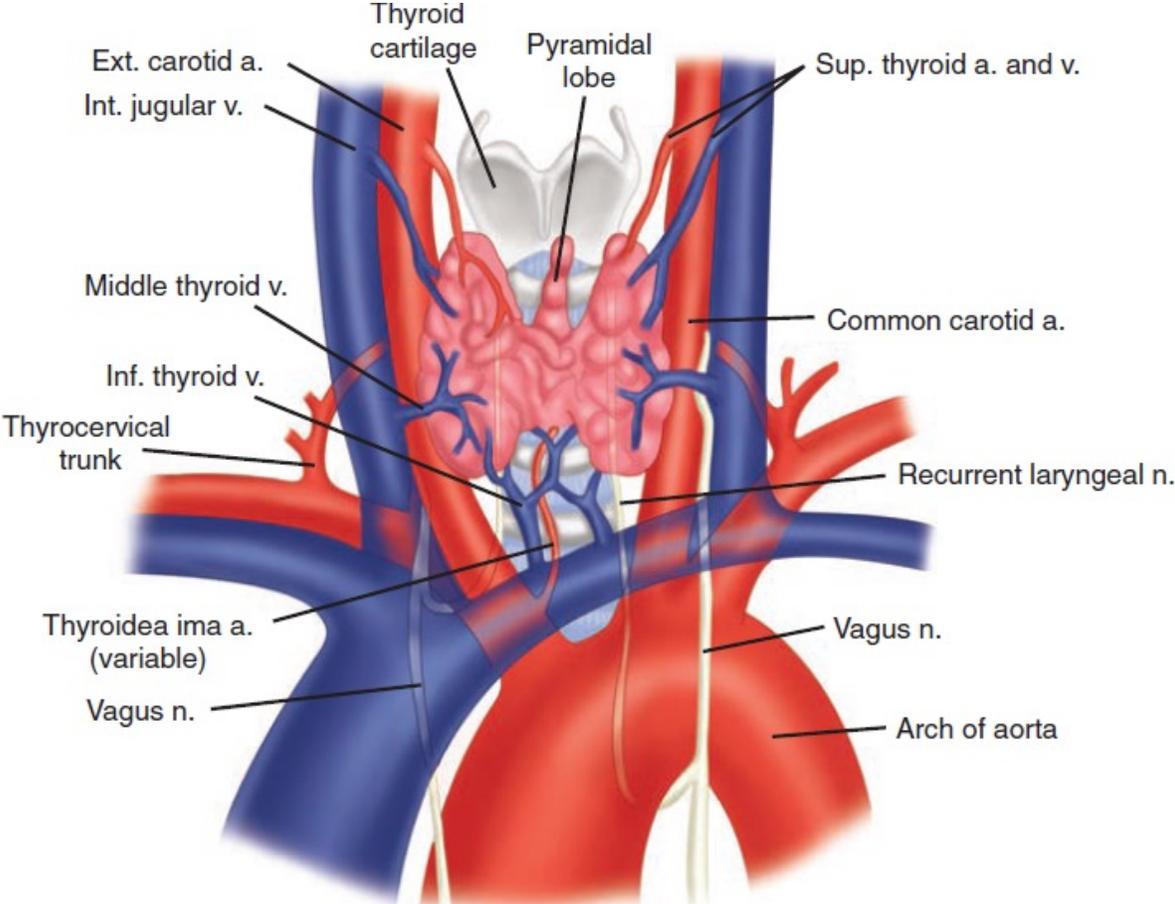


Surgical Aspects in Thyroid Diseases

Dr. Ali Jad Abdelwahab

Consultant General Surgeon and Surgical Oncologist

Thyroid Surgical Anatomy

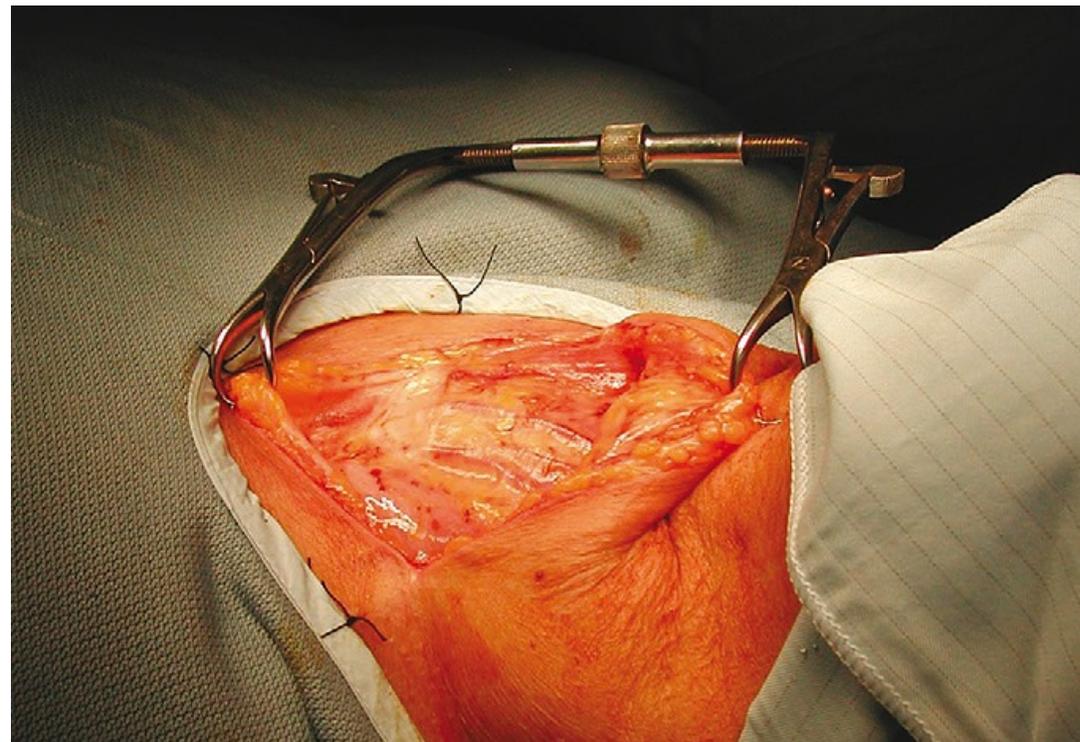


Thyroid Surgical Anatomy

Sub platysmal flap

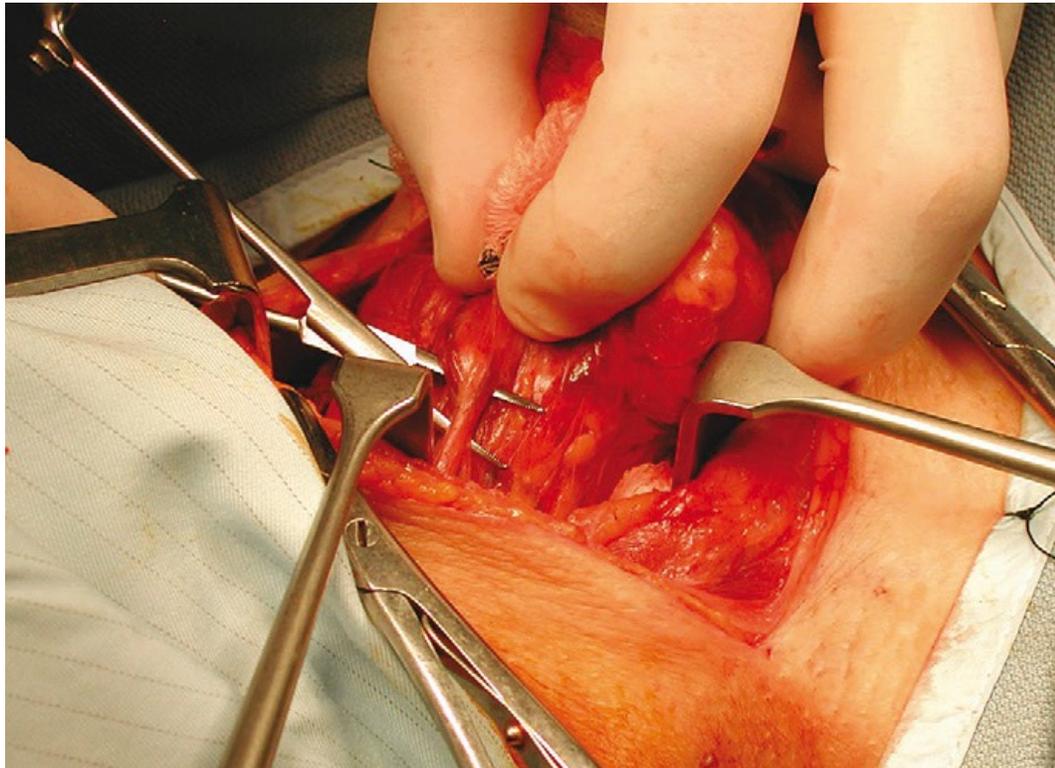


Strap muscles

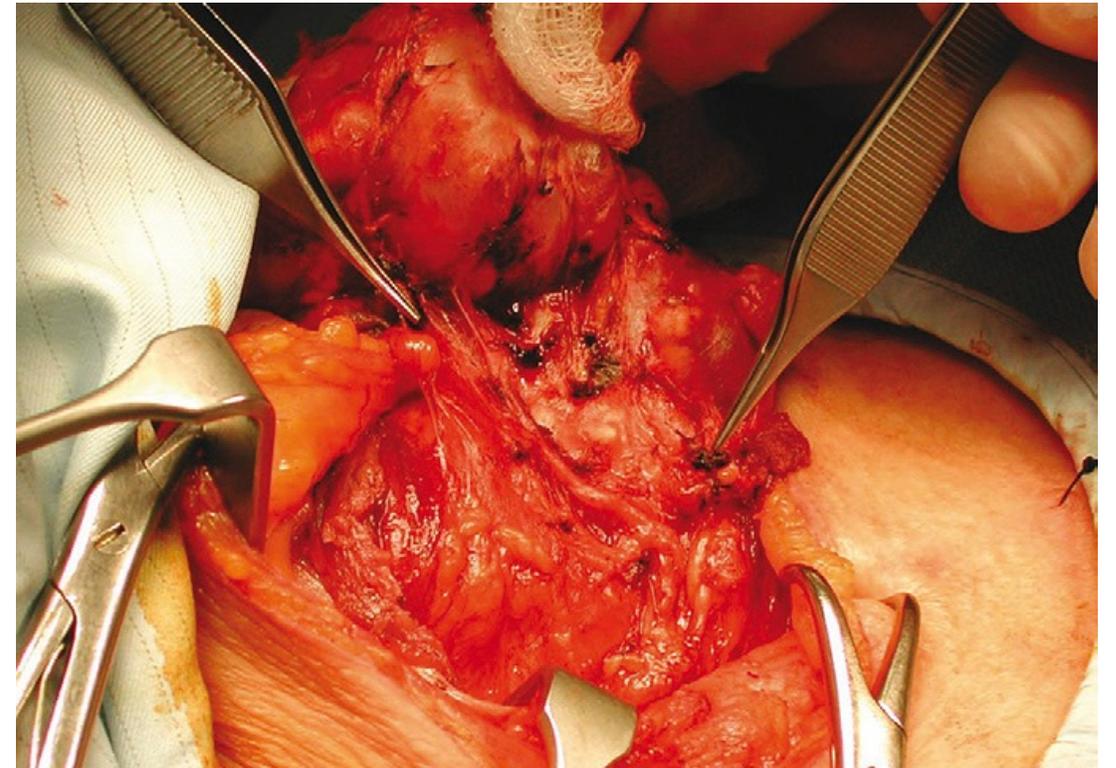


Thyroid Surgical Anatomy

Superior thyroid artery

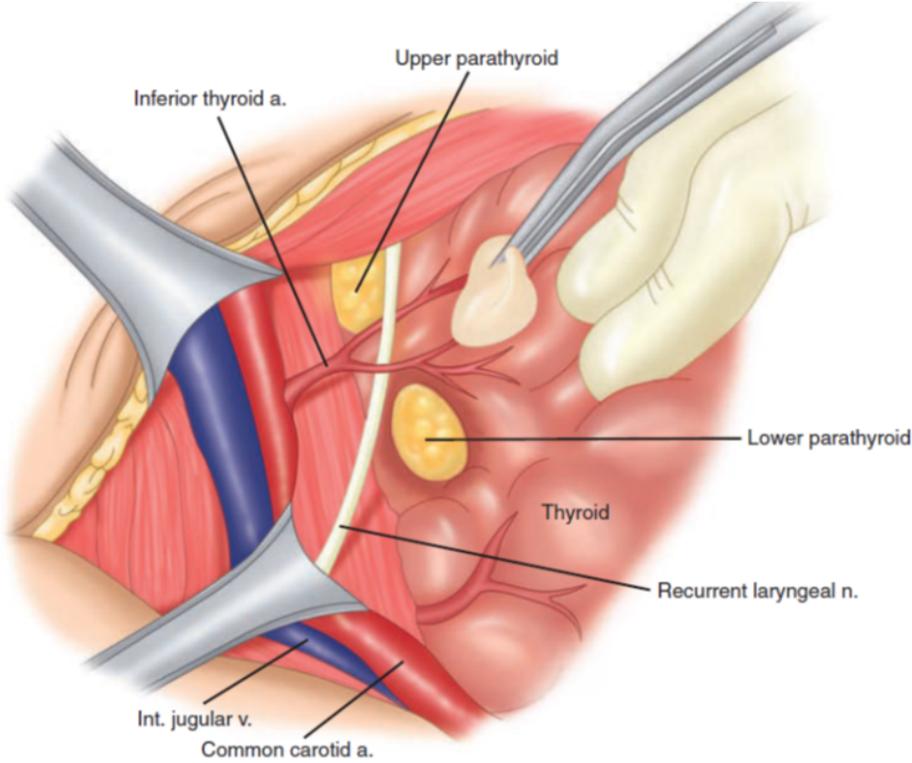


Parathyroid glands and RLN

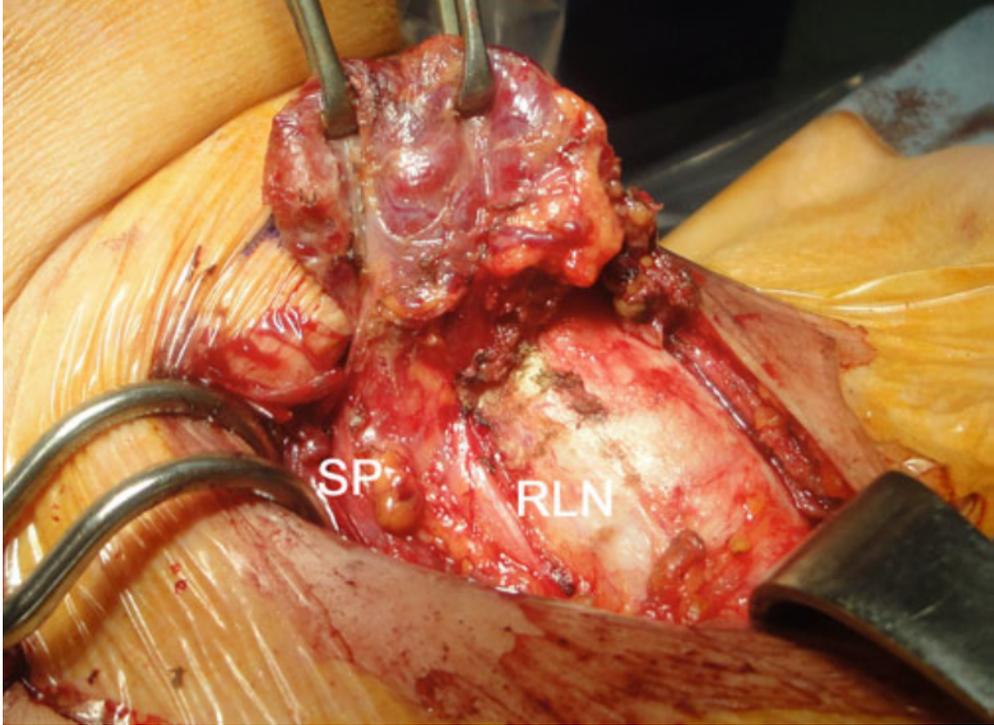


Thyroid Surgical Anatomy

Relationship of the parathyroids to the recurrent laryngeal nerve

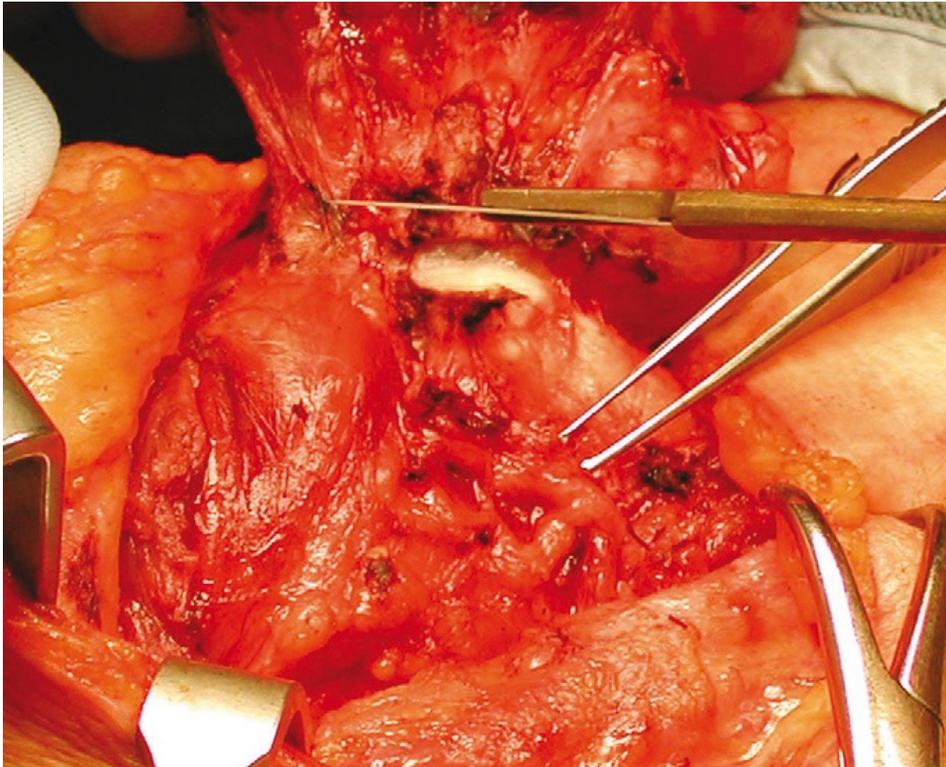


Surgery

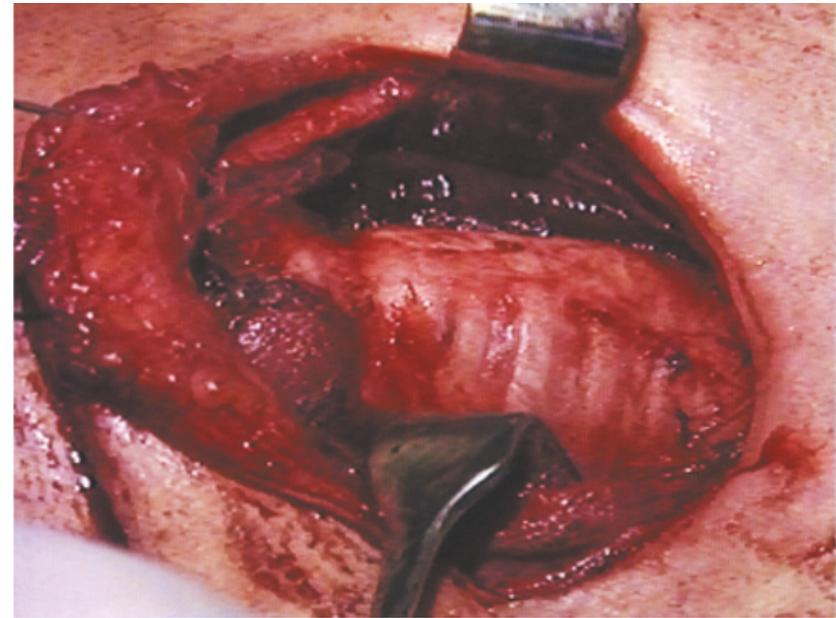


Thyroid Surgical Anatomy

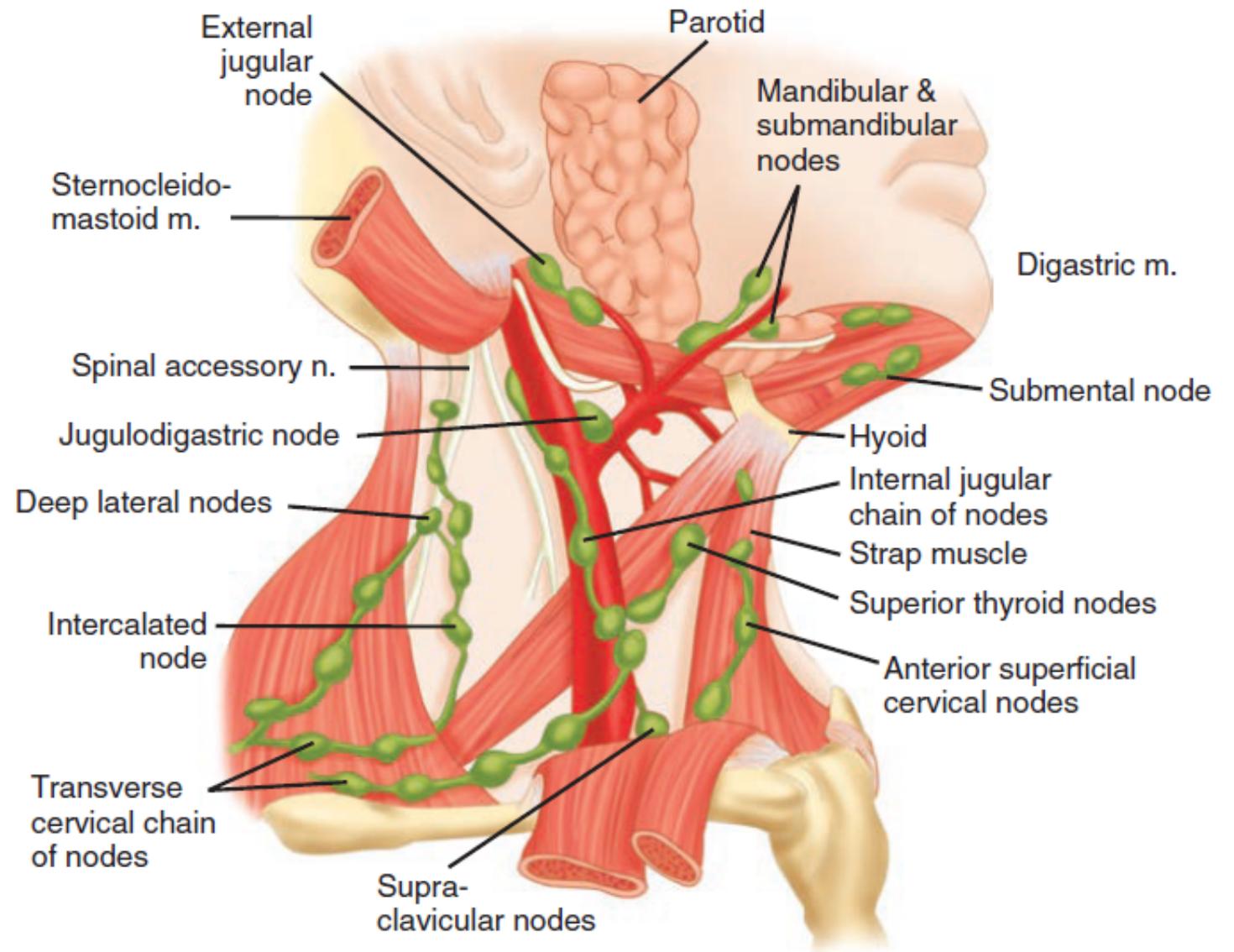
Berry ligament



The trachea



Thyroid Surgical Anatomy



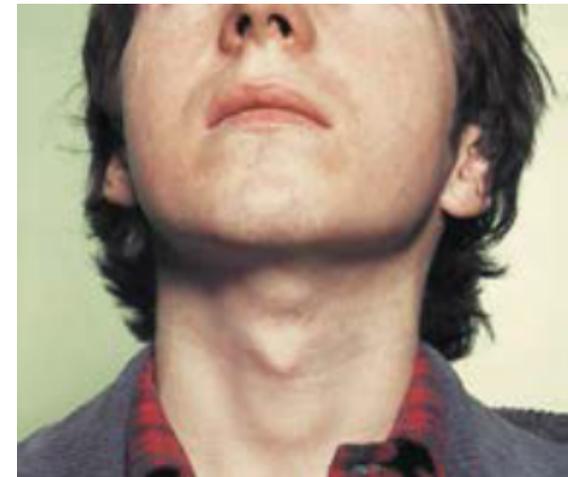
Surgical Diseases of the Thyroid

- **Congenital**
- **Inflammatory**
- **Goiter**
- **Thyroid hormones disorders**
- **Thyroid nodule**
- **Neoplastic**



Congenital

Thyroglossal cyst



Inflammator

y

- **Thyroiditis**

- Hashimoto's thyroiditis (autoimmune)
- Subacute thyroiditis (de Quervain's thyroiditis, viral)
- Acute suppurative thyroiditis (bacterial)
- Riedel's thyroiditis (scar)

Goiter

- **Enlargement of the thyroid gland**
- **Diffuse goiter: the entire gland is symmetrically enlarged**
- **Nodular goiter: are one or more distinct lumps can be distinguished from the rest of the gland**



Types of Goiter

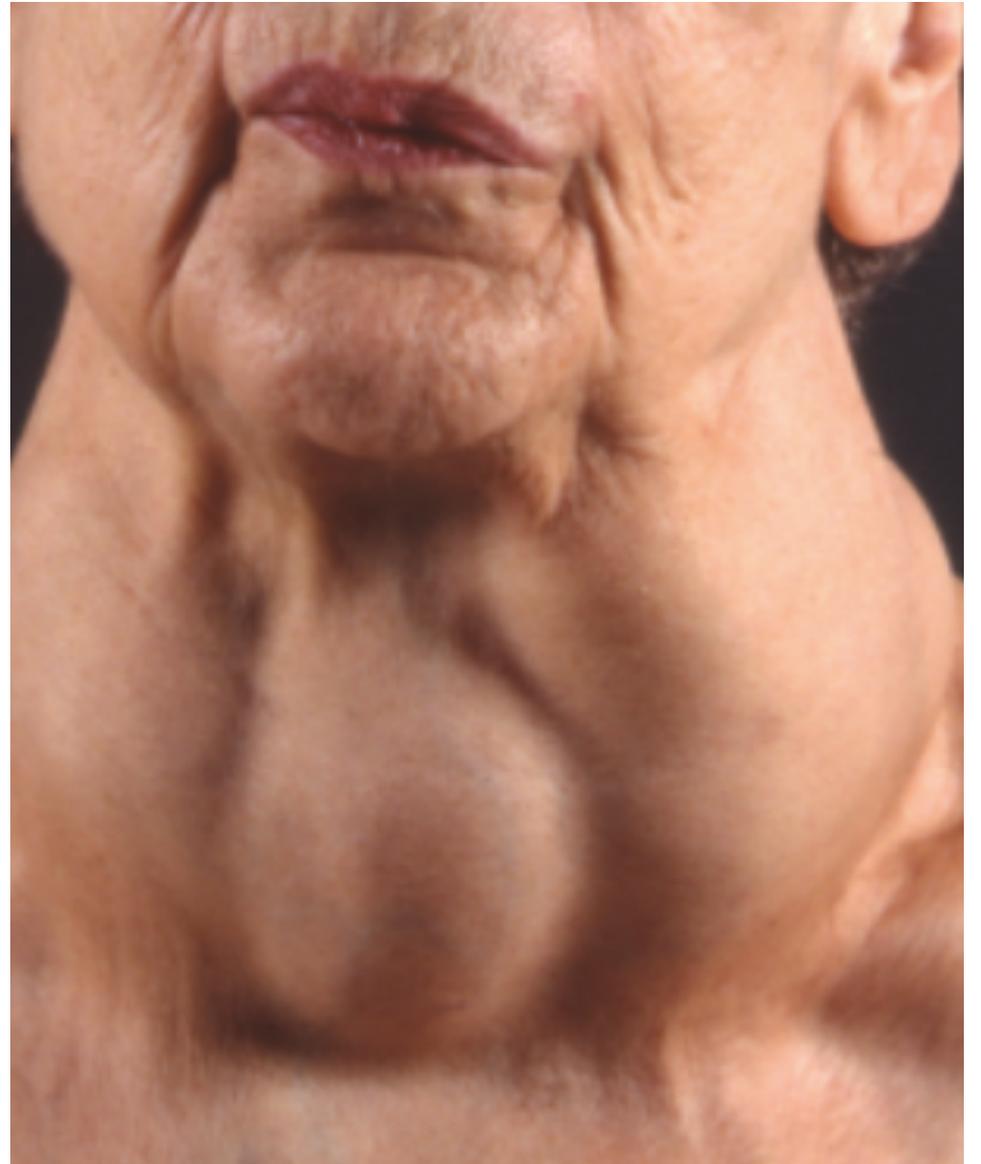
**Hypothyroid
Goiter**

Thyroid Hormone Disorders

- **Hypothyroidism:** Failure of the thyroid gland to produce sufficient thyroid hormone to meet the metabolic demands of the body.
- **Hyperthyroidism:** Hyperactivity in the entire or part of the thyroid that results in synthesis and release of thyroid hormones in excess of that required by the body to maintain euthyroidism.
- **Thyrotoxicosis:** The clinical condition that covers symptoms following high concentrations of the thyroid hormones without regard to the origin of these elevated hormone concentrations.
- **Hyperthyroidism is the main cause of thyrotoxicosis**

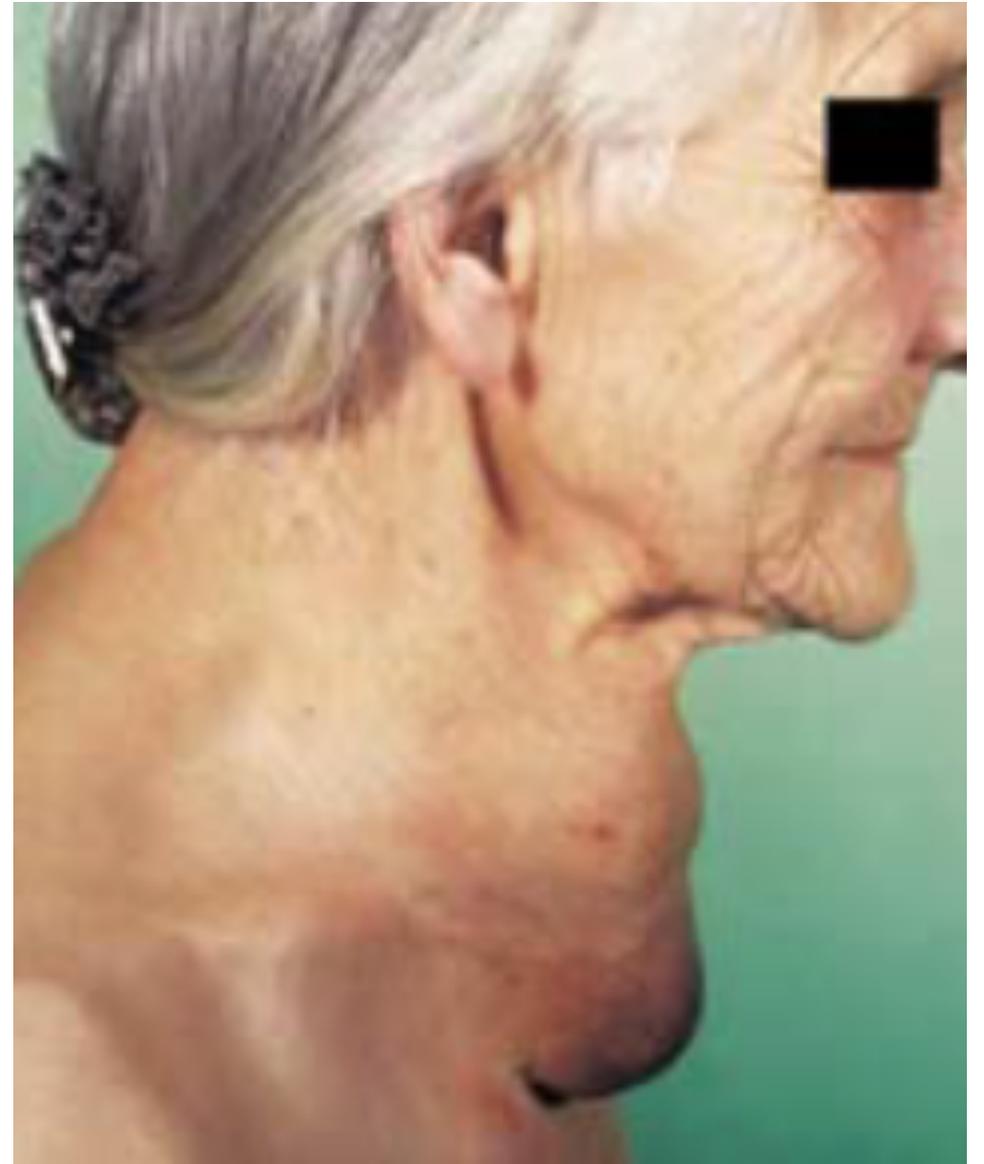
Thyroid Nodule

- **Not a disease in itself**
- **Part of other diseases**
- **Mostly it is a dominant part of a multinodular goiter**



Thyroid Neoplasms

- Benign
- Malignant (cancer):
- **Thyroid cancer is a general term referring to a group of different types of cancer with different treatments and outcomes.**



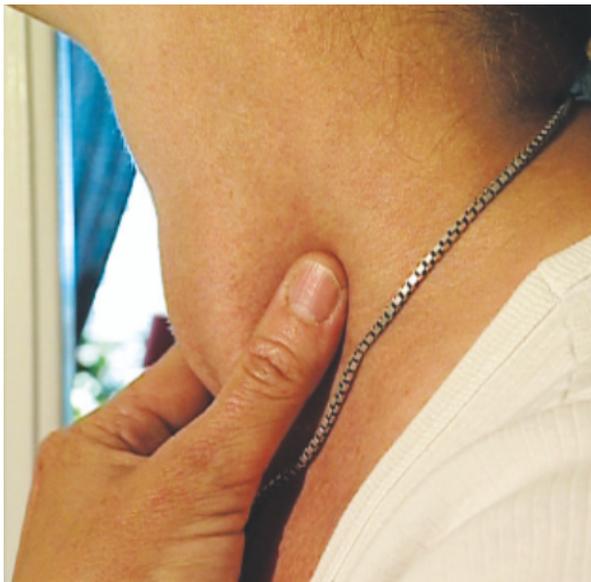
Diagnosis of Thyroid Disease

- **History (symptoms)**
- **Physical examination (signs)**
- **Investigations**

History

Neck Mass

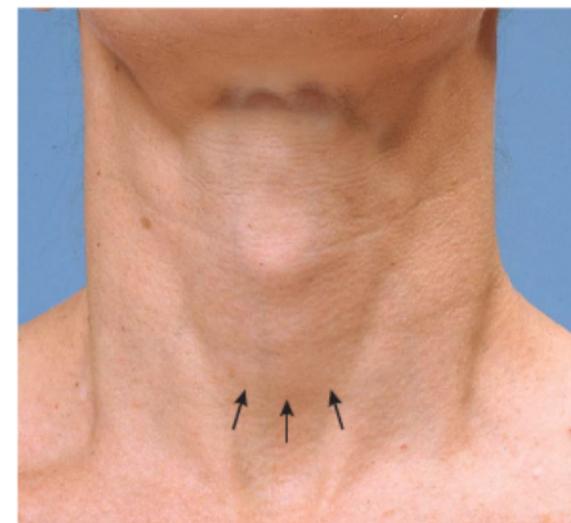
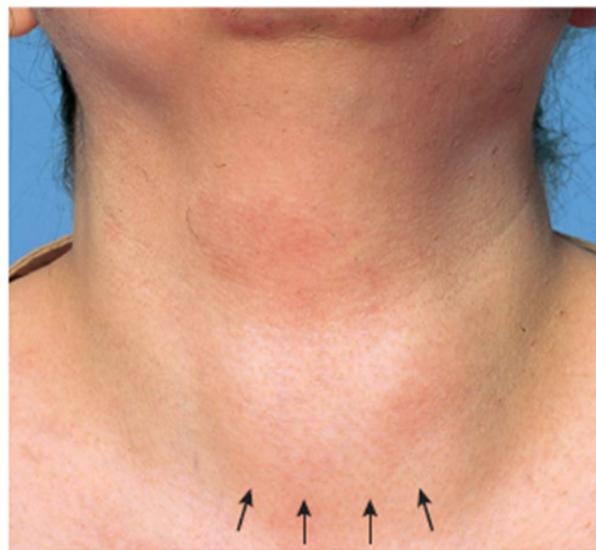
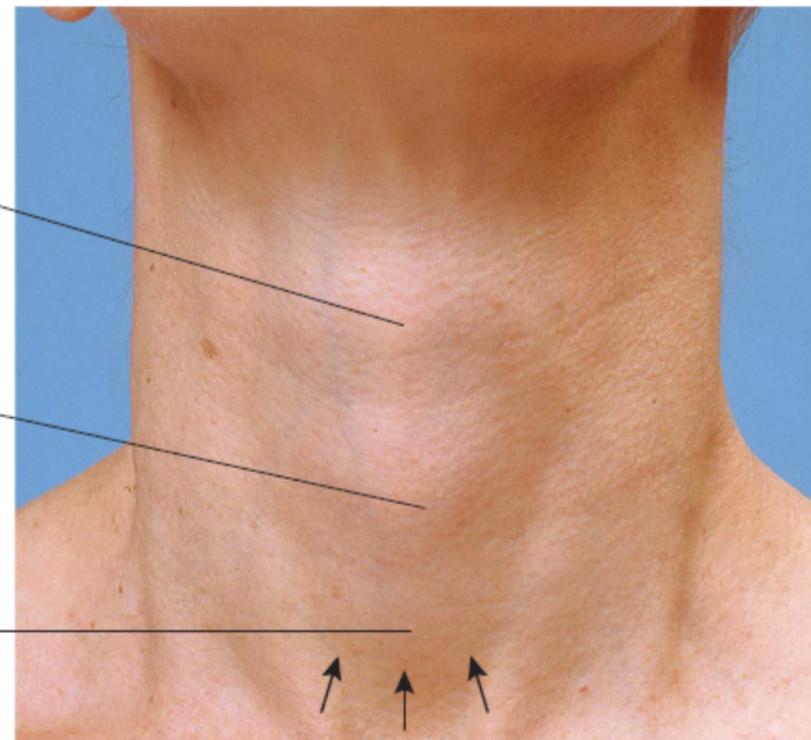
Physical Examination



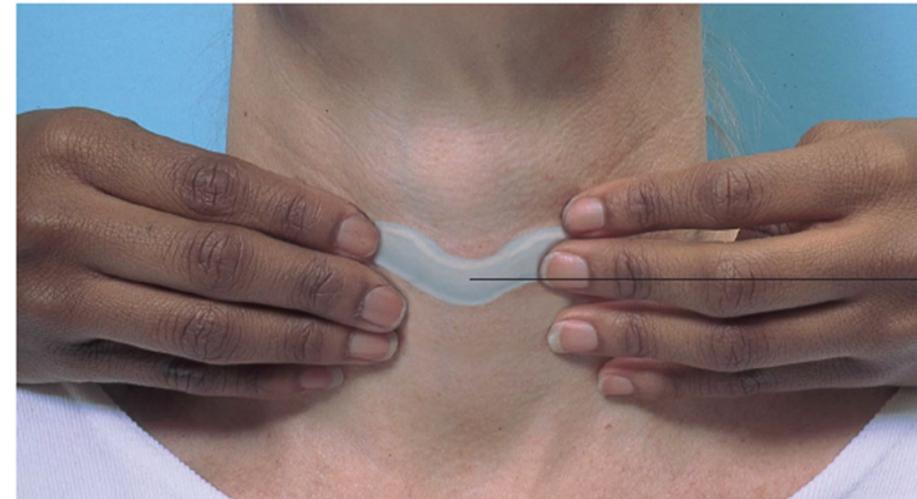
Thyroid cartilage

Cricoid cartilage

Thyroid gland



Physical Examination



Cricoid cartilage

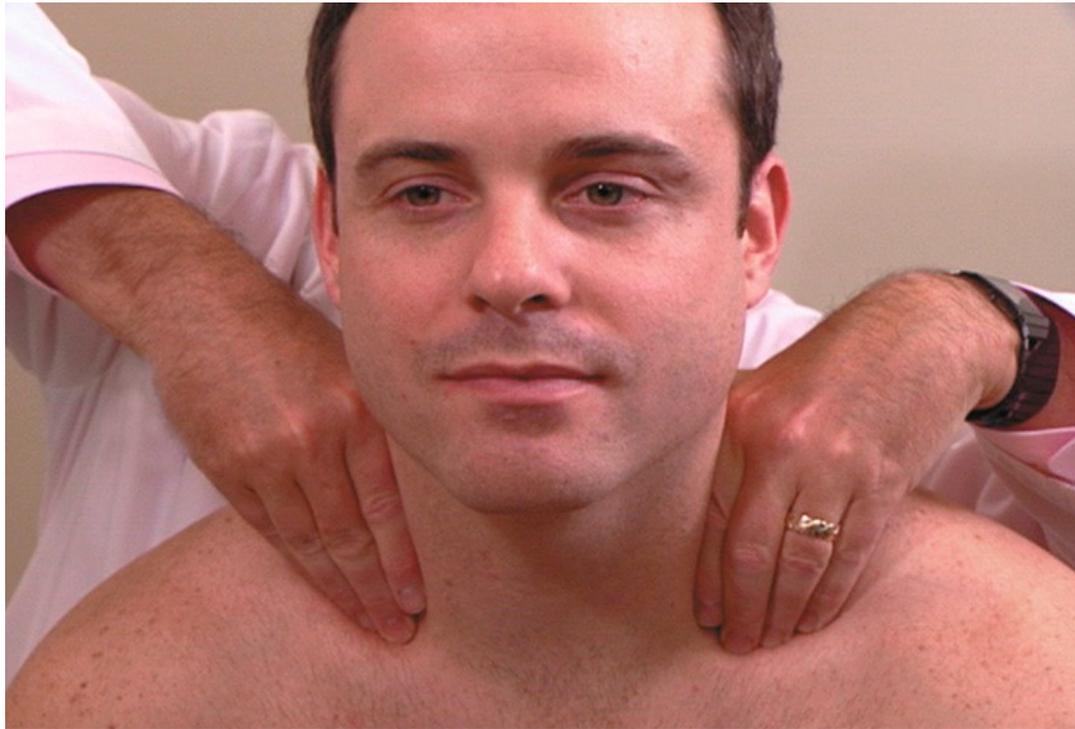


Physical Examination



Physical Examination

Supraclavicular LNs



Pemberton's sign



Examples

Graves' disease



Pretibial myxedema



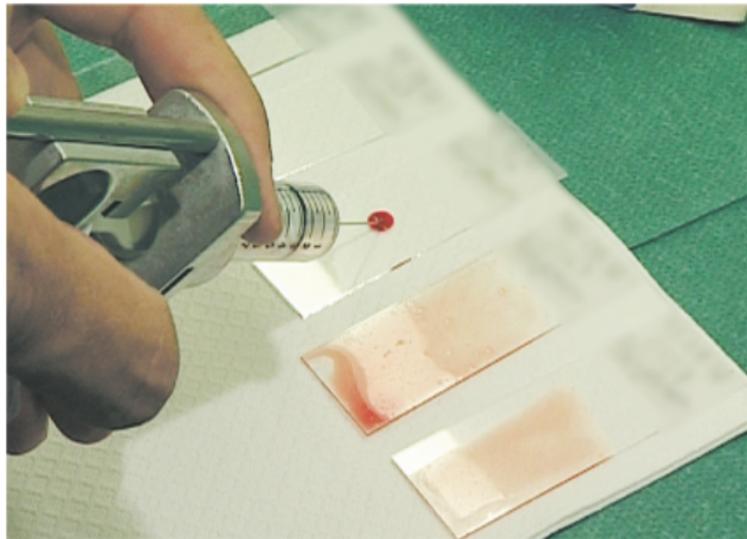
Examples

Exophthalmos/ Lid retraction



Proptosis/chemosis





Investigations

- **Hormones measurement : TSH is the most sensitive**
- **Imaging**
- **Thyroid scan**
- **Biopsy**



Thyroidectomy Indications

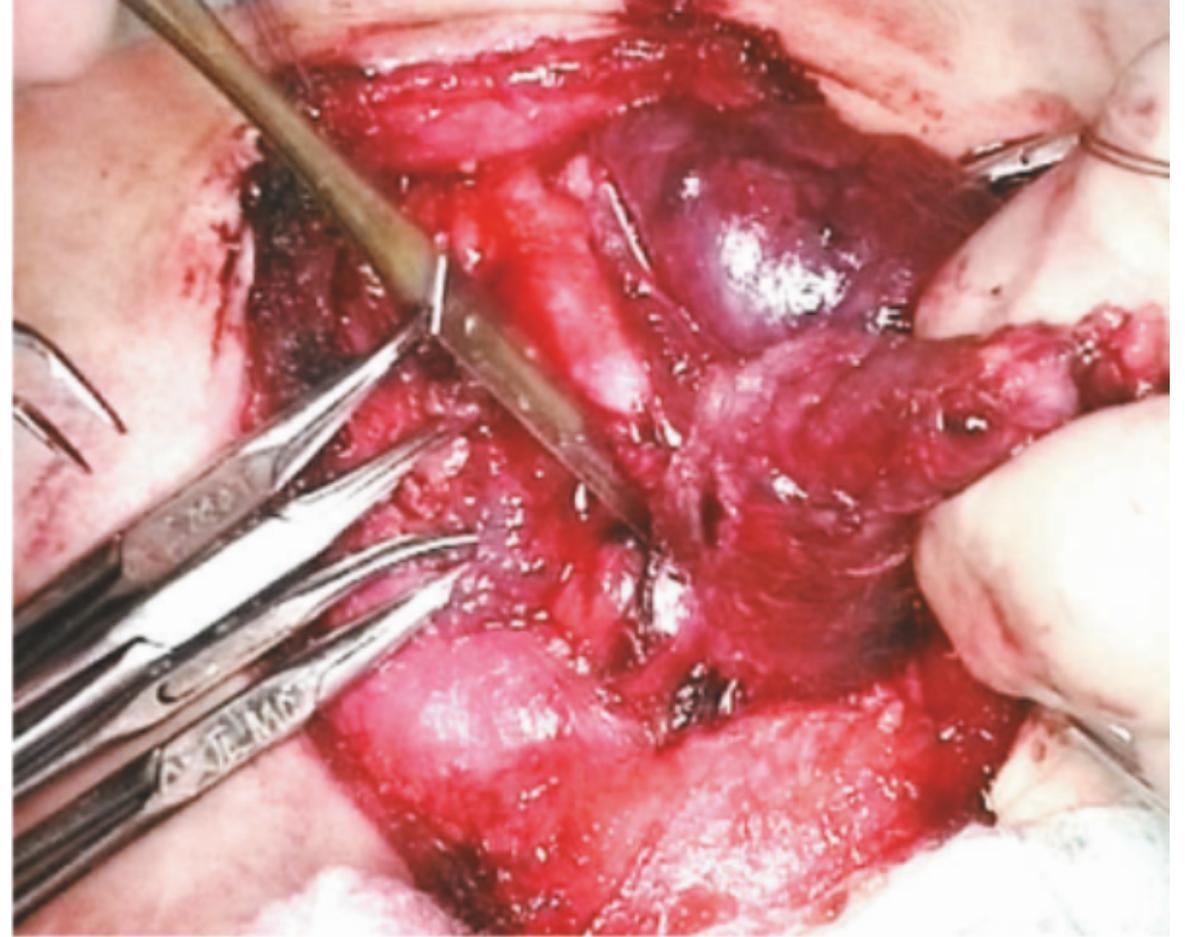
- **Malignancy or suspected malignancy**
 - **Thyrotoxicosis**
 - **Cosmetic effect**
 - **Obstructive symptoms (e.g., compression of the trachea or esophagus).**
-

Types of Thyroidectomy

- **Lumpectomy**
- **Hemithyroidectomy**
- **Subtotal thyroidectomy**
- **Near-total thyroidectomy**
- **Total thyroidectomy**

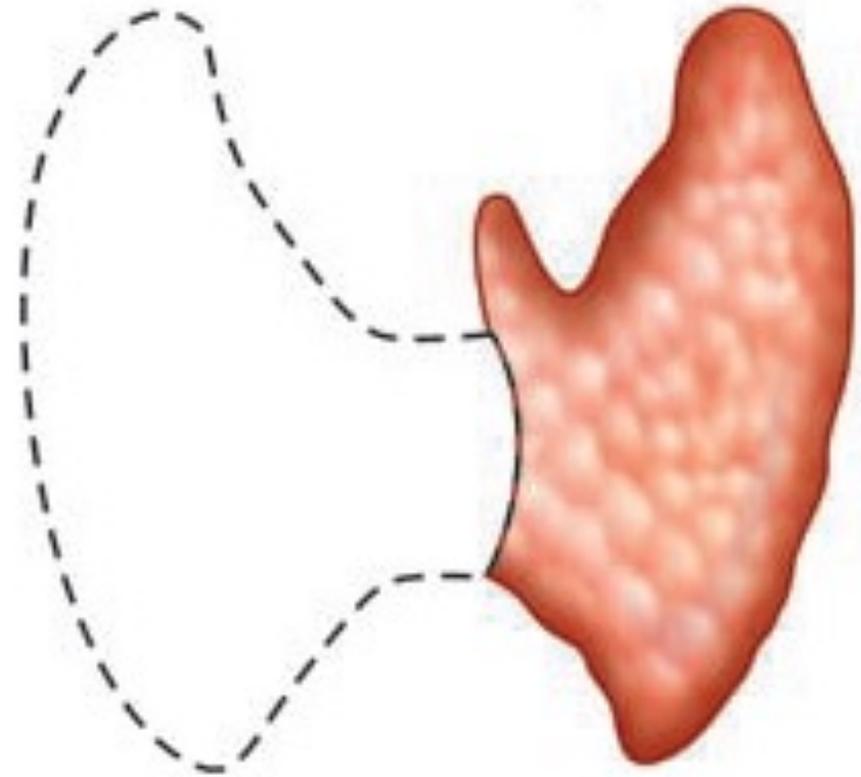
Excision of a nodule with a small cuff of surrounding thyroid tissue

Lumpectomy



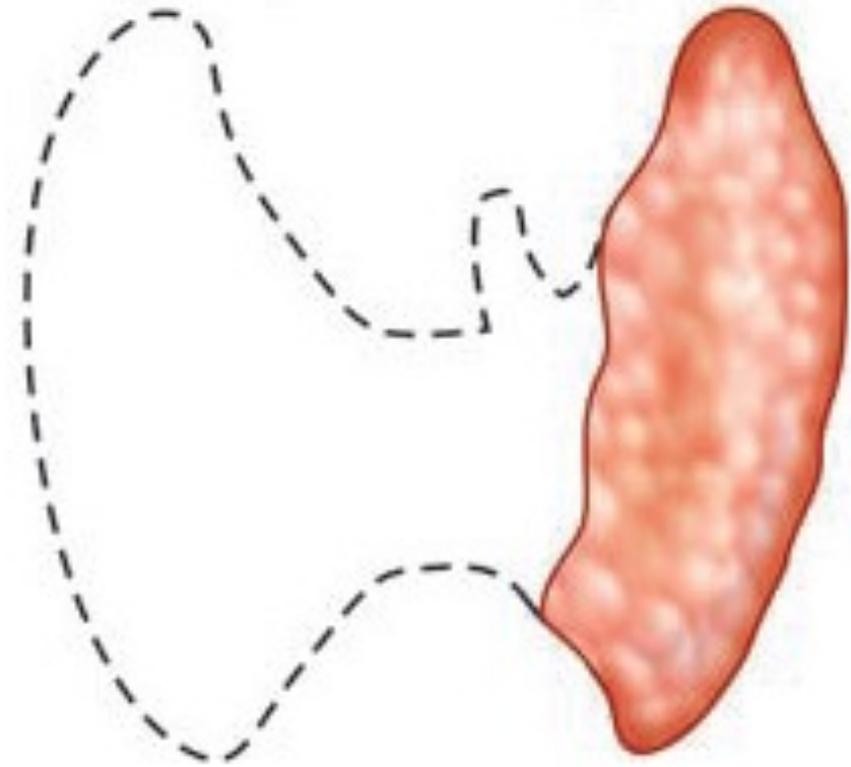
Excision of one lobe of thyroid plus
the isthmus

Hemithyroidectomy



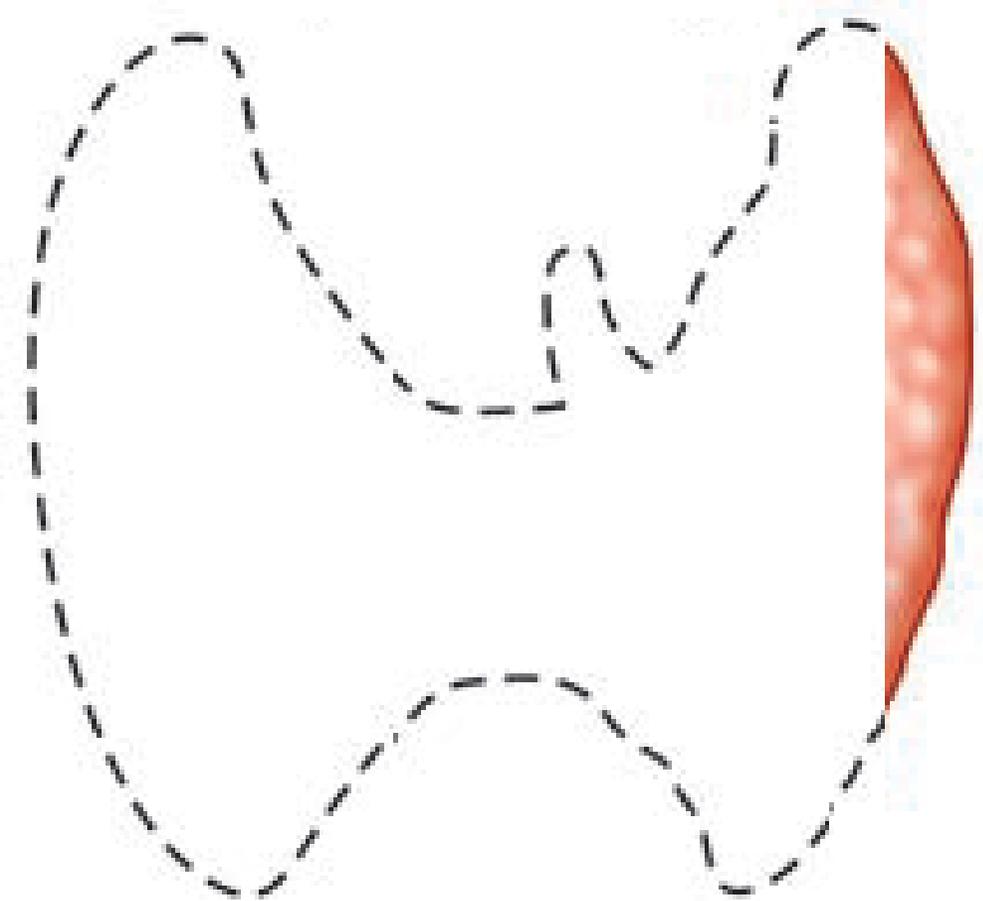
Excision of more than one-half of the thyroid gland on each side plus the isthmus

Subtotal Thyroidectomy



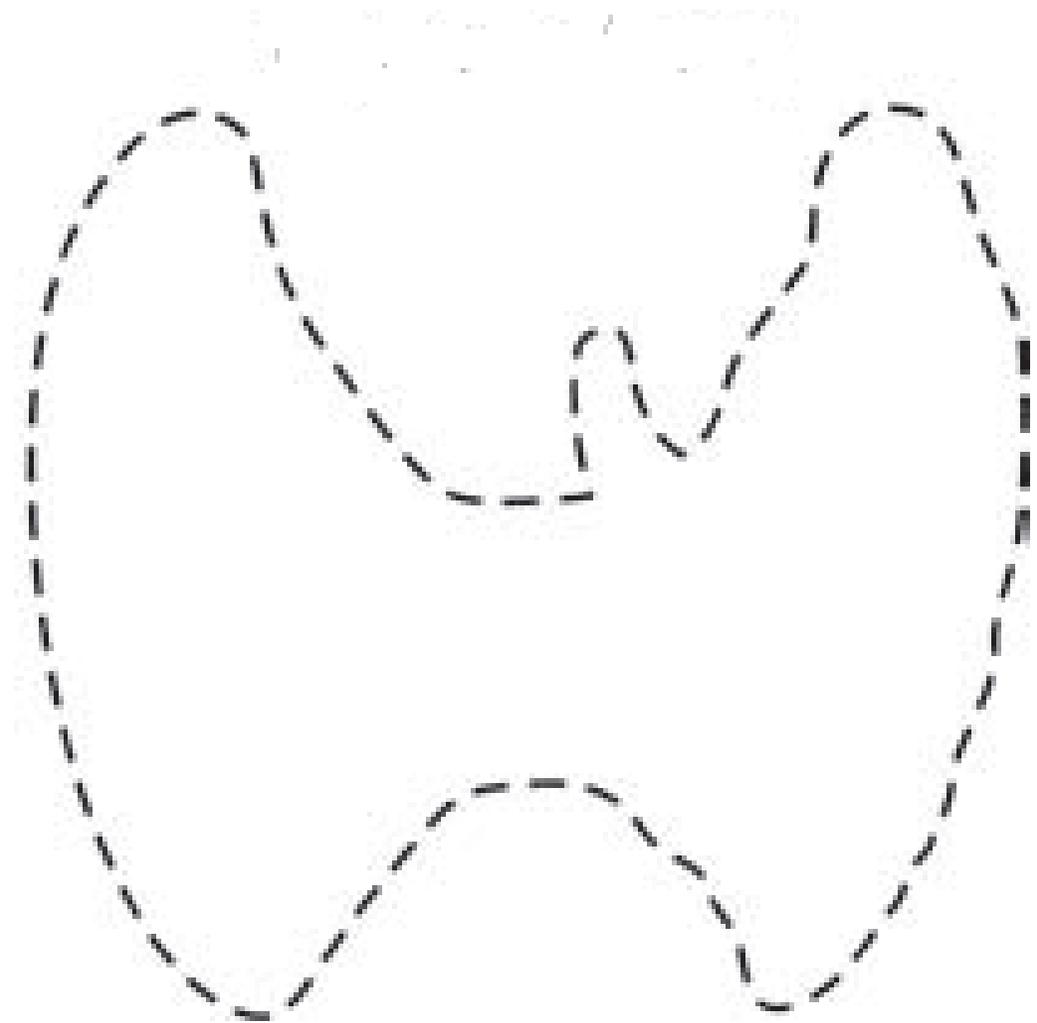
Complete excision of one lobe, the isthmus and >90% of the other side

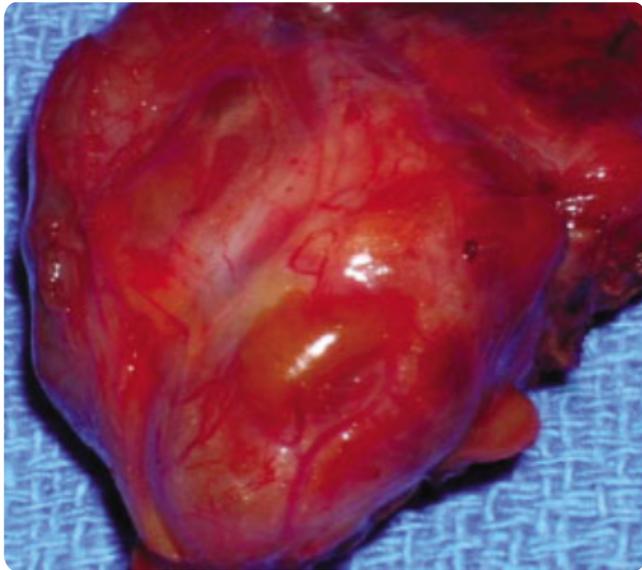
Near-total Thyroidectomy



Excision of both lobes and the isthmus

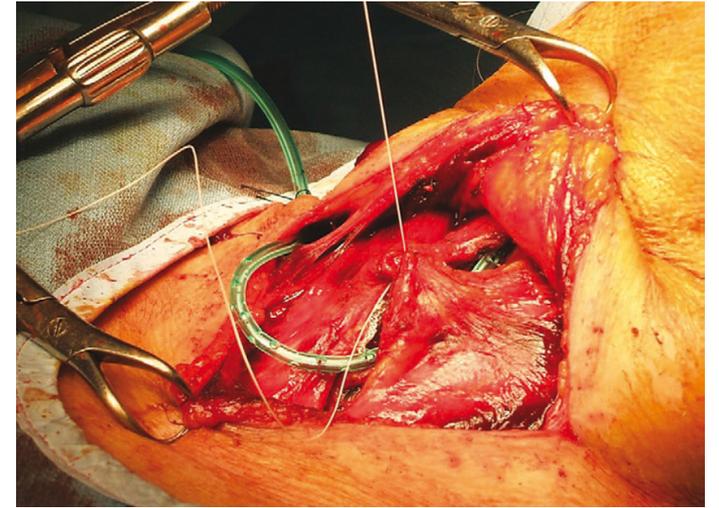
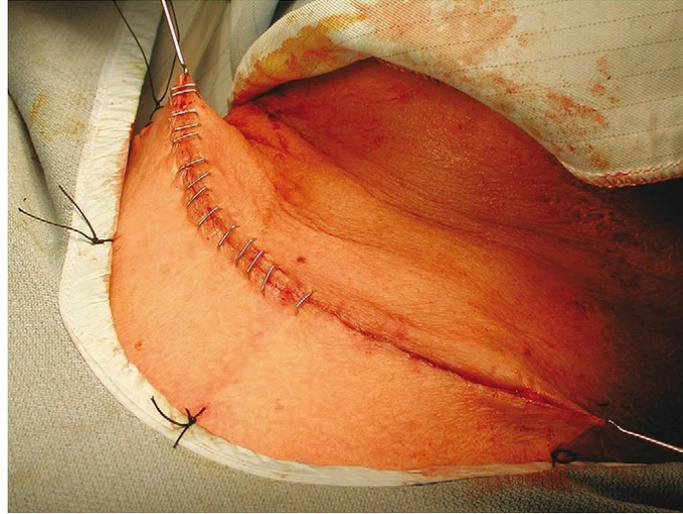
Total Thyroidectomy





Complications of Thyroid Surgery

- Hemorrhage
- Infection
- Recurrent laryngeal nerve injury: Unilateral (hoarseness), bilateral (airway obstruction)
- Parathyroid gland injury (hypocalcemia)



Have A Nice Day !