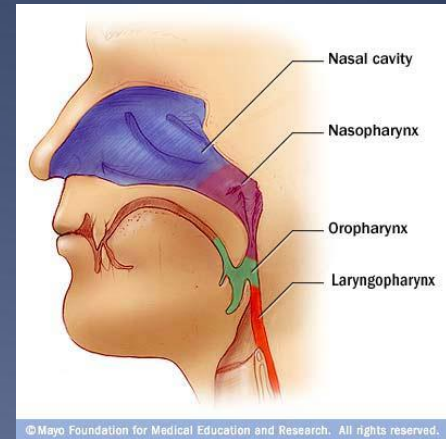


PHARYNX

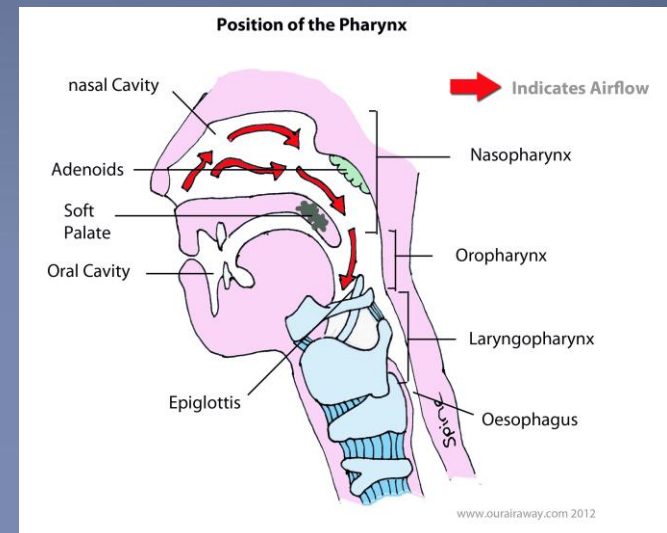


MAJA ŠEREG BAHAR

PHARYNX

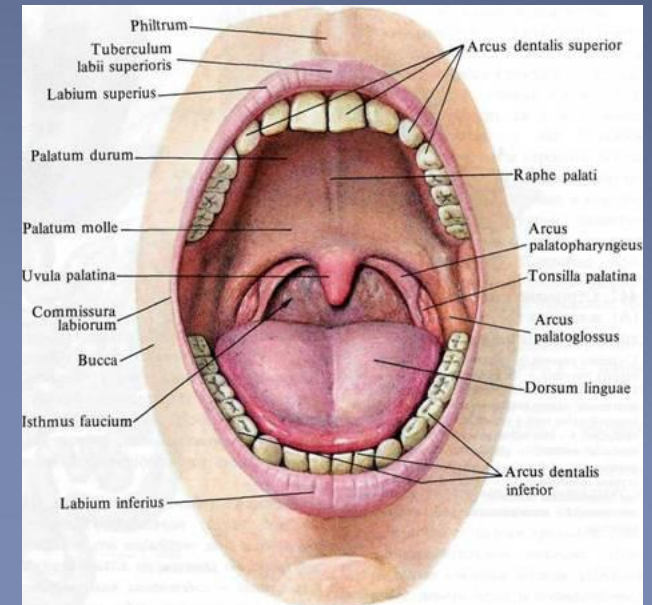
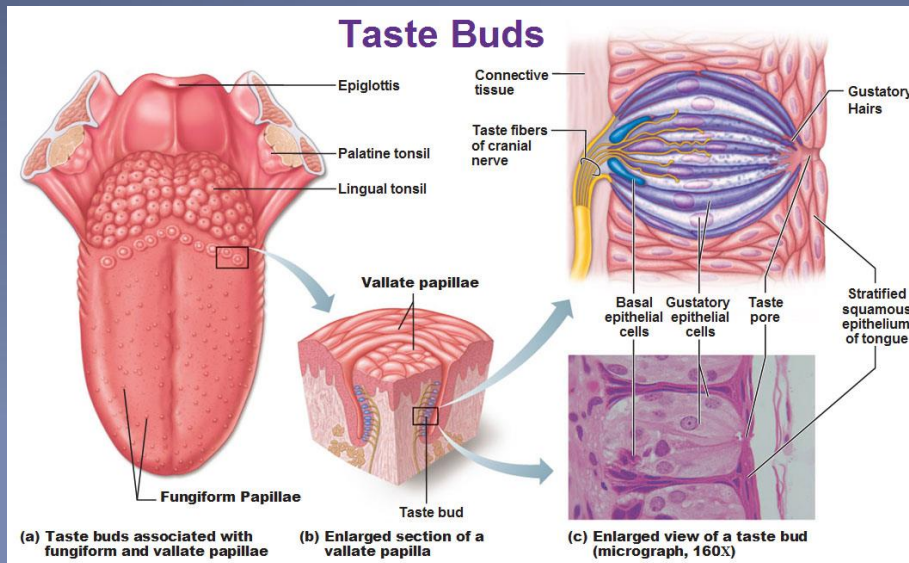
- THE PHARYNX IS MUSCULAR TUBE,
- IN FRONT OF THE SPINE,
- FROM THE BASE OF SKULL, TO THE UPPER OESOPHAGEAL SPHINCTER / C 6
- PHARYNGEAL FASCIA

- SPINE – PREVERTEBRAL MUSCLES – PREVERTEBRAL FASCIA
- FASCIAL SPACES / PARAPHARYNGEAL, RETROPHARYNGEAL /



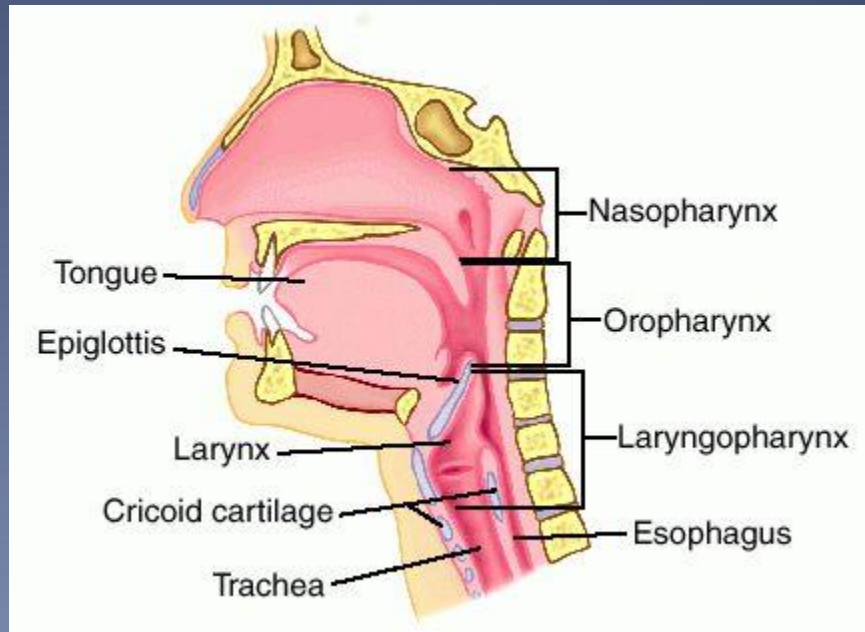
PHARYNX

- ISTHMUS FAUCIUM: ORAL CAVITY / PHARYNX
- SOFT PALATE AND UVULA
- ARCUS PALATOPHARYNGEUS, FAUCIAL PILARS
- PAPILLAE VALLATE



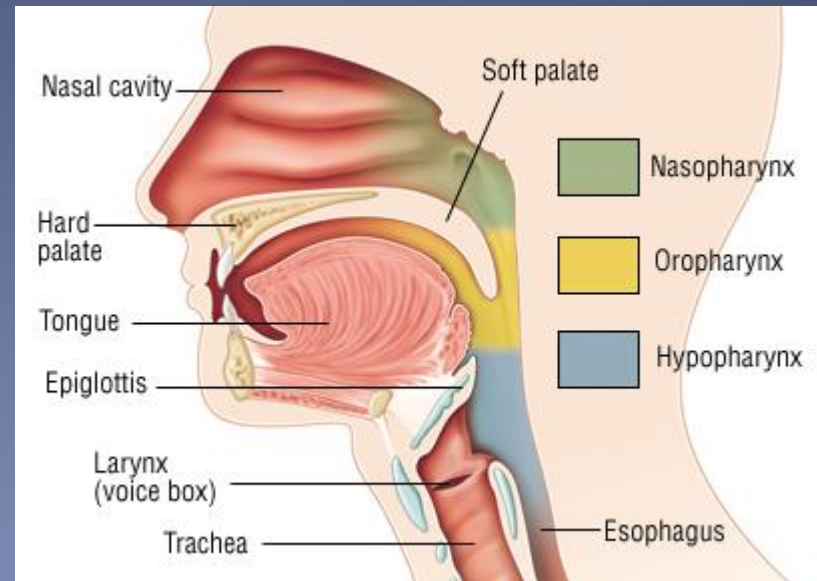
PHARYNX

- IN FRONT OF PHARYNX:
 - NASAL CAVITY
 - ORAL CAVITY
 - LARYNX
-
- BEHIND PHARYNX:
 - SPINE



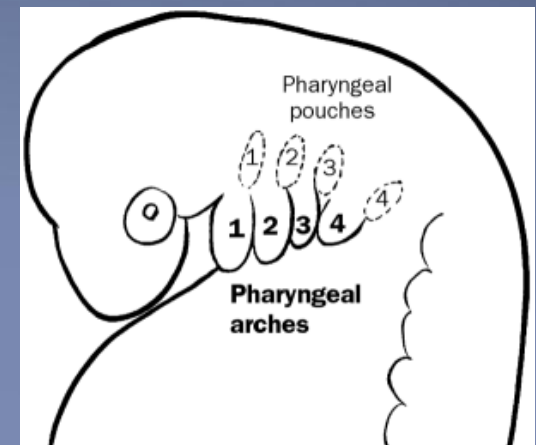
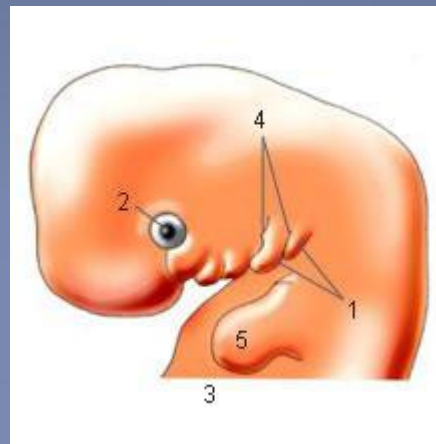
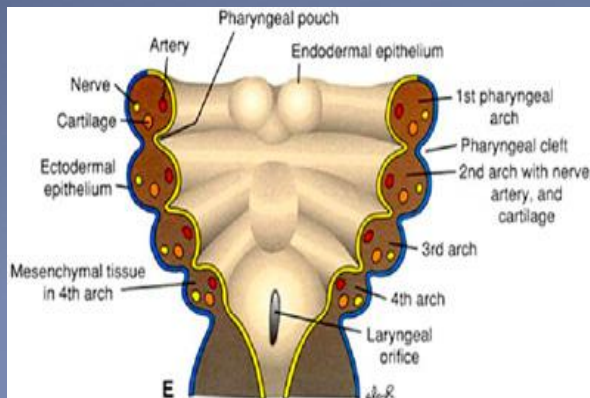
PHARYNX

- **NASOPHARYNX – EPIPHARYNX**
- **OROPHARYNX**
- **HYPOPHARYNX**



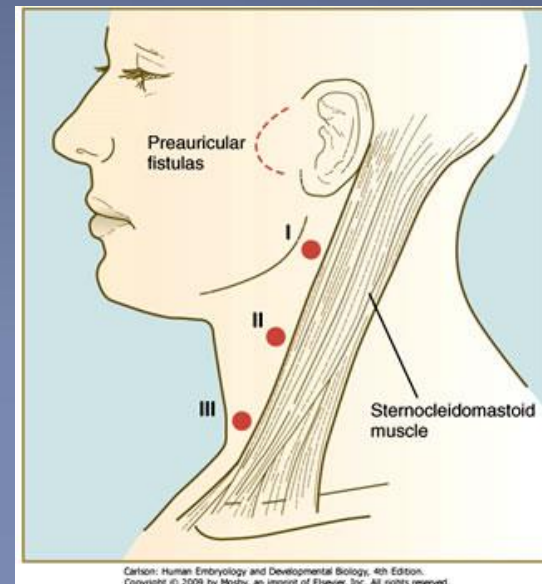
PHARYNX - EMBRIOLOGY

- PHARYNX – CRANIAL PART OF DIGESTIVE TUBE
- ON ABDOMINAL PART OF THE EMBRIO IS PRIMITIVE INTESTINE
- UNDER THE EYES SCHEME – DRAFT FOR PRIMITIVE MOUTH
- PHARYNGEAL POUCHES
- PHARYNGEAL ARCHES



PHARYNX

- CONGENITAL ANOMALIES
- PREAURICULAR CYST, FISTULAE
- LATERAL NECK, CERVICAL CYST / BRANCHIAL, FISTULAE
- MEDIAN CERVICAL CYSTS AND FISTULAE



PHARYNX - ANATOMY

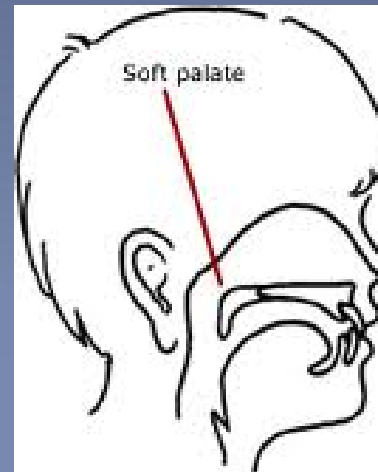
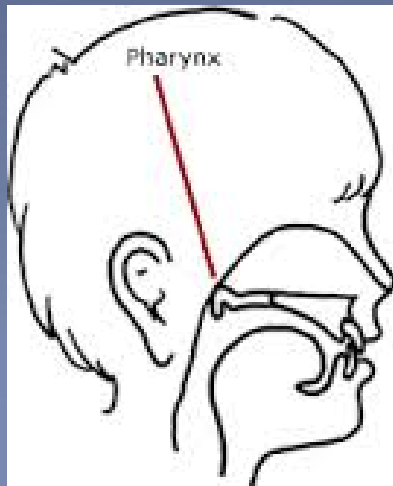
- THE TUBE OF THE ENTIRE PHARYNX CONSISTS OF FOUR LAYERS:
 - EPITHELIAL LINING: STRATIFIED SQUAMOUS EPITHELIUM AND RESPIRATORY CILIATED EPITHELIUM
 - FIBROUS LAYER
 - MUSCLE LAYER
 - MUSCULUS CONSTRICTOR PHARYNGIS SUPERIOR
 - MUSCULUS CONSTRICTOR PHARYNGIS MEDIUS
 - MUSCULUS CONSTRICTOR PHARYNGIS INFERIOR
 - OUTER FASCIA - ADVENTITIA

PHARYNX - ANATOMY

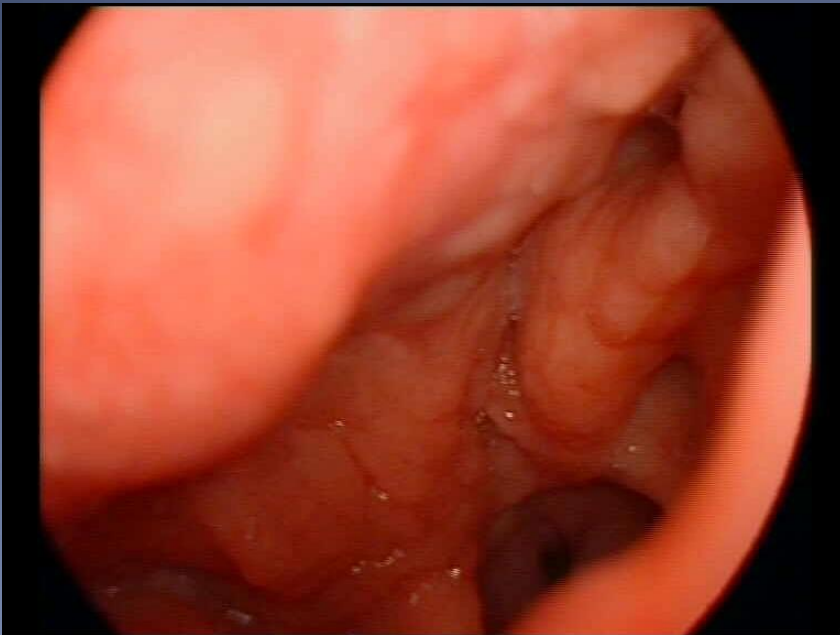
- **MUSCLES:**
 - FROM THE BASE OF THE SKULL DOWNWARD
 - FROM FIBROUS STRIP ON POSTERIOR PHARYNGEAL WALL
 - ANTERIORLY ATTACHED TO THE SPHENOID BONE
 - ON THE TONGUE
 - HYOID BONE
 - LARYNGEAL CARTILAGE
 - THEY OVERLAP
-
- UPPER PHARYNGEAL CONSTRICTOR FORMS VELOPHARYNGEAL CLOSURE: VPC = CLOSURE OF THE NASOPHARYNX FROM THE OROPHARYNX AT SPEECH AND SWALLOWING

VELOPHARYNGEAL CLOSURE - VPC

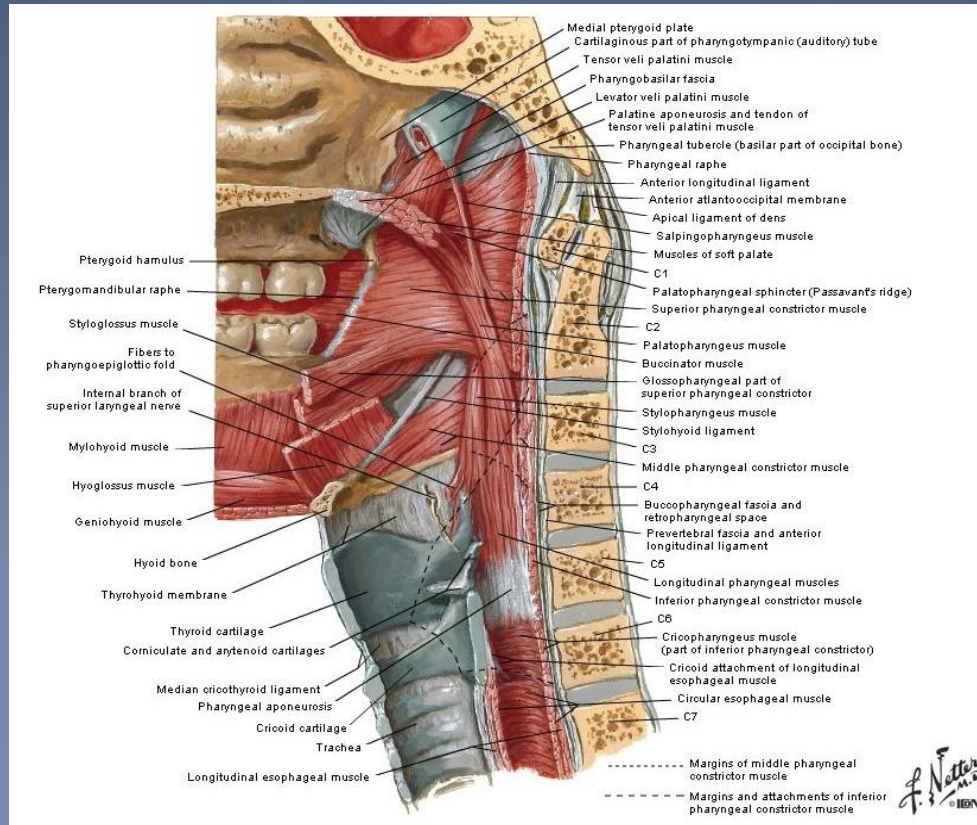
- SOFT PALATE RAISE TOWARDS POSTERIOR PHARYNGEAL WALL
- SUPERIOR PHARYNGEAL CONSTRICTOR CONTRACTS - RIDGE
- PASSAGE FROM THE NASOPHARYNX TO THE OROPHARYNX IS CLOSED



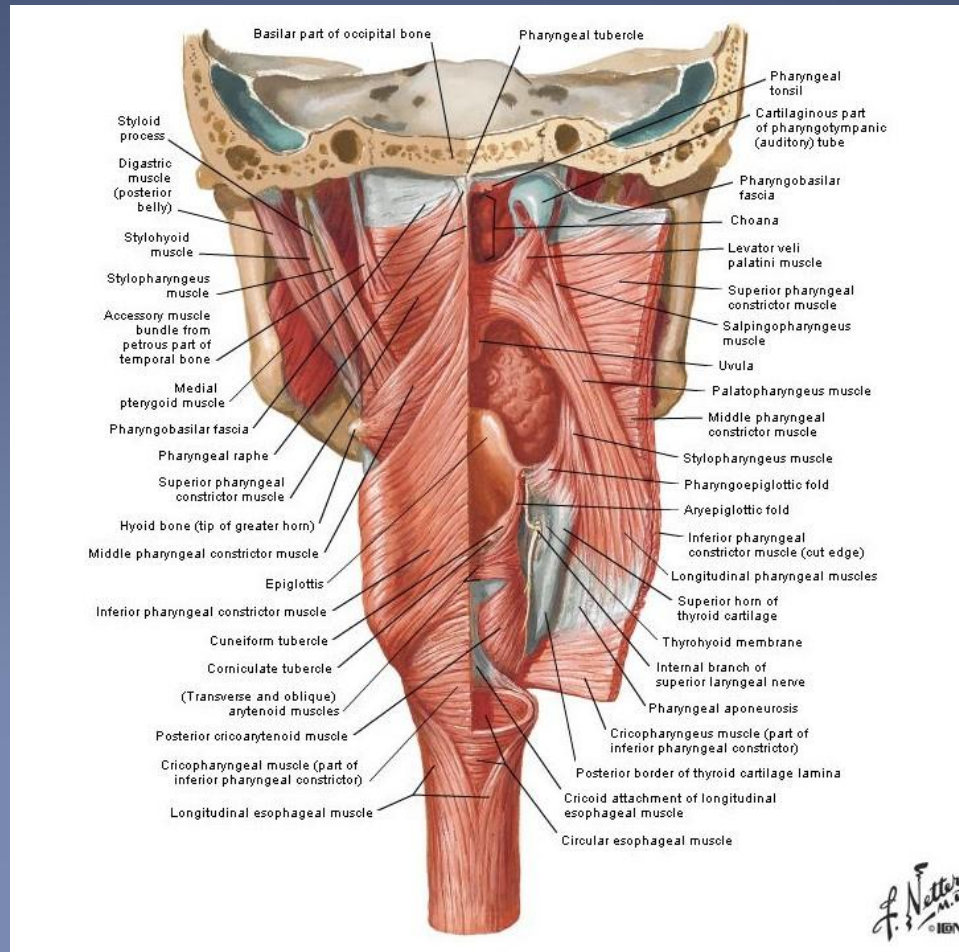
VELOPHARYNGEAL CLOSURE – SOFT PALATE AND POSTERIOR PHARYNGEAL WALL - PASSAVANT RIDGE



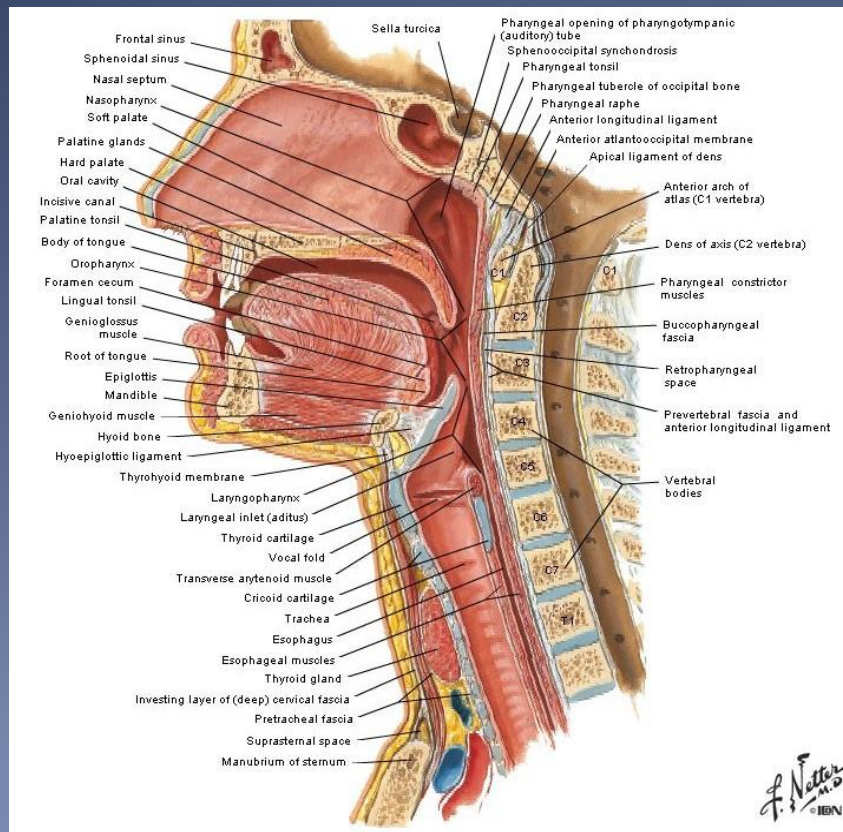
PHARYNX – ANATOMY: PHARYNGEAL MUSCLES



PHARYNX – ANATOMY: PHARYNGEAL MUSCLES



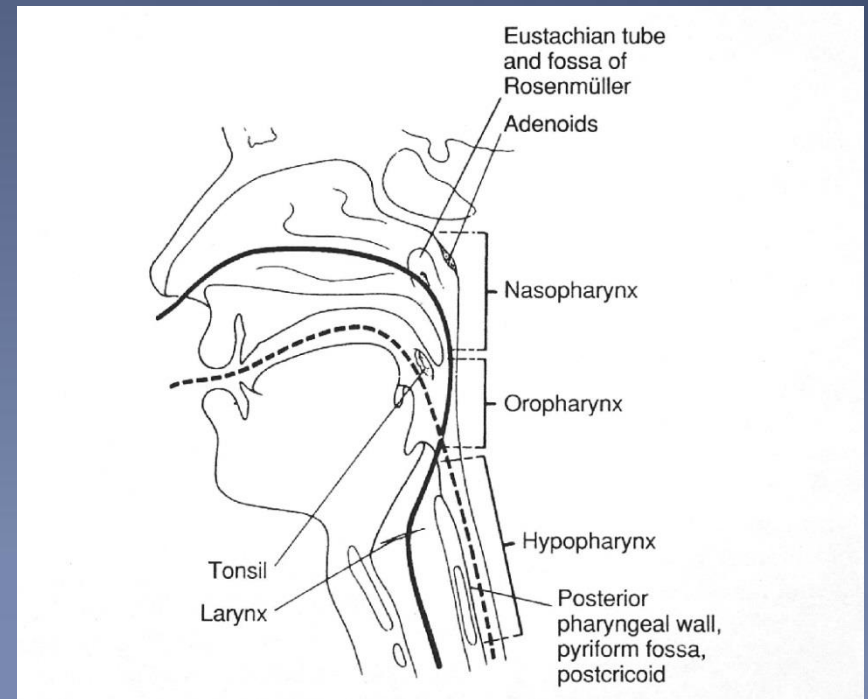
PHARYNX – ANATOMY



- **NASOPHARYNX (EPIPHARYNX)**
- **OROPHARYNX (MESOPHARYNX)**
- **LARYNGOPHARYNX (HYPOPHARYNX)**

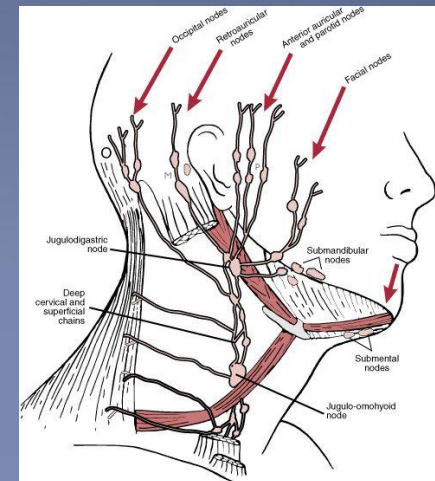
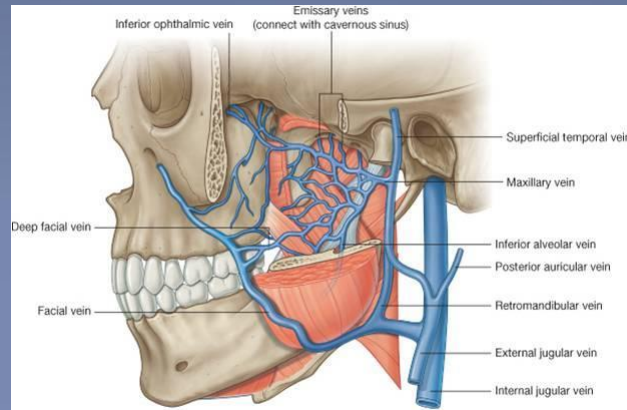
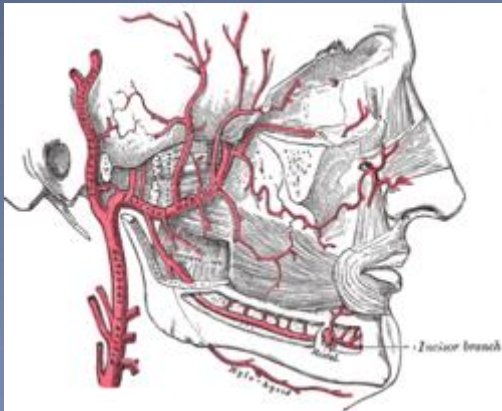
PHARYNX – ANATOMY

- **NASOPHARYNX (EPIPHARYNX)**
- **OROPHARYNX (MESOPHARYNX)**
- **LARYNGOPHARYNX (HYPOPHARYNX)**



PHARYNX – ANATOMY: VASCULAR SUPPLY

- ARTERIAL SUPPLY
- VENOUS DRAINAGE
- LYMPHATIC DRAINAGE



PHARYNX – ANATOMY: VASCULAR SUPPLY

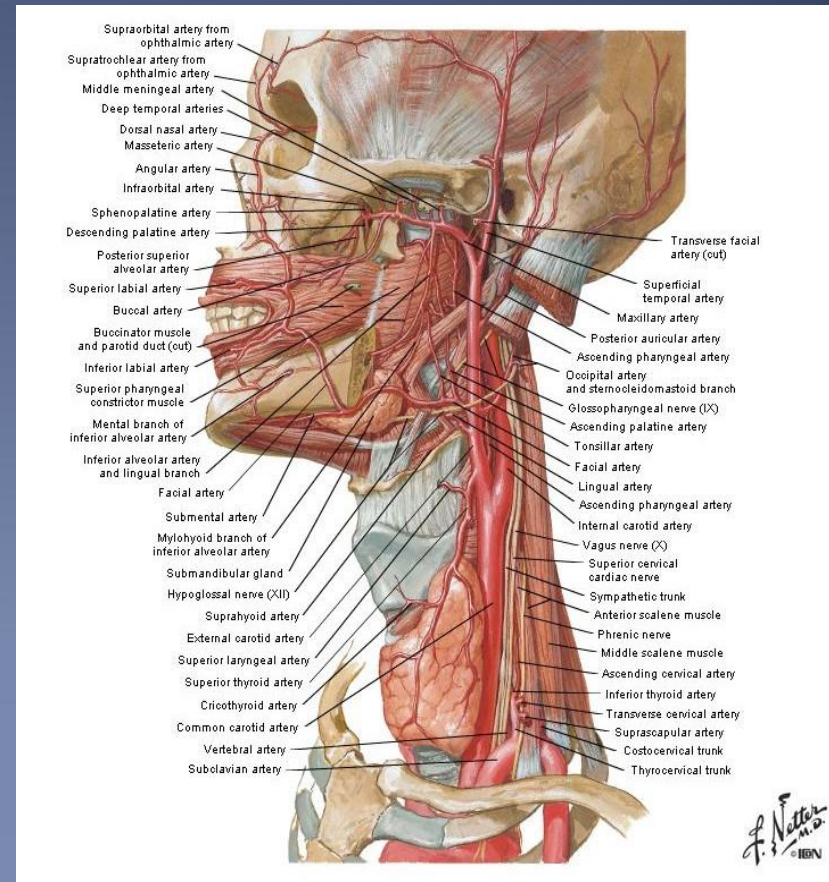
- **ARTERIAL SUPPLY:**

- **A. CAROTIS EXTERNA:**

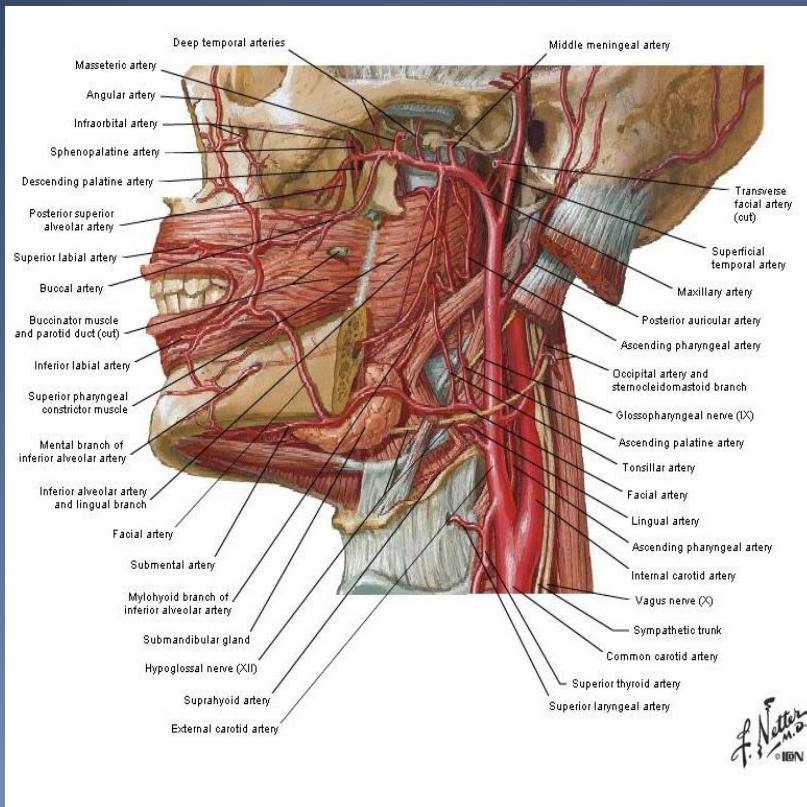
- A. PHARY. ASCENDENS
- A. FACIALIS - A. PALATINA ASCENDENS
- A. MAXILARIS – A. PALATINA DESCENDENS

- **A. CAROTIS INTERNA:**

- A. ETHMOIDALIS (SMALL PART OF NASOPHARYNX)



PHARYNX – ANATOMY: VASCULAR SUPPLY



● ARTERIAL SUPPLY:

● A. CAROTIS EXTERNA:

- A. PHARY. ASCENDENS
- A. FACIALIS - A. PALATINA ASCENDENS
- A. MAXILARIS – A. PALATINA DESCENDENS

● A. CAROTIS INTERNA:

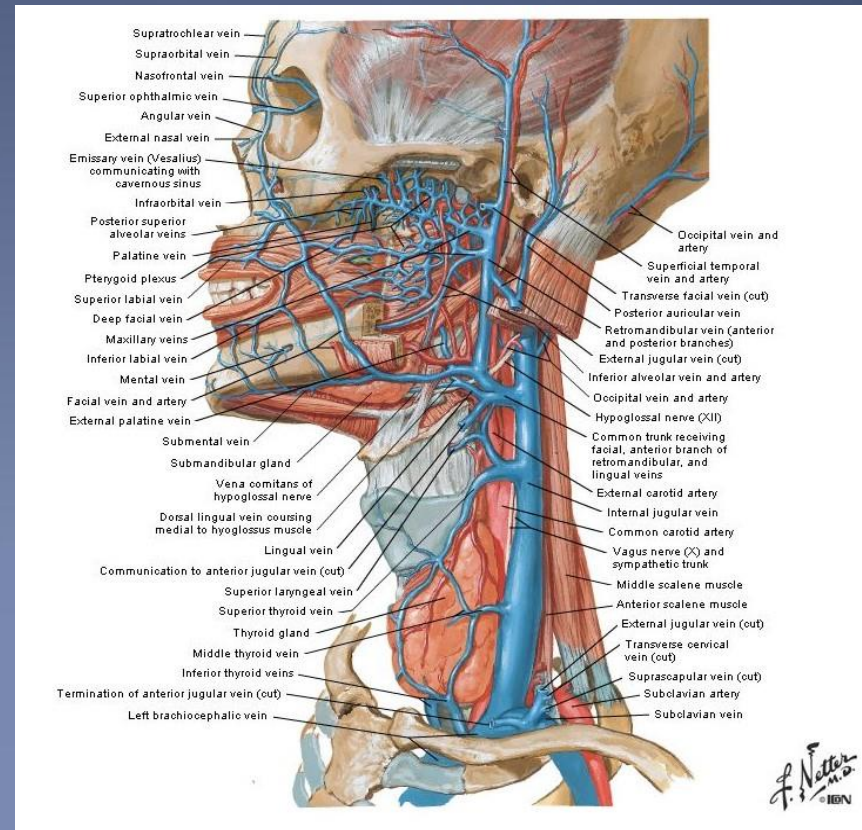
- A. ETHMOIDALIS (SMALL PART OF NASOPHARYNX)

PHARYNX – ANATOMY: VASCULAR SUPPLY

- **VENOUS DRAINAGE:**

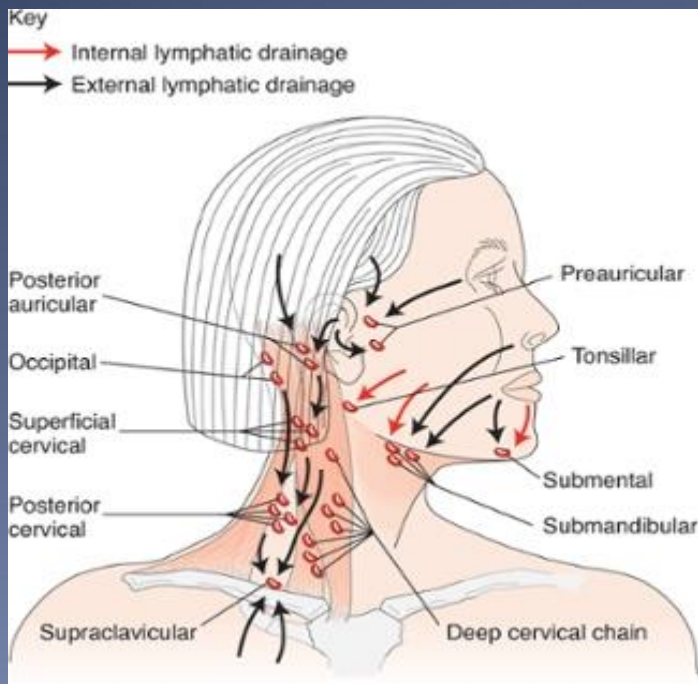
- **VENOUS PLEXUS:**

- **PHARYNGEAL VEINS – INTERNAL JUGULAR VEIN**



F. Netter M.D.
© H&W

PHARYNX – ANATOMY: LYMPHATIC DRAINAGE



1. NASOPHARYNX AND LATERAL WALLS OF OROPHARYNX:

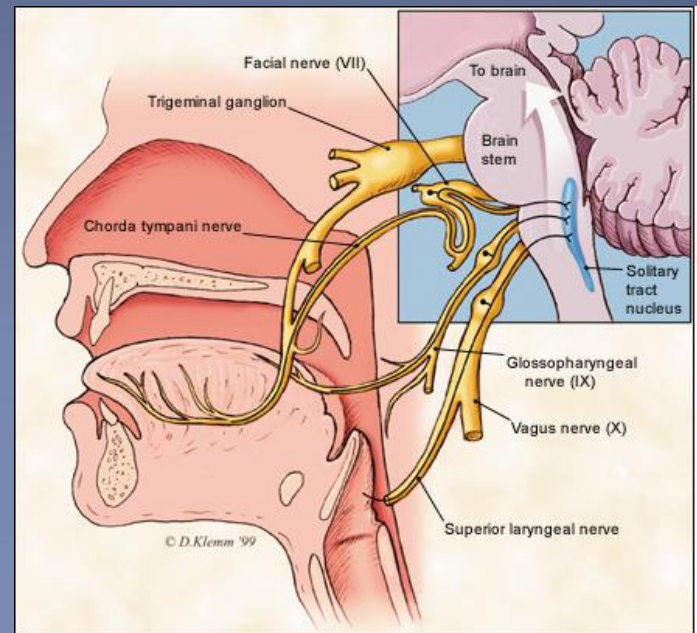
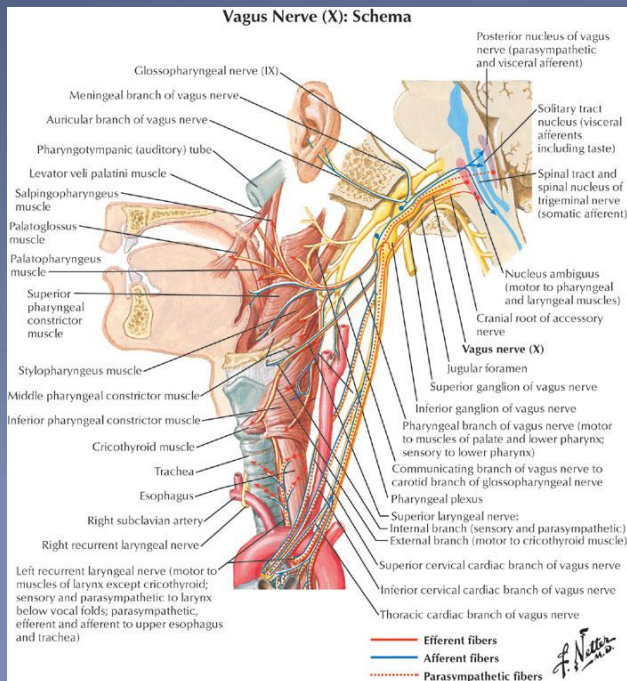
- RETROPHARYNGEAL LYMPH NODES
- DEEP JUGULAR LYMPH NODES

2: OROPHARYNX AND TONSILLES

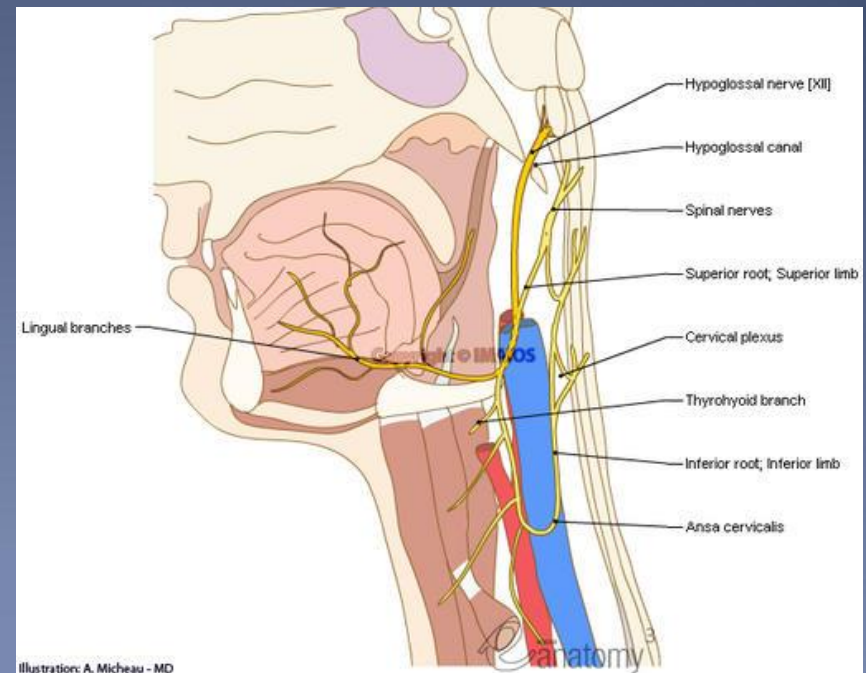
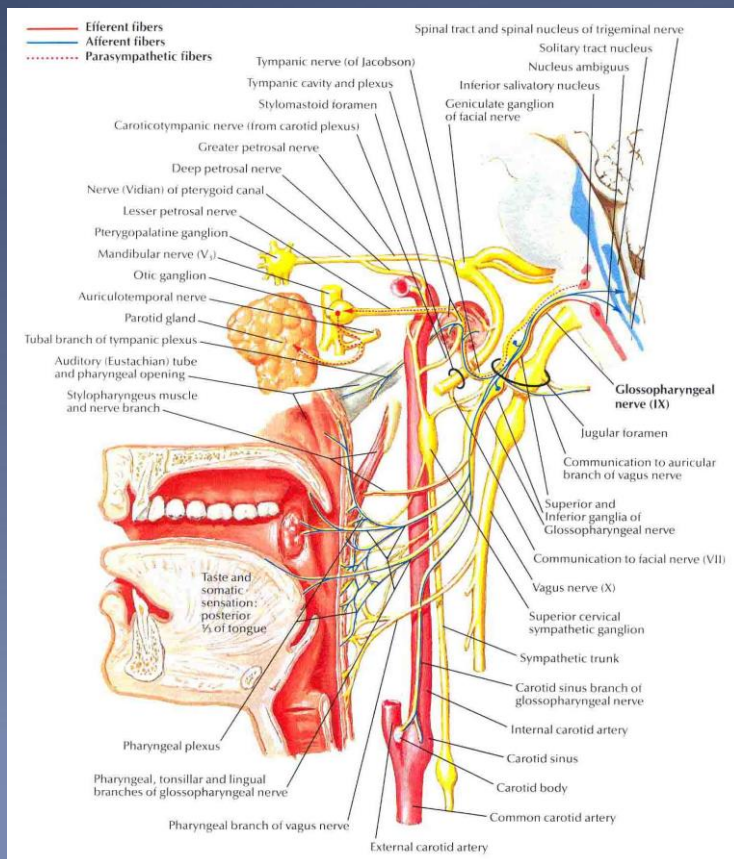
- SUBMANDIBULAR LYMPH NODES

PHARYNX – ANATOMY: NERVE SUPPLY

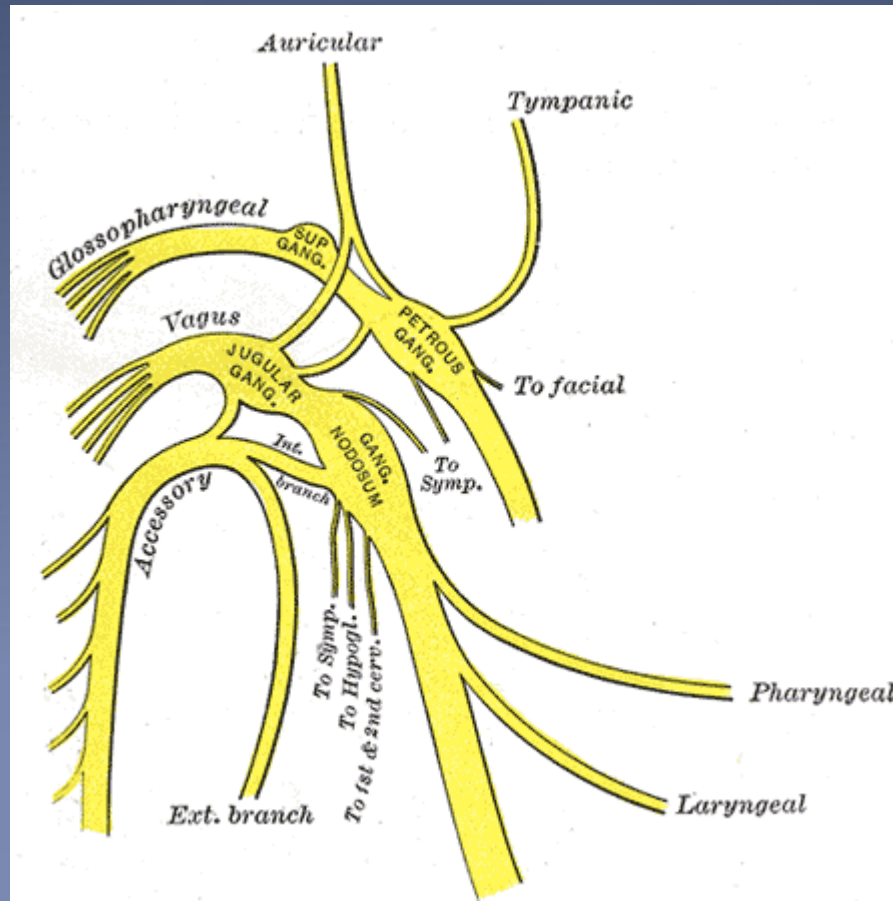
- **MOTOR SUPPLY:**
 - **PLEXUS PHARYNGEUS (IX – N. GLOSSOPHARYNGEUS, X N. VAGUS, XI – N. ACCESORIUS)**
 - **N. HIPOGLOSSUS = N. XII**



N. GLOSSOPHARYNGEUS AND N. HYPOGLOSSUS

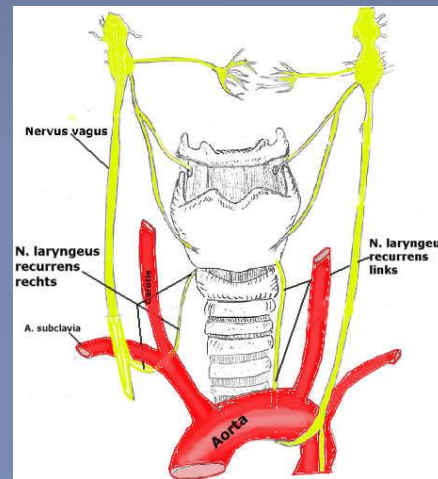
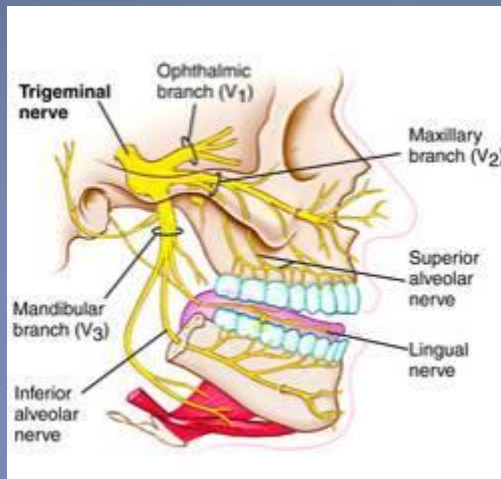


CRANIAL NERVES – PHARYNGEAL NERVE SUPPLY



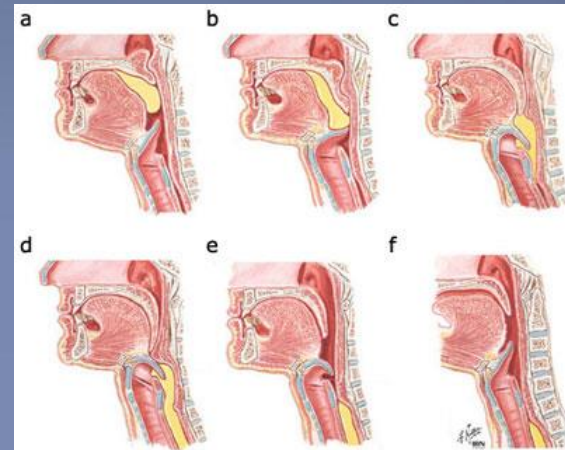
PHARYNX – ANATOMY: NERVE SUPPLY

- **SENSORY NERVE SUPPLY:**
 - **EPIPHARYNX: N.V. – N. TRIGEMINUS, MAXILARY DIVISION**
 - **OROPHARYNX: N. IX. GLOSSOFARINGEUS**
 - **HYPOPHARYNX: N. X. VAGUS**
 - **TASTE: CHORDA TYMPANI, DIVISION OF N. VII. – N. FACIALIS**



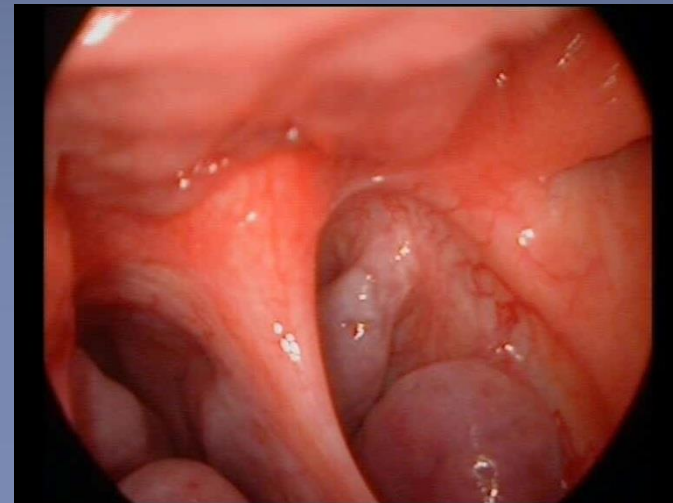
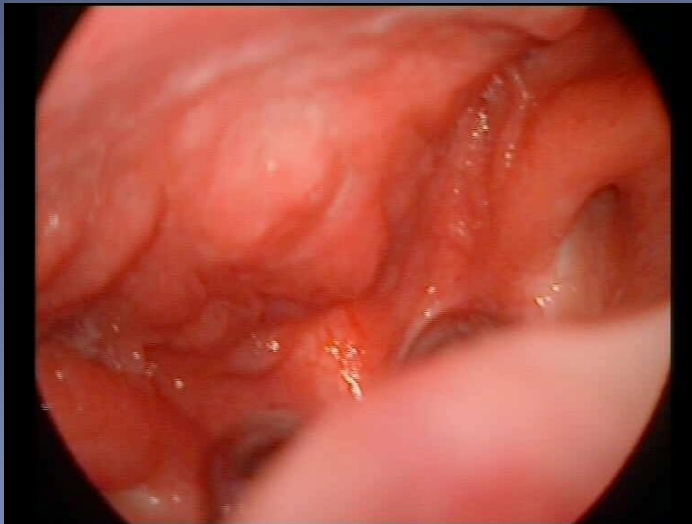
PHARYNX - PHISIOLOGY

- SWALLOWING APPARATUS, MASTICATORY SYSTEM
- RESPIRATORY TRACT
- TASTE ORGAN, PREGASTRIC DIGESTION
- RESONATING SPACE
- ARTICULATION
- LYMPHOEPITHELIAL RING
- VENTILATION OF THE MIDDLE EAR
- VELOPHARYNGEAL CLOSURE



PHARYNX – PHYSIOLOGY: EPIPHARYNX

- RESPIRATORY TRACT
- RESONATING SPACE
- E. TUBE VENTILATION
- LYMPHOEPITHELIAL RING-ADENOIDES



PHARYNX – PHYSIOLOGY: EPIPHARYNX – SOFT PALATE; VELOPHARYNGEAL CLOSURE

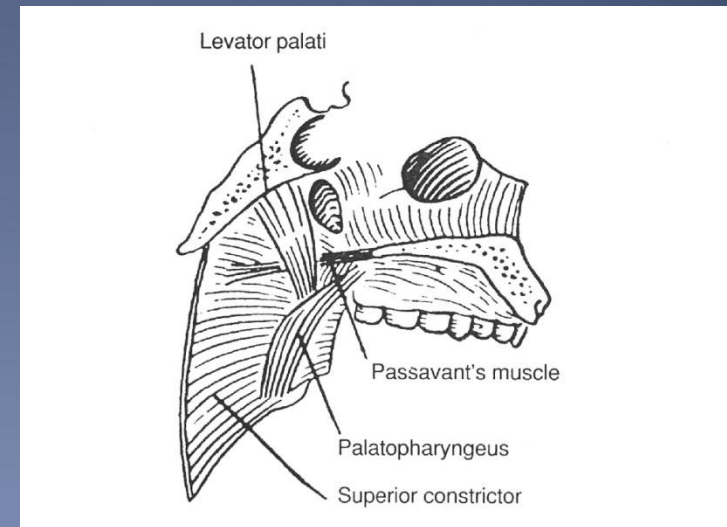
- VELOPHARYNGEAL CLOSURE:

SOFT PALATE:

- M. PALATOPHARYNGEUS
- M. PALATOGLOSUS
- UVULA

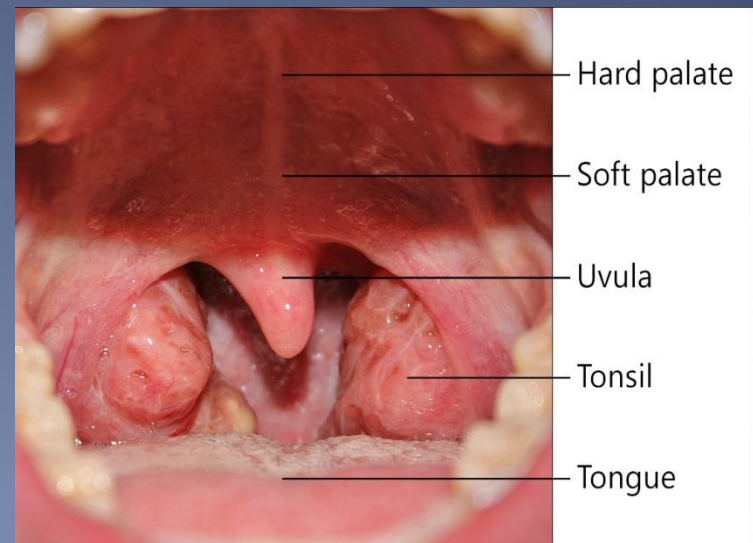
OROPHARYNX:

- M. CONSTRICTOR PHARYNGIS SUP. (PASSAVANT RIDGE)
- M. LEVATOR PALATI MOLLI
- TENSOR VELI PALATINI (AND OPENING OF THE E. TUBE)

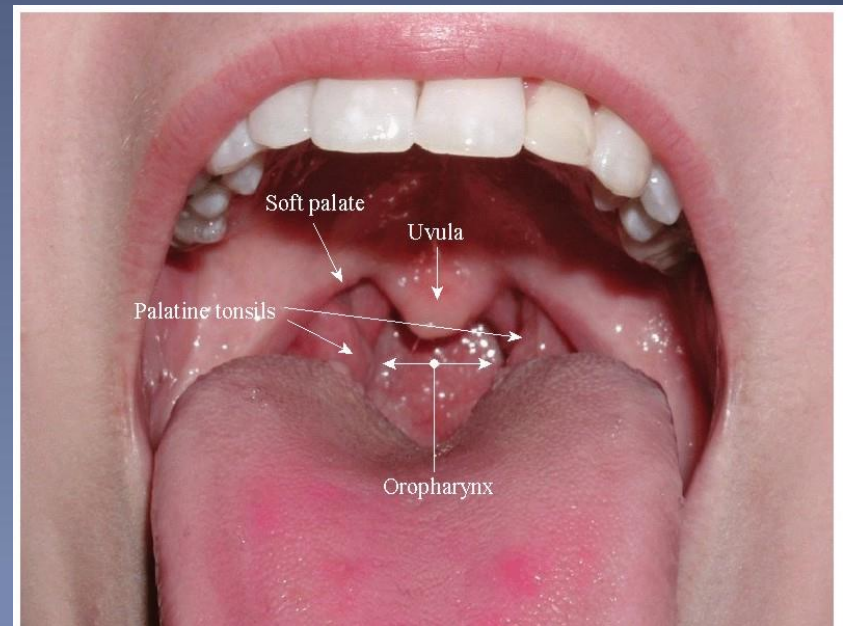
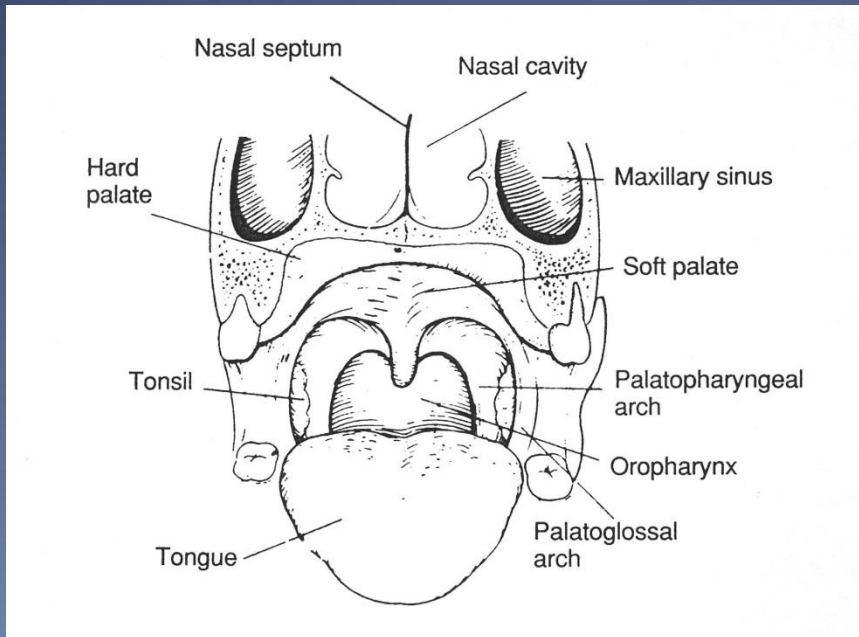


PHARYNX – PHYSIOLOGY: OROPHARYNX

- OROPHARYNX:
 - RESPIRATORY TRACT
 - EATING AND SWALLOWING
 - LYMPHOEPITHELIAL ORGAN (PALATINE TONSIL, LINGUAL TONSIL)
 - FORMATION OF SOUND AND SPEECH

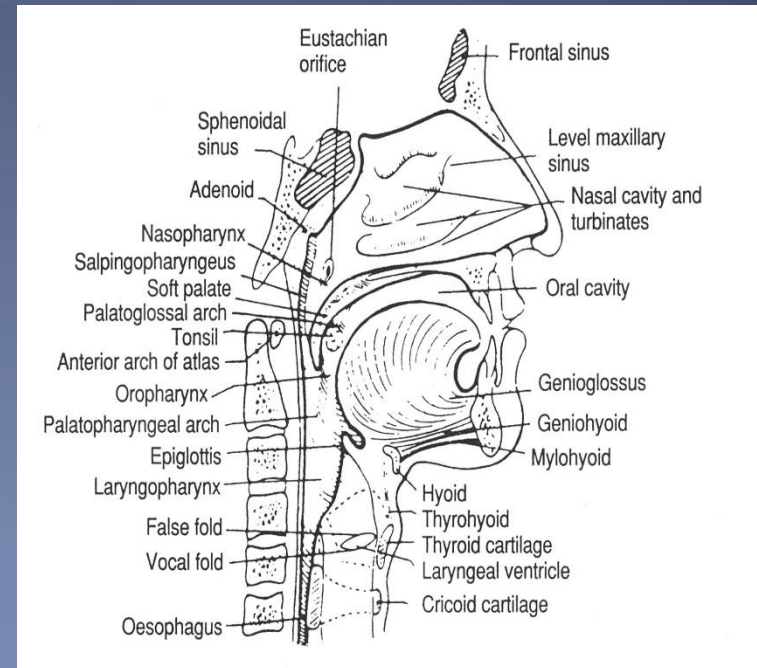


PHARYNX – PHISIOLOGY: OROPHARYNX



PHARYNX – PHISIOLOGY: HYPOPHARYNX

- HYPOPHARYNX:
 - SWALLOWING
 - LARYNGEAL FRAME SUPPORT
 - LARYNGEAL MOVING
 - RESPIRATORY TRACT
 - RESONATING SPACE



METHODS OF INVESTIGATION: OROPHARYNX



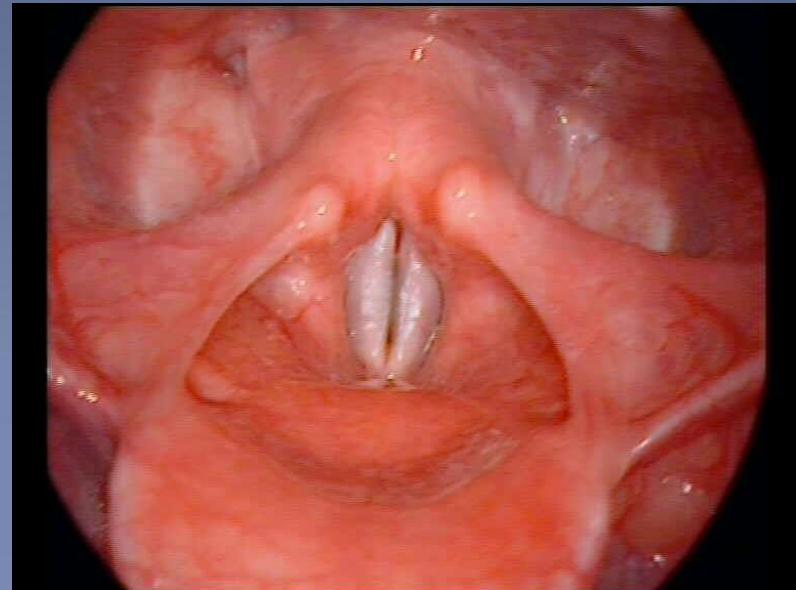
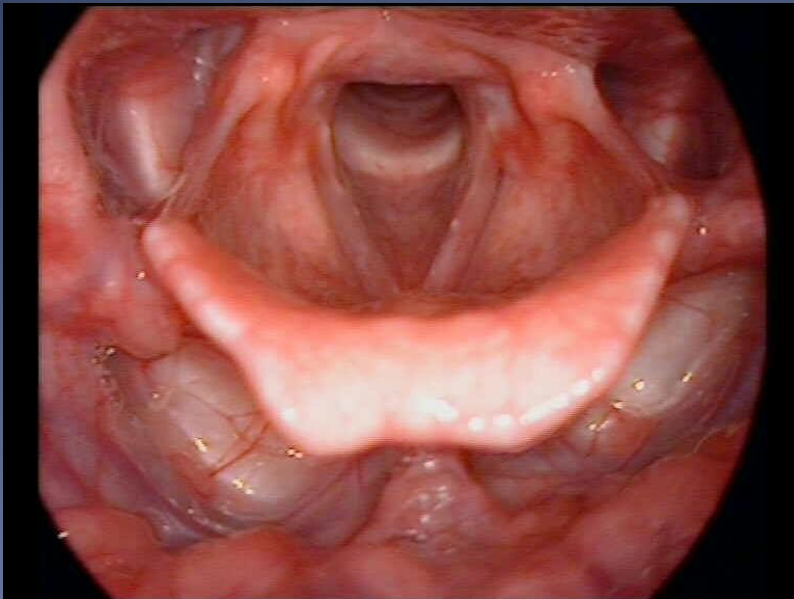
METHODS OF INVESTIGATION: HYPOPHARYNX



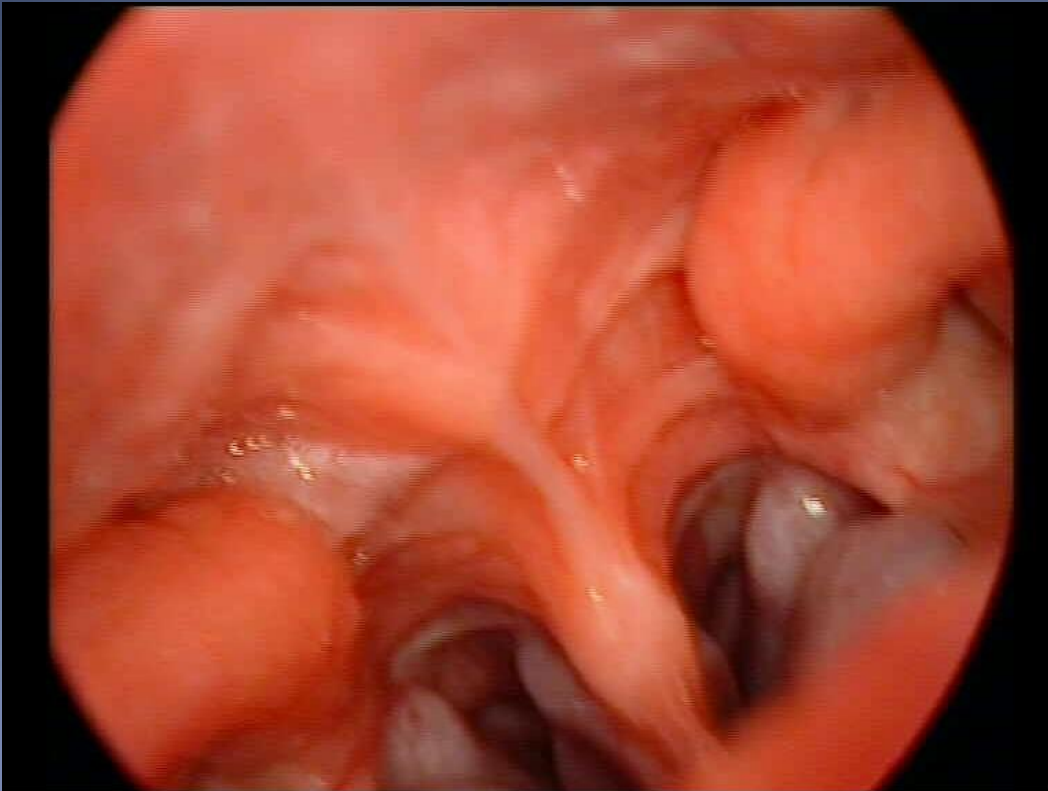
METHODS OF INVESTIGATION: HYPOPHARYNX



HYPOPHARYNX, LARYNX, ESOPHAGEAL INLET



METHODS OF INVESTIGATION: NASOPHARYNX

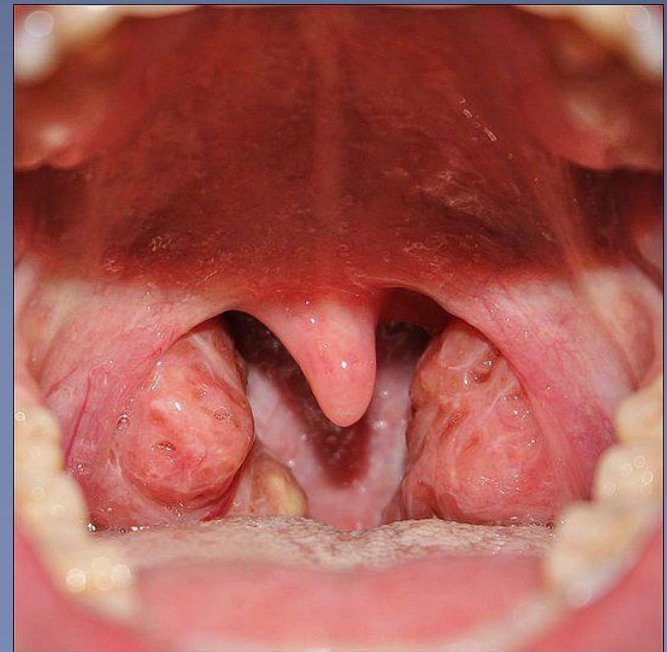
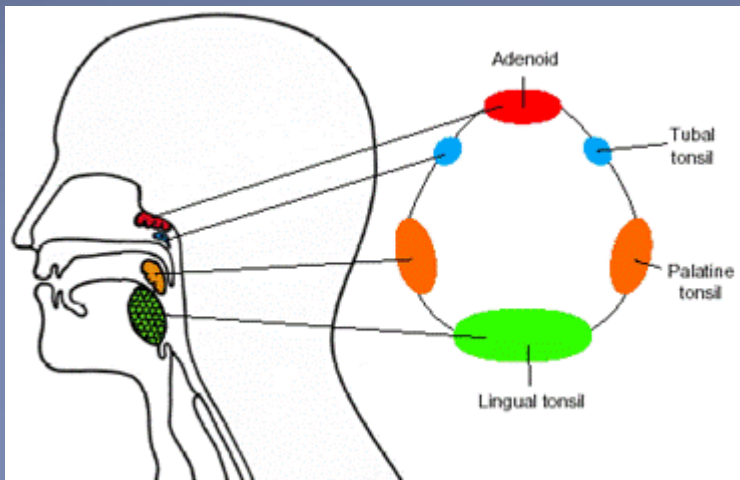




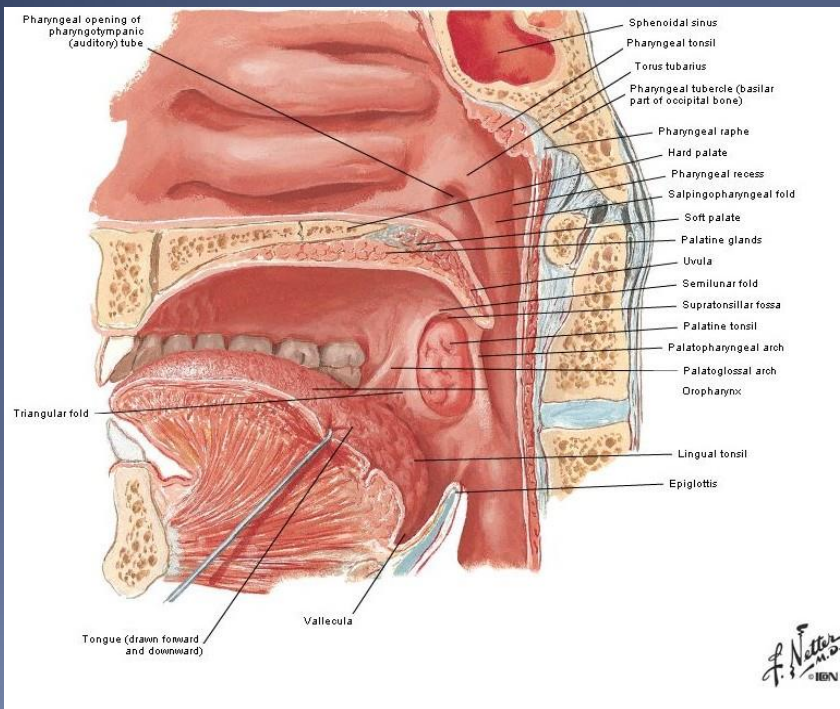


PHARYNX – PHISIOLOGY: LYMPHOEPITHELIAL RING

- **WALDEYER RING:**
 - **TONSILLAE PALATINAE (PAIR OF TONSILLS)**
 - **VEGETATIAE ADENOIDES (ADENOIDS)**
 - **TONSILLAE LINGUALIS**
 - **TUBAL TONSIL (PAIR AT EUST. OSTIUM)**
 - **SMALL UNITS OF LYMPHATIC TISSUE**



PHARYNX – PHISIOLOGY: LYMPHOEPITHELIAL RING



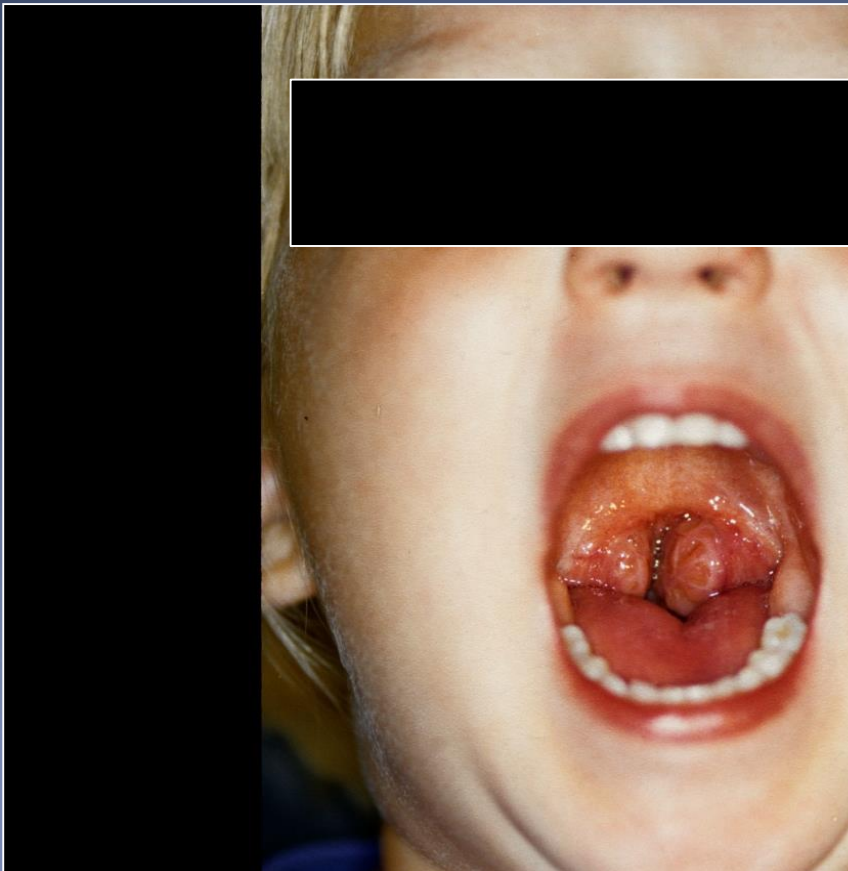
● WALDEYER LYMPHATIC RING:

- TONSILLAE PALATINE
- VEGETATIAE ADENOIDES
- TONSILLA LINGUALIS
- TONSILA TUBARIS
- SMALL UNITS OF LYMPHATIC TISSUE – SOLITARY NODES IN MUCOSA

IMMUNOLOGICAL FUNCTION OF WALDEYER RING

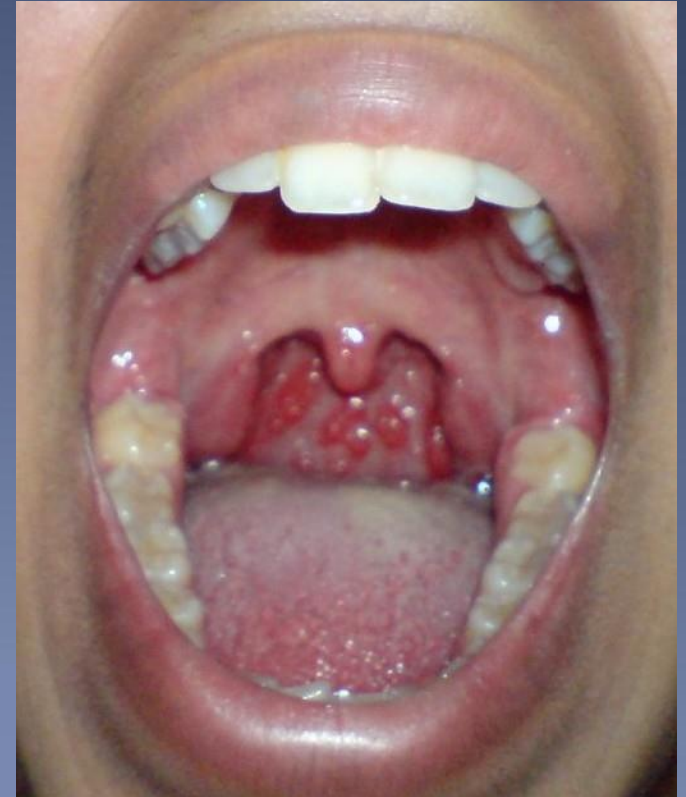
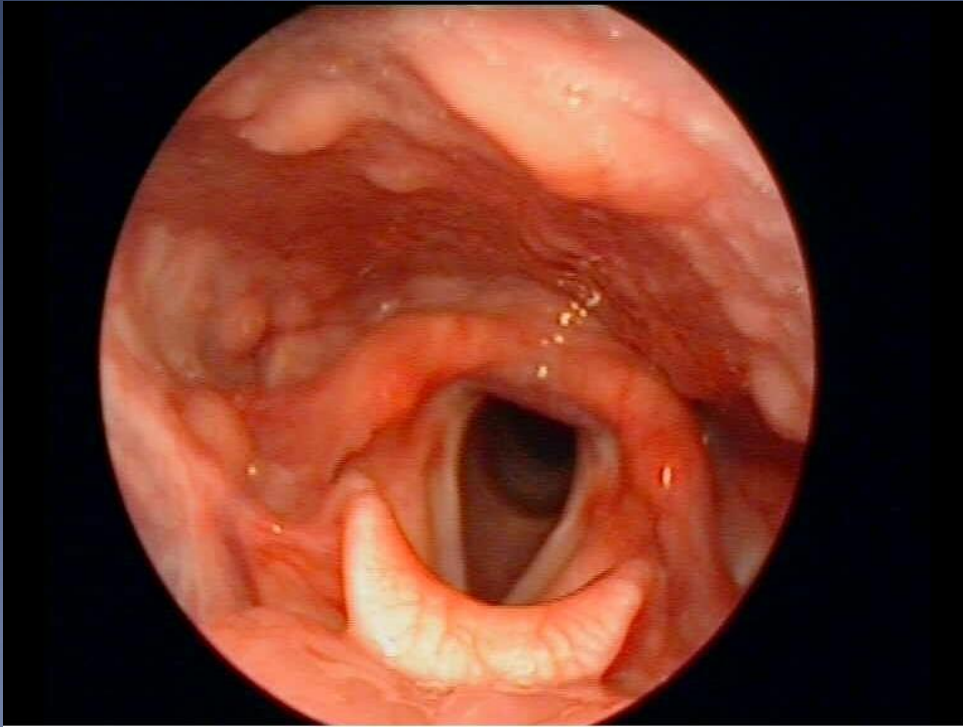
- **SYSTEMIC IMMUNITY: PRODUCTION OF IMMUNOACTIVE LYMPHOCYTES OF THE B AND T SERIES WHICH ARE RELEASED INTO THE GENERAL CIRCULATION OF THE BLOOD AND LYMPHATIC VESSELS**
- **DIRECT IMMUNITY: LOCAL DECOMPOSITION OF ANTIGENS WITH SECRETORY IMMUNE MECHANISM: IgA, PLASMA CELLS...**

TONSILLAR HYPERPLASIA IN CHILDREN



- AFTER INCREASED IMMUNOLOGICAL ACTIVITY
- NUMEROUS UPPER RESPIRATORY TRACT INFECTIONS

SOLITARY LYMPH NODES IN MUCOSA



CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

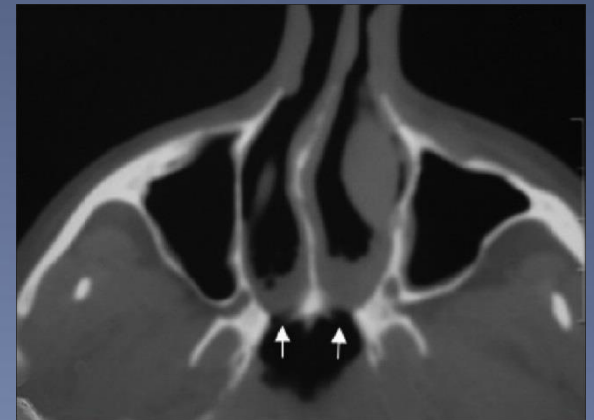
- CONGENITAL ANOMALIES
- TRAUMA, ALSO CAUSED BY MEDICAL PROCEDURES
- BURNS
- FOREIGN BODIES
- INFLAMMATION:
 - ACUTE
 - CHRONIC
 - COMPLICATIONS
- TUMORS:
 - BENIGN
 - MALIGNANT
- CONDITIONS AFTER OPERATIONS
- NEUROLOGICAL DISEASES

CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

1. CONGENITAL ANOMALIES

- **NASOPHARYNX: (DISORDERS IN THE NOSE ALSO AFFECT ON NASOPHARYNX: SPINA, CRISTA SEPTI NASI)**

- **ATRESIA CHOANALIS (ONE SIDE, BOTH SIDES)**
- **STENOSIS CHOANALIS**
- **ENCEPHALOCOELAE, MENINGOENCEPHALOCOELAE**
- **INBORN TUMORS OF THE NASOPHARYNX (TERATOMAS)**



CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

1. CONGENITAL ANOMALIES

- **OROPHARYNX:**
 - **ATRESIA AND STENOSIS (PHARYNX IS NOT DEVELOPED OR IS VERY NARROW), VERY RARE**

- **PALATAL CLEFTS**



- **HYPOPHARYNX:**
 - **PRACTICALLY THERE ARE NO EMBRYONAL DISORDERS, SOMETIMES THEY ARE MULTIORGANIC (OESOPHAGUS, TRACHEA – EXTENSIVE OPERATIONS, SURVIVAL??)**

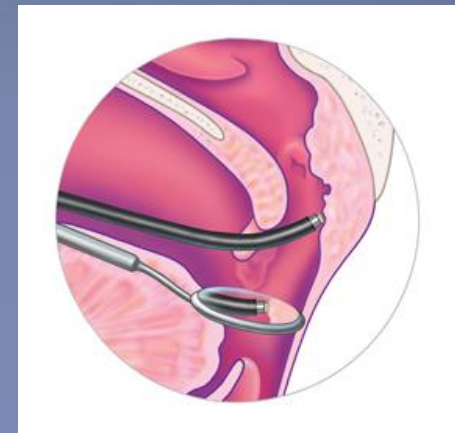
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

- CONGENITAL ANOMALIES
- TRAUMA, ALSO CAUSED BY MEDICAL PROCEDURES
- BURNS
- FOREIGN BODIES
- INFLAMMATION:
 - ACUTE
 - CHRONIC
 - COMPLICATIONS
- TUMORS:
 - BENIGN
 - MALIGNANT
- CONDITIONS AFTER OPERATIONS
- NEUROLOGICAL DISEASES

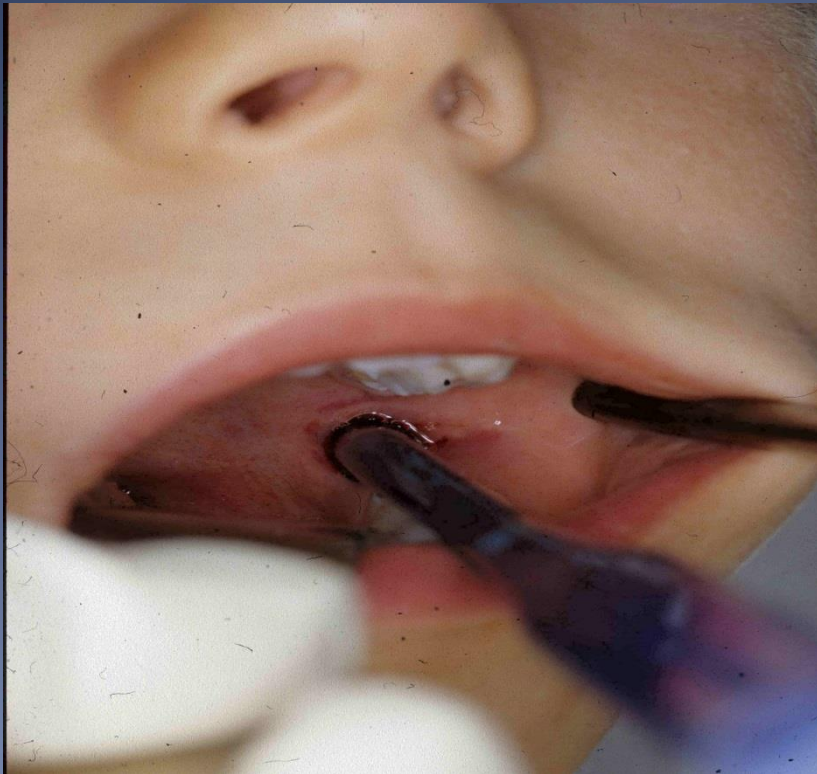
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

2. TRAUMA, ALSO CAUSED BY MEDICAL PROCEDURES

- **LIMITED (ONLY PHARYNGEAL STRUCTURES):**
 - **INCISION, LACERATION (TOOTHBRUSH, TOYS, CUTLERY, SHARP OBJECTS)**
 - **WOUNDS AFTER ADENOID OPERATION (SOFT PALATE EXTENDED)**
 - **WOUNDS AFTER TONSILLECTOMY (EXTENSION, LACK OF TISSUE), AFTER LARGE TUMORS OPERATIONS**
 - **LACERATIONS AFTER INTUBATION**
 - **CONDITIONS AFTER SNORING OPERATIONS**



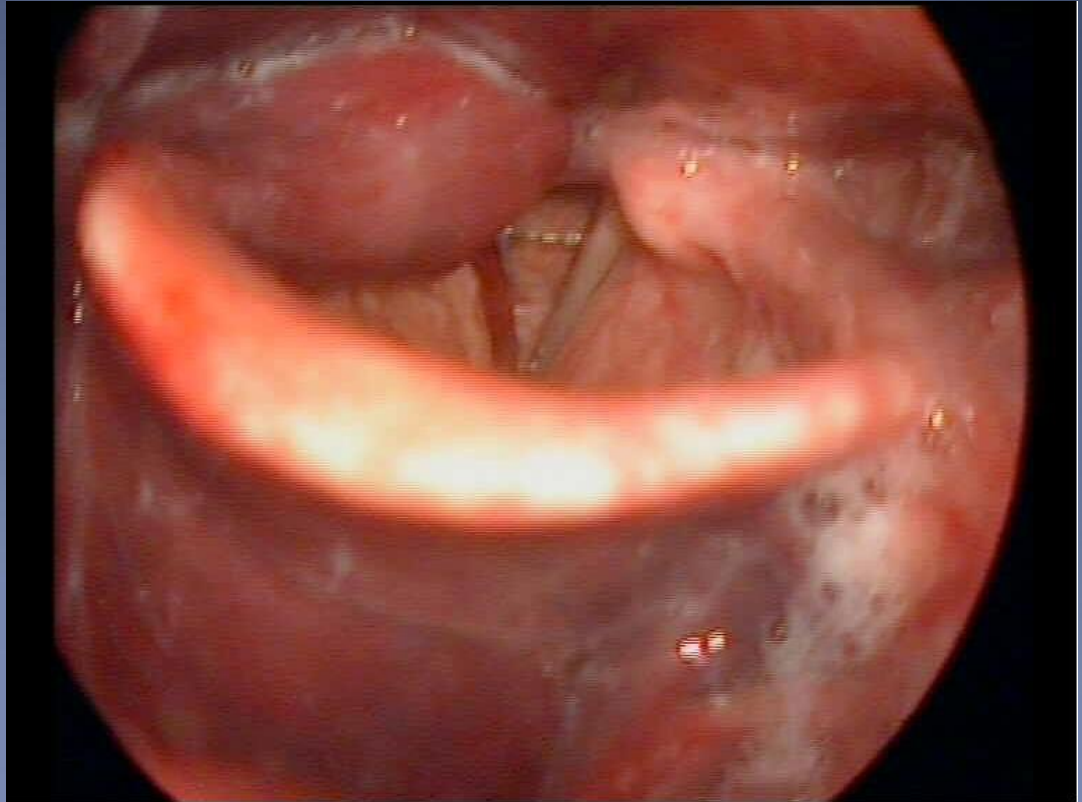
OROPHARYNGEAL TRAUMA: TOOTHBRUSH PENETRATING LATERAL PHARYNGEAL WALL



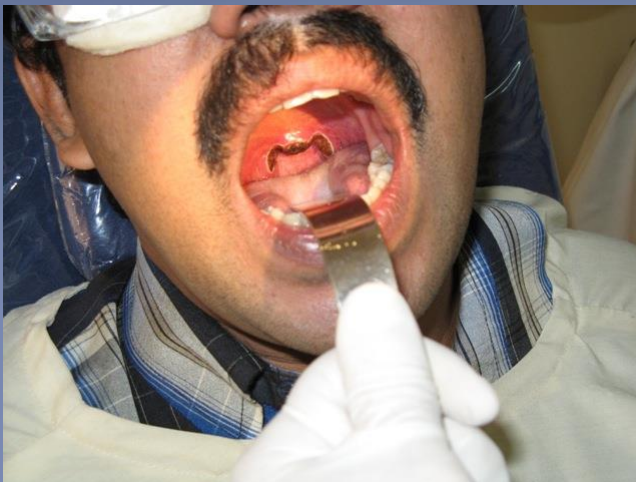
PHARYNGEAL TRAUMA: CUT ON THE NECK



PHARYNGEAL TRAUMA: HANGING



PHARYNGEAL TRAUMA: AFTER SNORING OPERATION



CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

- CONGENITAL ANOMALIES
- TRAUMA, ALSO CAUSED BY MEDICAL PROCEDURES
- BURNS
- FOREIGN BODIES
- INFLAMMATION:
 - ACUTE
 - CHRONIC
 - COMPLICATIONS
- TUMORS:
 - BENIGN
 - MALIGNANT
- CONDITIONS AFTER OPERATIONS
- NEUROLOGICAL DISEASES

CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

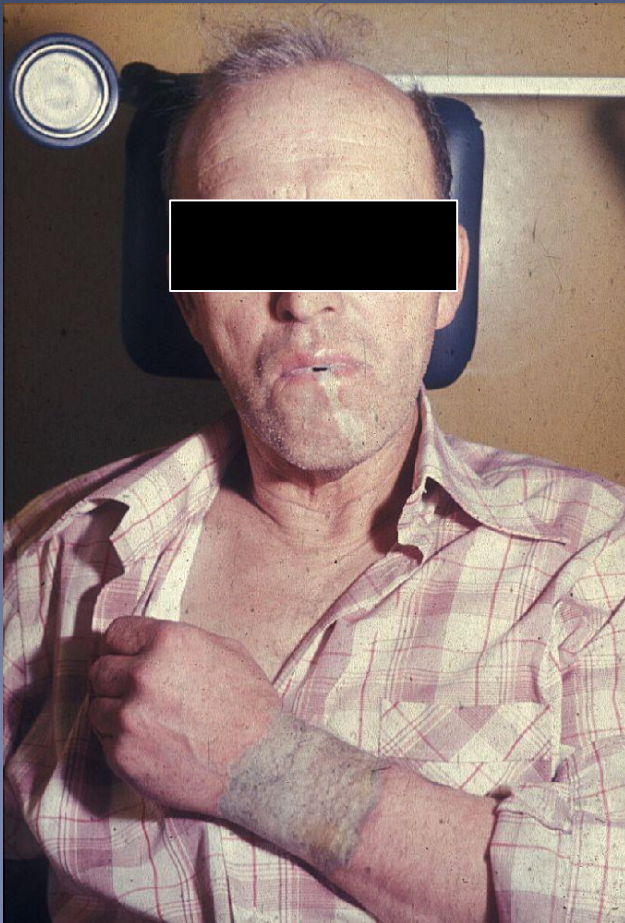
3. BURNS 4. FOREIGN BODIES

- **NASOPHARYNX: RARE**



- **OROPHARYNX:**
 - **FOREIGN BODIES: BONES, NEEDLES, DENTAL MATERIAL**
 - **BURNS: HEAT, ACID, ALKALI (FIRST AID!)**
- **HYPOPHARYNX:**
 - **FOREIGN BODIES: BIG PIECES OF FOOD, BONES, TABLETS,..**
 - **BURNS: HEAT, ACID, ALKALI (FIRST AID!)**

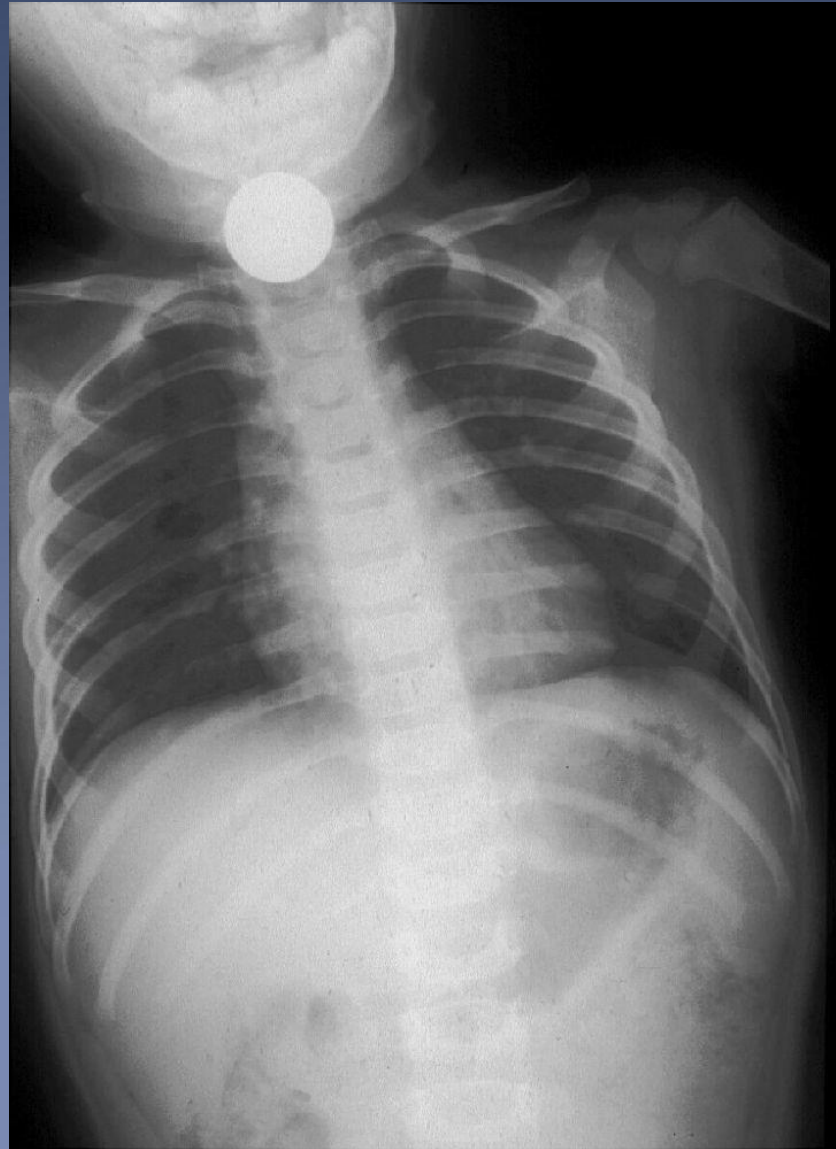
PHARYNGEAL TRAUMA : BURNS, ACID, ALKALI





FOREIGN BODIES





CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

- CONGENITAL ANOMALIES
- TRAUMA, ALSO CAUSED BY MEDICAL PROCEDURES
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- FOREIGN OBJECTS
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 - ACUTE
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 - MALIGNANT
- CONDITIONS AFTER OPERATIONS
- NEUROLOGICAL DISEASES

CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

5. INFLAMMATION, ACUTE

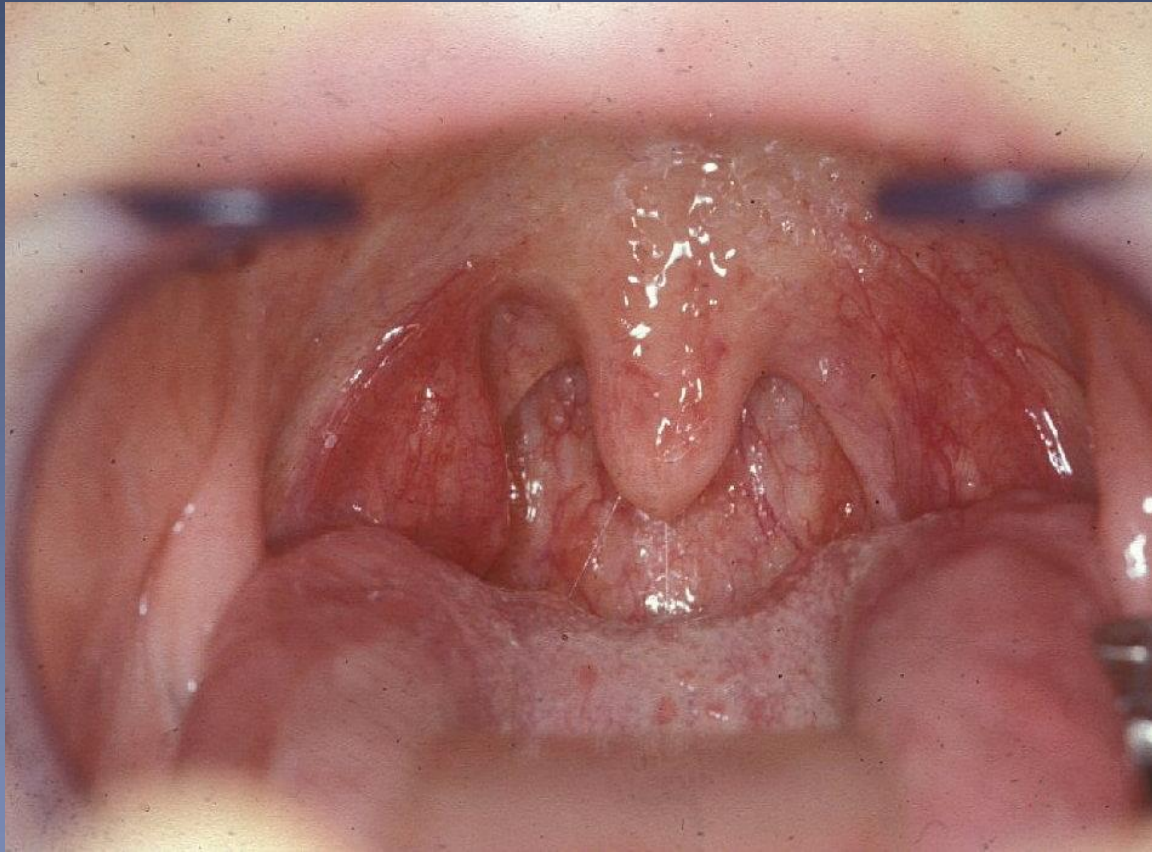
- ACUTE: MOSTLY IN THE OROPHARYNX
 - CATHARAL
 - PURULENT
 - ULCEROUS
- WHAT KIND OF ACUTE INFLAMMATION WILL DEVELOP, DEPENDS ON VIRULENCE OF THE AGENT AND THE IMMUNITY OF THE HOST.
- ACUTE TONSILLITIS
- ADENOIDITIS ACUTA (CHILDREN, SEVERELY ILL).
- ACUTE INFLAMMATION OF LINGUAL TONSIL ; (DIFFICULT SWALLOWING, BREATHING)

CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

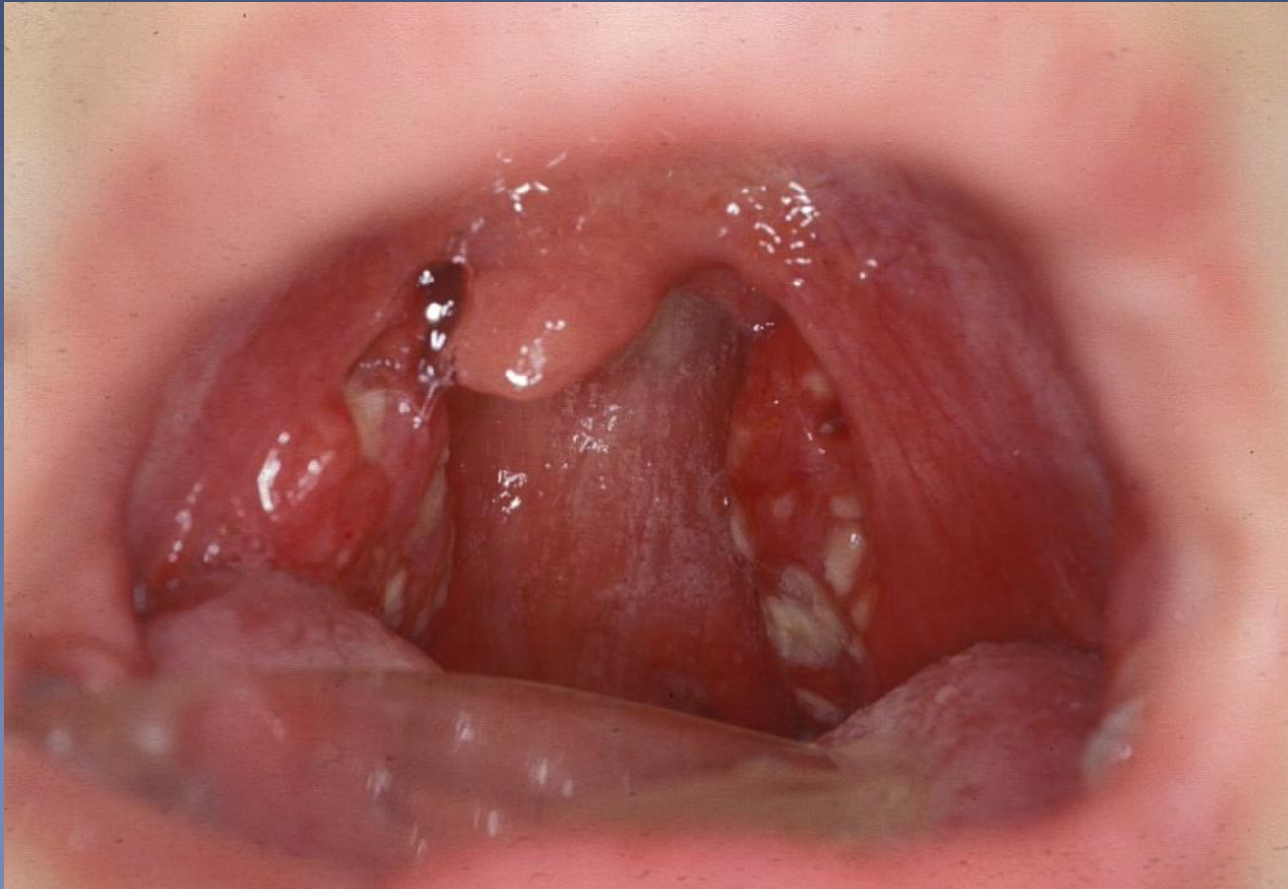
5. INFLAMMATION, TONSILLITIS

- ACUTE INFLAMMATION OF PHARYNGEAL MUCOSA, MOSTLY TONSILS
 - CATHARAL / VIRAL INFLAMMATION
 - FOLICULAR
 - LACUNAR
 - ULCEROUS

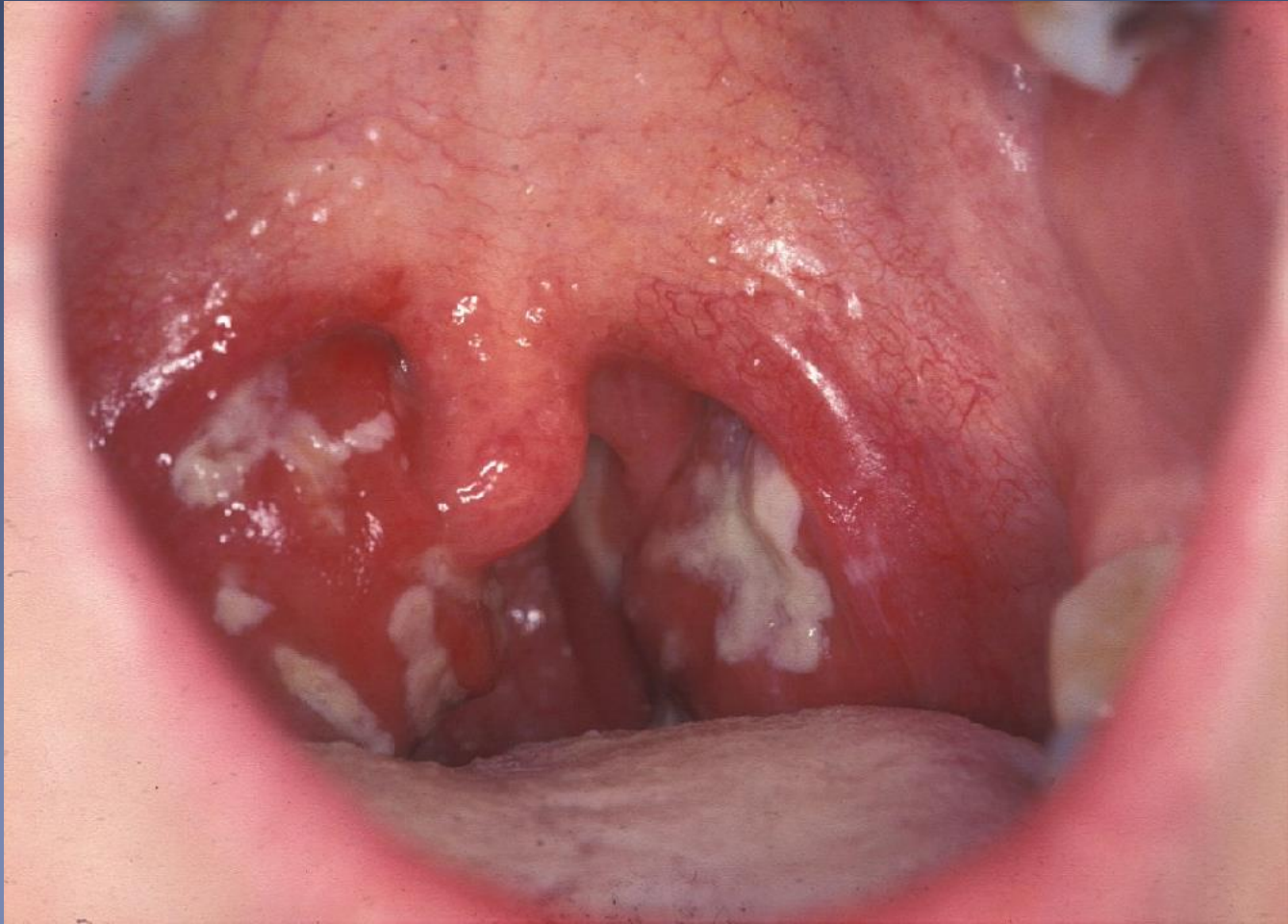
- PURULENT / ANGINA / STREPTOCOCCUS









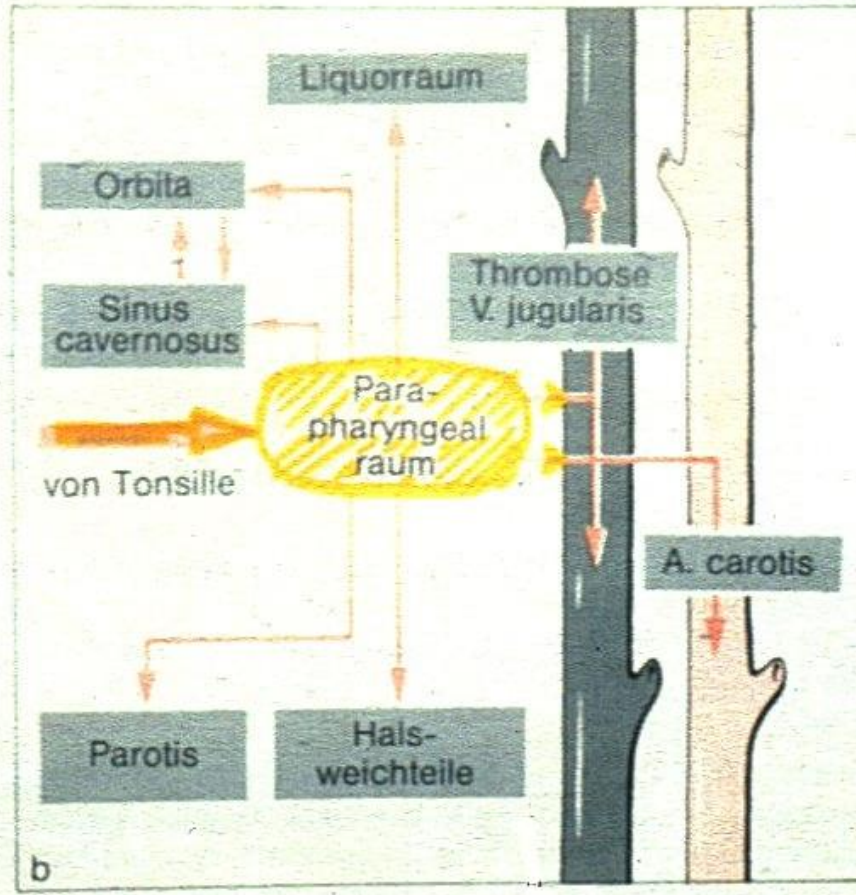
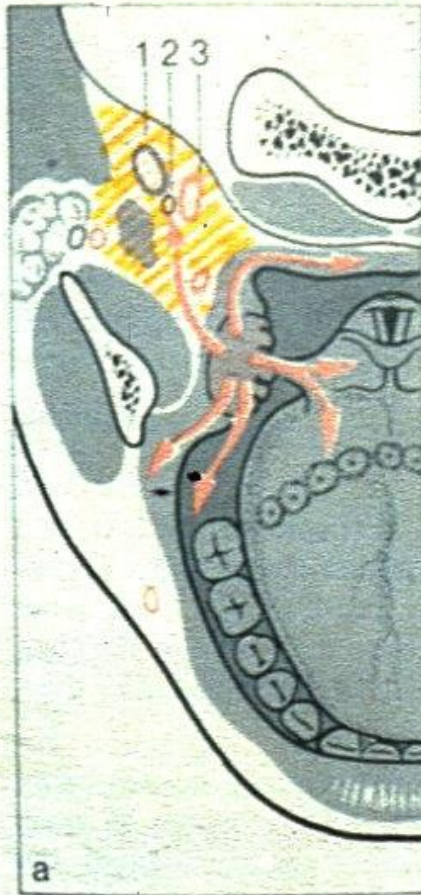




CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

5. INFLAMMATION, ACUTE COMPLICATIONS

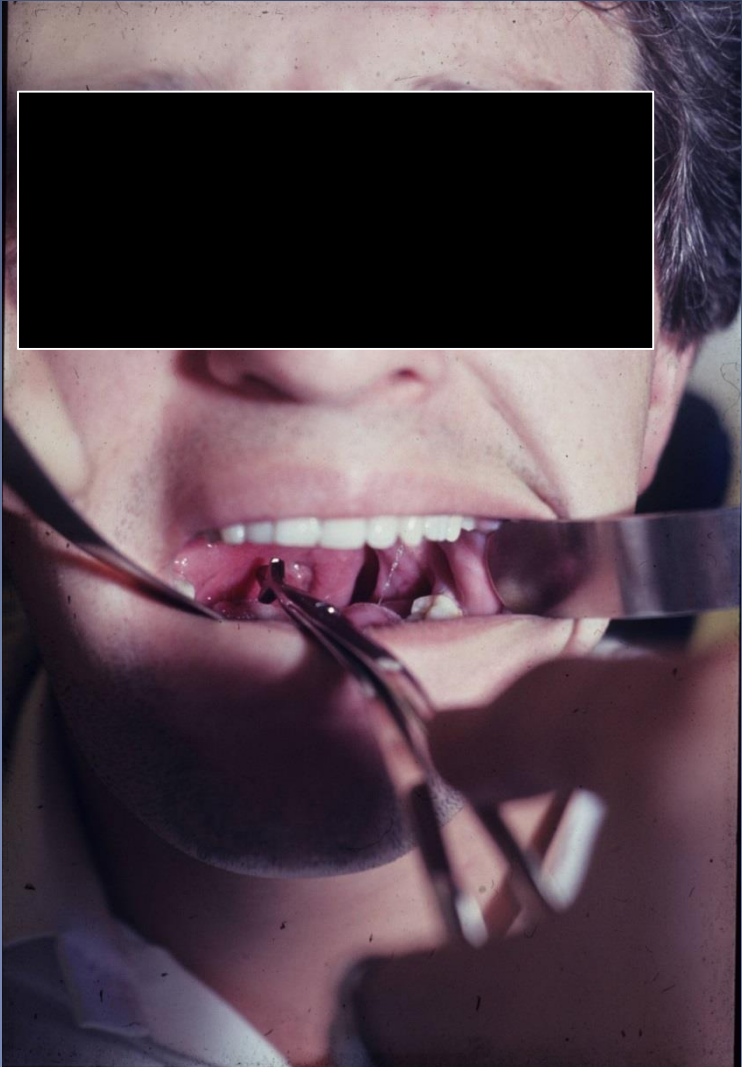
- **GENERAL:**
 - ACUTE NEPHRITIS
 - RHEUMATIC INFLAMMATION
 - ACUTE PERICARDITIS, ENDOCARDITIS
 - SEPTICEMIA
- **LOCAL:**
 - PERITONSILLAR ABSCESS
 - PARAPHARYNGEAL ABSCESS
 - RETROPHARYNGEAL ABSCESS



CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

5. INFLAMMATION, ACUTE COMPLICATIONS - LOCAL

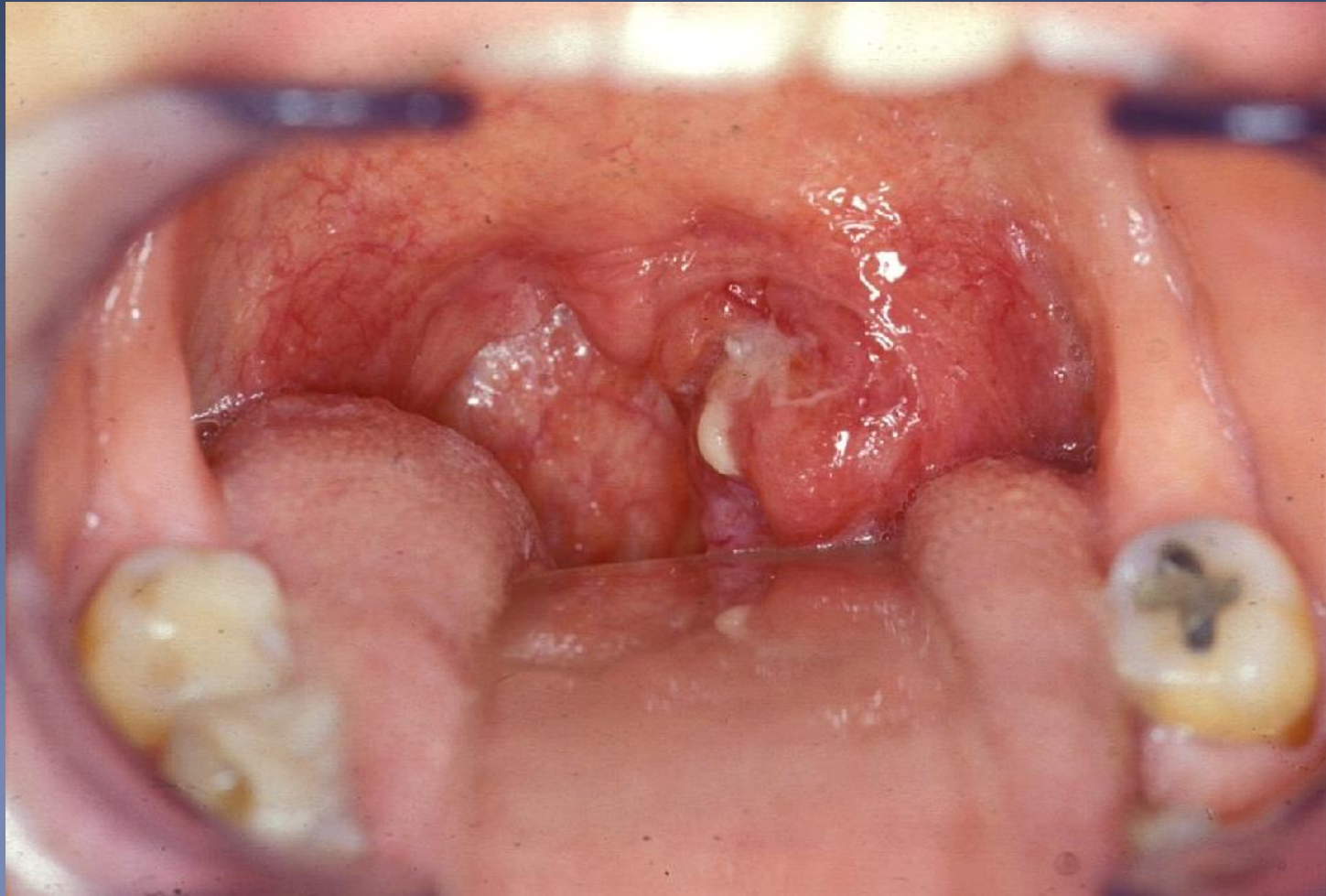
- **PERITONSILLAR ABSCESS: RARELY BILATERAL**
 - **ACUTE TONSILLITIS**
 - **GENERAL CONDITION DETERIORATES RAPIDLY**
 - **INCREASING DIFFICULTY IN SWALLOWING**
 - **PAIN IRRADIATES TO THE EAR**
 - **THICK SPEECH**
 - **TRISMUS**
 - **SIALORRHEA, ORAL FETOR**
 - **SWELLING OF THE REGIONAL LYMPH NODES**
 - **TREATMENT:**
 - **DRAINAGE OF THE ABSCESS – TRANSORAL**
 - **HIGH DOSES OF ANTIBIOTICS (PENICILLIN + ANAEROBIC)**



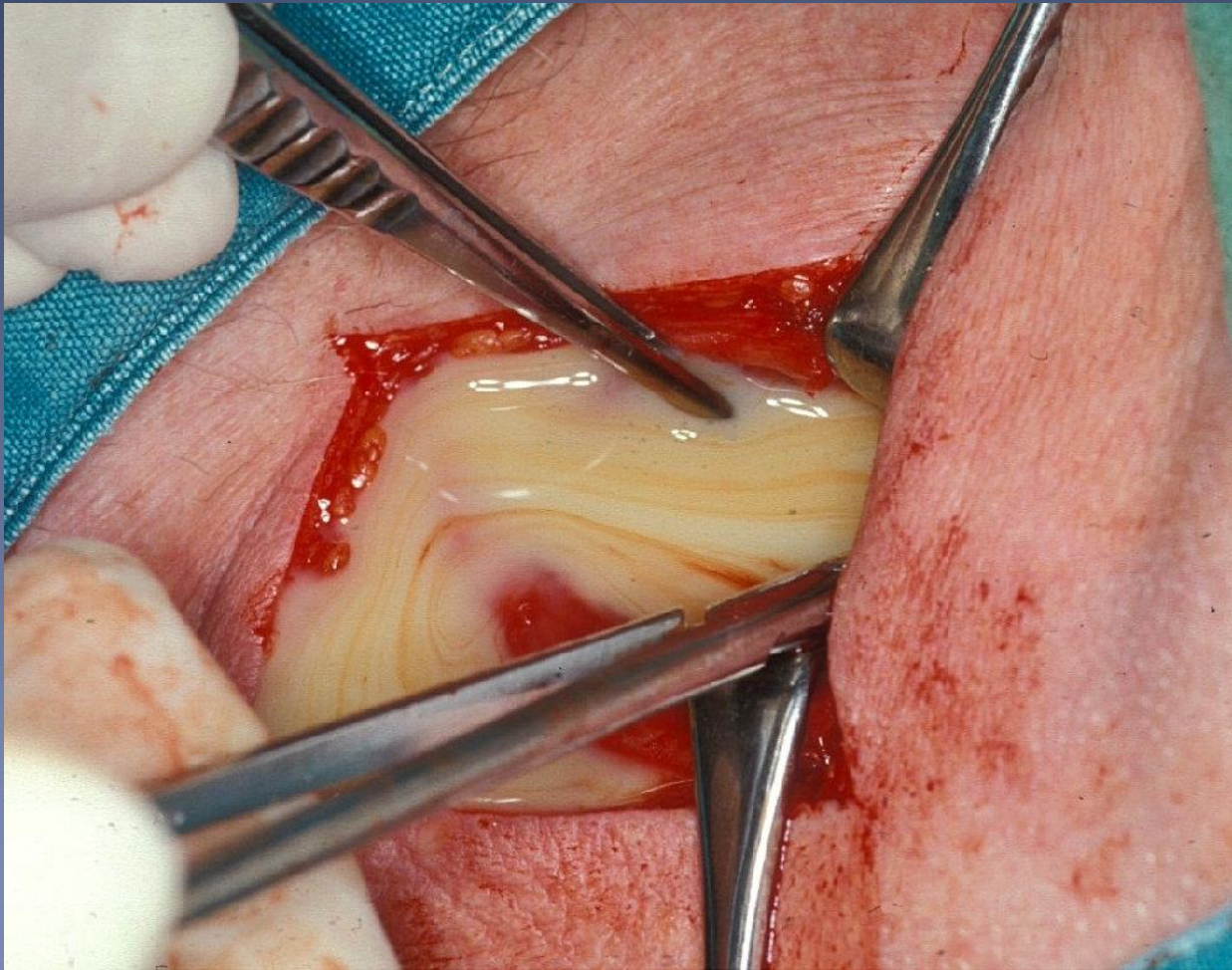
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

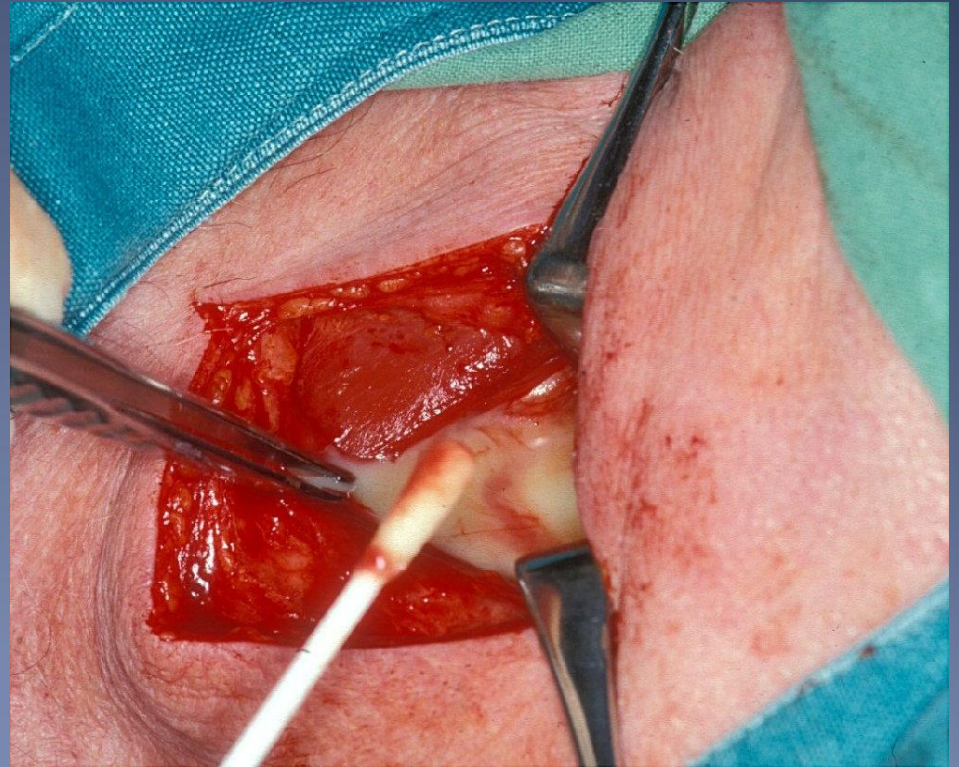
5. INFLAMMATION, ACUTE COMPLICATIONS - LOCAL

- **PARAPHARYNGEAL ABSCESS:**
 - QUICK CLINICAL COURSE
 - GENERAL CONDITION DETERIORATES RAPIDLY
 - INCREASING RESPIRATORY OBSTRUCTION
 - FEELING OF PRESSURE IN THE NECK, DIFFICULT MOVING
 - SWOLLEN AND STIFF NECK
- **RETROPHARYNGEAL ABSCESS:**
 - SPINE INFLAMMATION - OSTEOMIEELITIS, TBC - ADULTS
 - RETROPHARYNGEAL LYMPH NODE INFLAMMATION
 - LYMPH NODES BESIDE SPINE - ESPECIALLY IN CHILDREN < 2 YEARS
- **TREATMENT: DRAINAGE OF THE ABSCESS THROUGH THE NECK**
- **HIGH DOSES OF ANTIBIOTICS (PENICILLIN + ANAEROBIC), SWAB, ANTIBIOGRAM**











X: 4207
e: 4
n: 5
Sag L0.4

ZOPANCIC MILAN, 1938

DOB: 07 Mar 1938
04 Dec 02

Mag = 2.0
FL:
ROT:

T:6

FSE-XL/90
TR:2000
TE:10.2/Ef

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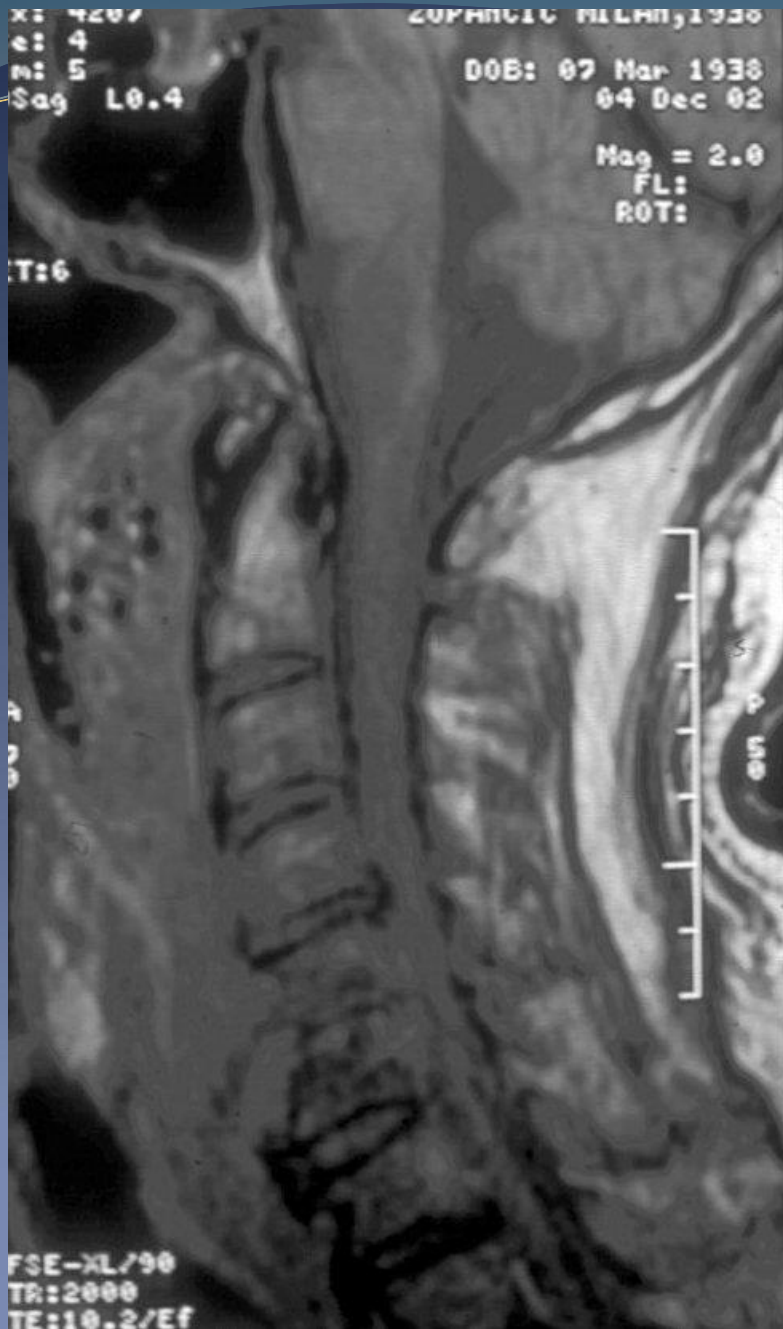
ZOPANCIC MILAN, 1938

DOB: 07 Mar 1938
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Mag = 2.0
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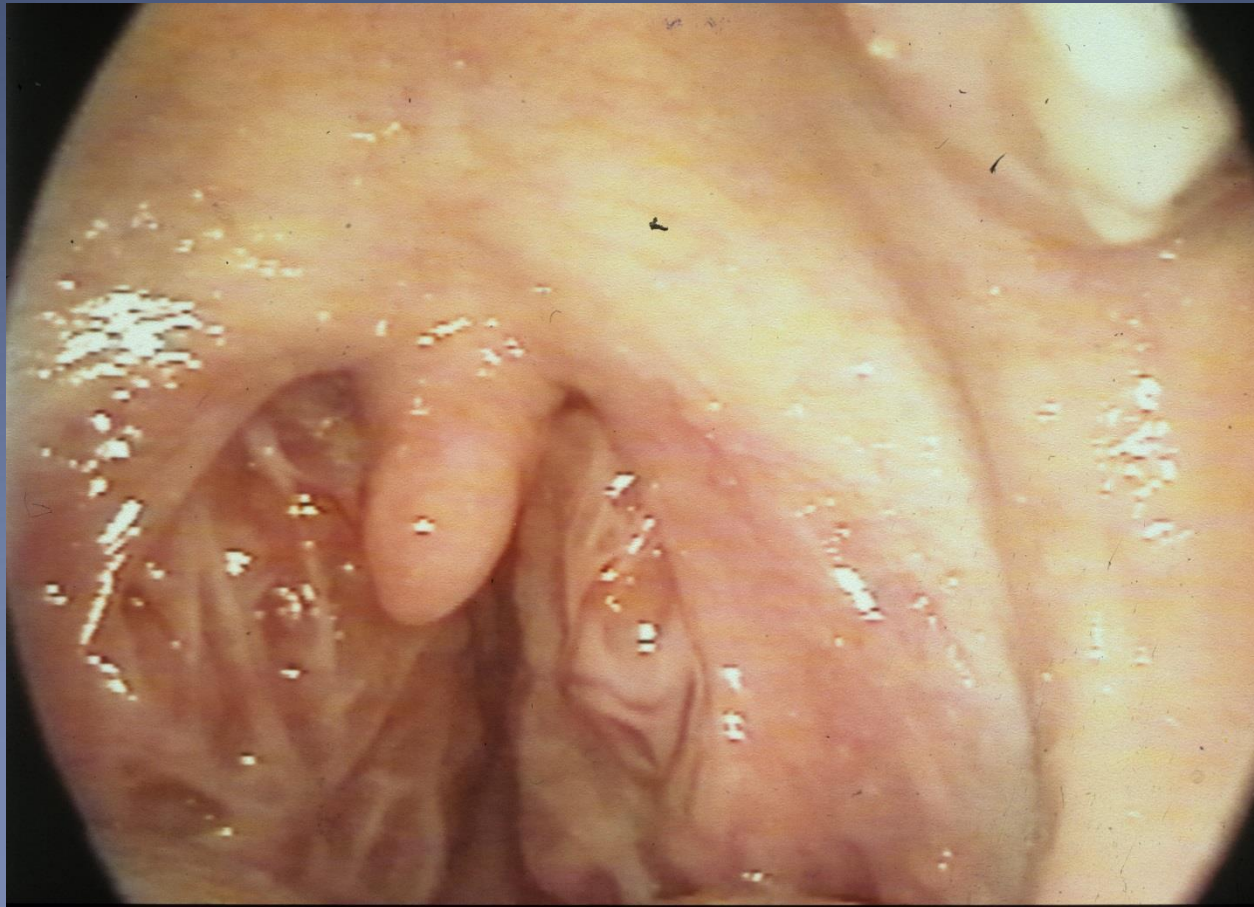


CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

5. INFLAMMATION, CHRONICAL

- **CHRONIC INFLAMMATION OF THE PHARYNGEAL MUCOSA, ESPECIALLY OROPHARYNGEAL:**
- **CATHARAL, ATROPHIC, HYPERTROPHIC**
 - **PHARYNGITIS CHRONICA**
 - **CHRONIC SPECIFIC INFLAMMATION**
- **CHRONIC INFLAMMATION OF THE ADENOIDES**
- **CHRONIC INFLAMMATION OF THE TONSILLS:**
 - **TONSILLITIS CHRONICA (FOCUS OF INFLAMMATION, TONSILLECTOMY?)**
 - **EPITHELIAL DEFECT**
 - **TONSILLAR TISSUE → SCAR**

CHRONIC PHARYNGITIS



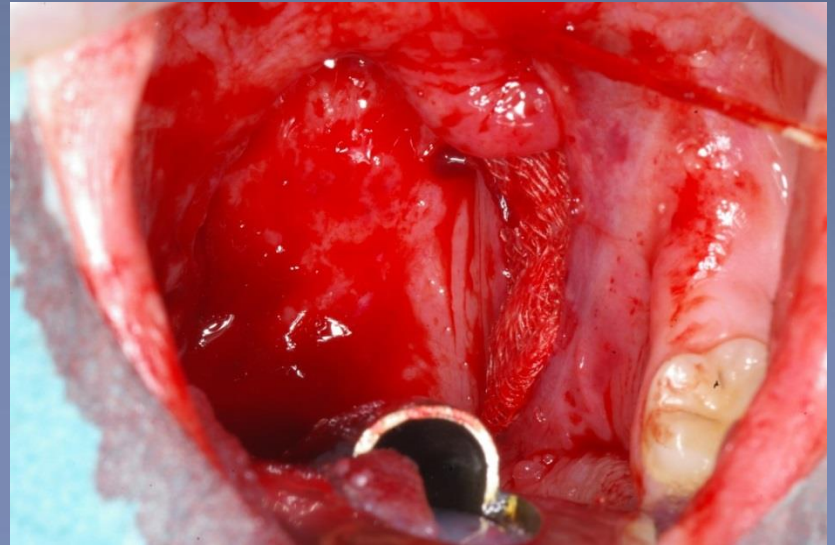
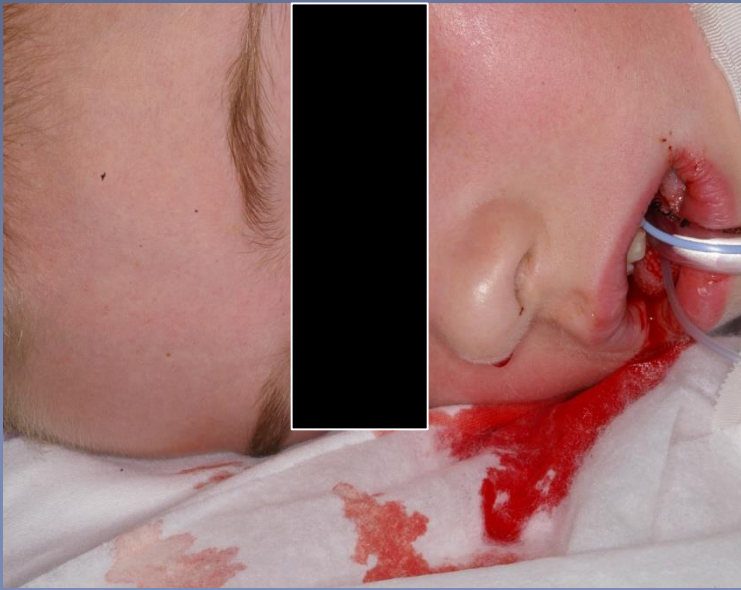
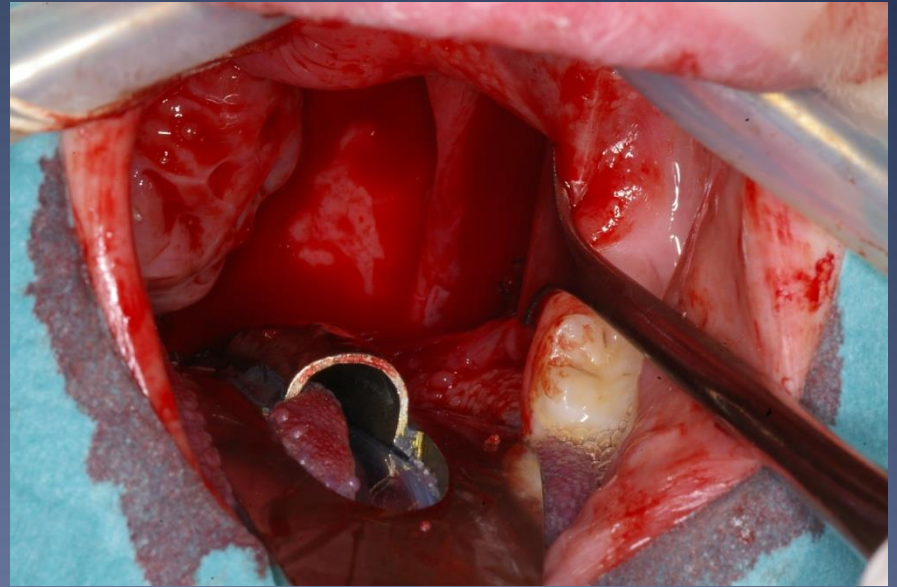
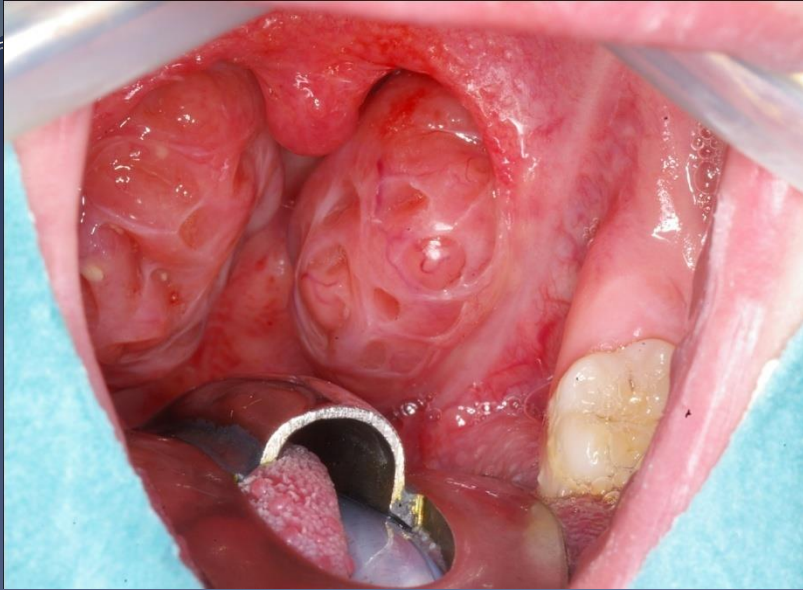
INDICATIONS FOR TONSILLECTOMY:

- OSAS – MECHANIC OBSTRUCTION
- RECURRENT TONSILLITIS (> 7 YEARLY)
- PERITONSILLAR ABSCESS
- CHRONIC TONSILLITIS
- TONSILLOGENIC SEPTICEMIA
- TONSILLAR TUMOR SUSPECTED
- PFAPA Sy



TONSILLECTOMY: ANAESTHESIA – LOCAL, GENERAL





FOCAL INFECTION

- DISSEMINATION OF PATHOLOGIC MATERIAL FROM THE TONSILL:
- MICROORGANISMS, ANTIGENS
- INFLAMMATORY PRODUCTS
- TOXINS INTO THE BLOODSTREAM



- RHEUMATIC FEVER
- GLOMERULONEPHRITIS AND FOCAL NEPHRITIS
- PSORIASIS
- CHRONIC URTICARIA
- ENDO / MIO / PERICARDITIS POLYSEROSITIS
- INFLAMMATORY DISORDERS OF THE NERVES AND EYES (IRIDOCYCLITIS)
- VASCULAR DISEASE (VASCULITIS)

COMPLICATIONS AFTER TONSILLECTOMY / ADENOIDECTOMY

- HEMORRHAGE TO THE 14 DAY
- PAIN AND DEHYDRATION
- ASPIRATION
- INFLAMMATION OF THE WOUND
- NECK PAIN - TORTICOLLIS

- A CHANGE OF THE SOUND OF THE VOICE
- RHINOLALIA APERTA - VPI
- DYSPHONIA
- ADHESIONS IN THE NASOPHARYNX AND INJURIES OF THE OSTIUM OF THE EUSTACHIAN TUBE
- INJURIES TO THE CERVICAL SPINE – VERY RARELY
- RESIDUE OF THE TISSUE - FOCUS
- PHARYNGPATHIA TONSILLOPRIVA – CHRONIC ATROPHIC INFLAMMATION



RELATIVE CONTRAINDICATIONS FOR TONSILLECTOMY AND ADENOIDECTOMY

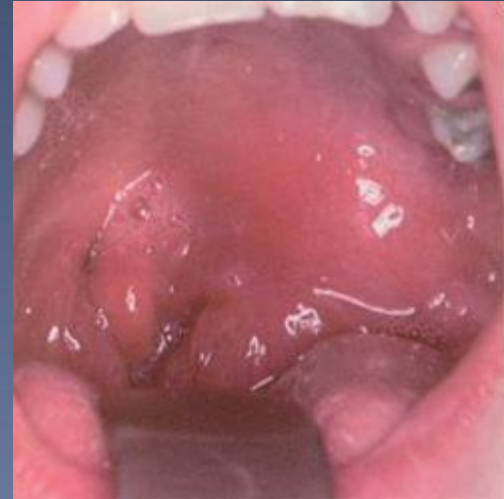
- CLEFT PALATE / TONSILLOTOMY?/
- CONSULTATION! – SPEECH AND LANGUAGE THERAPIST / SLP
- ATTENTION – SUBMUCOSAL CLEFT PALATE
- DEPTH. OF ORL LJUBLJANA: SHIZA TEAM = PHONiatricIAN, SLP, MA FA SURGEON, PSYCHOLOGIST, ORTHODONTIST, OTOSURGEON, RHINOSURGEON

- COAGULATION DISORDERS
- ANEMIA AND OTHE BLOOD DISORDERS

- ACUTE DISEASES / VIRAL AND BACTERIAL

- COEXISTING DISORDERS: DIABETES, ... CONSULTATION - PEDIATRICIAN

TONSILLAR HYPERTROPHY
TONSILL ACUTA
PERITONSILLAR ABSCESS



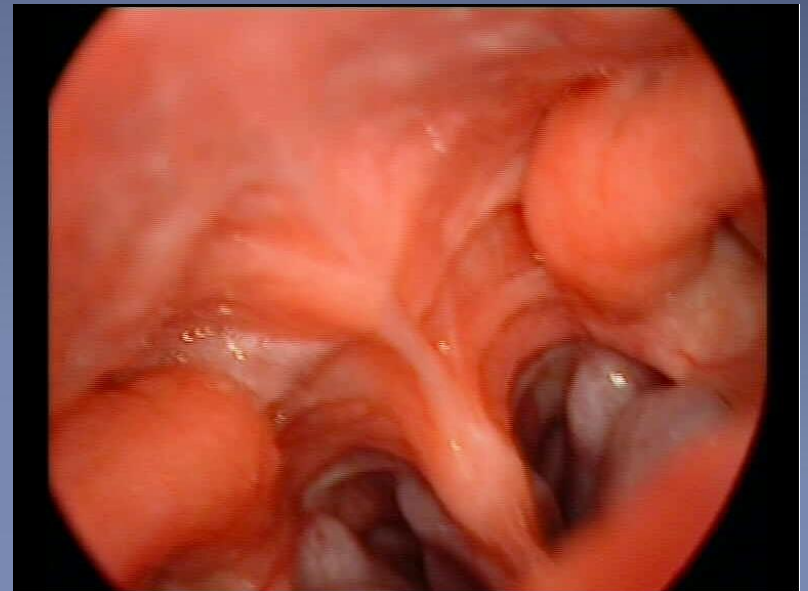
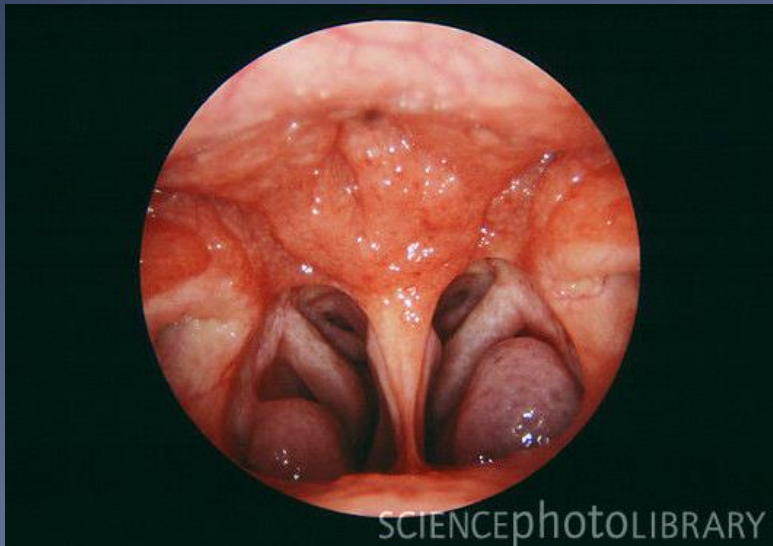
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

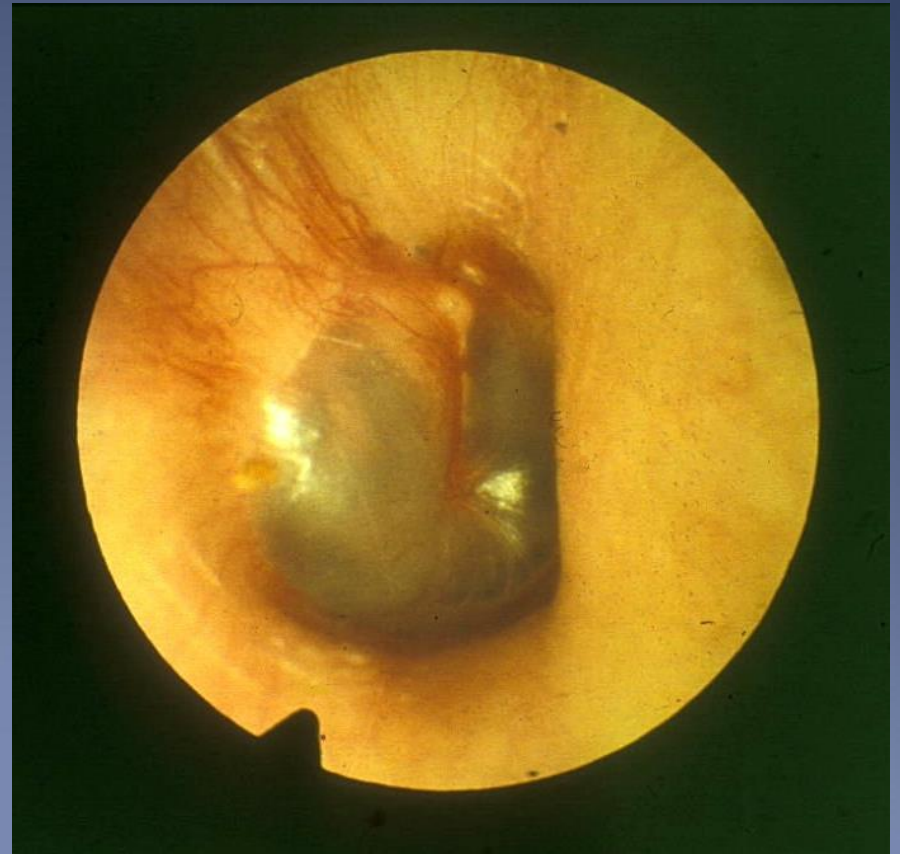
5. INFLAMMATION, CHRONICAL - HYPERPLASIA

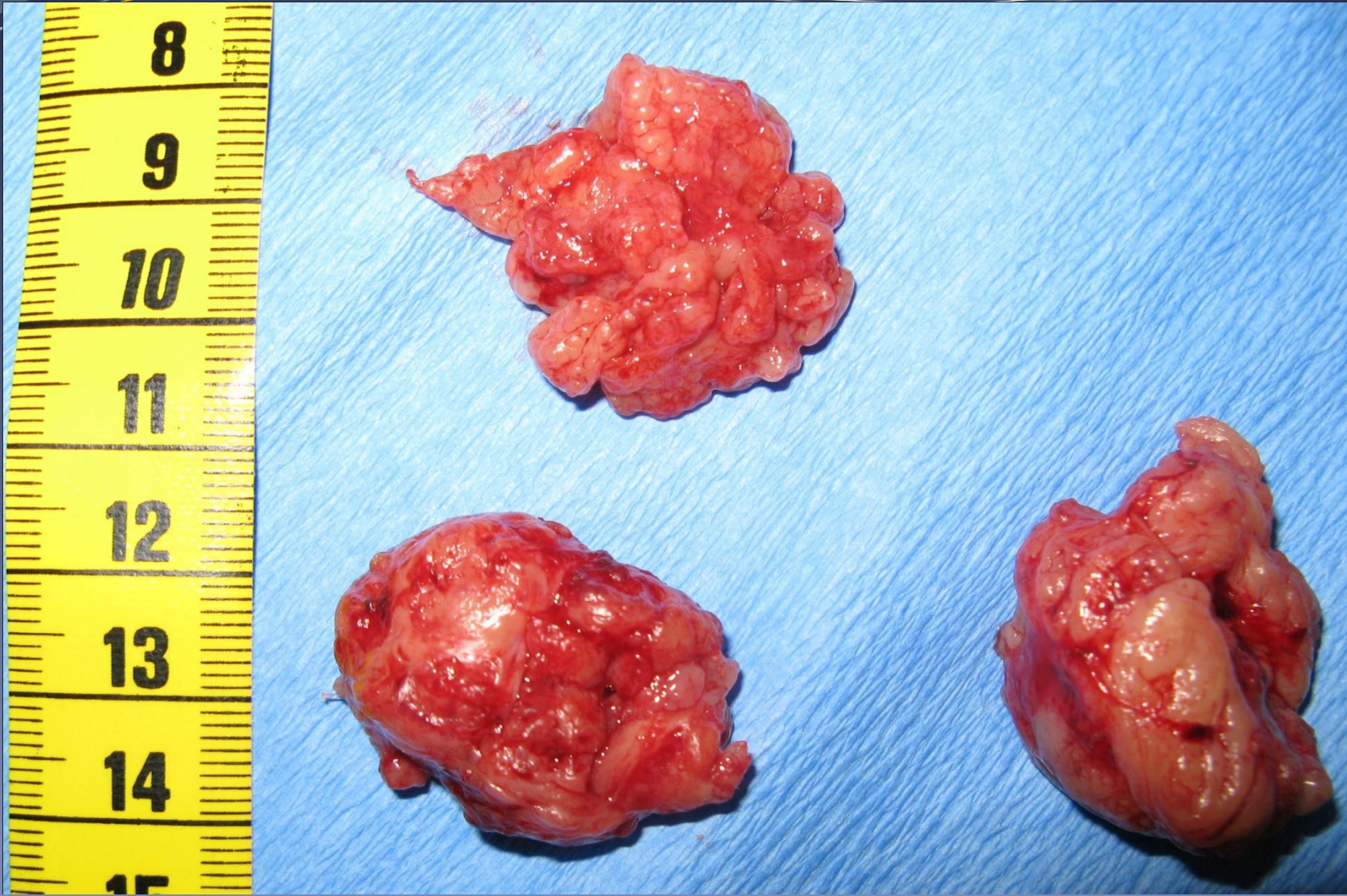
- ADENOID HYPERPLASIA (FREQUENTLY, CHILDREN):
 - NASOPHARYNGEAL OBSTRUCTION
 - MOUTH BREATHING, NASAL DISCHARGE
 - AURAL DISEASES, OBSTRUCTION OF THE EUSTACHIAN TUBE
 - CHRONIC MIDDLE EAR CATARRH, CONDUCTIVE DEAFNESS
 - CHRONIC ADENOIDITIS AND RECURRENT ACUTE OTITIS MEDIA
 - DISEASES OF THE NOSE AND PARANASAL SINUSES
 - CHRONIC PURULENT RHINOSINUSITIS
 - SNORING
 - RHINOLALIA CLAUSA
 - OPEN MOUTH,
 - MALDEVELOPMENT OF THE UPPER JAW, TEETH
 - ADENOID FACE
 - DISORDERS OF THE LOWER RESPIRATORY SYSTEM
 - MENTAL DEVELOPMENT / HYPOXIA DURING SLEEP



BEFORE AND AFTER ADENOIDECTOMY



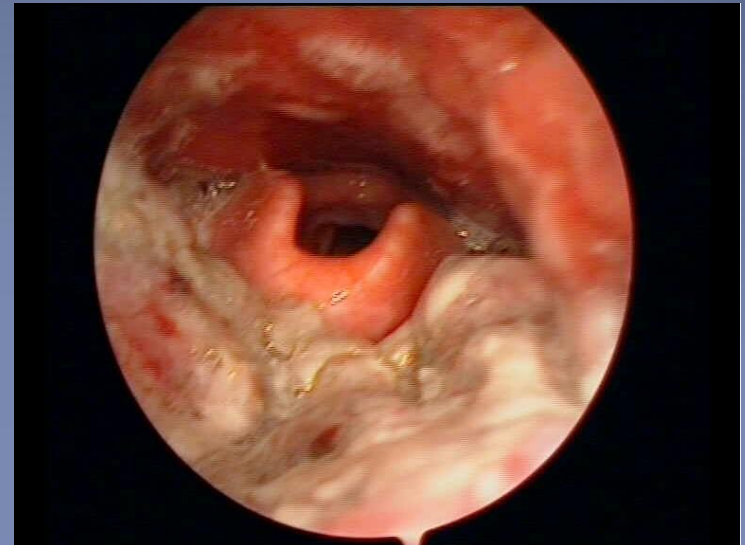




CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

5. INFLAMMATION, CHRONICAL - HIPERPLASIA

- TONSILLAR HYPERPLASIA:
 - RESPIRATORY OBSTRUCTION
 - DIFFICULTY IN SWALLOWING AND EATING
 - SPEECH PROBLEMS
 - TUMORS – ADULTS (LYMPHOMA)
- TONSILLA LINGUALIS HYPERPLASIA:
 - RARELY
 - ADULTS
 - AFTER TONSILLECTOMY
 - TUMORS!!!



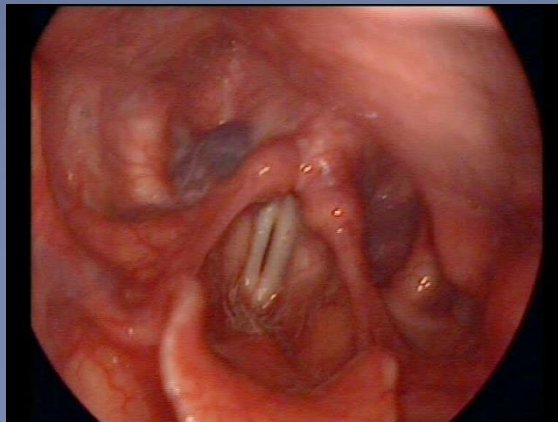
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

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CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

6. TUMORS

- **BENIGN TUMORS:**
 - **NASOPHARYNGEAL ANGIOFIBROMA (MALE, ABOUT AGE OF 10 YEARS)**
 - **FIBROMAS**
 - **HEMANGIOMAS**
 - **PAPILLOMAS**





CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

6. TUMORS

- **MALIGNANT TUMORS OF THE PHARYNX (DANGEROUS, METASTASING):**
 - **LOCAL TUMORS:**
 - **CARCINOMA (FROM EPITHELIUM)**
 - **LYMPHOMA (FROM LYMPHATIC TISSUE)**
 - **SARCOMA (FROM THE MIDDLE EMBRYONAL TISSUE – FIBROUS, MUSCLES, NERVES)**
 - **DISTANT:**
 - **PHARYNGEAL METASTASES FROM OTHER PARTS OF THE BODY**

CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

6. TUMORS

- **RISK FACTORS:**
- **SMOKING**
- **ALCOHOL INTAKE**
- **INAPPROPRIATE CONDITIONS AT THE WORKPLACE**
- **LARYNGOPHARYNGEAL REFLUX**
- **GENETIC DISPOSITION**

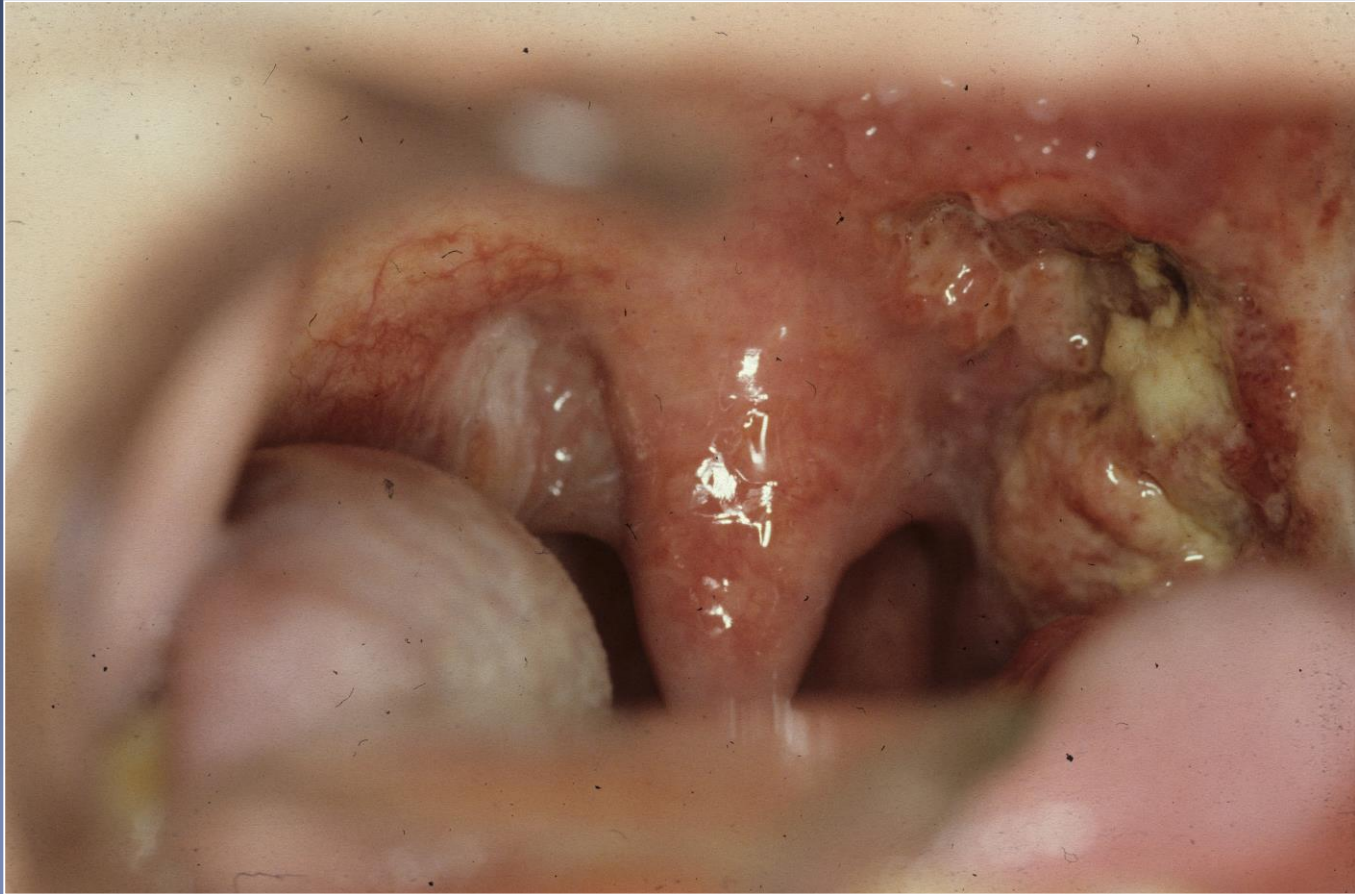
- **SYMPTOMS:**
- **FEELING OF THE LUMP IN THE THROAT**
- **DYSPHAGIA**
- **HOARSENESS**
- **DYSPNOE**
- **BLOODSTAINED SPUTUM**
- **PAIN IRRADIATING TO THE EAR**
- **CERVICAL LYMPH NODE METASTASES**

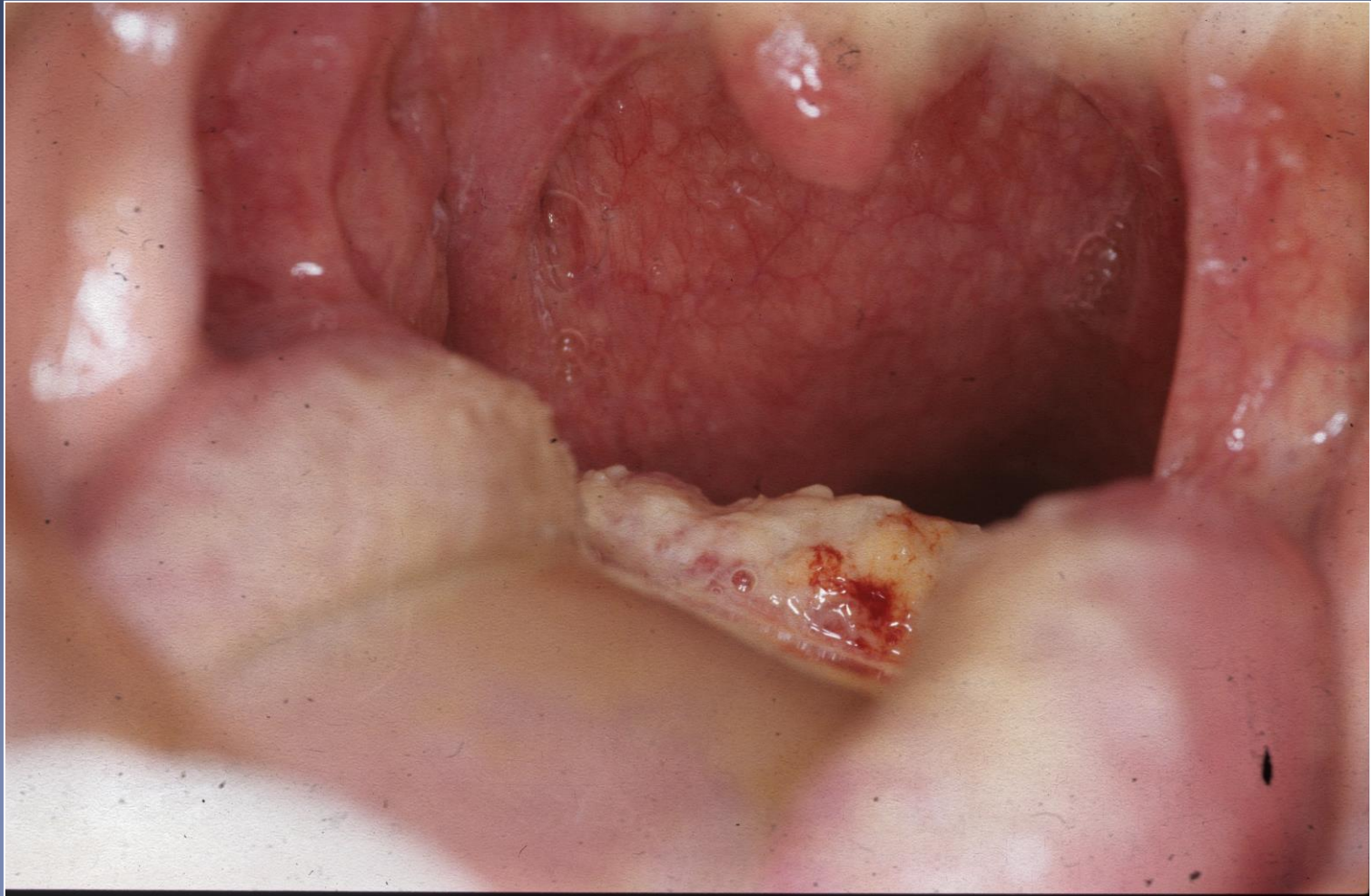
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

6. TUMORS

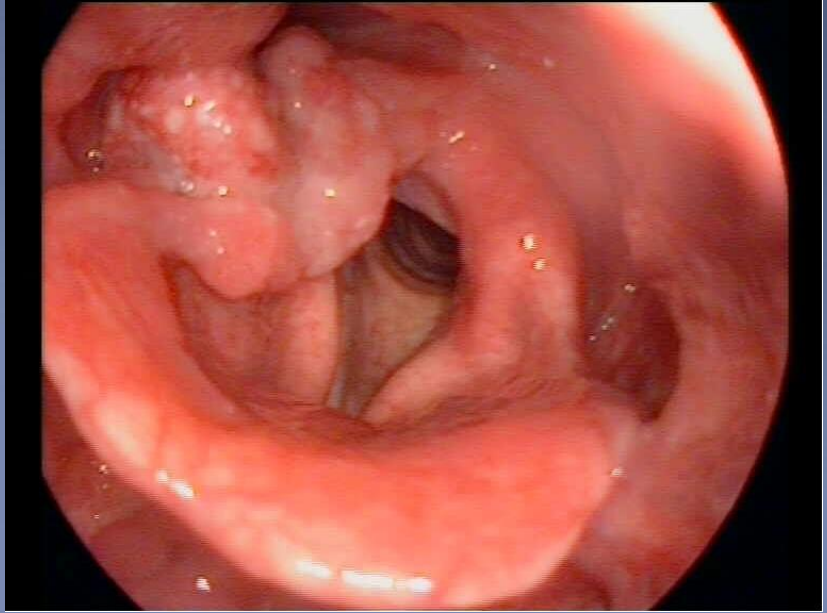
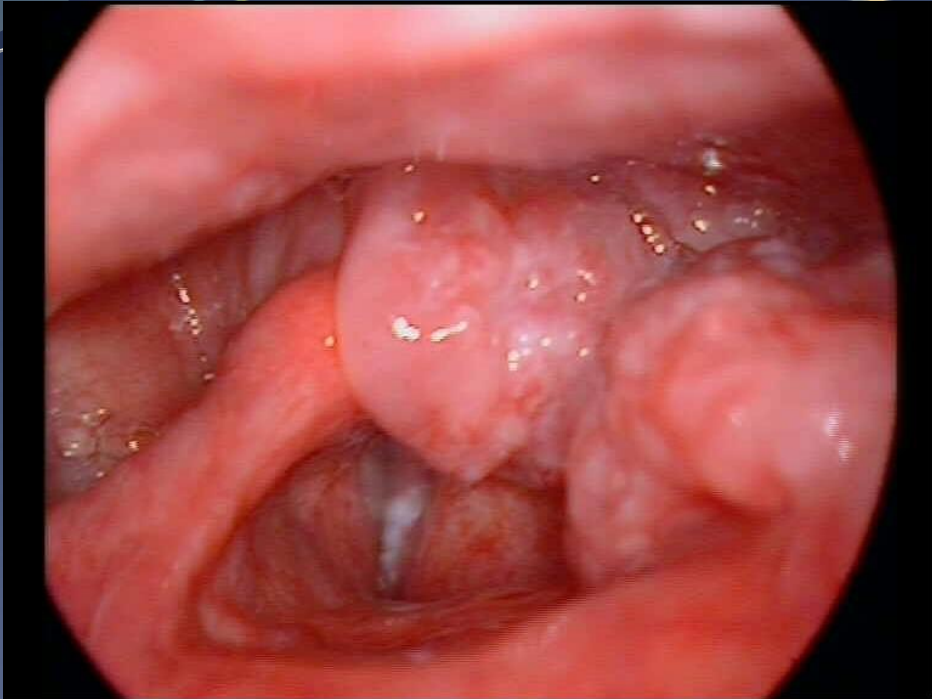
- TREATMENT:
 - SURGICAL
 - RADIOTHERAPY
 - CHEMOTHERAPY
 - PATIENTS COME LATE TO THE DOCTOR: LARYNGECTOMY
 - = LOSS OF VOICE











CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

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CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

7. CONDITIONS AFTER OPERATIONS

TEMPORARY CONDITIONS:

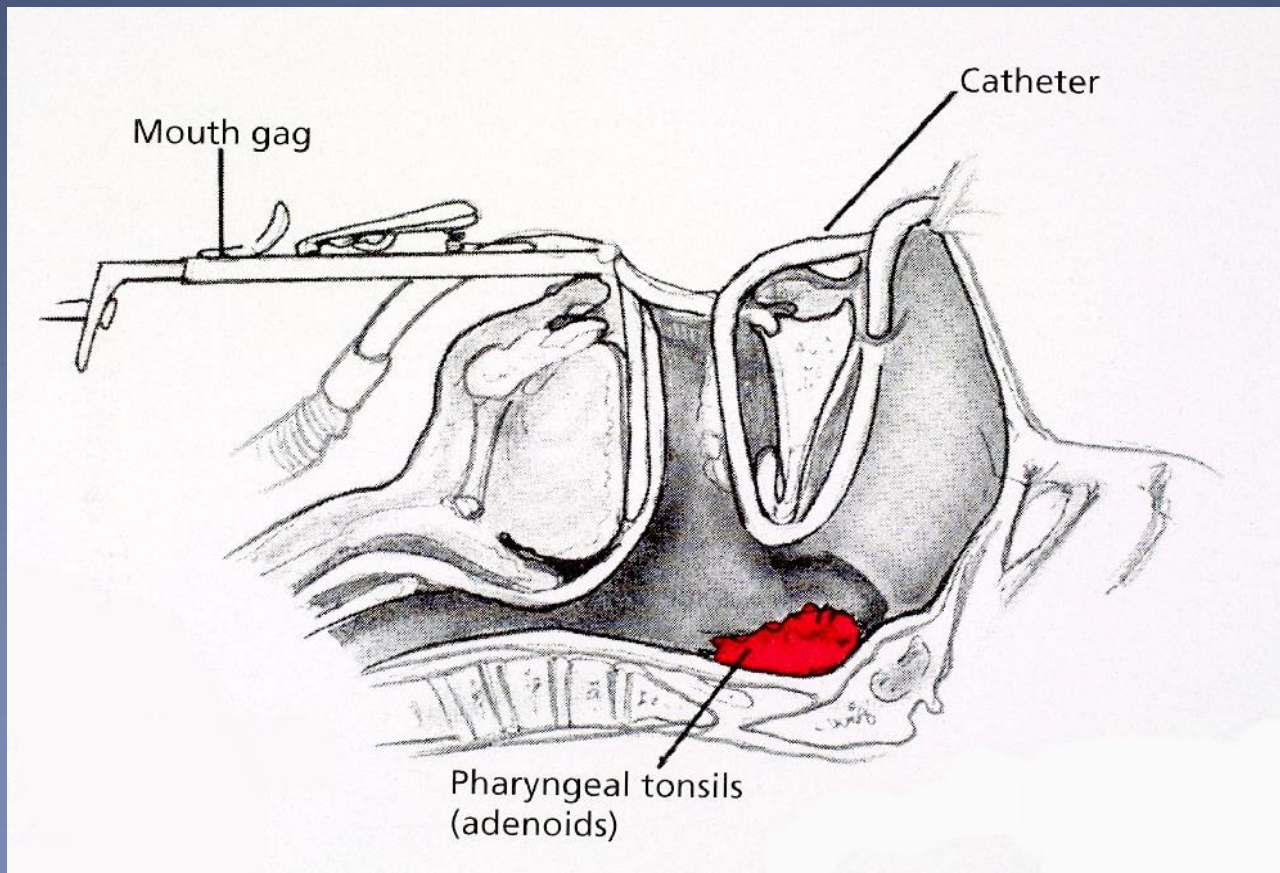
- PAIN
- VELOPHARYNGEAL CLOSURE IMPAIRMENT
- EXTENSION OF THE TISSUE

MAY BE PERMANENT FAILURE

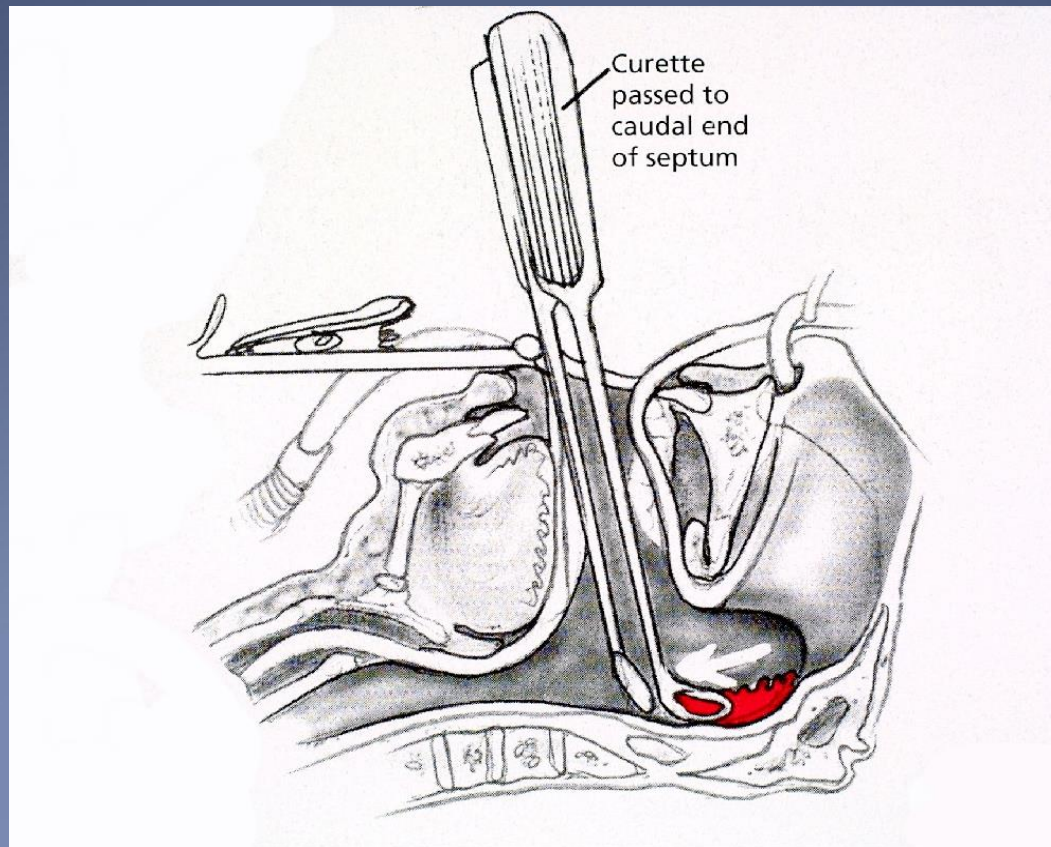
AFTER:

- ADENOIDECTOMY
- TONSILLECTOMY
- SNORING OPERATION
- TUMOR OPERATION

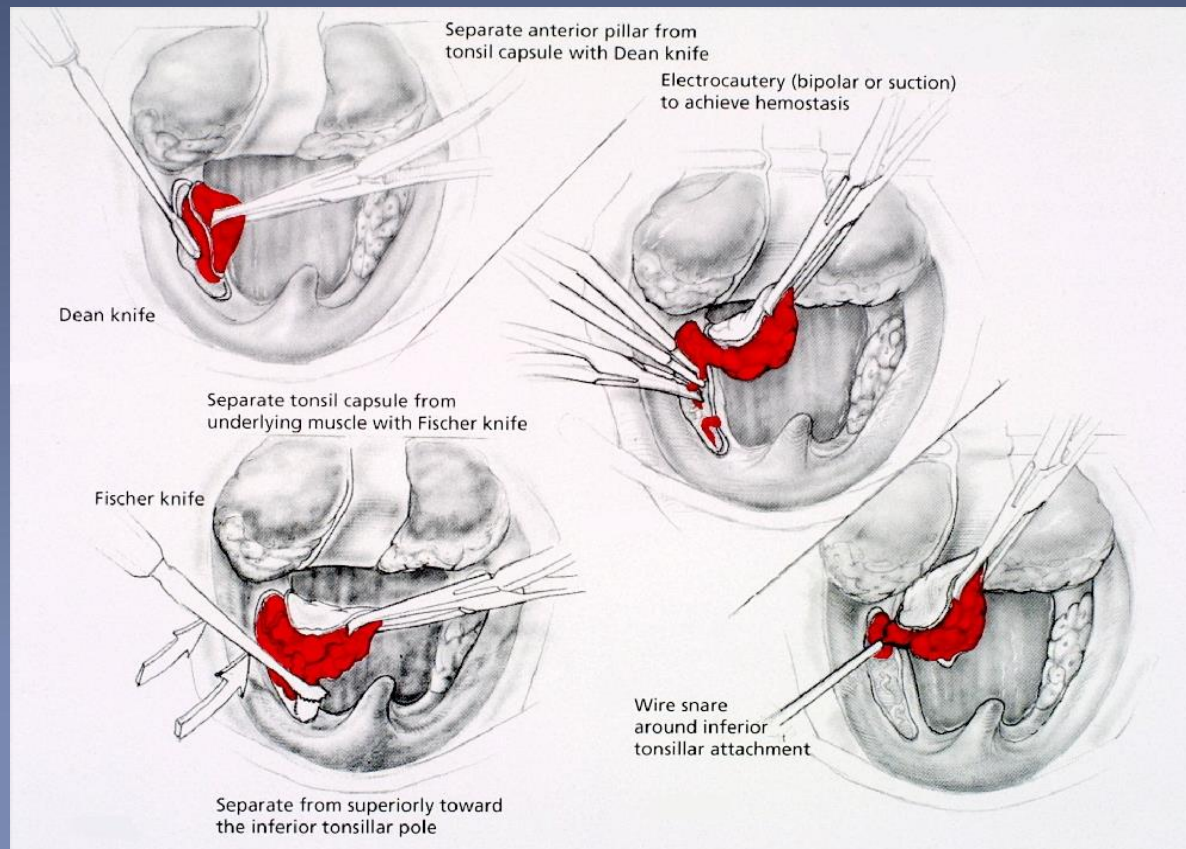
ADENOIDECTOMY



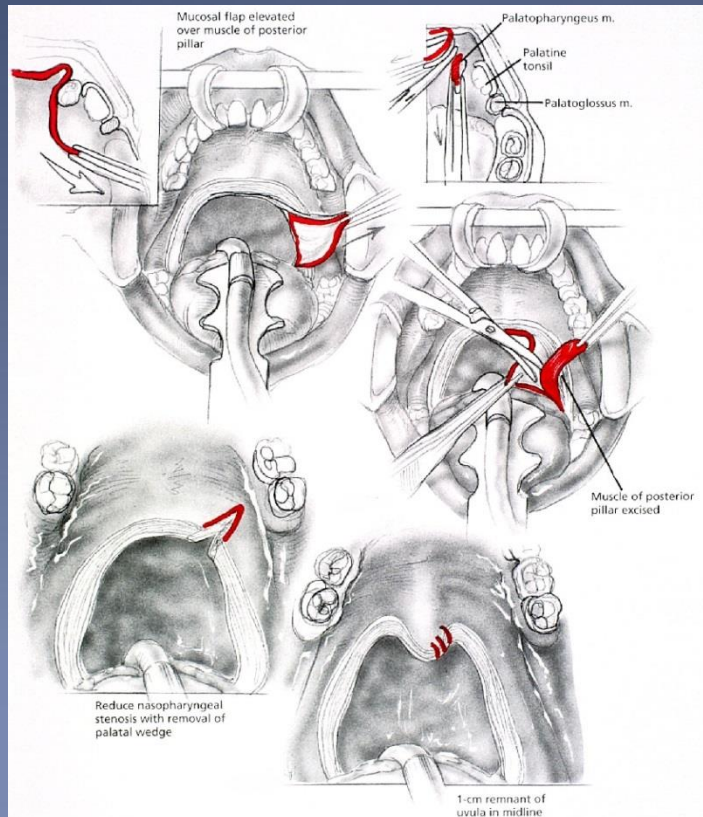
ADENOIDECTOMY



TONSILLECTOMY



SNORING OPERATION, SOFT PALATE



A normal soft palate



An enlarged soft palate



CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

7. CONDITIONS AFTER OPERATIONS, RESEARCH

- **VELOPHARYNGEAL INSUFFICIENCY AFTER ADENOTONSILLECTOMY (M. ŠEREG BAHAR, I. HOČEVAR BOLTEŽAR):**
 - 430 OPERATED CHILDREN - SURVEY
 - YEARLY 800-900 OPERATED CHILDREN
 - 2:1 = ADENOIDECTOMY : TONSILLECTOMY
 - 283 ANSWERS



CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

7. CONDITIONS AFTER OPERATIONS, RESEARCH

- **RESULTS:**
 - **18,7 % CHILDREN HAD RHINOLALIA APERTA AFTER OPERATION**
 - **6,4 % STILL SNUFFLED AT THE TIME OF THE SURVEY**
 - **IN 6% CHILDREN FOOD ESCAPED THROUGH THE NOSE AFTER THE OPERATION, BUT NOONE AT THE TIME OF THE SURVEY**
 - **CHILDREN WHO SNUFFLED AND HAD ESCAPE OF THE FOOD THROUGH THE NOSE, HAD STATISTICALLY STRONGER POSTOPERATIVE PAIN**
- **TEAM TREATMENT**



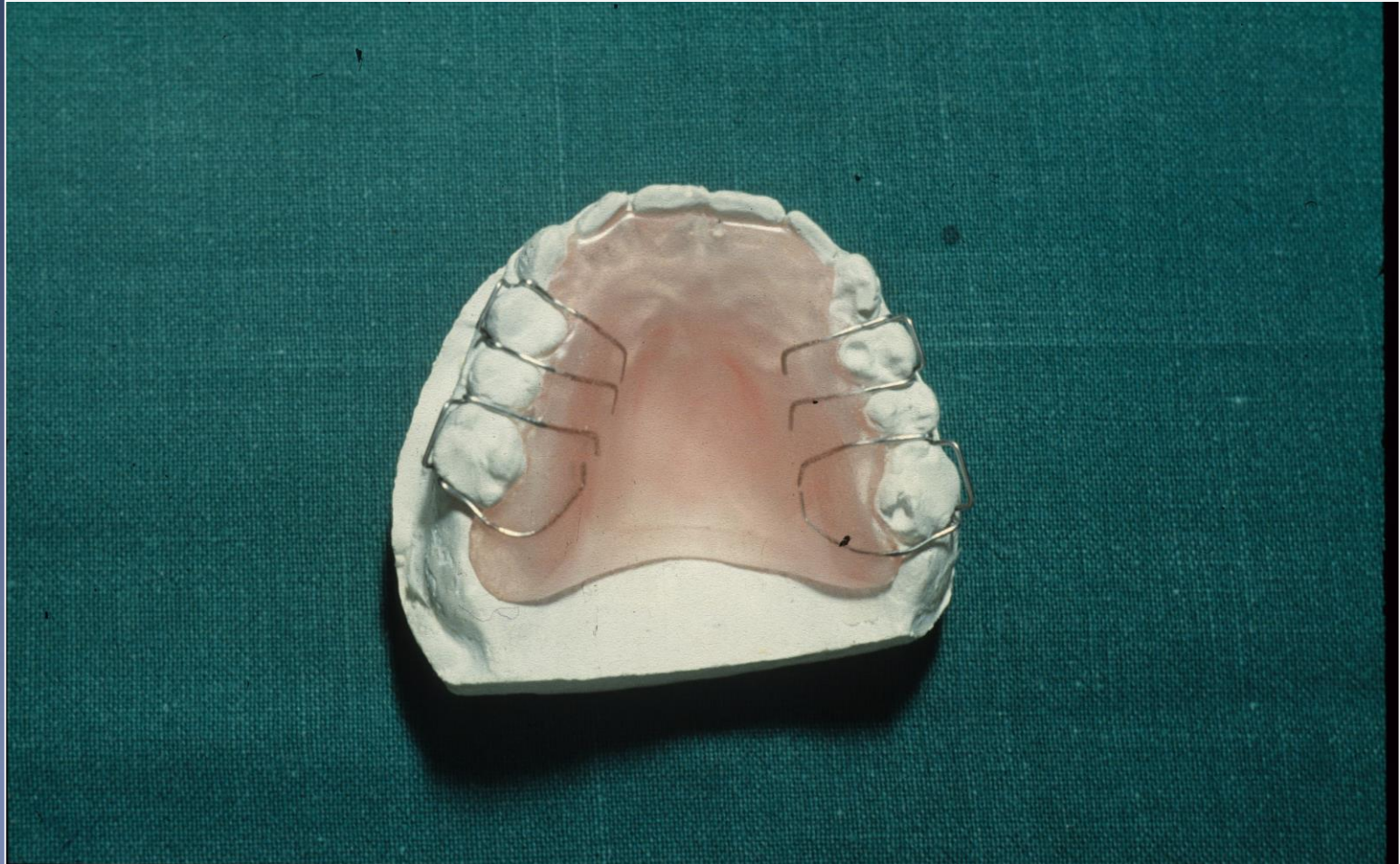
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

7. CONDITIONS AFTER OPERATIONS

- **PERMANENT ACTIVNESS DEFECT OF PHARYNX:**
 - **LARGE DEFECT WITH RECONSTRUCTION**
 - **TUMORS, TRAUMA**

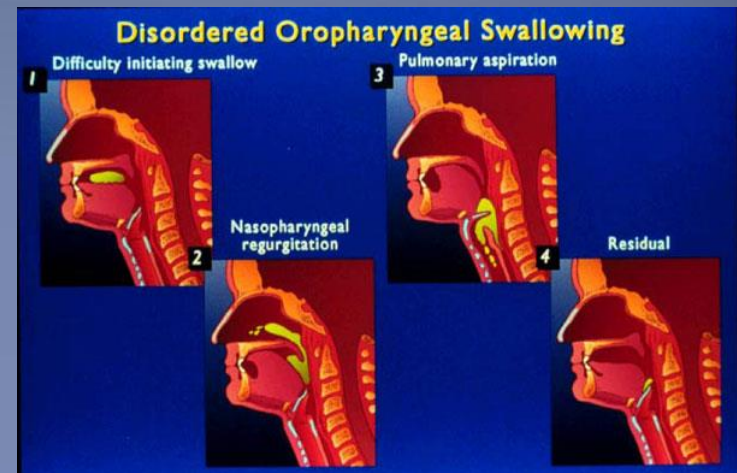
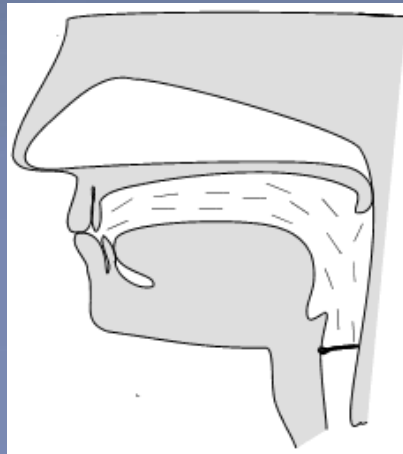
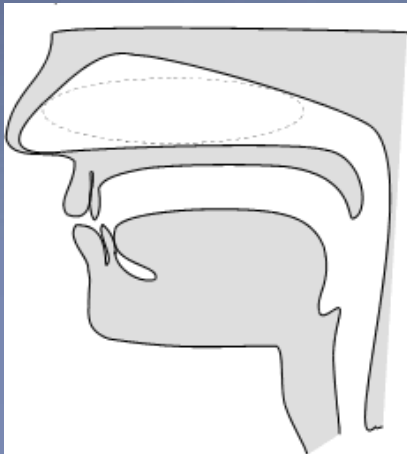
- **TEAM TREATMENT:**
- **OTORHINOLARYNGOLOGIST, DENTIST, RADIOTHERAPIST, ONCOLOGIST, SLT, PSYCHLOGIST, PSYCHIATRIST, SOCIAL WORKER**





VELOPHARYNGEAL INSUFFICIENCY

- NASOPHARYNX IS CLOSED OFF BY POSTEROSUPERIOR ELEVATION OF THE SOFT PALATE = VELOPHARYNGEAL CLOSURE = VPC; NASOPHARYNX AND OROPHARYNX ARE SEPARATED
- SPEECH: SLOVENIAN LANGUAGE – ONLY AT NASAL VOICE VPC IS OPENED, NASAL VOICE
- AT SPEECH VPC IS MAINLY CLOSED
- SWALLOWING: ESCAPE OF THE FOOD AND LIQUID THROUGH THE NOSE



VELOPHARYNGEAL INSUFFICIENCY - CAUSES

- PALATAL CLEFT:
- BEFORE RECONSTRUCTION
- AFTER RECONSTRUCTION: SLT, TO LEARN A CHILD TO USE A NEW ANATOMICAL CONDITIONS AND REACH VPC

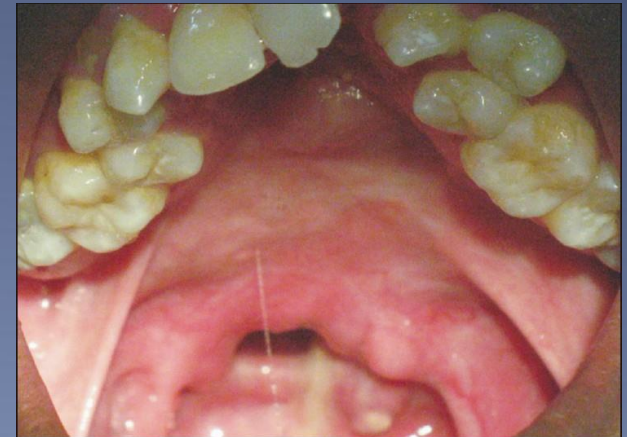
- SUBMUCOSAL CLEFT PALATE:
- CLEFT OF THE MUSCLES IN MEDIAN LINE
- COVERED WITH NORMAL MUCOSA
- BLUE LINE
- GROOVE AT PHONATION
- UVULA BIFIDA
- CAN BE TOUCHED



VELOPHARYNGEAL INSUFFICIENCY - CAUSES

- RELATIVE DISPROPORTION: BETWEEN PHARYNGEAL DEPTH AND SOFT PALATE LENGTH - SOFT PALATE CAN NOT REACH POSTERIOR PHARYNGEAL WALL
- = PALATOPHARYNGEAL DISPROPORTION
- ANATOMICAL VARIANT OF THE BASE OF THE SKULL
- CERVICAL SPINE CHANGES
- CHILDREN AFTER ADENOIDECTOMY

- SOFT PALATE SCARS:
- RADIOTHERAPY
- SURGERY (TONSILLECTOMY, TUMORS OF THE SOFT PALATE, PHARYNX, SNORING SURGERY)



VELOPHARYNGEAL INSUFFICIENCY - CAUSES

- NEUROLOGIC DISORDERS AND NERVE-MUSCULAR DISEASES:

- CEREBRAL PALSY
- MYOTONIA
- DYSTROPHIA
- HEAD TRAUMA
- CVI
- PROGRESSIVE NEUROLOGICAL DISEASES

- MIASTENIA:

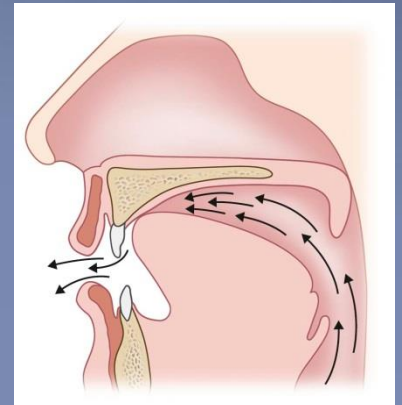
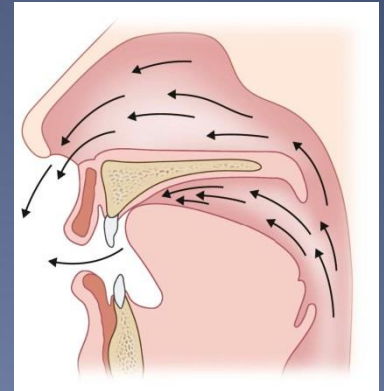
- TRANSFER FROM THE NERVE TO THE MUSCLE IS DISTURBED
- MUSCLE FATIGUING

- SOFT PALATE INNERVATION DISTURBED:

- CRANIAL NERVES V., IX., X
- NO FLEXIBILITY OF ONE HALF OF THE SOFT PALATE
- SOFT PALATE DEVIATES TO THE HEALTHY NONPARALYZED SIDE

- MISLEARNING:

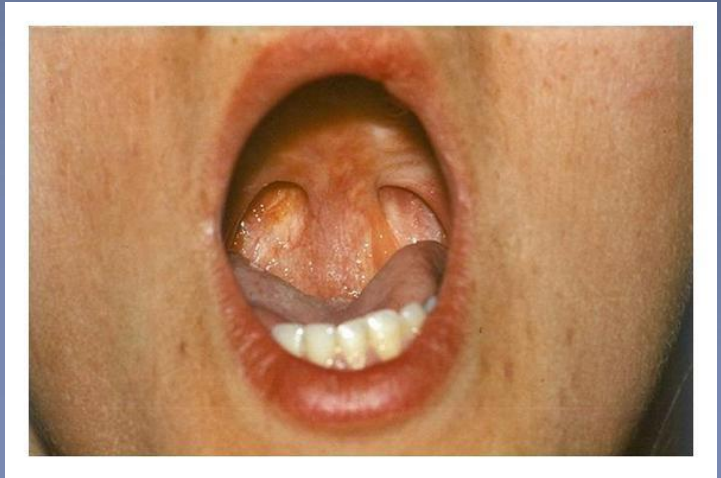
- NO ANATOMICAL CAUSE
- AFTER SURGERY
- COMPENSATORY
- MALADAPTATION



VELOPHARYNGEAL INSUFFICIENCY - TREATMENT

- SPEECH AND LANGUAGE THERAPY:
- EXERCISES FOR BETTER SOFT PALATE FLEXIBILITY
- EXERCISES FOR VPC

- SURGICAL:
- PALATOPLASTY
- VELOPHARYNGOPLASTY
- IMPLANTATION IN POSTERIOR PHARYNGEAL WALL



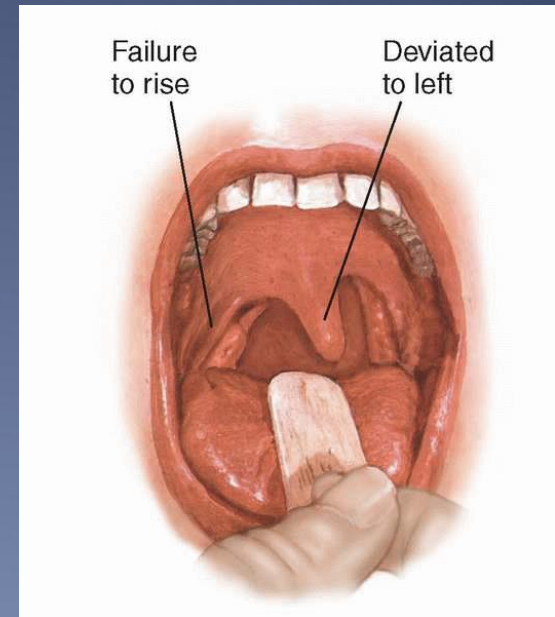
CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

- CONGENITAL ANOMALIES
- TRAUMA, ALSO CAUSED BY MEDICAL PROCEDURES
- BURNS
- FOREIGN OBJECTS
- INFLAMMATION:
 - ACUTE
 - CHRONIC
 - COMPLICATIONS
- TUMORS:
 - BENIGN
 - MALIGNANT
- CONDITIONS AFTER OPERATIONS
- NEUROLOGICAL DISEASES

CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

8. NEUROLOGICAL DISEASES

- MOTOR PARALYSES OF THE PHARYNX:
- ABSENCE OF THE PHARYNGEAL REFLEX
- CHOKING
- RHINOLALIA APERTA /PALATAL PARALYSIS/
- DIFFICULTY IN SWALLOWING FLUIDS
- ESCAPE OF THE FLUIDS THROUGH THE NOSE
- ASPIRATIONS
- ESCAPE OF THE FLUIDS THROUGH THE MOUTH
- IMPOSSIBLE TO SUCK OR BLOW
- THE SOFT PALATE DEVIATES TO THE HEALTHY NONPARALYZED SIDE



CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

8. NEUROLOGICAL DISEASES

- CAUSES:
- CVI
- TUMORS OF THE BASE OF THE SKULL
- JUGULAR FORAMEN SYNDROM (IX. – XI. CRANIAL NERVES)
- BULBAR PARALYSIS: MOTOR CRANIAL NERVE CENTERS IN THE MEDULLA OBLONGATA DEGENERATE GRADUALLY, CAUSING MUSCLE ATROPHY, FIBRILLATION OF THE TONGUE, INABILITY TO SWALLOW
- PSEUDOBULBAR PALSY: BILATERAL LESIONS OF THE SUPRANUCLEAR PATHWAYS FOR THE LOWER MOTOR CRANIAL NERVES, WITHOUT MUSCLE ATROPHY AND FIBRILLATION, BUT ALSO INABILITY TO SWALLOW
- SYRINGOBULBIJA
- HERPES ZOSTER

CLINICAL ASPECTS OF DISEASES OF THE PHARYNX

8. NEUROLOGICAL DISEASES

- TREATMENT:
- NEUROLOGICAL, CONSIDERING THE CAUSE
- NUTRITION – NASOGASTRIC TUBE
- TRACHEOTOMY, PNEUMONIA PREVENTION
- SPEECH AND LANGUAGE THERAPY



- **THANK YOU FOR YOUR ATTENTION**

- **QUESTIONS?**

