

Voice Disorders

Physiology of the voice:

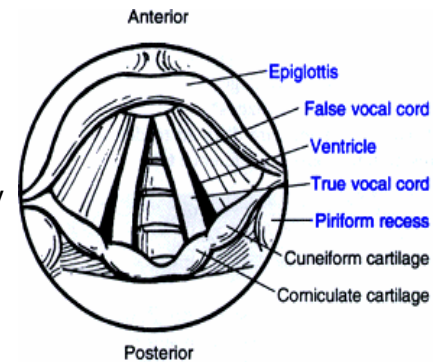
- Vocal cords tighten for high pitch , loosen up for low pitch.
- The looser they are, the less frequent their vibrations.
- Everything else is controlled by the mouth and sinuses.
- **Reinke's Space is crucial!**
 - Slight disturbance = major change in voice quality

External Laryngeal Nerve controls **Pitch**

Recurrent Laryngeal Nerve controls **Tone**

These can be damaged by -

- Cardiac, Thyroid, Mediastinal or Laryngeal surgery



HOARSENESS, croaking voice:

Major causes are:

ACUTE (sudden onset)

- **Acute Reinke's Oedema**
(like after a night of drinking and smoking)
- **Viral Laryngitis**
- **Bile / Acid Reflux** looks like diffuse redness around the cords

CHRONIC (insidious)

- **Polyp due to**
 - Excessive coughing
 - Violent intubation in ICU
- **Granuloma** (a chronically unhealing polyp)
- **Squamous Carcinoma**

**OLD HOARSE MALE SMOKER :
CANCER UNTIL PROVEN OTHERWISE**

**YOUNG HOARSE FEMALE NON-SMOKER :
VIRAL LARYNGEAL PAPILLOMA
= vocal cord warts**

Larynx SCC:

~3 months onset of hoarseness;
Tumour is probably still small
Rarely spreads to lymph nodes as
the larynx is poorly drained.
Leukoplakia (hyper-keratosis) is
the pre-malignant change

Investigate with **NASENDOSCOPY**

(tube is passed through nasopharynx, strobe light is used to image the cords in motion.)

Management is usually **SURGICAL** for polyps, granulomae, SCCs.

- Polyps, papillomae + small cancers can be burnt off with a laser.
- Acute oedema, viral+ reflux laryngitis will resolve by themselves.

Functional Voice Disorders: no organic causes

Eg. The dry mouth of the public speaker:

- Anxiety causes adrenaline release
- Adrenaline causes muscles to tighten and mucosal membranes to dry up
- Hence, Reinke's space becomes narrower and the vocal cords become tighter, thus the broken high-pitched voice of the defendant in court.
- This is known intuitively; people put glasses of water out for public speakers