

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

TRAUMA and FBs

Nasal Trauma

Manifestations of nasal deformity

- Fracture nasal bone
- Septal injury
 - Displacement
 - Hematoma
 - Perforation
- Synechia
- CSF rhinorrhea
- Epistaxis

Fracture Nasal Bone



Physical Examination

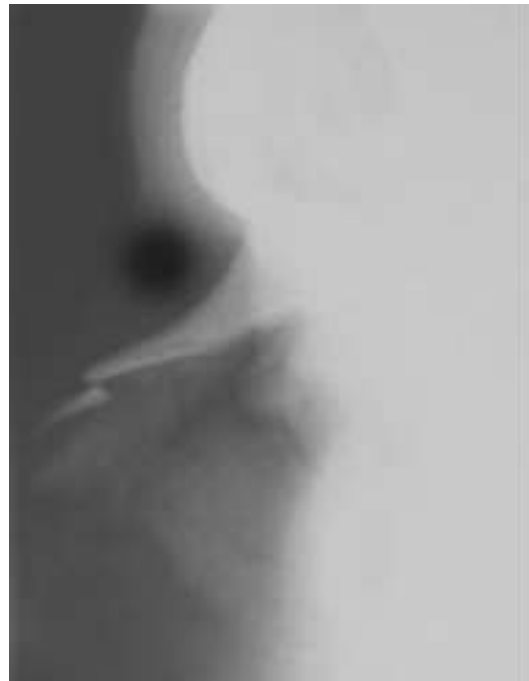


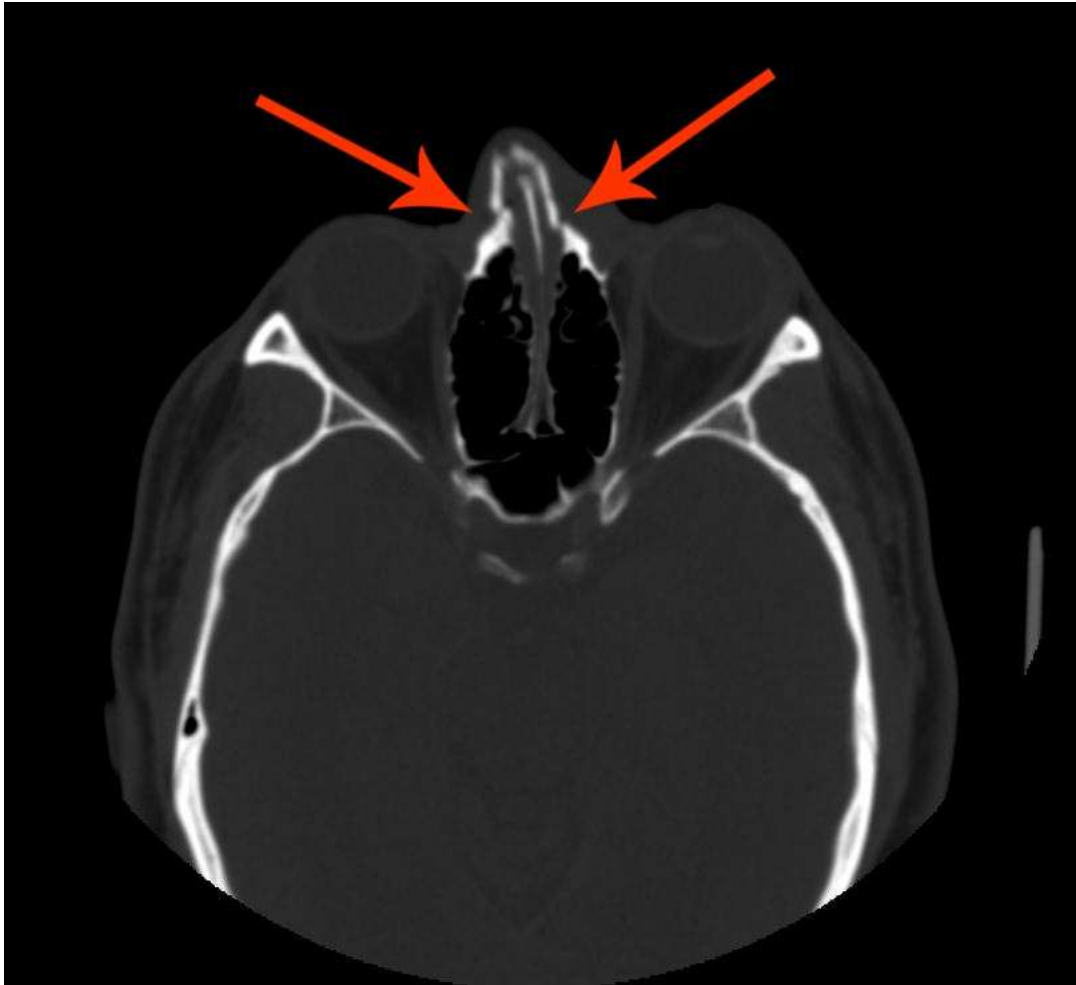




Radiology

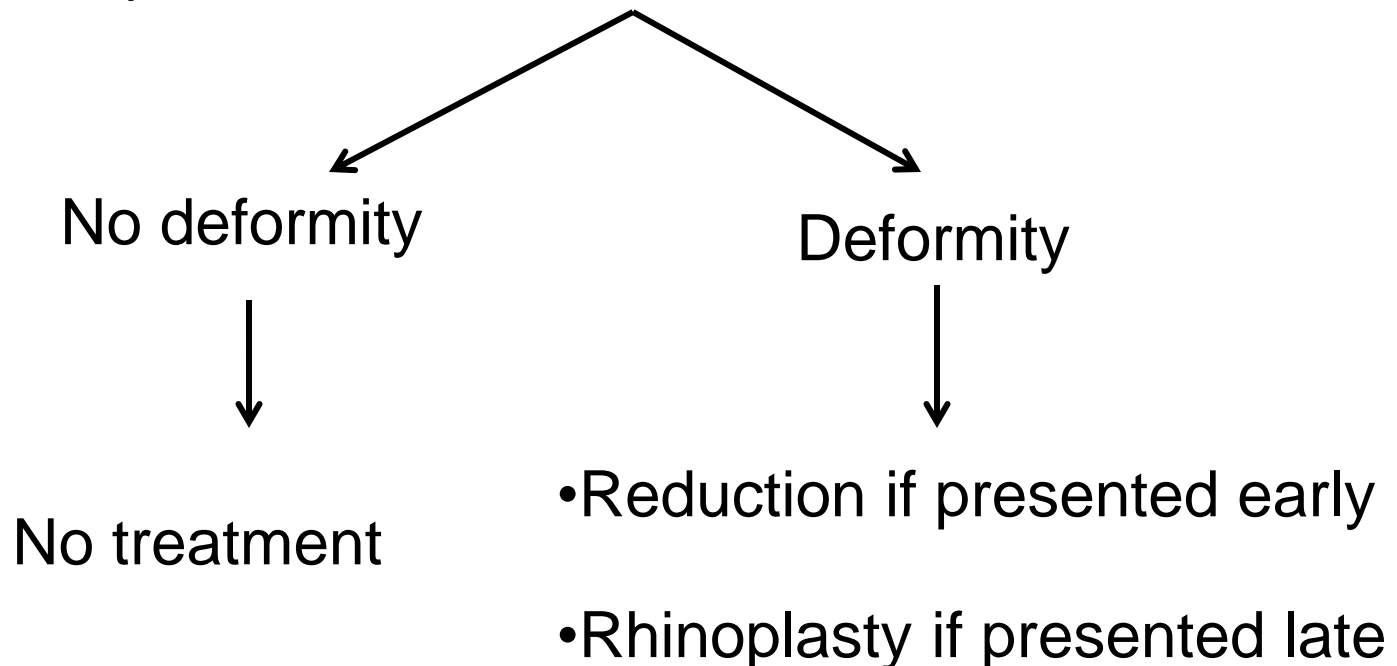
- Usually **is not necessary** because treatment depends on the clinical finding



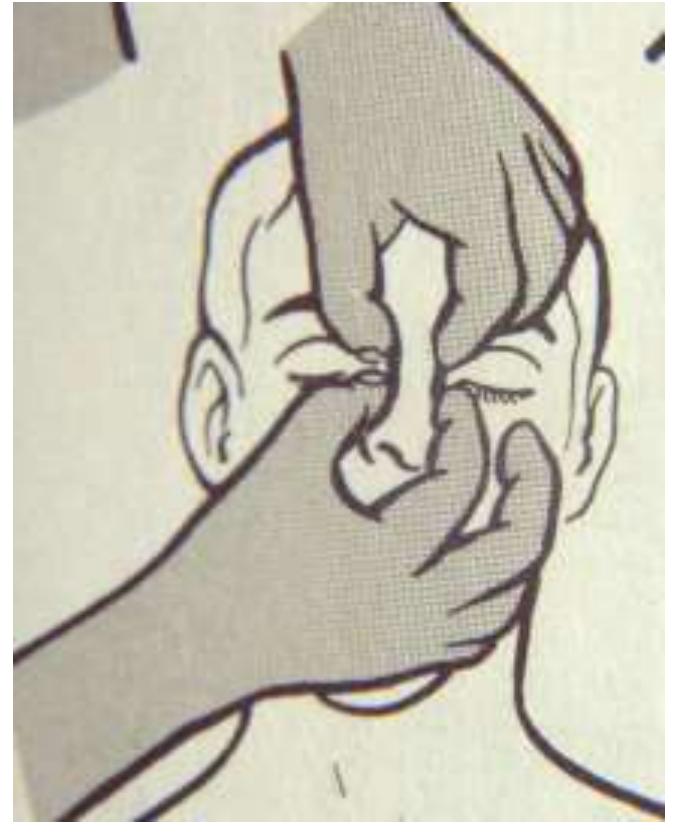


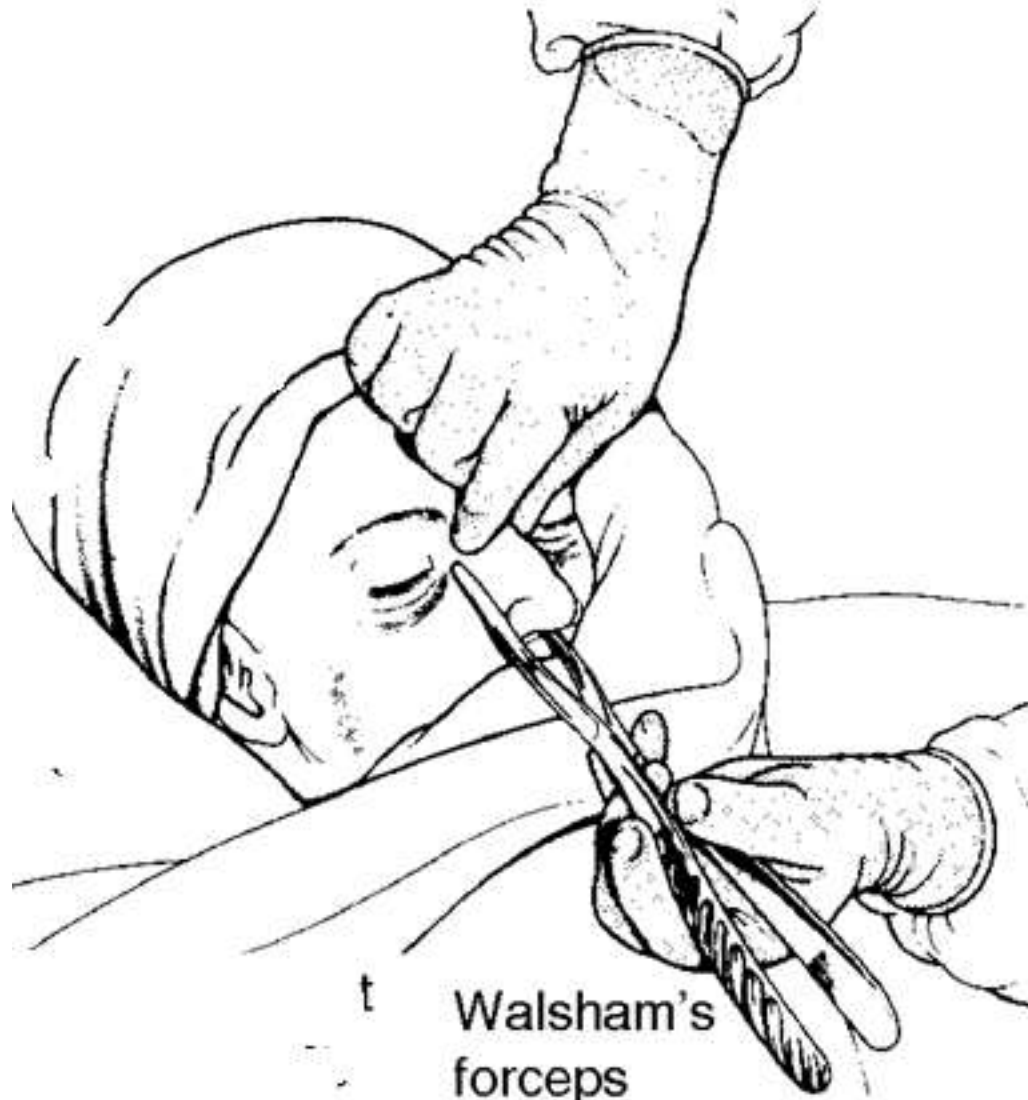
Management of fractured nasal bone

- Proper assessment of the “shape” of the nose (you may wait “few” days for the edema to subside)



Reduction



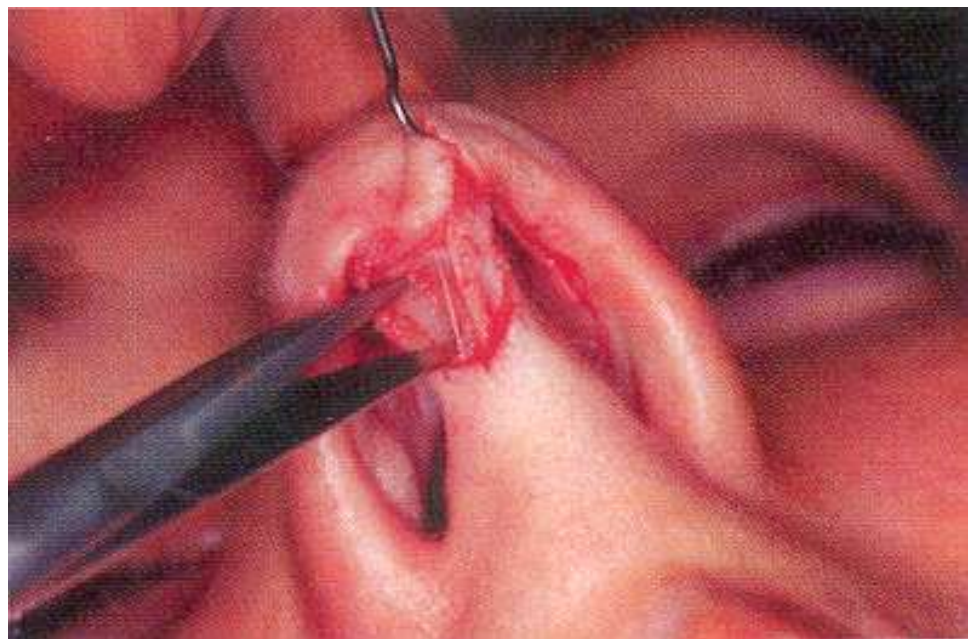
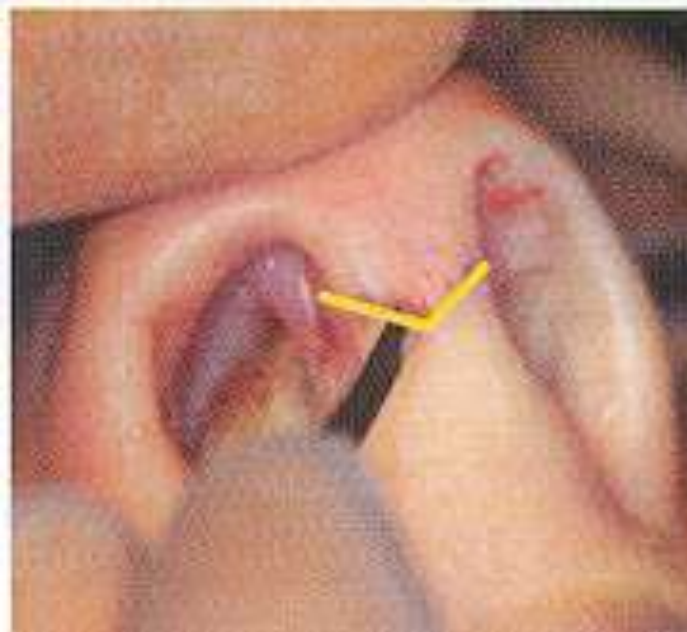


t Walsham's
forceps



Rhinoplasty

- To correct “old” fractures



Nasal Septum Injury

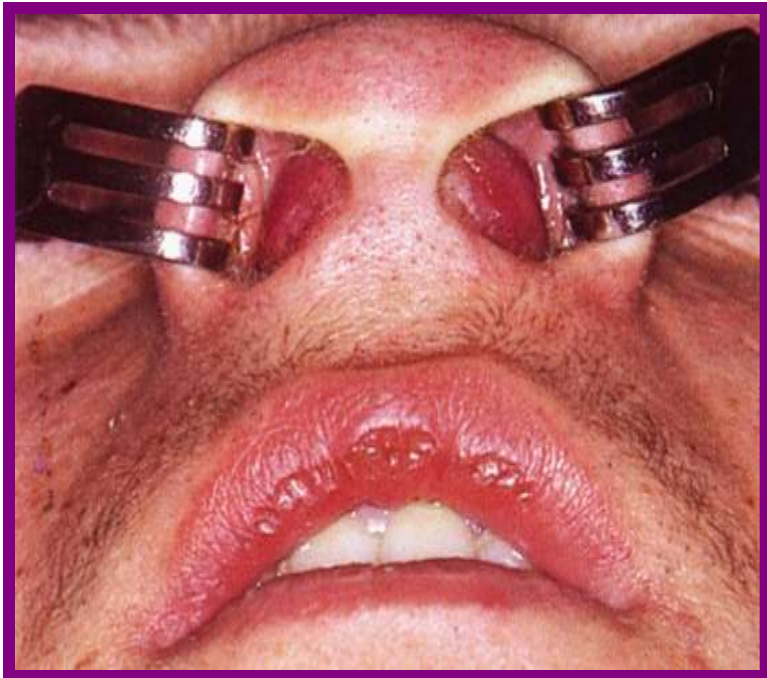
Displacement of nasal septum



Treatment of displacement of nasal septum

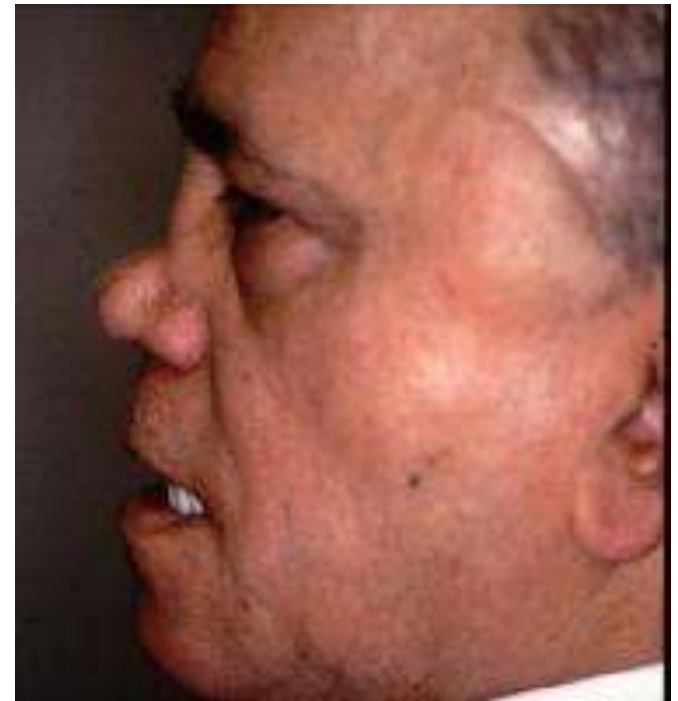
- No symptoms: no treatment
- Symptomatic
 - Early presentation: Reposition
 - Late presentation: Septoplasty

Septal hematoma



Complications of Septal hematoma

- Necrosis of the cartilage
 - Deformity
- Infection
 - Septal abscess
 - Spread to the intracranium

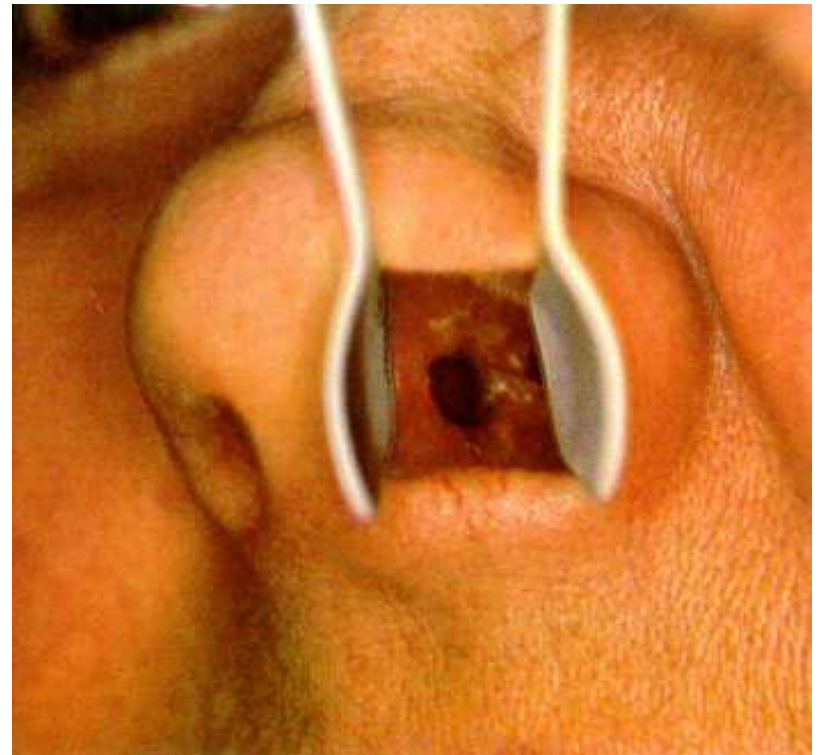


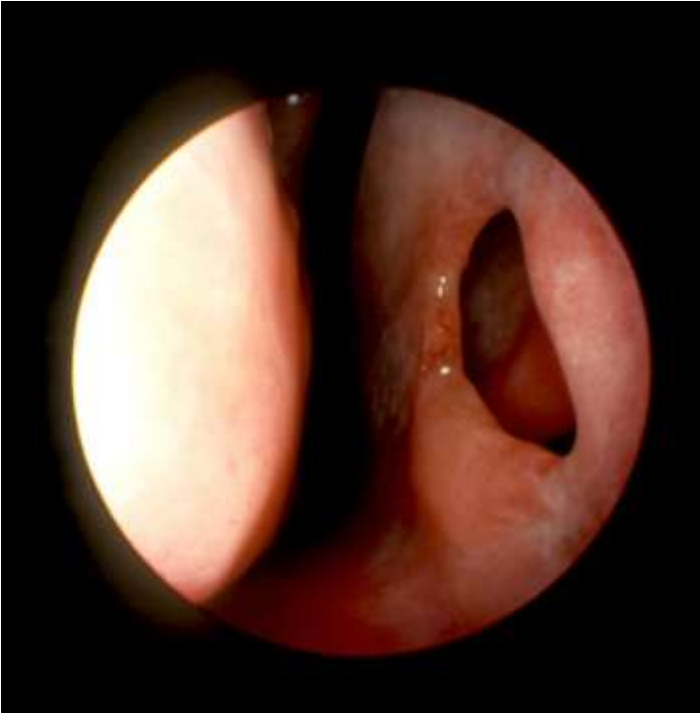
Treatment of septal hematoma

- **Immediate** incision & drainage

Traumatic septal perforation

- Mostly due to surgical trauma
- May be due to self-inflicted trauma



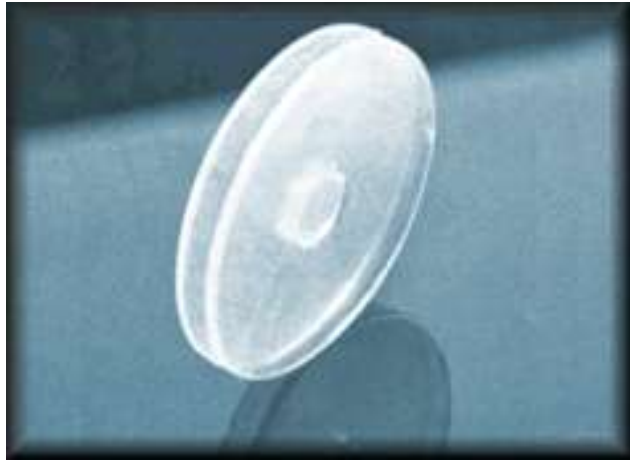


Symptoms

- No symptoms
- Whistling sound during breathing
- Crusting and epistaxia

Treatment

- No treatment
- Nasal wash
- Surgical repair
- Insertion of silicon “button”



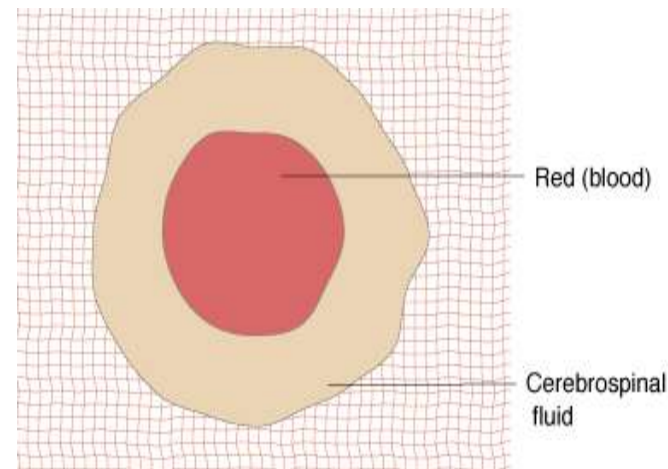
Synechia

- Usually follow surgery
- If symptomatic, treatment is by division and insertion of silastic sheets (for 10 days)



CSF Rhinorrhea

- Due to injury of the roof of the nose and the dura
- Unilateral watery rhinorrhea increases by bending forward, exertion and coughing
- Halo sign
- Diagnosis is confirmed by biochemical analysis (Beta-2-transferrin) and by radiology
- Most cases resolve with conservative treatment
- Surgical repair may be needed in minority of cases



Complications of CSF Rhinorrhea

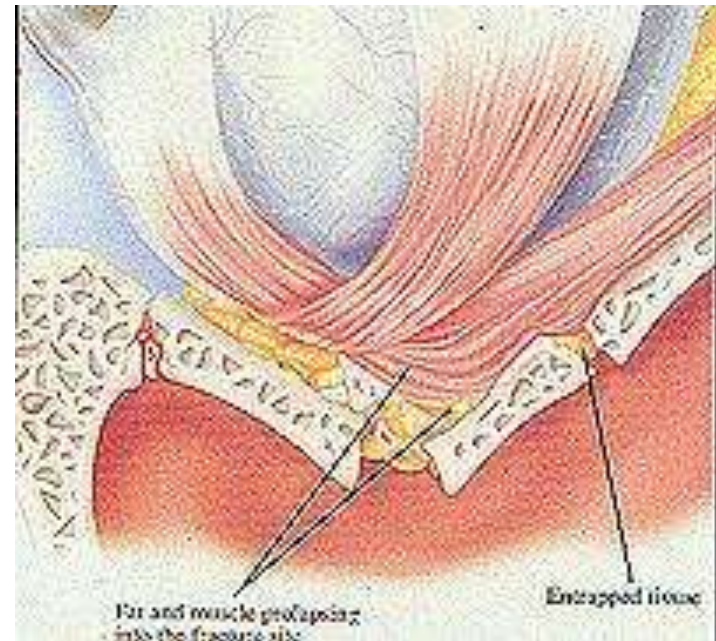
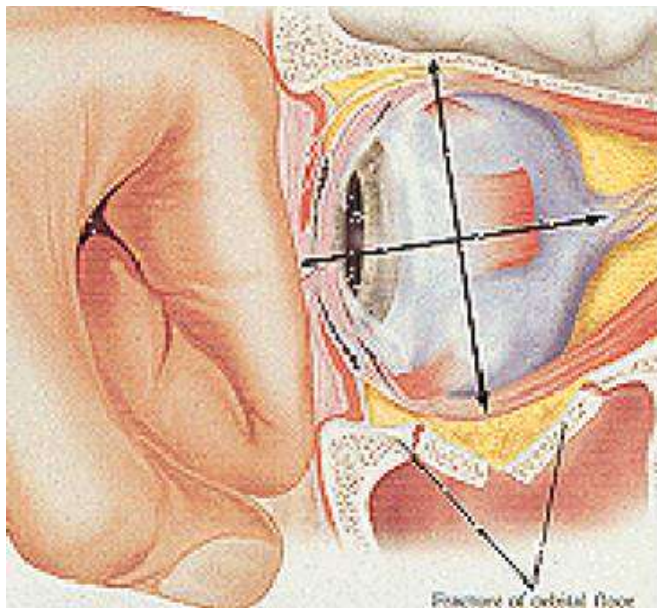
- Meningitis
- Tension pneumocephalus



Sinus Trauma

Blow-out fracture

- Injury to the orbital floor (maxillary sinus roof) due to blunt trauma to the orbit

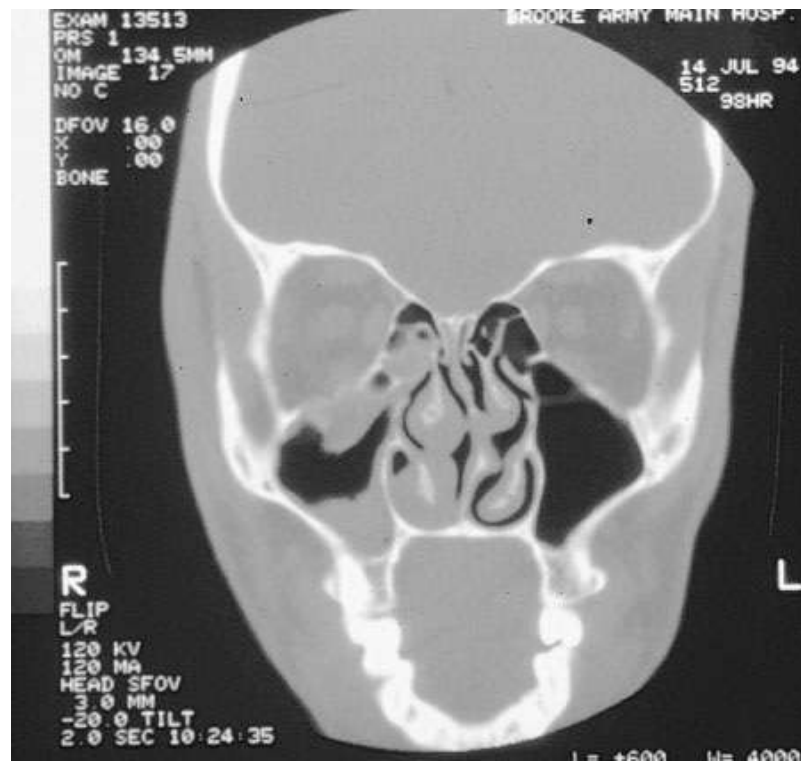


Physical examination

- Enophthalmos
- Subconjunctival hge
- Diplopia and restriction of upward gaze



Radiology



Tear-drop sign

Treatment

- Repair

Foreign Bodies

- May be asymptomatic
- Unilateral nasal obstruction
- Bad odor blood stained unilateral nasal discharge

Examination





Radiology

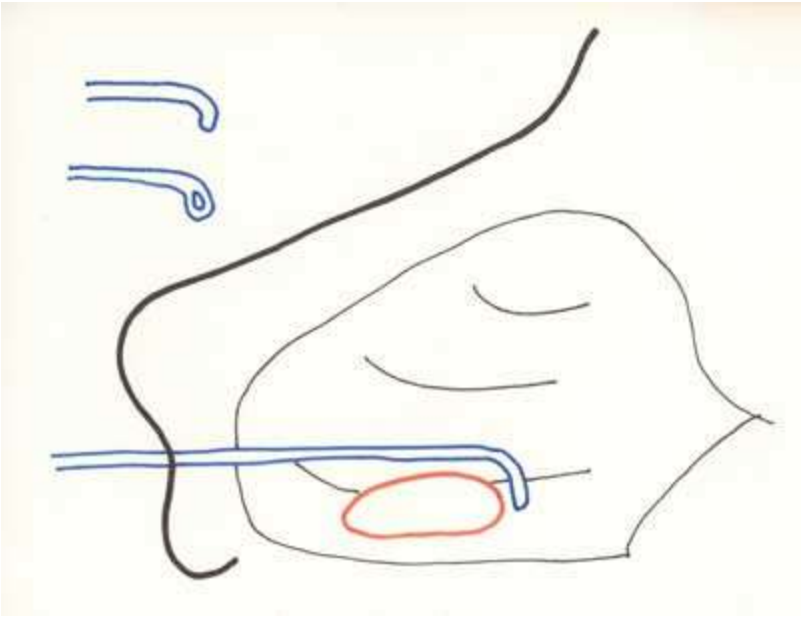


Rhinolith

Treatment

- Removal (General anesthesia may be needed)
- Disc batteries removal is an emergency because of sever necrosis due to release of NaOH, KOH, & mercury





Ear Trauma

Trauma to the Auricle

- Laceration





Trauma to the auricle

- Hematoma auris

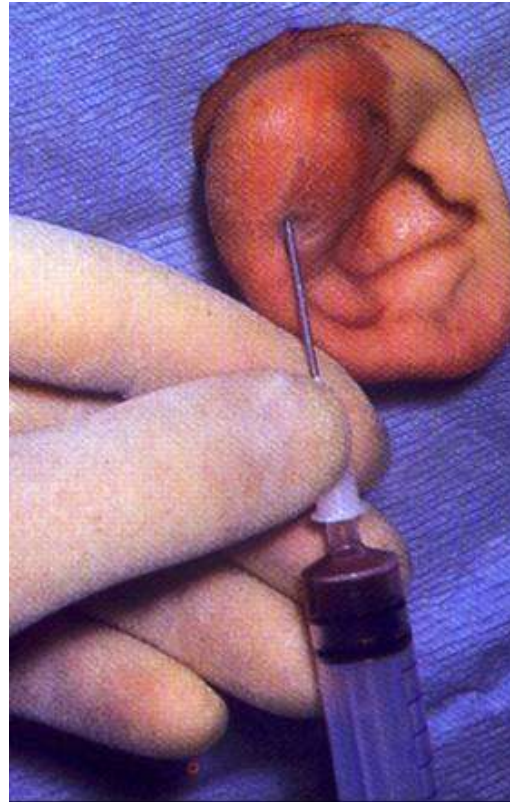


Complication



Cauliflower ear

Treatment



FBs external canal



Removal FBs ear

- Full cooperation from the patient; otherwise go to general anesthesia
- Disc batteries are emergency
- Live insects to be killed or float out
- Removal by : syringing and/or by instrumentation









Traumatic TM Perforation



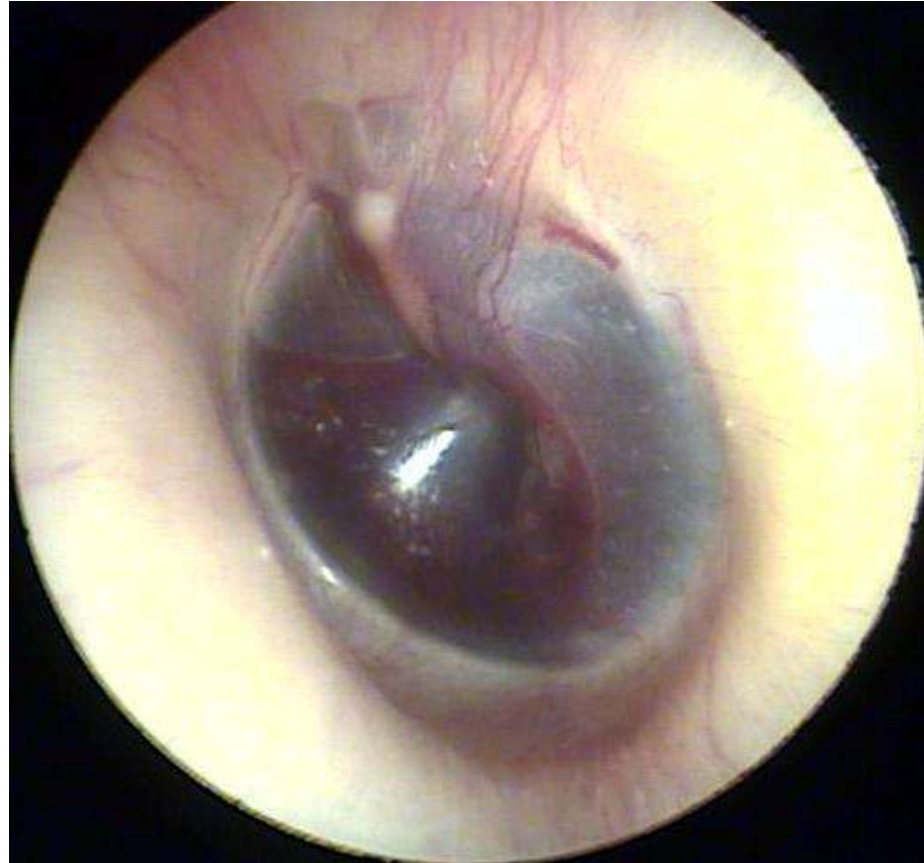


Treatment of traumatic TM perforation

- Observation
 - Most cases heal spontaneously
 - No suction, no drops & no water
- Elective myringoplasty

Middle ear trauma

Hemotympanum

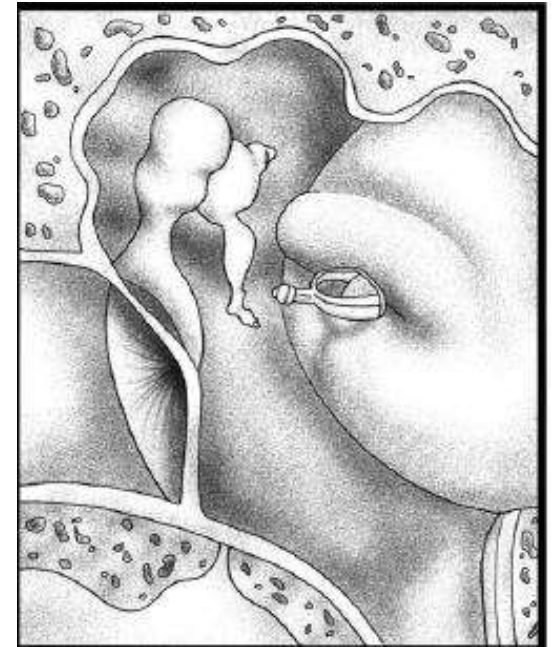


Treatment

- Observation
 - Most cases resolve spontaneously

Traumatic Ossicular disruption

- Causes CHL
- Treatment is by surgical repair



Otitic barotrauma

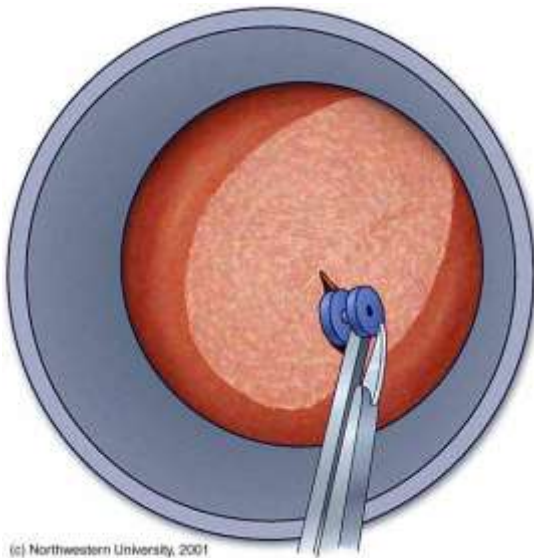
- An injury produced in the middle ear caused by negative pressure in the middle ear due to ET dysfunction during increase in the atmospheric pressure
- It occurs during flying when the aircraft is descending or during diving .
- The symptoms are pain, deafness.

Examination

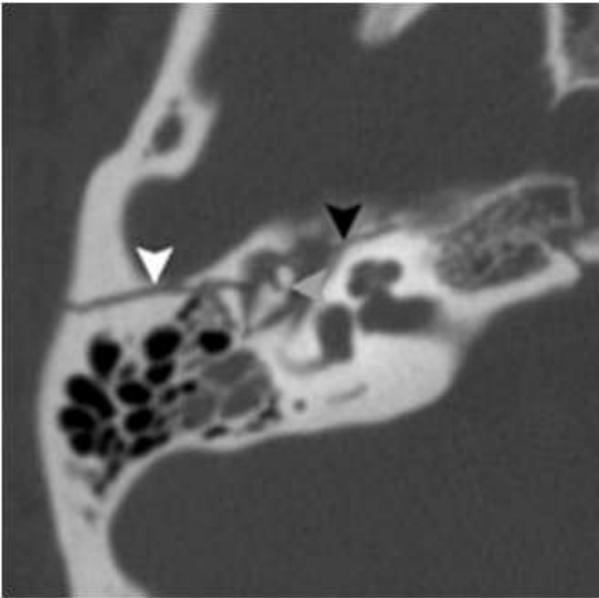


Treatment

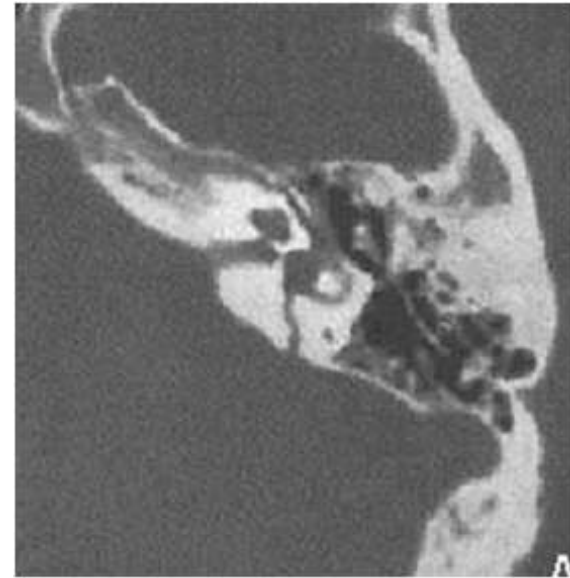
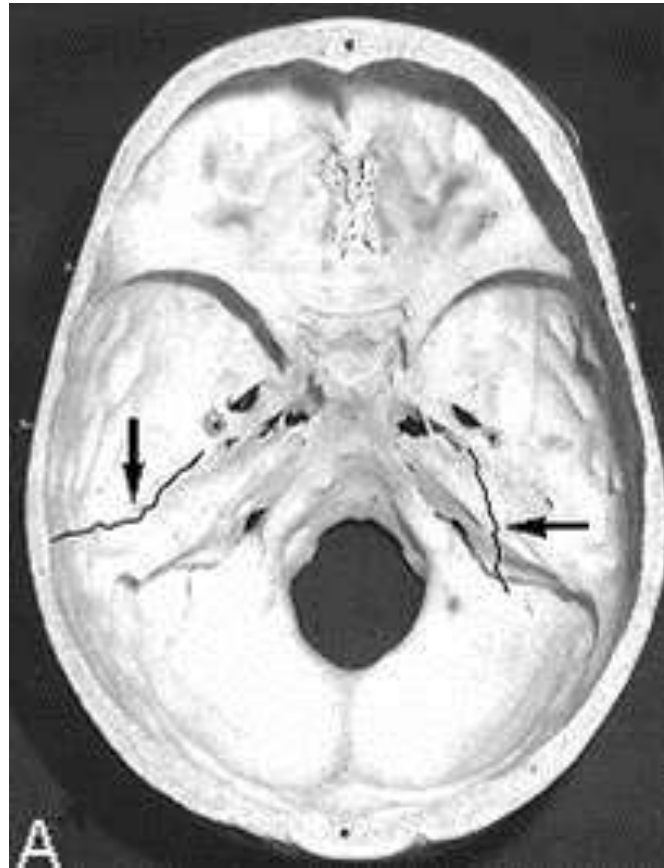
- Prophylactic
- Decongestant, analgesic and auto inflation
- Myringotomy and VT insertion



FRACTURE TEMPORAL BONE



Longitudinal #



Transverse #

Temporal bone fractures

Longitudinal fracture

Transverse fracture

Temporal bone fractures

Longitudinal fracture

70%

Transverse fracture

20%

Temporal bone fractures

Longitudinal fracture

Transverse fracture

70%

20%

Conductive hearing loss
(rupture drum,
hemotympanum or
ossicular disruption)

Temporal bone fractures

Longitudinal fracture

70%

Conductive hearing loss
(rupture drum,
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Transverse fracture

20%

SNHL & vertigo
(Labyrinthine injury)

Temporal bone fractures

Longitudinal fracture

70%

Conductive hearing loss
(rupture drum,
hemotympanum or
ossicular disruption)

Facial nerve paresis is not
common

Transverse fracture

20%

SNHL & vertigo
(Labyrinthine injury)

Temporal bone fractures

Longitudinal fracture

Transverse fracture

70%

20%

Conductive hearing loss
(rupture drum,
hemotympanum or
ossicular disruption)

SNHL & vertigo
(Labyrinthine injury)

Facial nerve paresis is not
common

Facial nerve paralysis is
common

Manifestation

- Battle sign



Manifestations

- Battle sign
- TM perforation
- Hemotympanum
- CSF otorrhea or rhinorrhea
- Ossicular disruption
- SNHL
- Vertigo
- Facial nerve paralysis



FB pharynx

- Usually sharp FB
- Fish bone is the most common
- Common sites: tonsils, base of tongue and vallecula
- Diagnosis is by physical examination

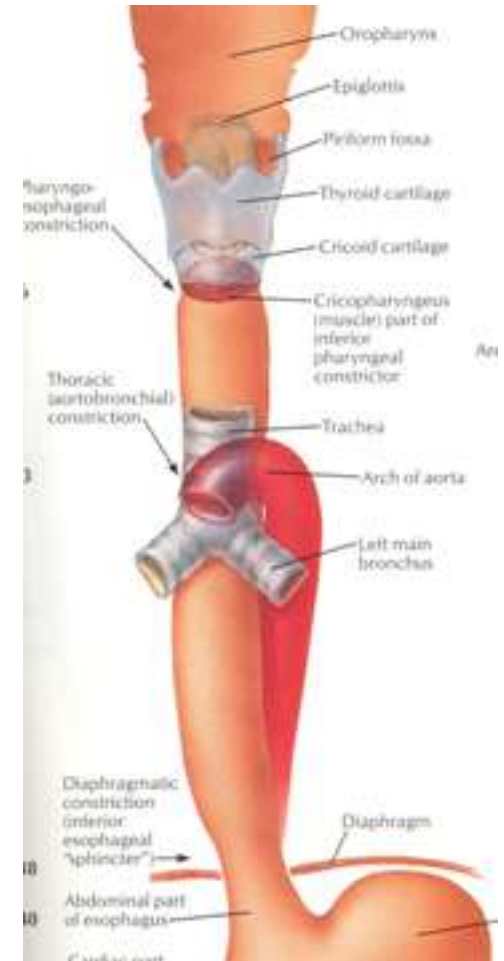


FB esophagus

- Coins – 75%
- Meat, dentures, disc batteries etc

FB esophagus

- Common locations
 - Cricopharyngeus
 - Aorta/left mainstem bronchus
 - Gastroesophageal junction



Diagnosis

- Symptoms
 - Dysphagia, odynophagia, choking & cough
- Physical exam
 - Drooling, refuses oral intake
- Radiology

Plain X ray







Diagnosis

- Symptoms
 - Choking, coughing, dysphagia, odynophagia
- Physical exam
 - Drooling, refuses oral intake
- Radiology
- Esophogoscopy

Treatment

- Removal via esophagoscopy
- Disc batteries and sharp objects removal is an emergency because of the risk of perforation

Foreign bodies of the larynx

- Dyspnea
- Cough
- Hoarseness or aphonia

Treatment

- Heimlich Maneuver

Heimlich Maneuver



1. Lean the person forward slightly and stand behind him or her.



2. Make a fist with one hand.



3. Put your arms around the person and grasp your fist with your other hand near the top of the stomach, just below the center of the rib cage.



4. Make a quick, hard movement, inward and upward.

Treatment

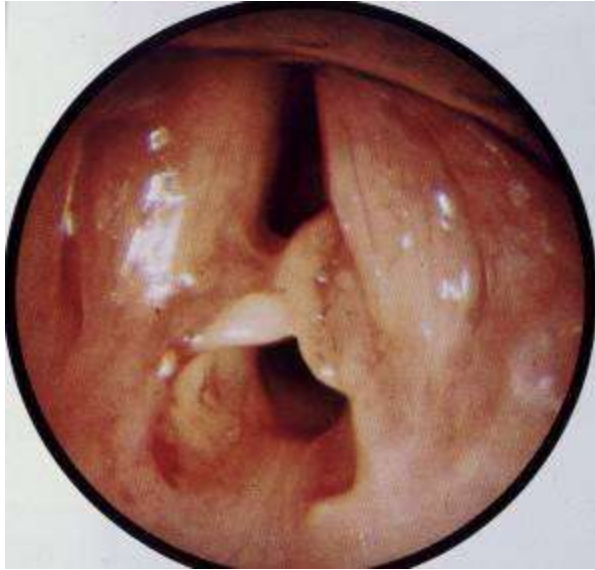
- Heimlich Maneuver
- Slapping the back with the patient's head down

Place the infant stomach-down across your forearm and give five quick, forceful blows on the infant's back with heel of your hand



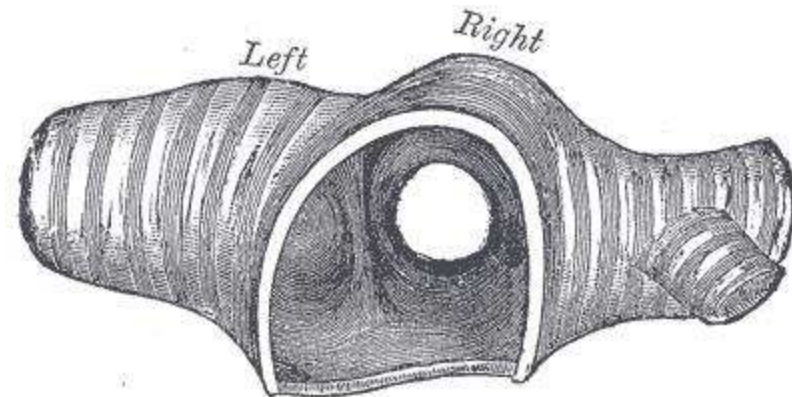
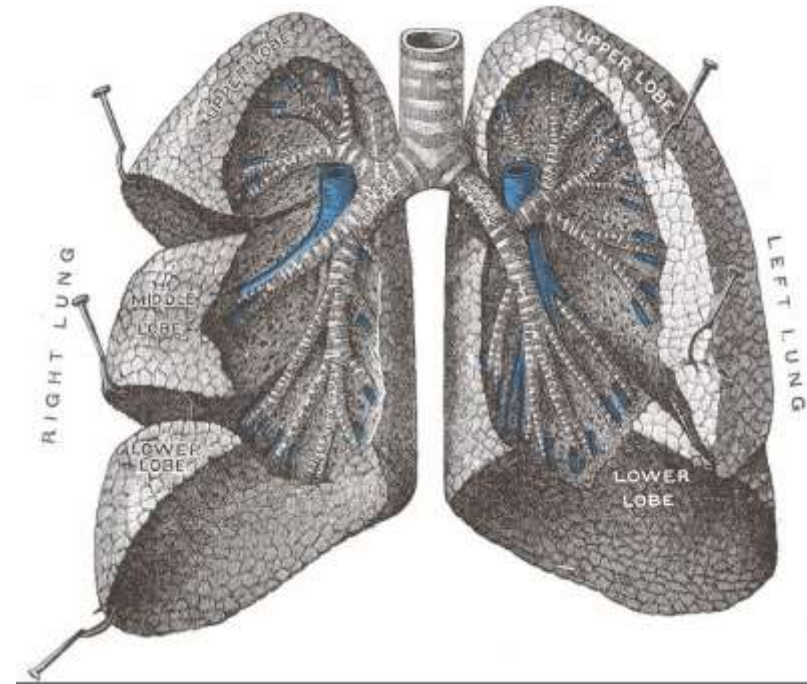
TREATMENT

- Heimlich Maneuver
- Slapping the back with the patient's head down
- Manual removal
- Removal by laryngoscopy
- Tracheostomy or laryngostomy (cricothyrotomy)



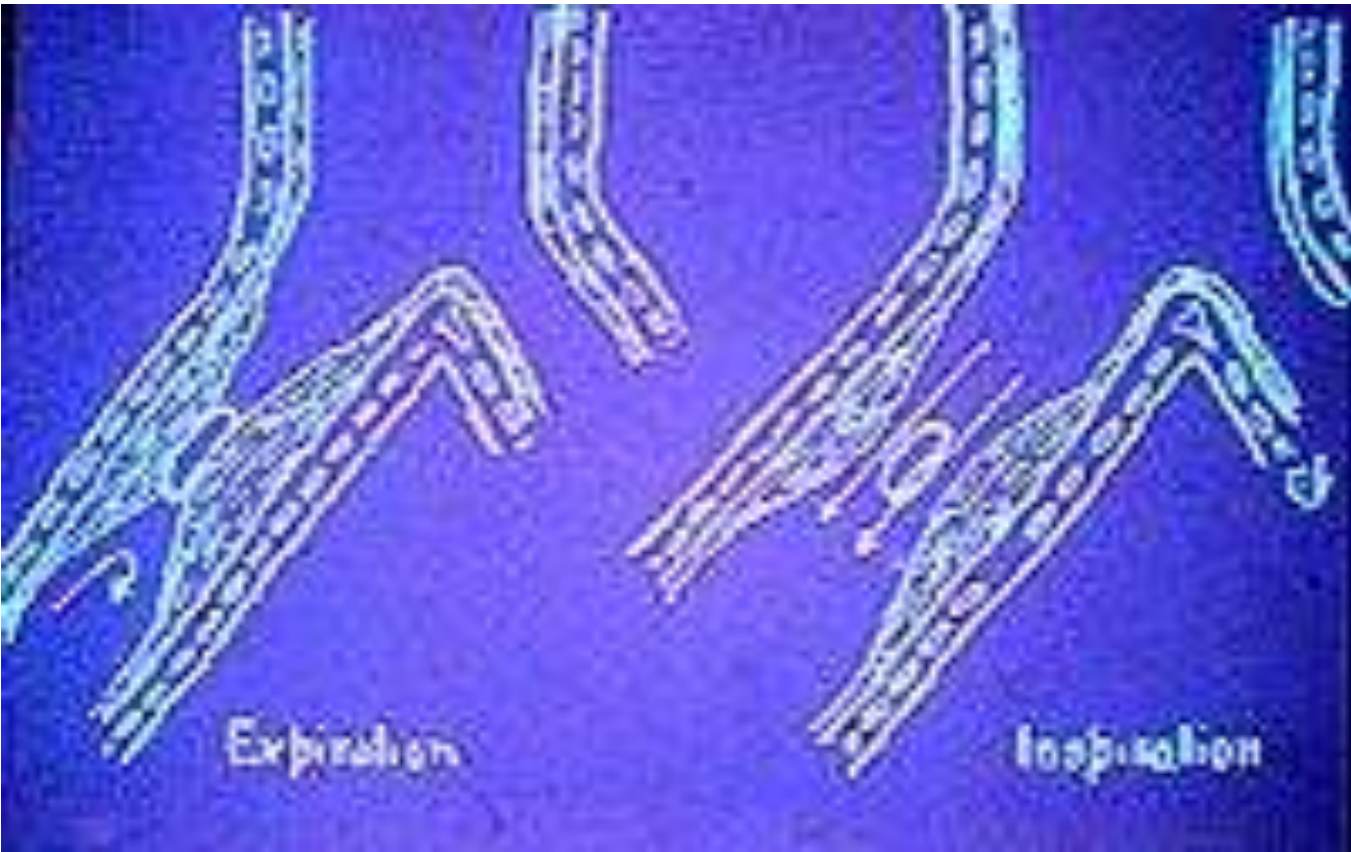
Foreign bodies in the tracheobronchial tree

- Usually in infants and children
- Most FB's are organic material (mostly food derivatives)
- Location: Mostly in the right side (60%)



CLINICAL PRESENTATION

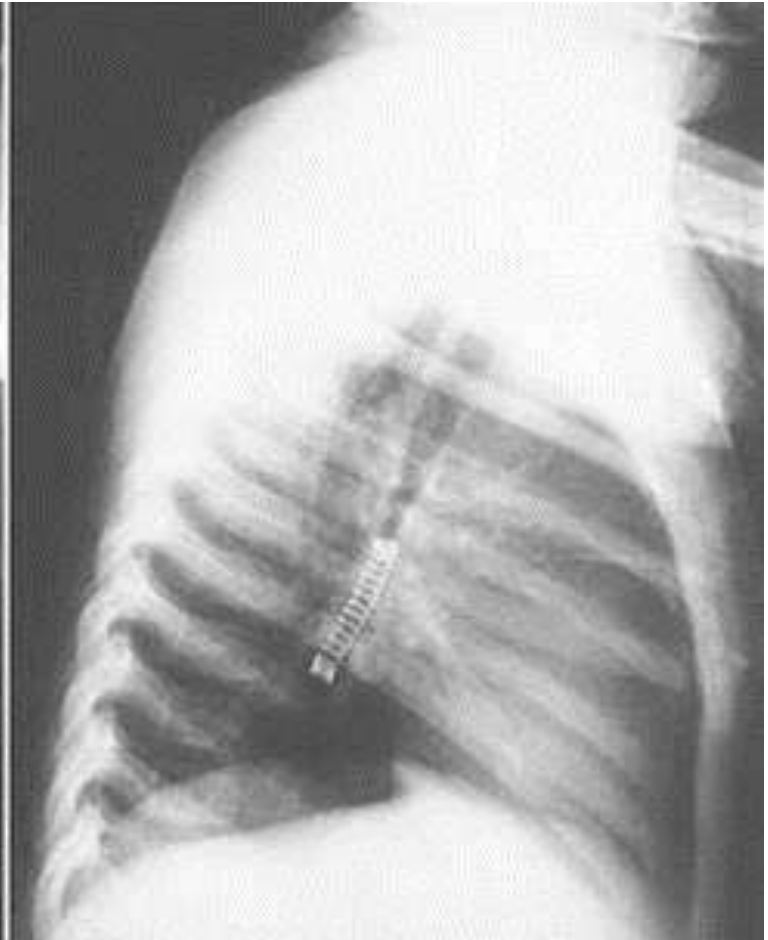
- Choking, cough, gagging & cyanosis
 - Caused by laryngeal reflexes
- Asymptomatic phase
 - Due to fatigue of cough reflex
- Wheeze, intractable cough, persistent or recurrent chest infection.
 - Due to emphysema, atelectasis or infection

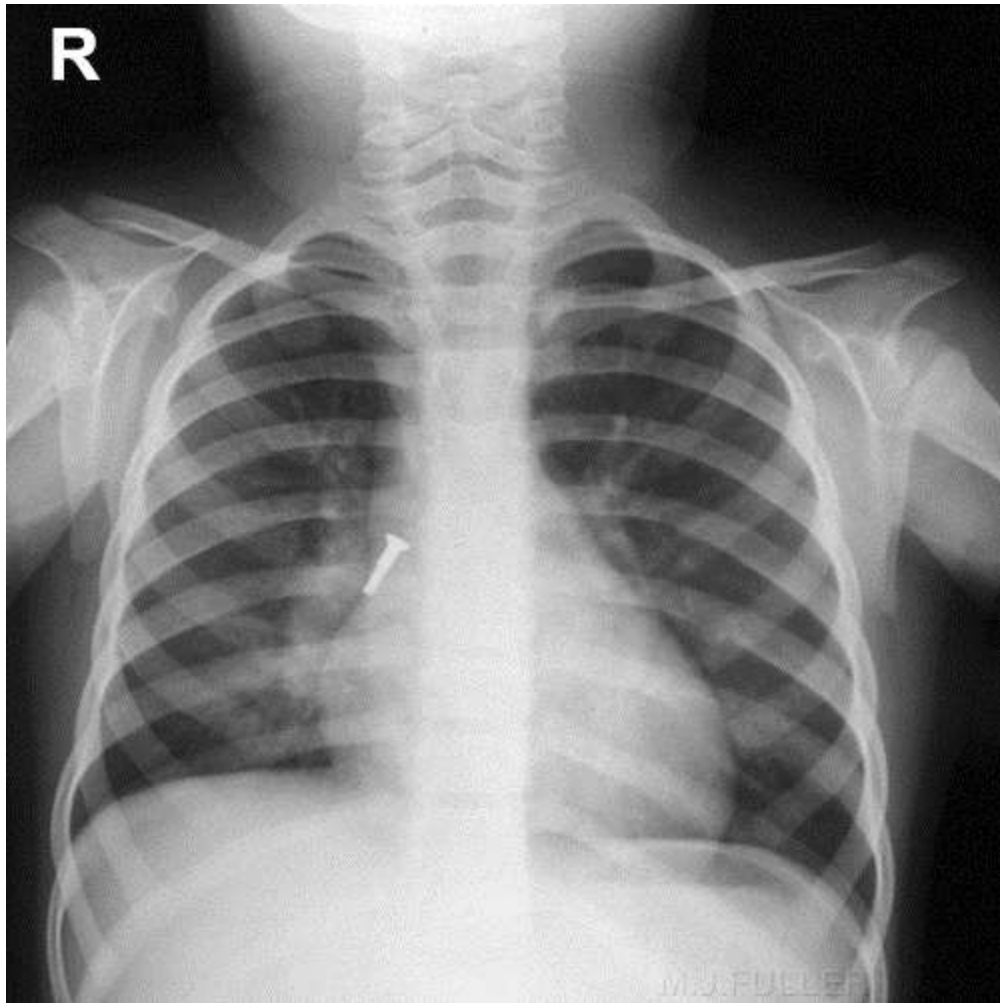


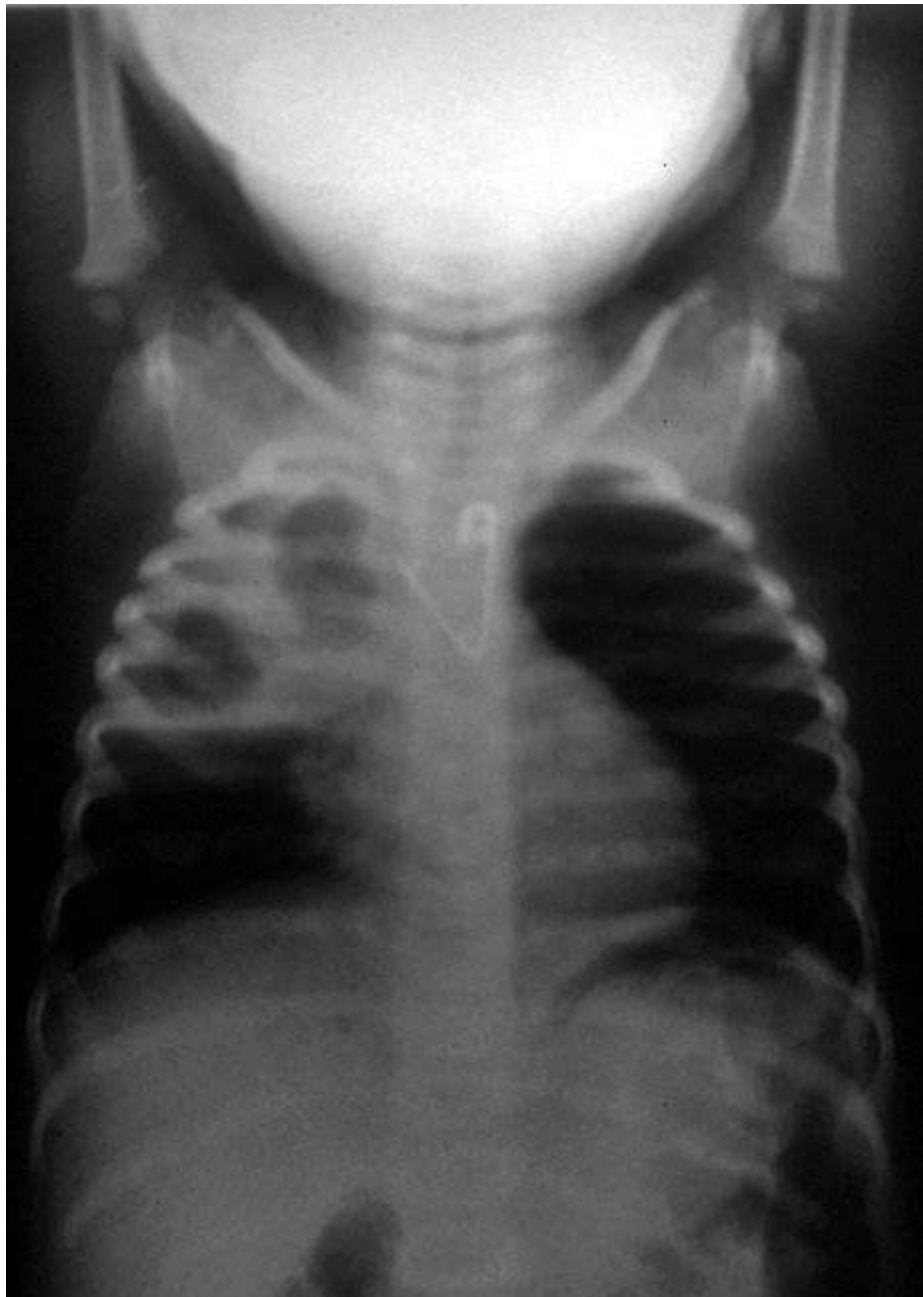
Radiology of tracheobronchial F.Bs

1 Normal

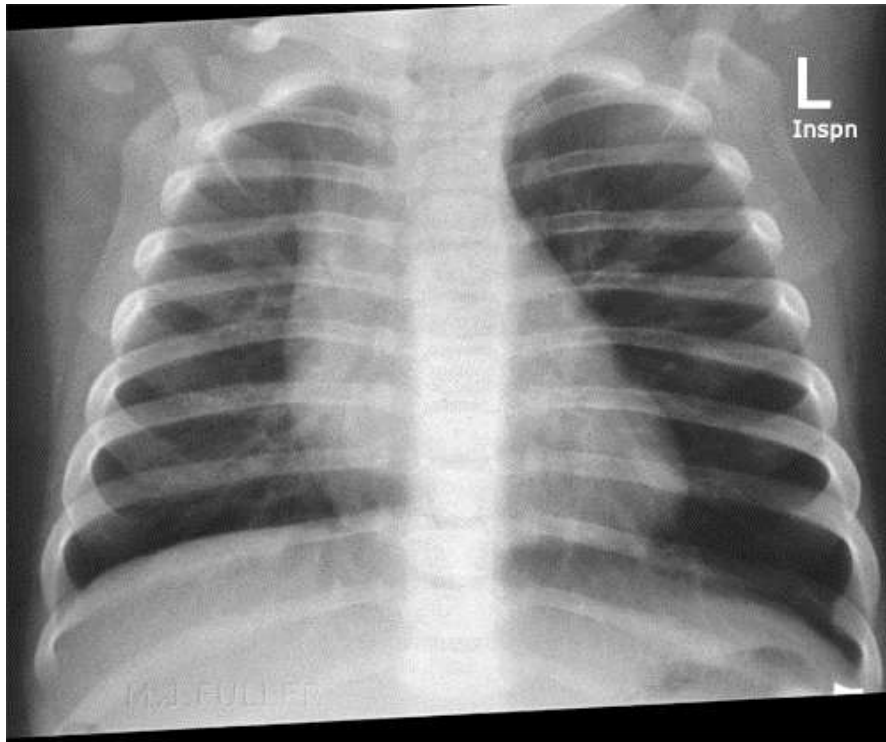
2 Radio-opaque FB



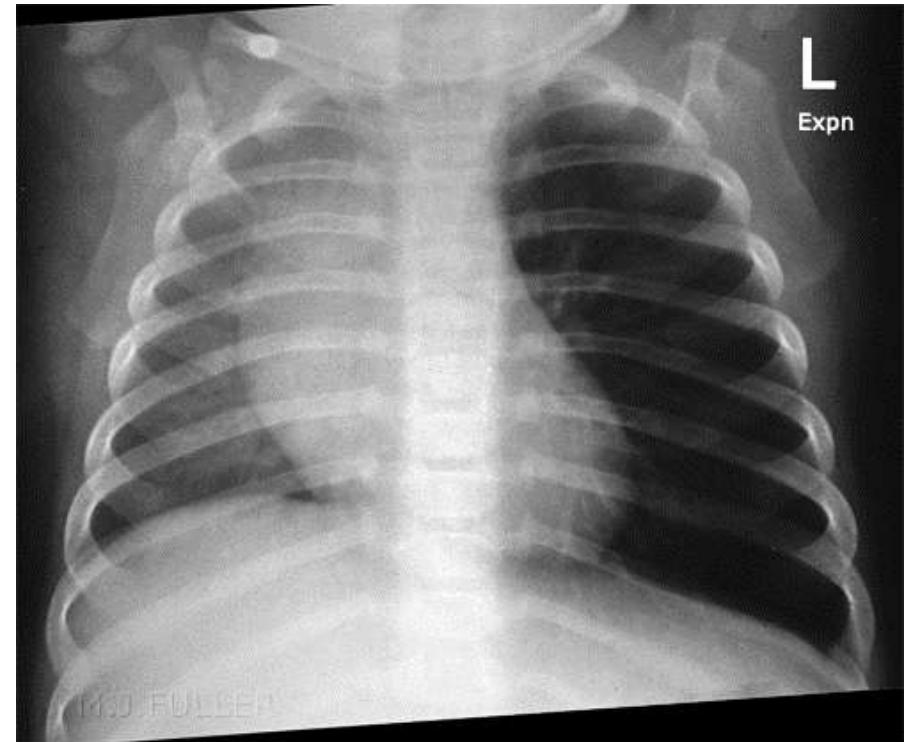




3 Emphysema



Inspiration

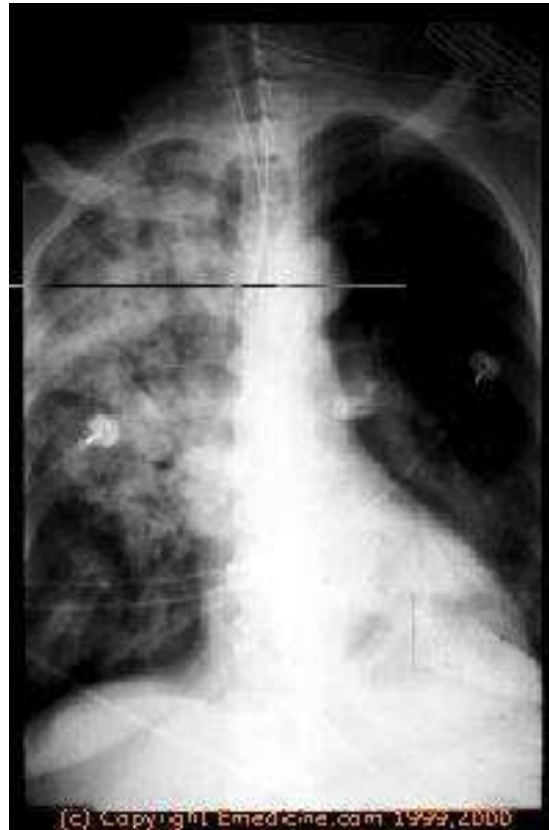


Expiration

4 Collapse



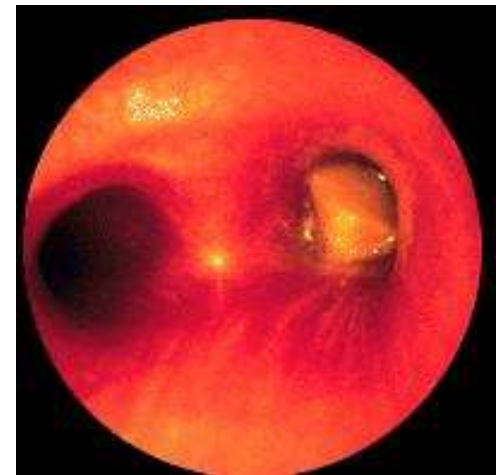
5. Bronchopneumonia

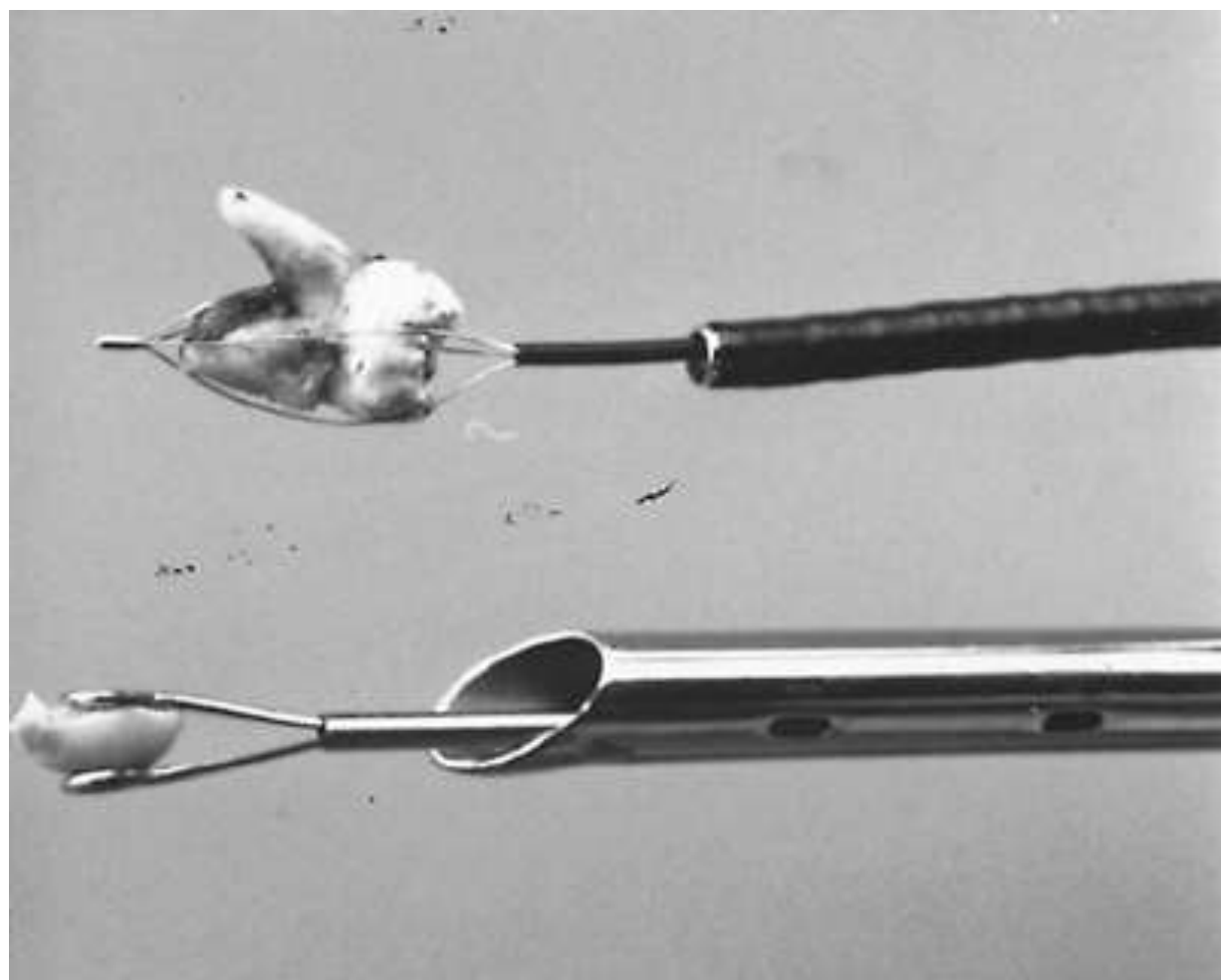


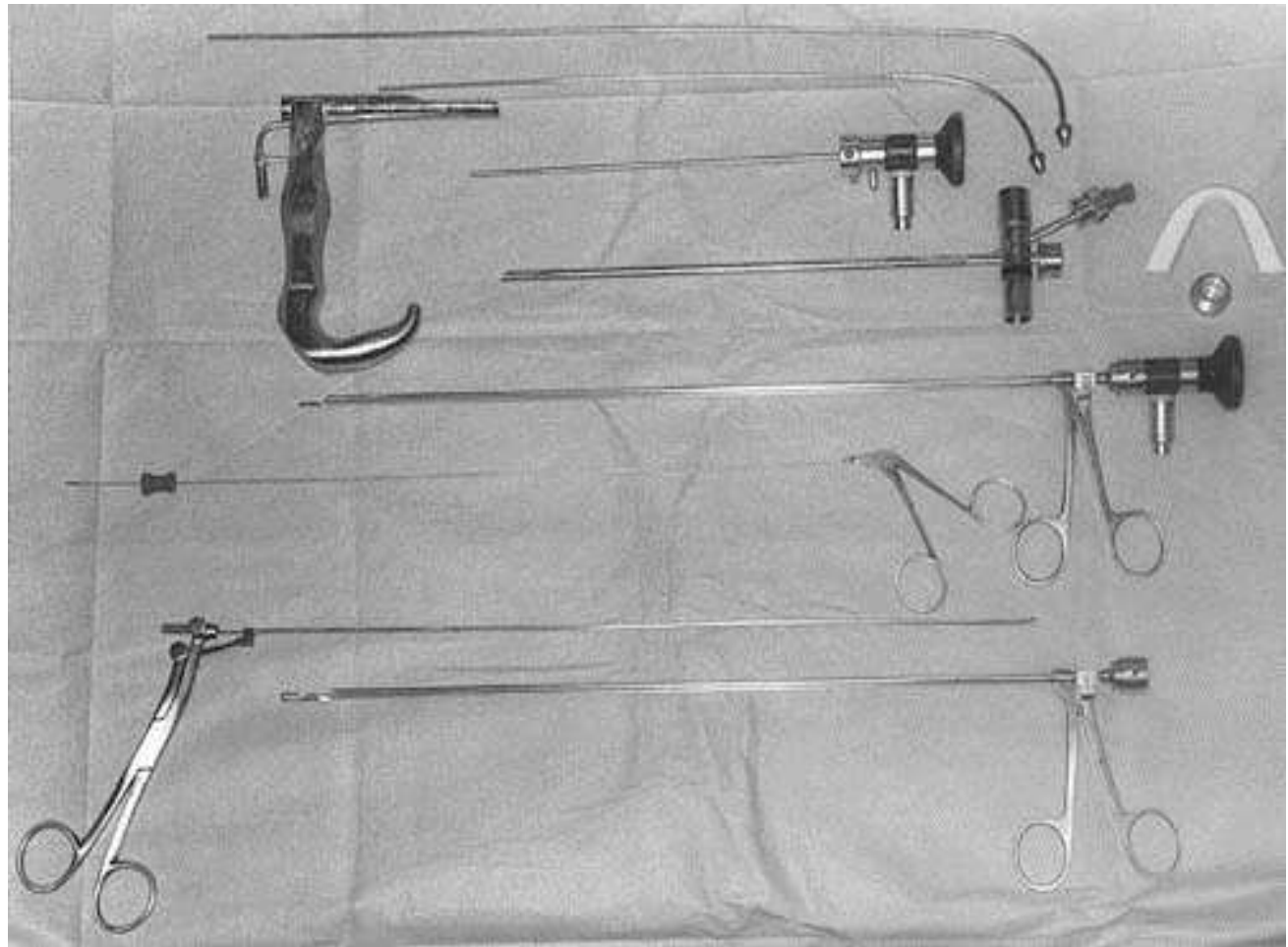
Treatment

To be initiated on clinical suspicion

- Bronchoscopy: in most cases
- Bronchotomy
- Pulmonary resection







THANK YOU