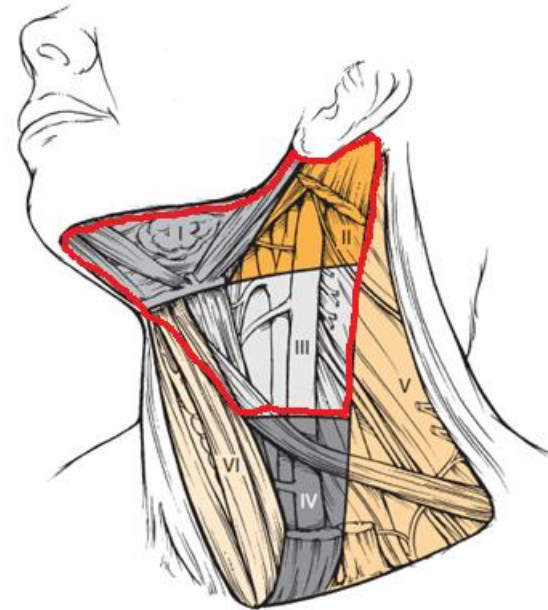
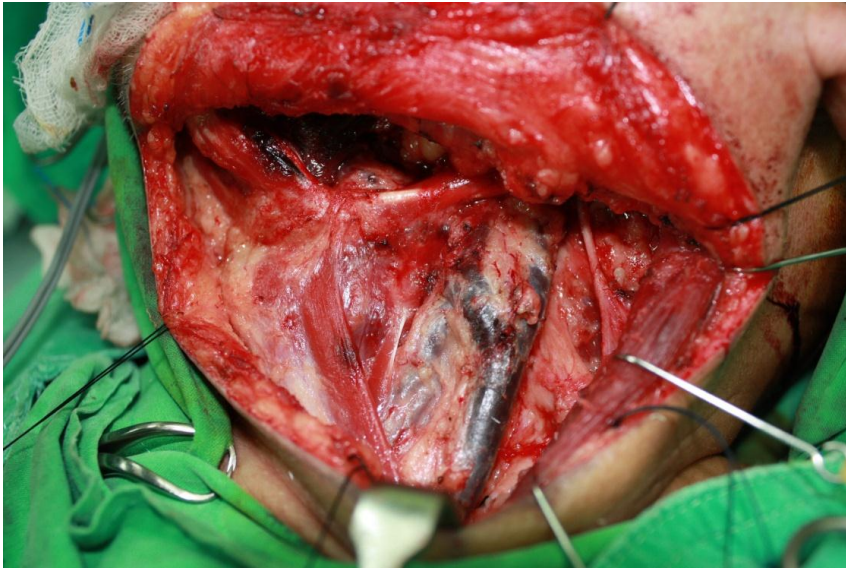


C

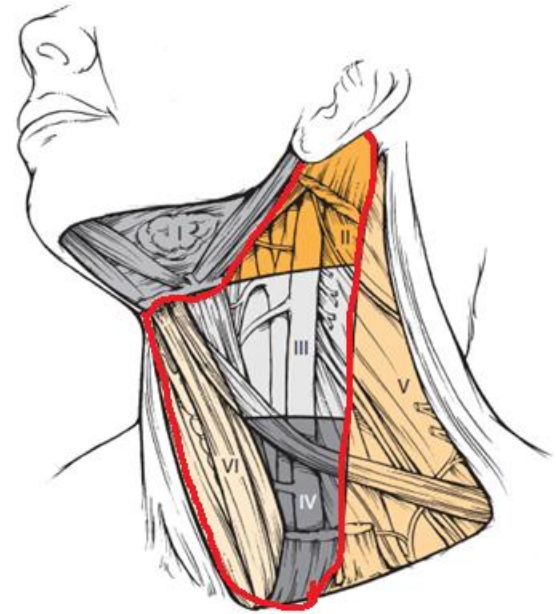
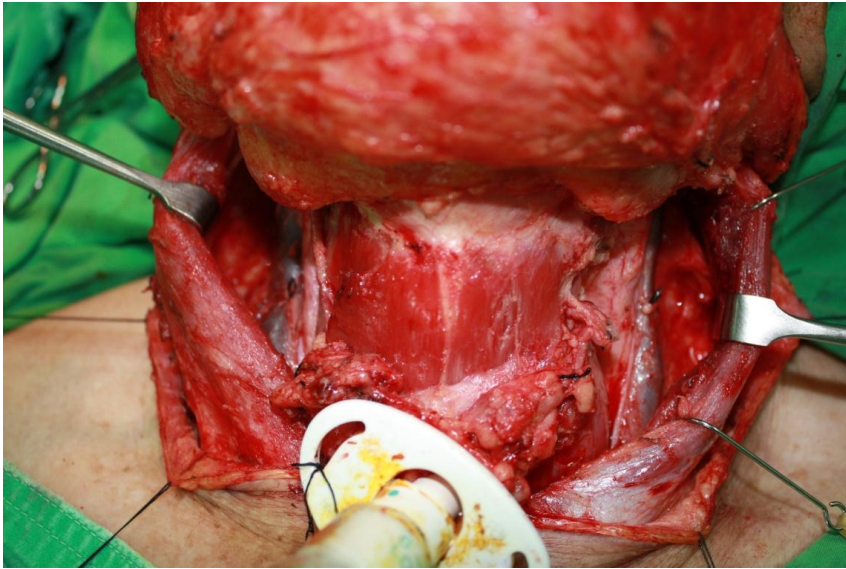


D

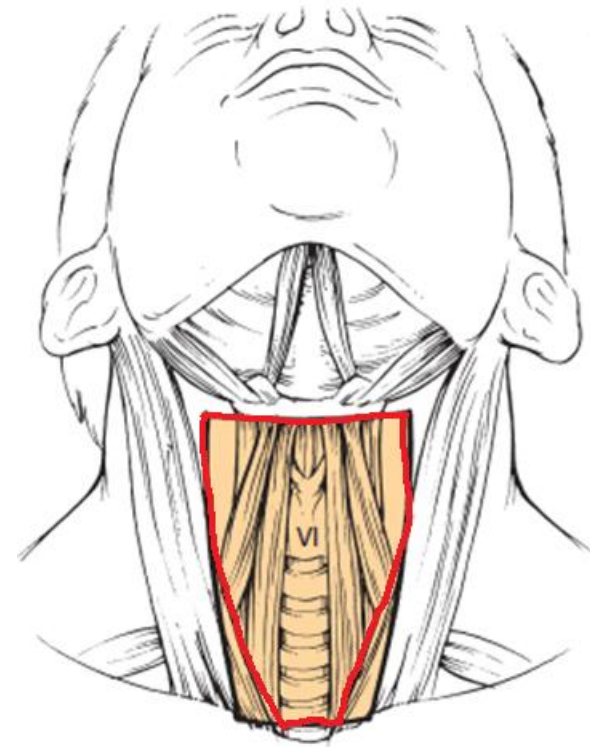
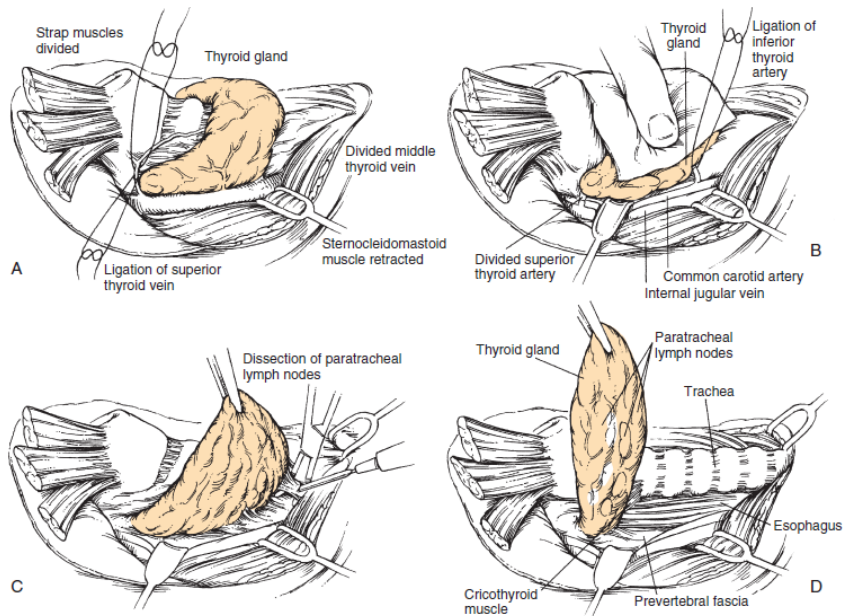
For early stage oral cancer Neck dissection:



For laryngeal or hypopharyngeal cancer neck dissection:



For thyroid cancer neck dissection:



Neck dissection postoperative care

- 手術傷口較小
- 引流液較少的
- 最大容量150c. c.



Neck dissection postoperative care

- 大型傷口常用
- 最大容量400c. c



Neck dissection postoperative care

- Remove hemovac indication
 - drainage amount: <10ml/day
 - total drainage amount: <50ml/3 days

Neck dissection complication: skin flap necrosis

- Inducing factor:
 - wound infection
 - malfunction of H/V
 - poor nutrition
 - prior radiation



Neck dissection complication: skin flap necrosis

- Treatment:
 - wet dressing 2~3 times/day
 - HBO
 - STSG and Skin flap reconstruction



Neck dissection complication:



- S/S: asymmetric of mouth corner, drooling, difficult swallowing
- Nerve identification
 - Thin patient
 - Fat patient

Neck dissection complication:

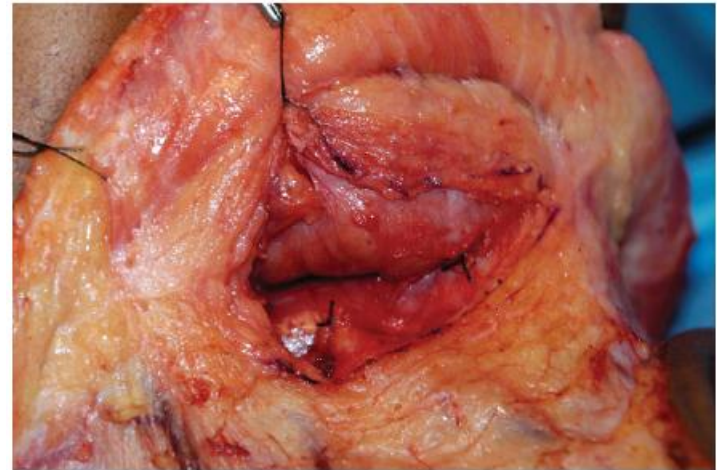
- Pathologic lymph nodes

along external facial

vein

- Elevate SMG capsule

along the lower pole



Neck dissection complication:



Neck dissection complication- Chyle leakage

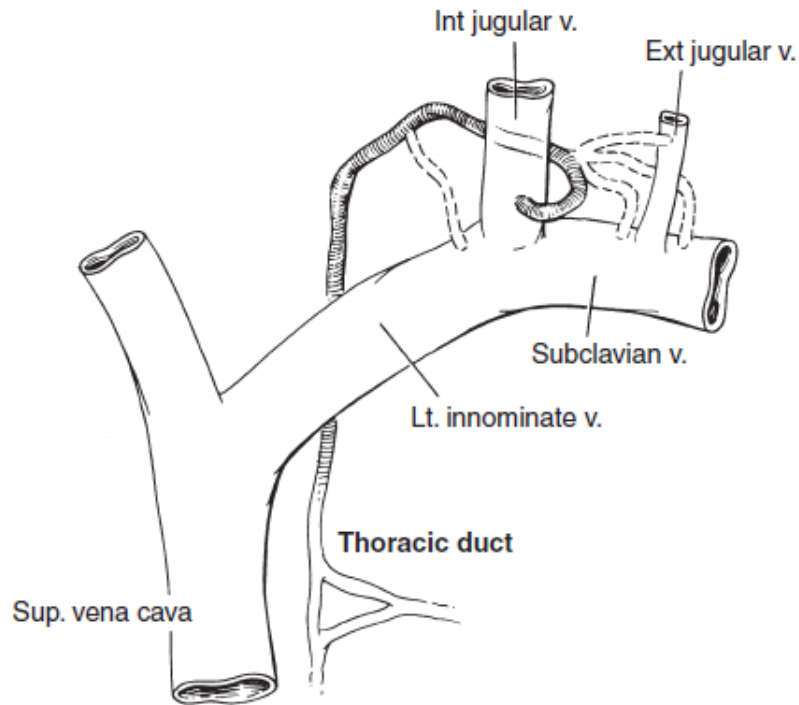
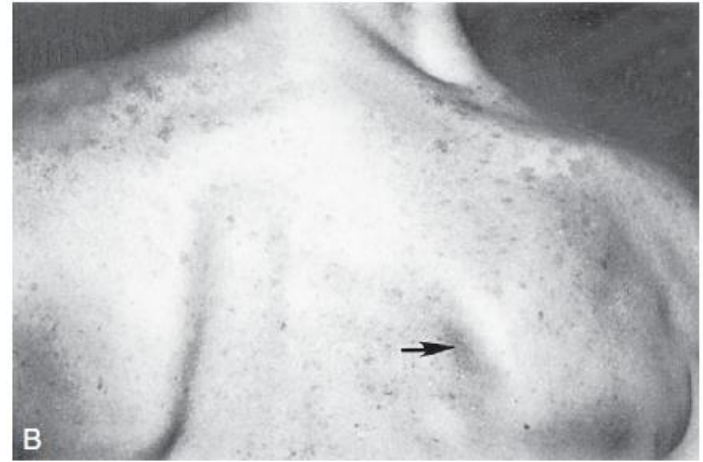
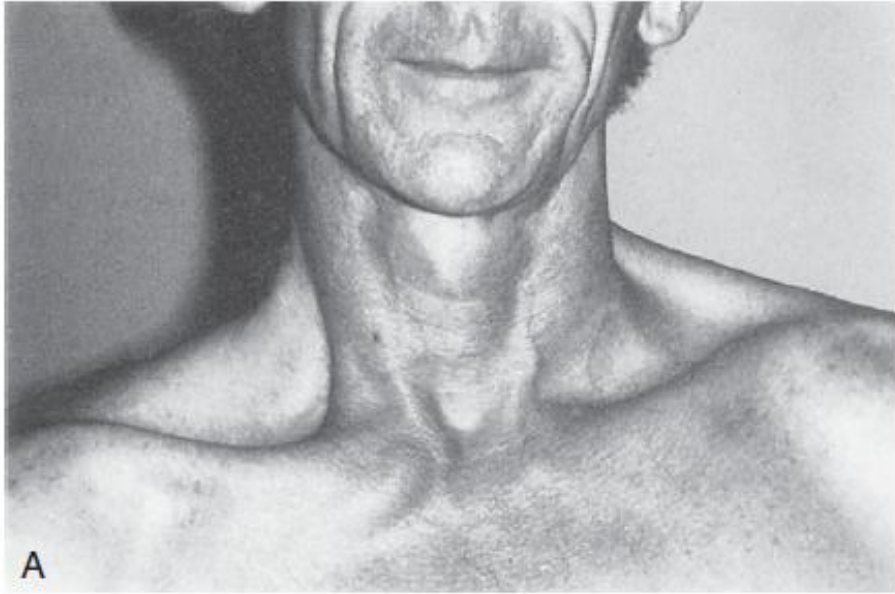


Figure 36-13. Anatomy of the thoracic duct. In most individuals, the duct enters the internal jugular vein (*solid lines*), but a number of possible anatomic variations exist (*dashed lines*).

Neck dissection complication- Chyle leakage

- Chyle: lymph and emulsified fat absorbed from intestine, protein (2~4%), fat (1~3%)
- Incidence: 1~2%
- Treatment: conservative, bed rest head elevation, nutrition modification (medium-chain TG)

Neck dissection complication- Shoulder dysfunction



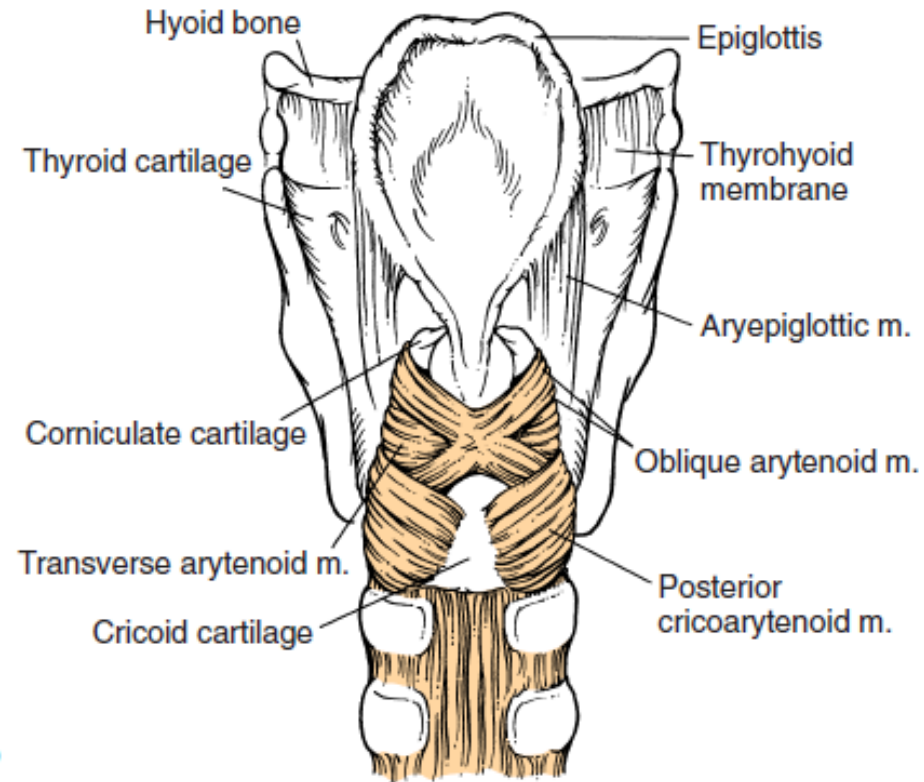
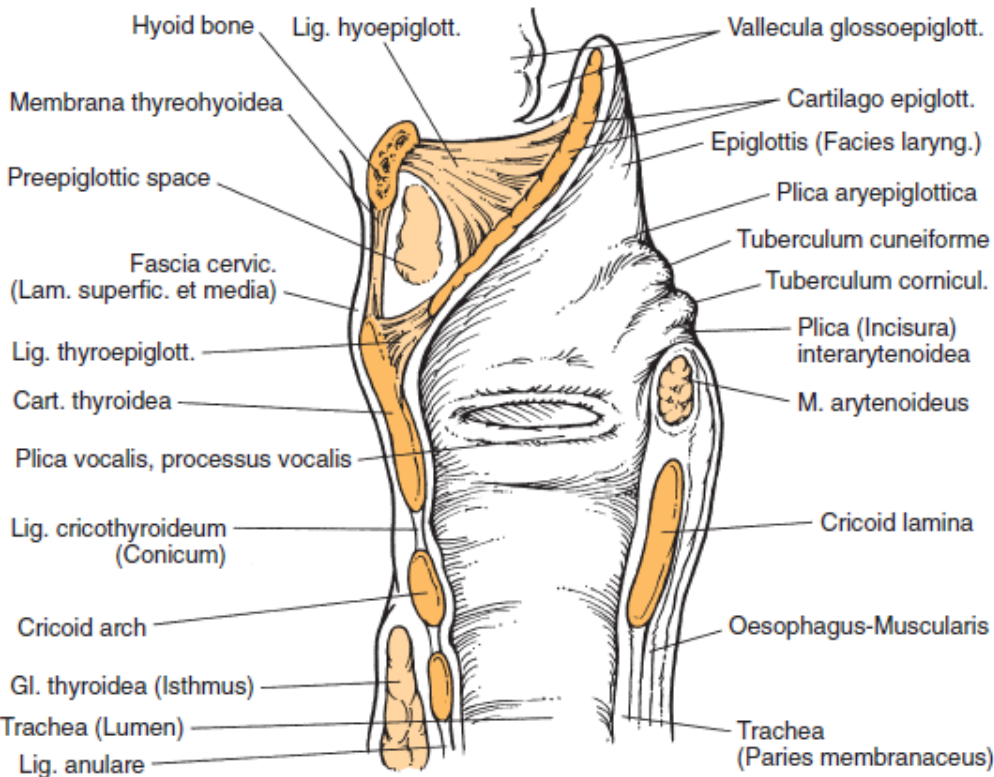
Neck dissection complication

- Traumatic neuroma:
 - postoperative pain
 - disorganized neural regeneration
 - size rare >1cm

Neck dissection complication

- First-bite syndrome
 - pain in the neck or jaw when first biting
 - imbalance between parasympathetic and sympathetic discharge to the parotid gland

Larynx anatomy:







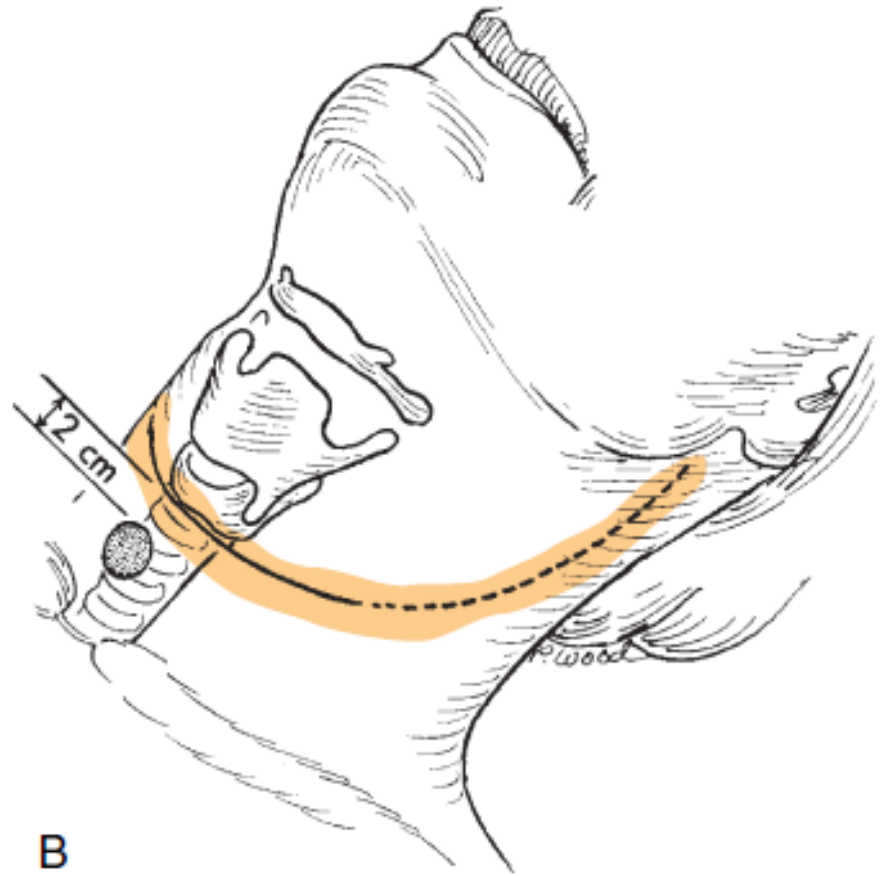
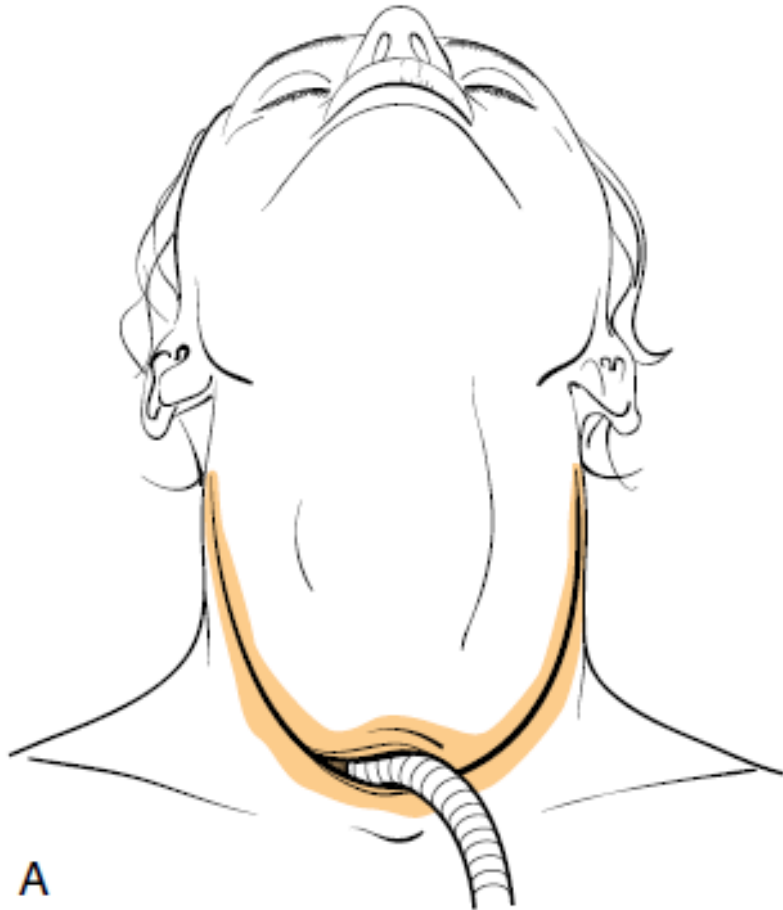
Total laryngectomy

- Indication:
 - laryngeal dysfunction
 - posterior commissure involved
 - bilateral arytenoid/ CA joint involved

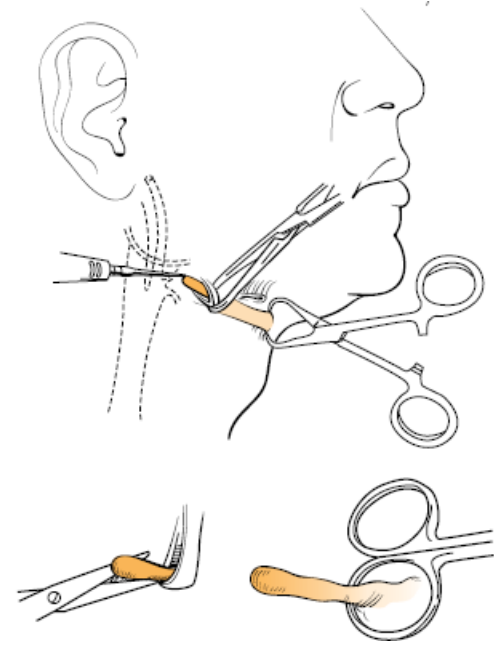
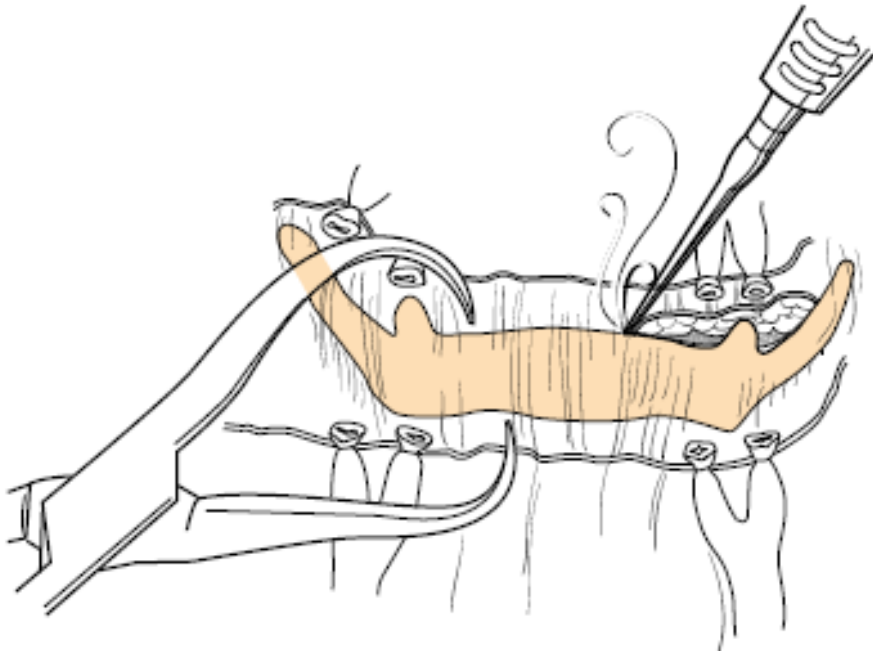
Total laryngectomy

- Indication:
 - subglottic extension beyond cricoid cartilage
 - **radiation or chemoradiation failure**
 - postcricoid mucosa involved
 - extensive pharyngeal or tongue base resection

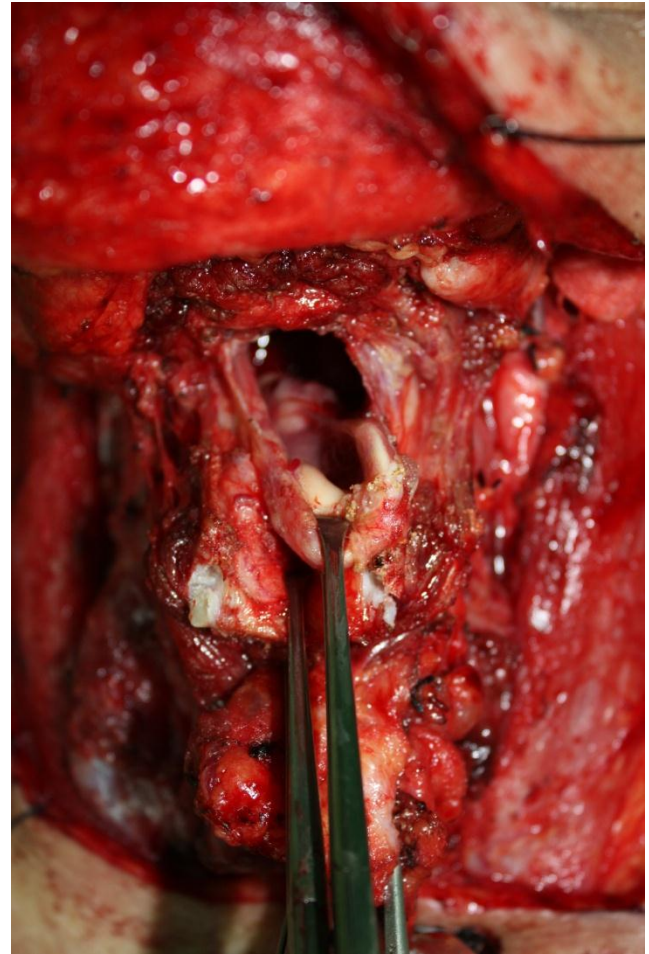
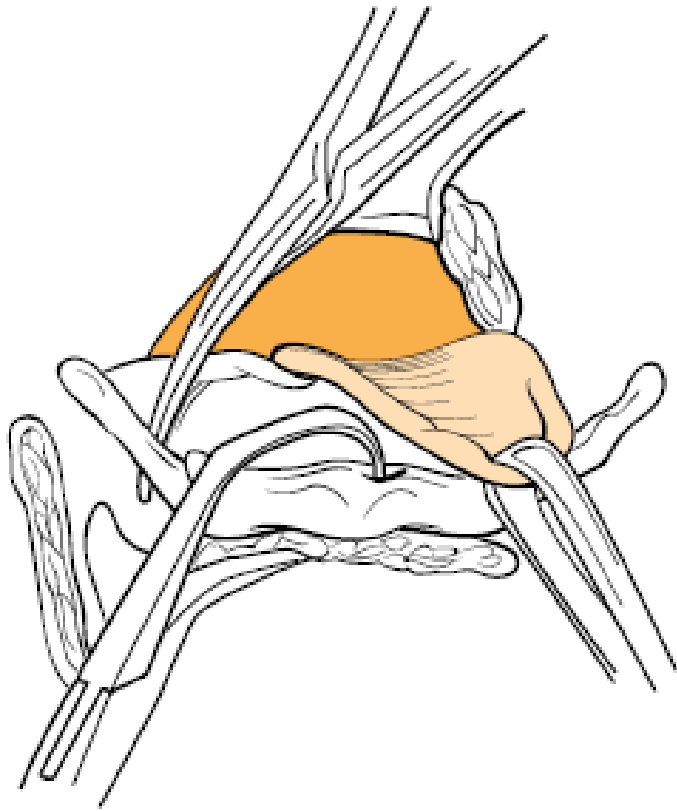
Total laryngectomy



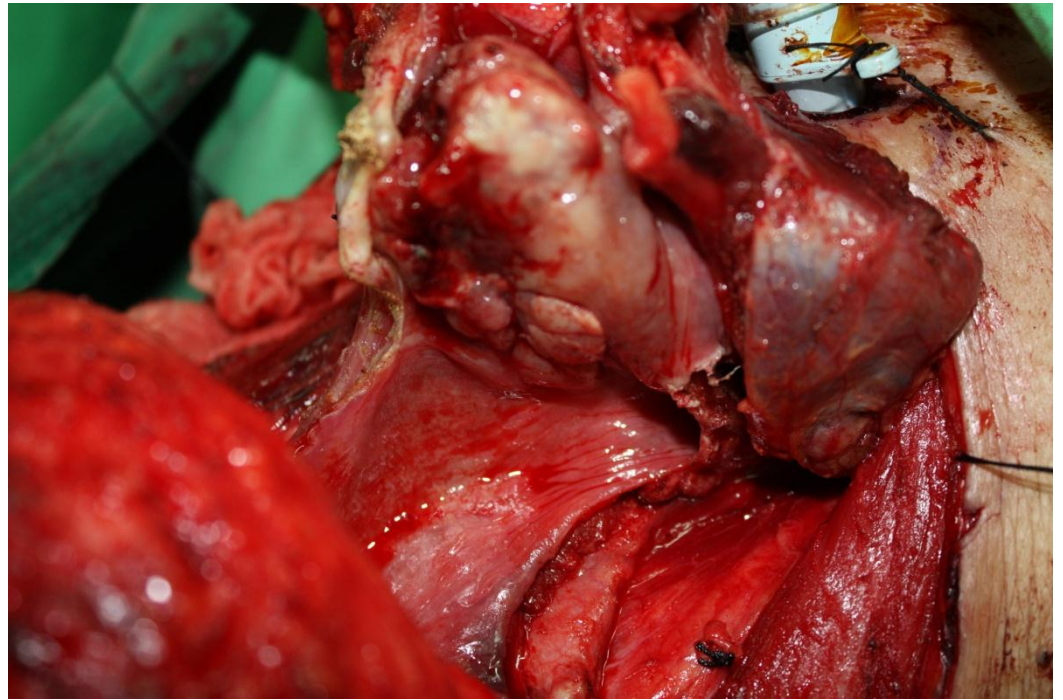
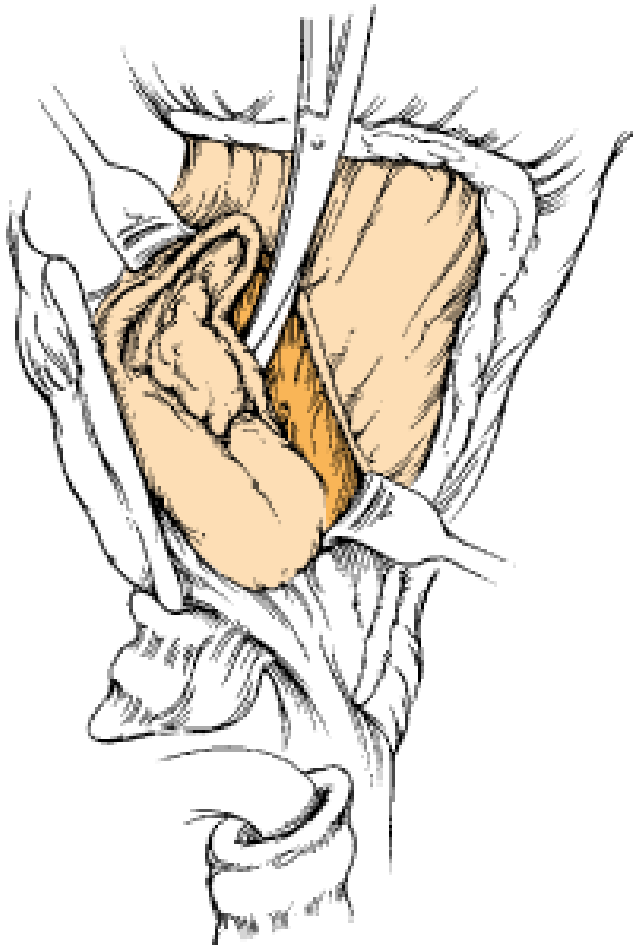
Total laryngectomy



Total laryngectomy



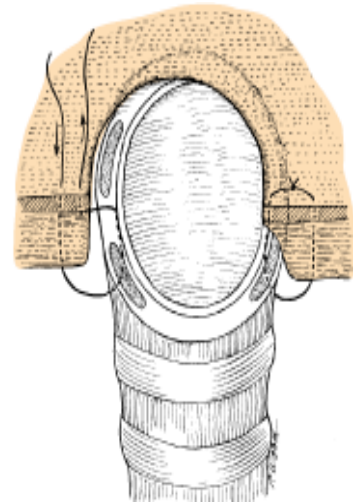
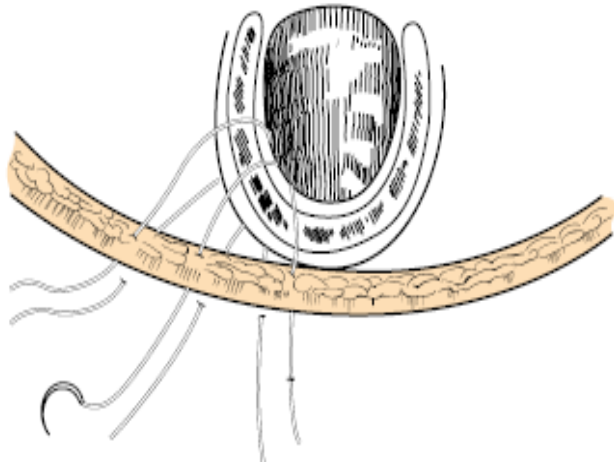
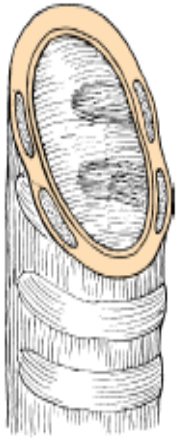
Total laryngectomy



Total laryngectomy



Total laryngectomy:



Total laryngectomy complication:

- Early complication:
 - Drain failure
 - Hematoma
 - Infection
 - Pharyngocutaneous fistula

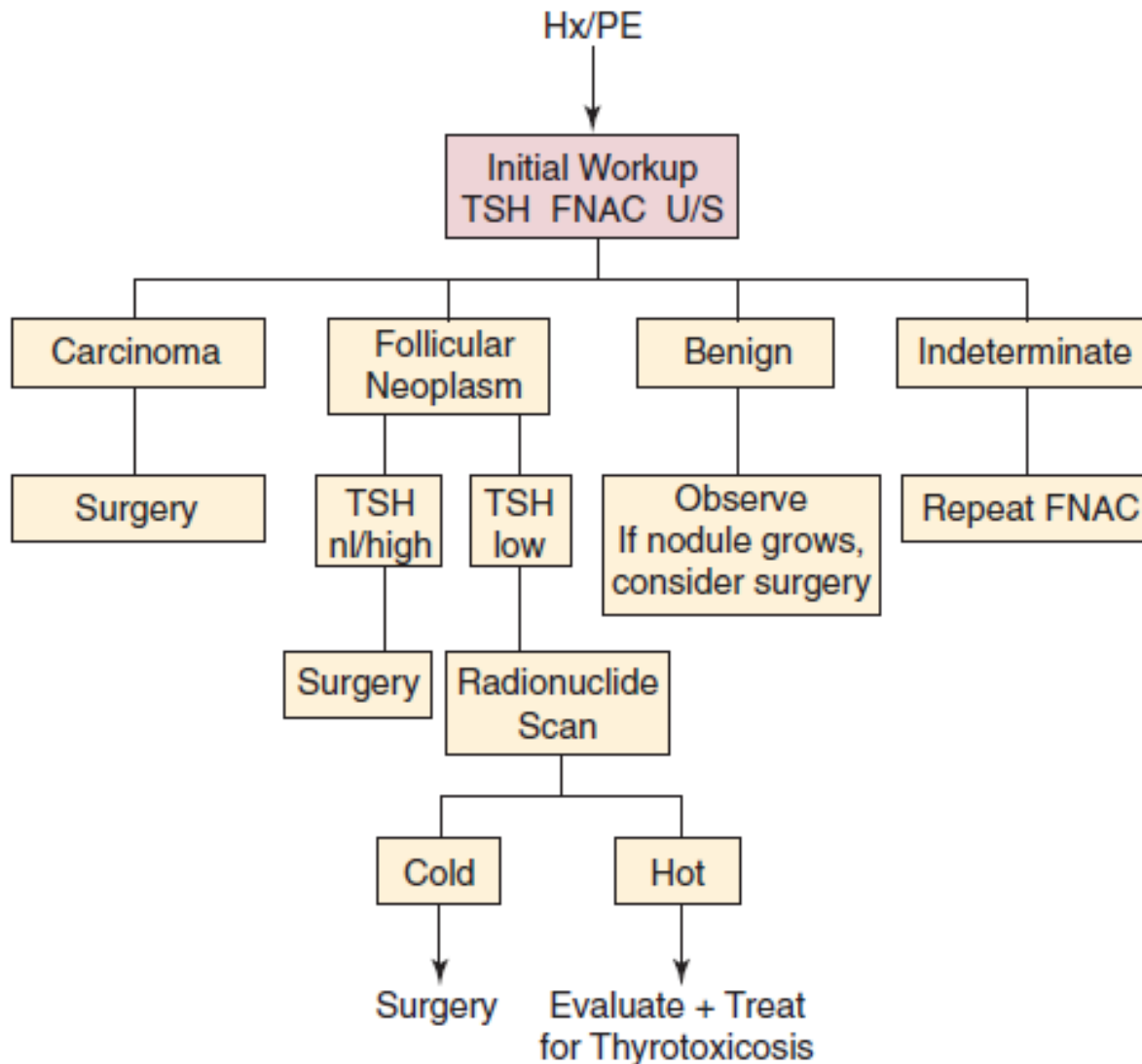
Total laryngectomy complication:

- Late complication:
 - Pharyngoesophageal stenosis and stricture
 - Stoma stenosis
 - Hypothyroidism

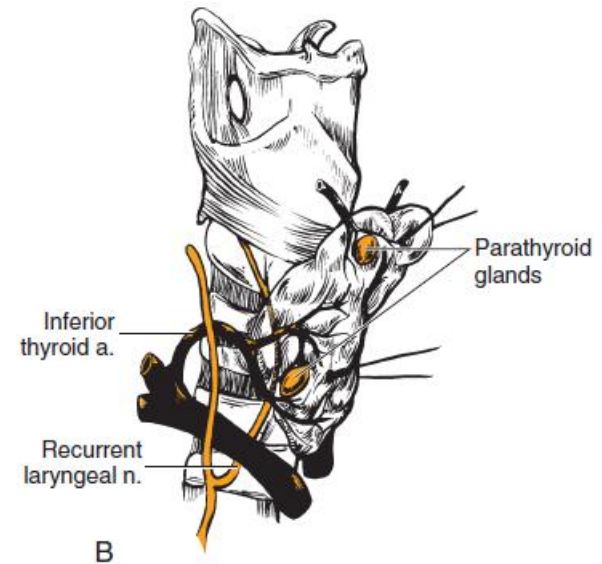
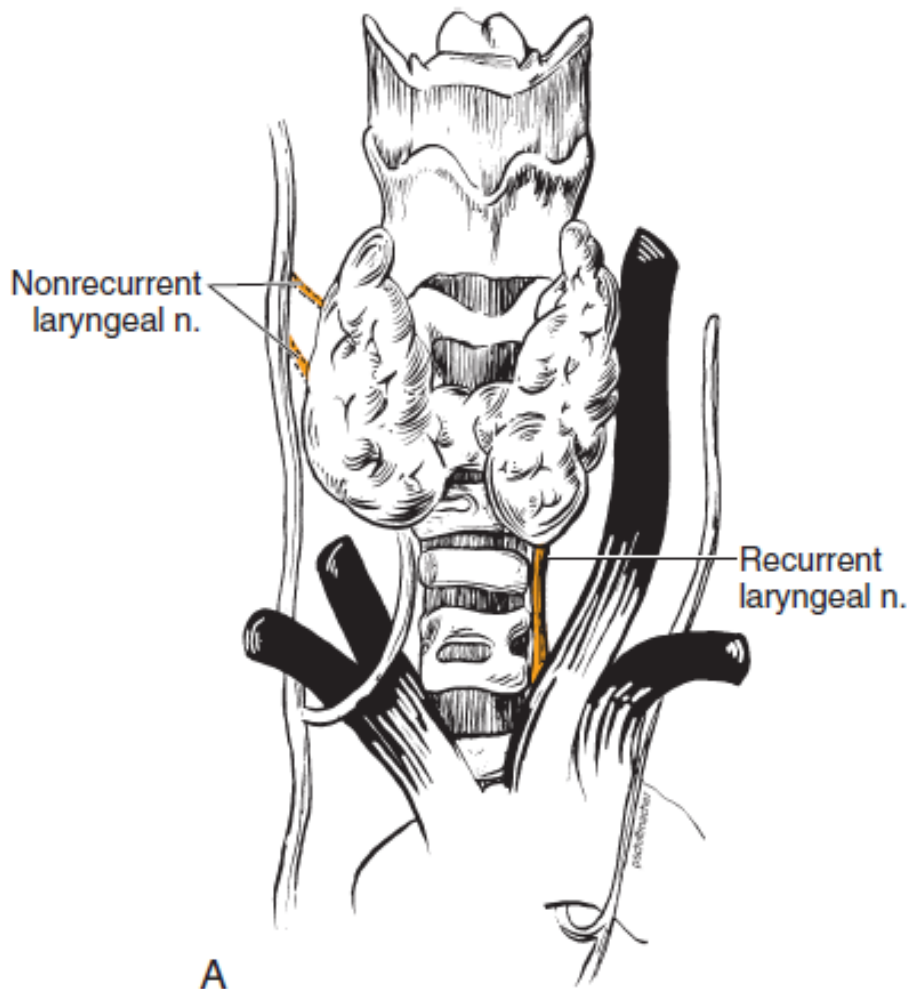
Total laryngectomy rehabilitation:

- Voice
 - Tracheoesophageal speech
 - Esophageal speech
 - Electro-mechanical devices

Thyroid gland surgery:



Related Anatomy of Thyroid:

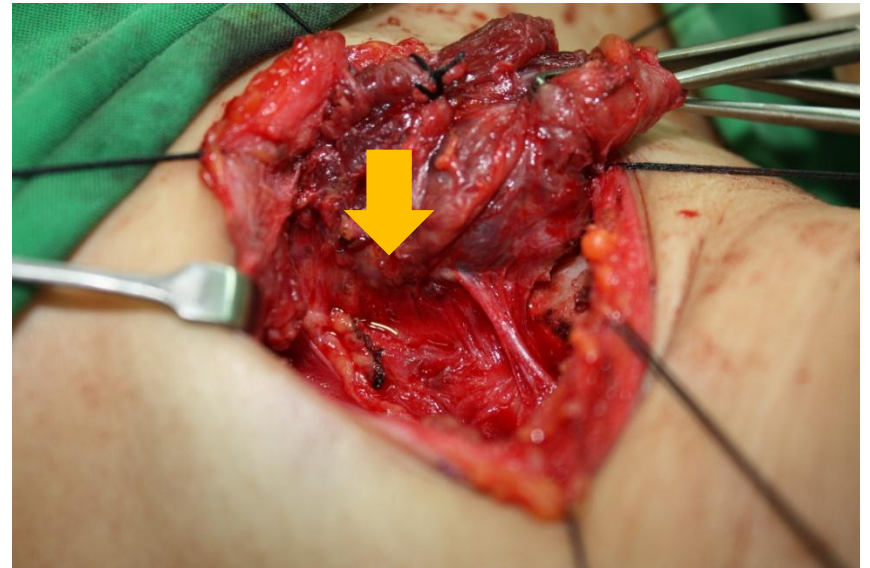
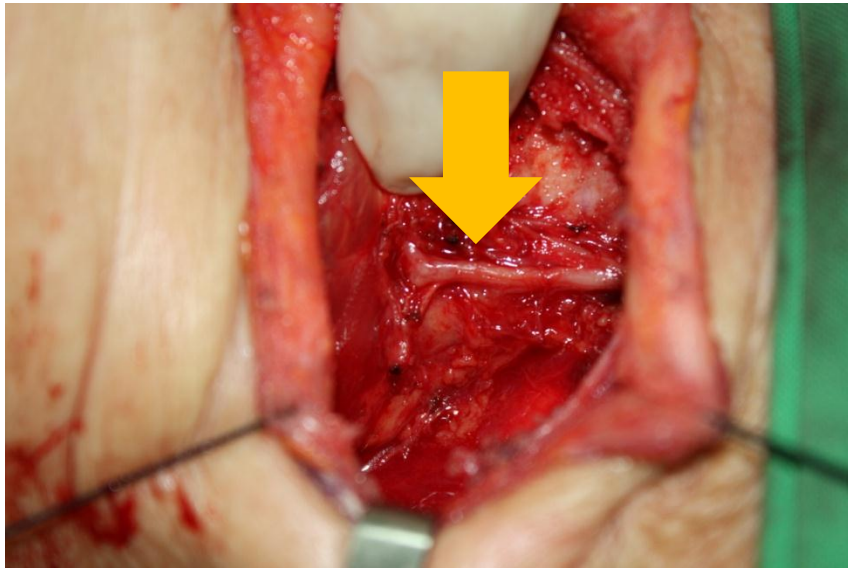


Thyroid surgery complication:

- Hematoma
- Superior laryngeal nerve injury
- Recurrent laryngeal nerve injury
- Hoarseness
- Hypocalcemia



Recurrent laryngeal nerve:

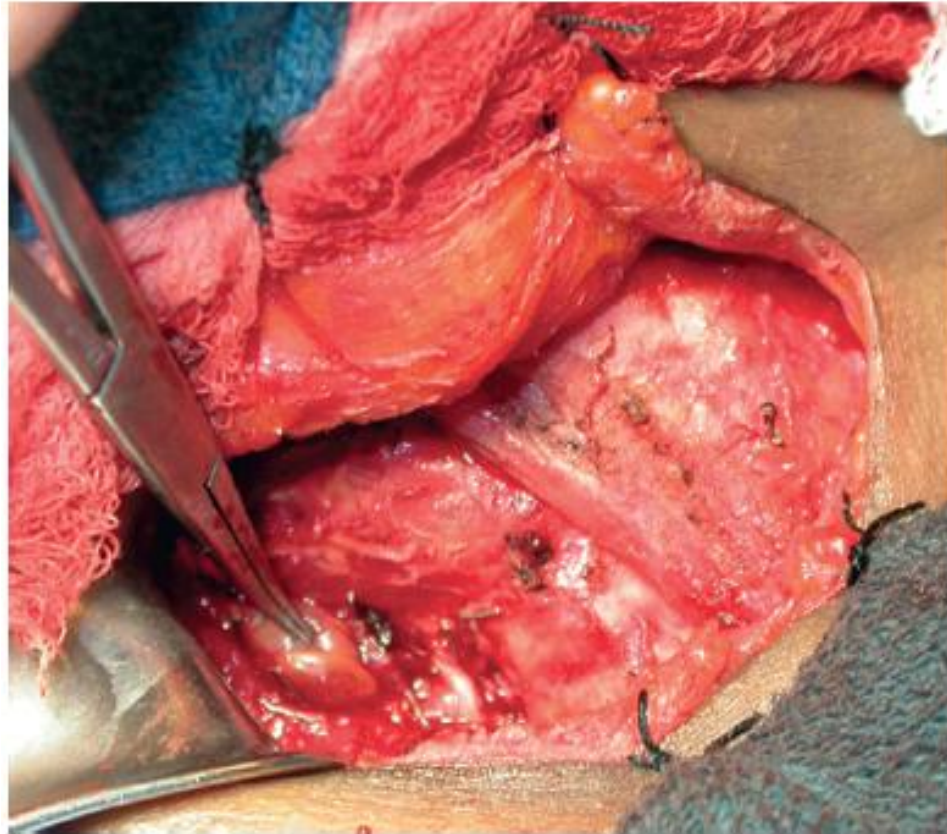


Hypocalcemia:

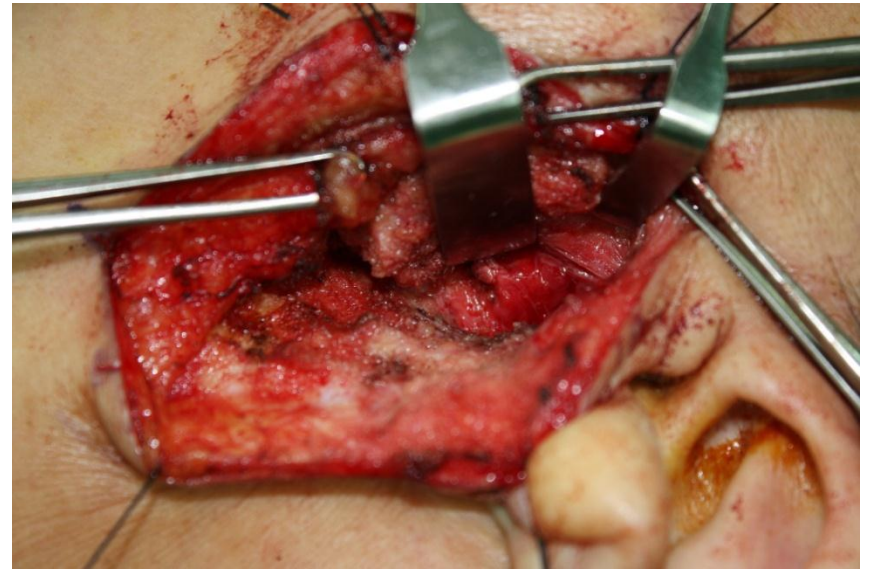
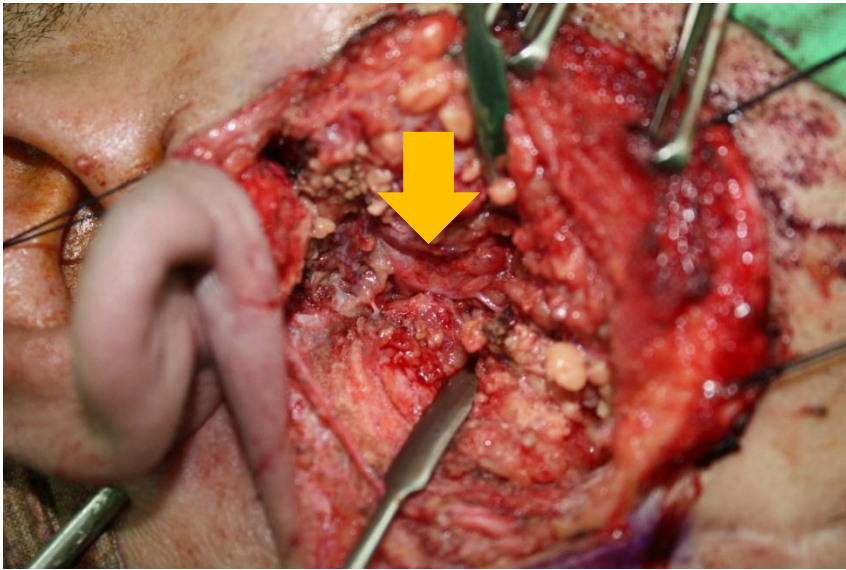
- Symptoms:
 - perioral, distal extremity paresthesia
 - tetany, bronchospasm
 - cardiac arrhythmia
 - Chvostek's sign (+)
 - Trousseau's sign (+)

Hypocalcemia:

- Incidence: 7-25%
- Treatment:
 - 10ml, 10% calcium gluconate + 5% D/W i.v.
 - oral calcium supplementation
 - Vit D supply



Salivary gland surgery:







Stay Hungry. Stay Foolish.