

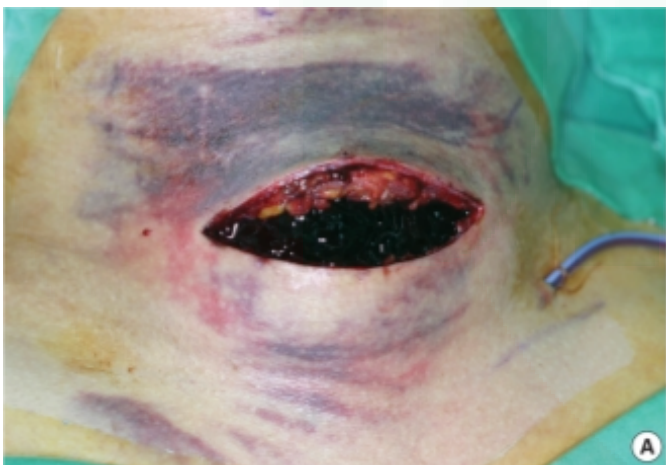
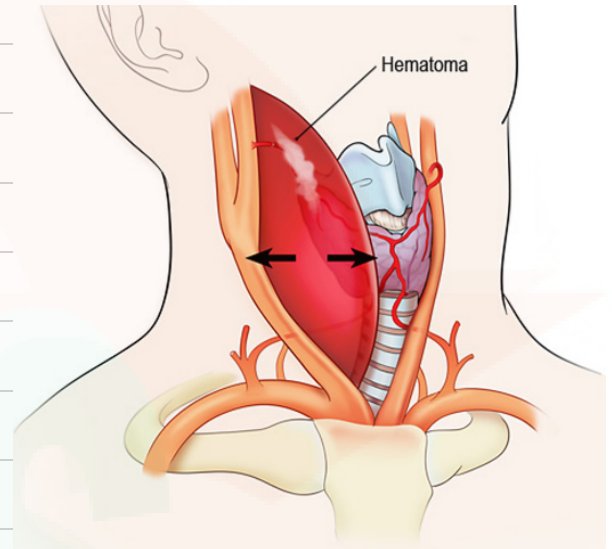
# COMPLICATIONS OF THYROID SURGERY

## ① Bleeding :-

- Causes airway obstruction

↓  
if possible do ETT intubation (or) open sutures bedside

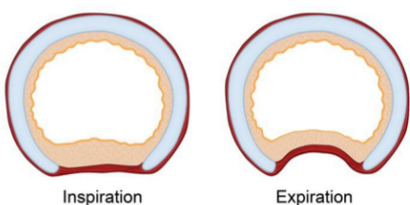
Shift Pt. to OT & Control bleeding



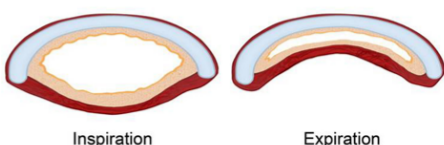
## ② Dyspnea :-

→ Causes :-  
1) bleeding  
2) laryngeal edema  
3) Tracheomalacia  
4) Nerve injury  
5) Hypocalcemia

Normal



Tracheomalacia



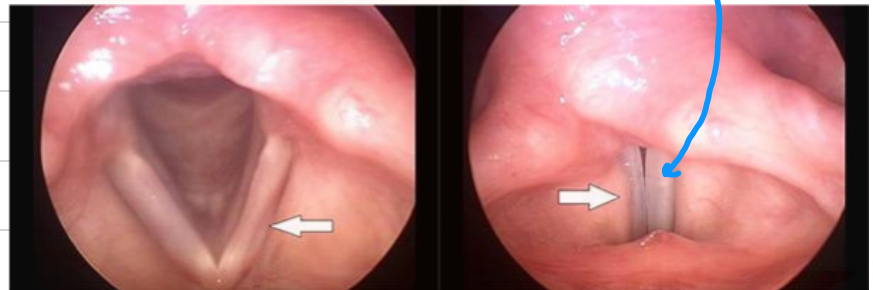
Q 34 yr old ♀ after Right Hemithyroidectomy develops dyspnea in post op. what is the least likely Possibility ?

→ Hypocalcemia  
(doesn't occur in hemithyroidectomy)  
(occurs in total thyroidectomy)

### ③ Nerve Injury :-

→ MLC = Ext. laryngeal nerve  
↳ loss of pitch / Tone to voice

→ RLN  
↳ U/L # = Hoarseness of voice  
↳ B/L # = Airway obstruction



b/L RLN #

→ MLC, Reversible

④ Parathyroid insufficiency :- Removal / ischemia of all 4 Parathyroids.  
↓  
Permanent

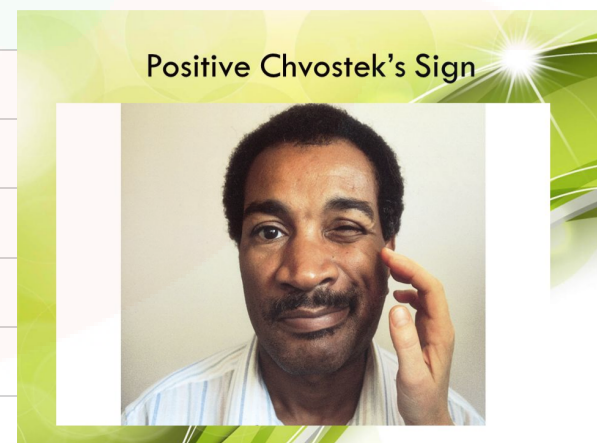
↓  $Ca^{+2}$  → Symptoms (start appearing from 3-5 post op day).



Carpal spasm

↳ Tingling / numbness in fingers / lips  
↳ Carpo pedal spasm  
↳ Tetany

Signs :- 1) Chvostek Sign  
2) Trousseau Sign



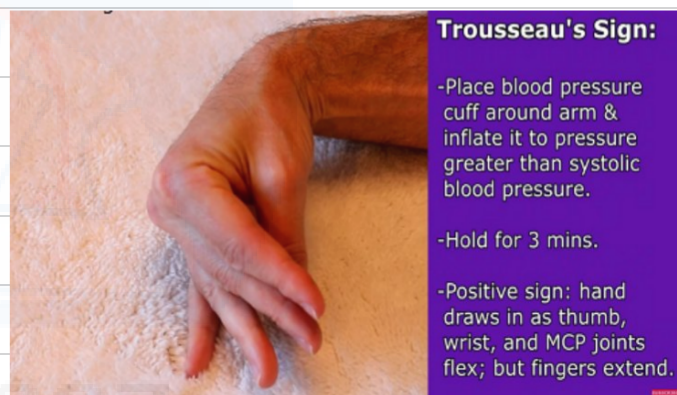
Positive Chvostek's Sign

Ⓟ : oral  $Ca^{+2}$   
i/v  $Ca^{+2}$  if Tetany ⊕

### ⑤ Thyrotoxic Crisis / Thyroid Storm :-

→ Pts of thyrotoxicosis not adequately prepared for Sx.

↓  
↑↑↑  $T_3/T_4$  in Circulation



Trousseau's Sign:

-Place blood pressure cuff around arm & inflate it to pressure greater than systolic blood pressure.

-Hold for 3 mins.

-Positive sign: hand draws in as thumb, wrist, and MCP joints flex; but fingers extend.

→ Hyperthermia, ↑HR, ↑BP → ↓BP, ↓urine output, ↑RR

→ D/D Hyperthermia :- 1) Malignant Hyperthermia  
- ∴ of succinyl choline

## Thyroid storm

## malignant Hyperthermia

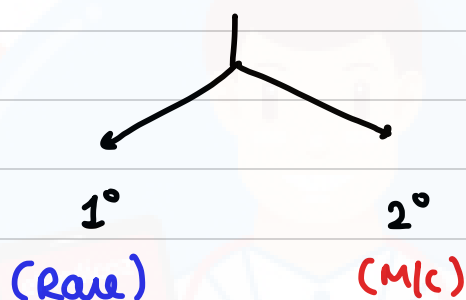
|                  |                    |
|------------------|--------------------|
| x                | Muscle Rigidity    |
| x                | Metabolic Acidosis |
| x                | ↑CPK Enzyme        |
| x                | ↑pCO <sub>2</sub>  |
| ↓K <sup>+</sup>  | x                  |
| Mostly in postop | Mostly intraop     |

(Rx) : iv PTU  
iv β blocker  
NaI / KI  
Hemodialysis

(Rx) : Dantrolene Sodium

## MEDIASTINAL / RETROSTERNAL GOITRE

↳ PEMBERTON SIGN ⊕



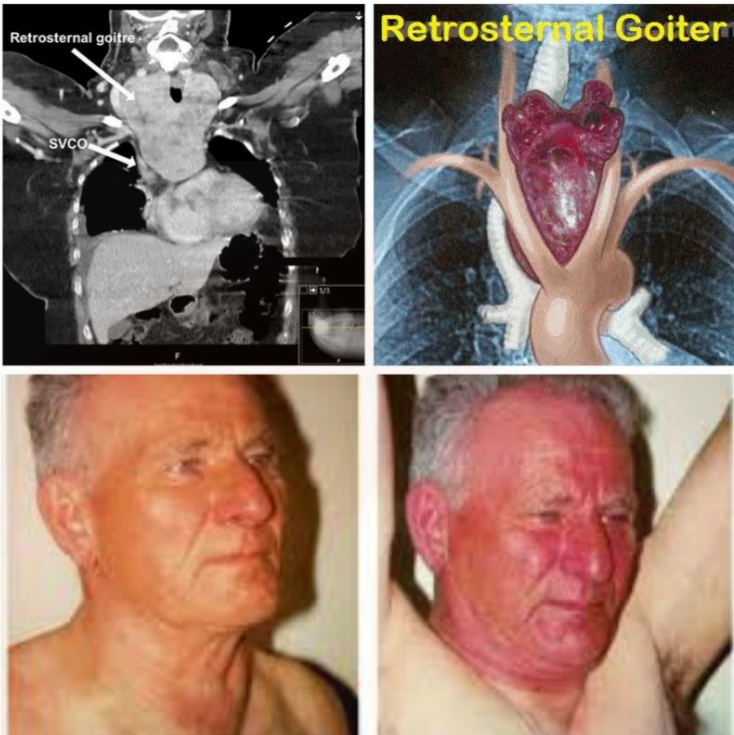
→ Enlargement of ectopic thyroid tissue in mediastinum

→ extension of normally located swelling in the mediastinum.

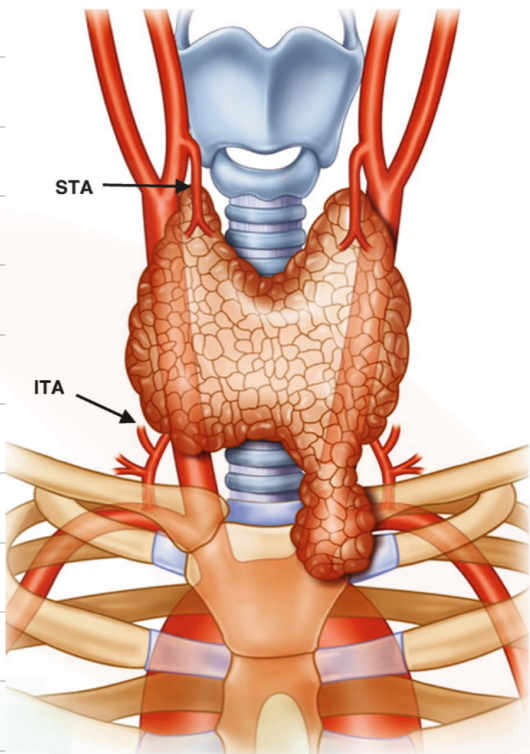
→ (Rx) : Sternotomy

→ (Rx) : Sx by cervical / neck incision

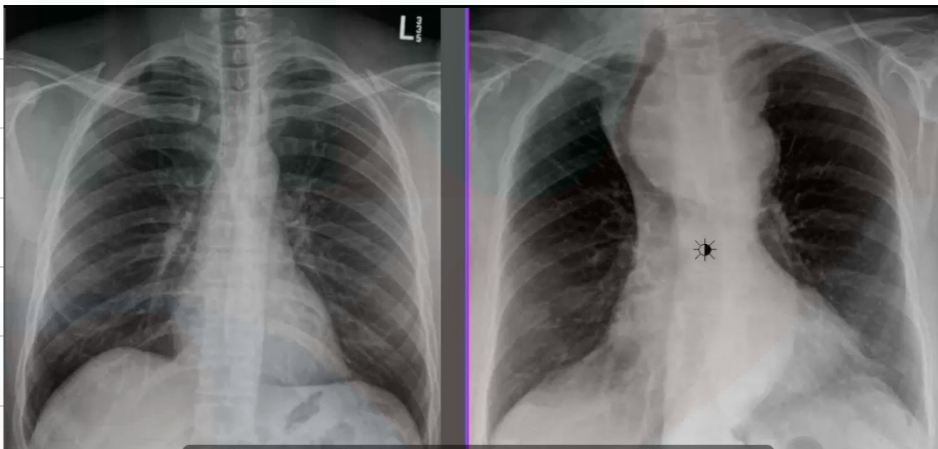
Sternotomy if extension is below Aortic Arch.



Pemberton sign ⊕



2° Mediastinal Goitre



Ⓝ

Retrosternal Goitre

CLINICAL ASPECTS

⊕



→ Palpation of thyroid gland

⊕ Crile's Test :-



⊕ Lahey's Method :-



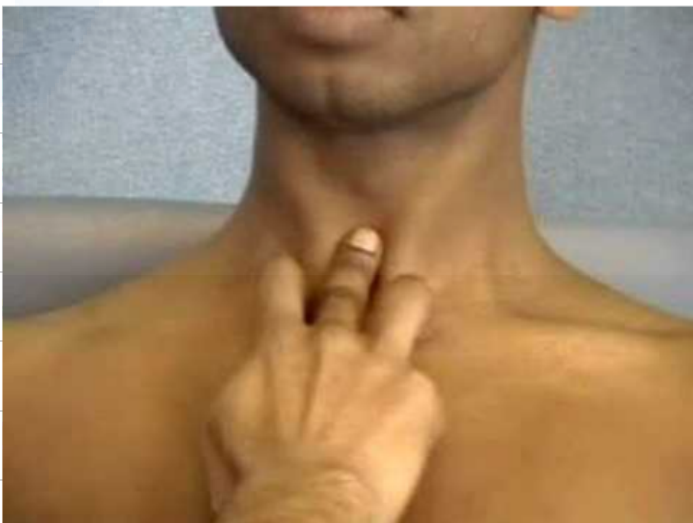
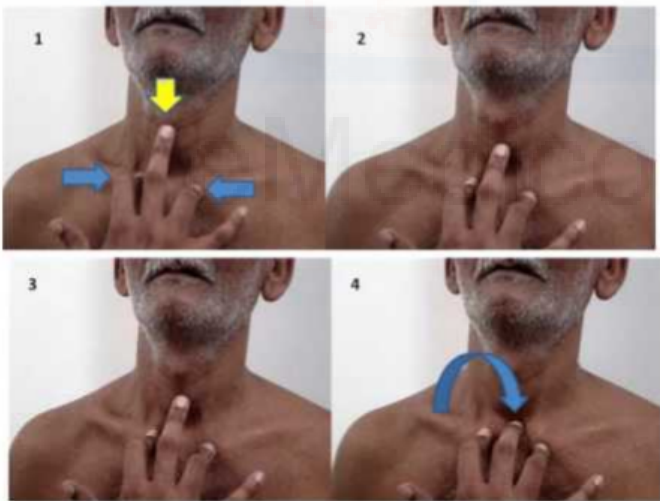
⊕ Pizzilo's Test :-



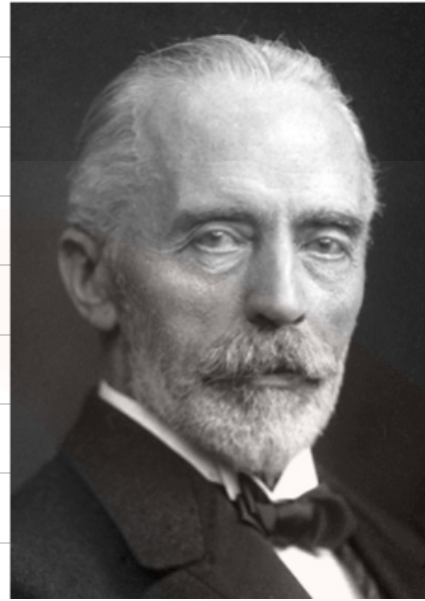
⊕ Kocher's Test :-



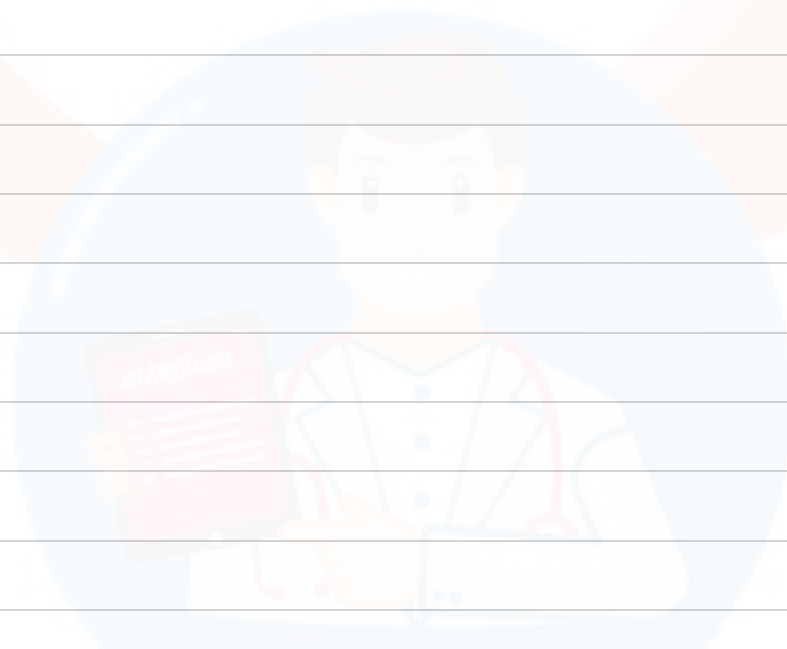
⊕ Trail Sign :-



① E.T. Kocher :- Father of thyroid sx



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