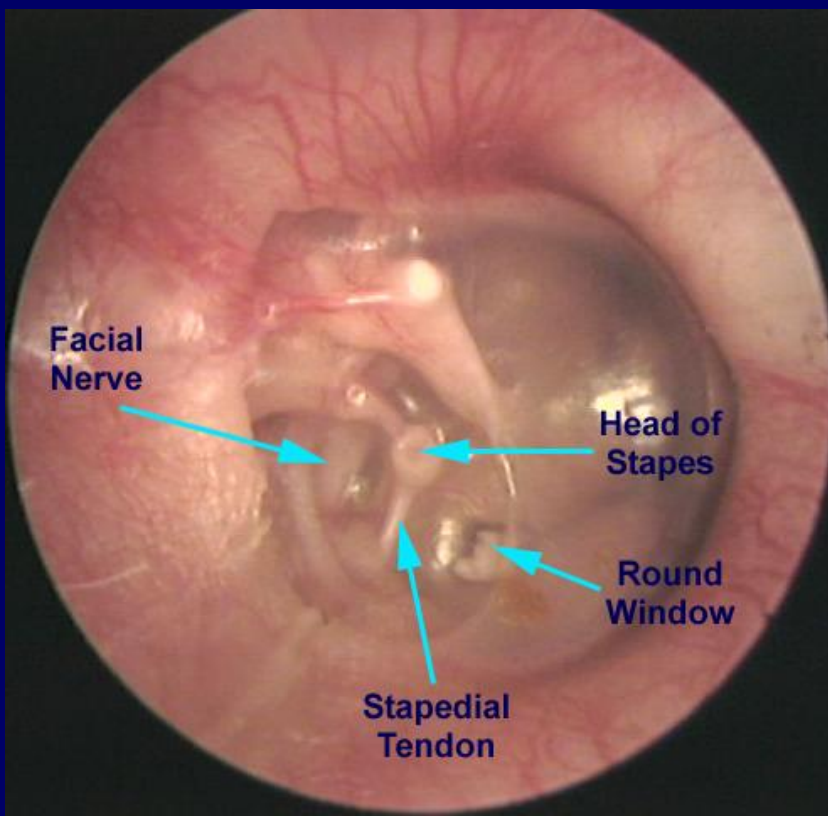


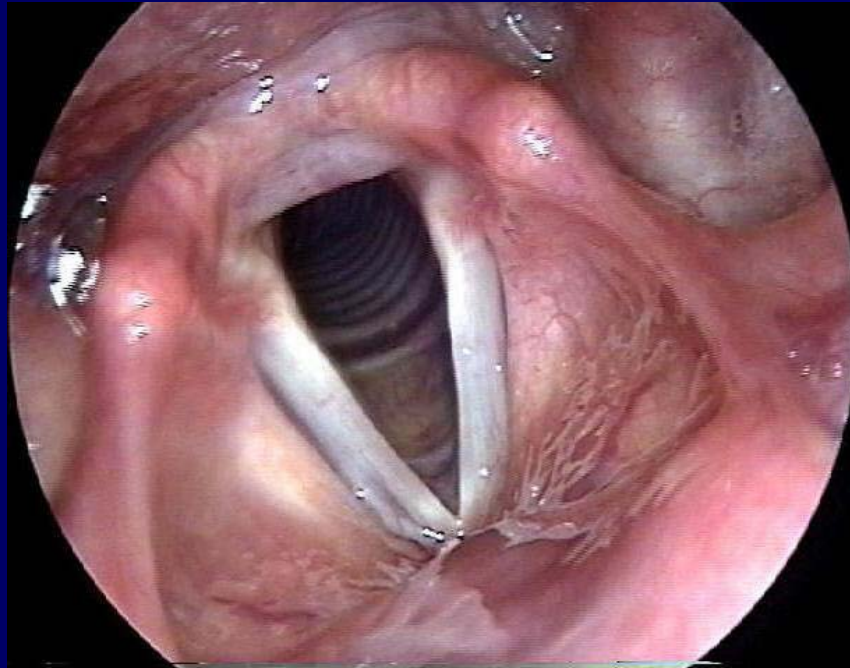
Common Ear, Nose & Throat Problems

The information provided in this presentation is not intended to guide treatment or aid in making a diagnosis. Always consult a physician or nurse practitioner.



Normal Larynx

- Normal larynx in a 44 yr old non-smoker

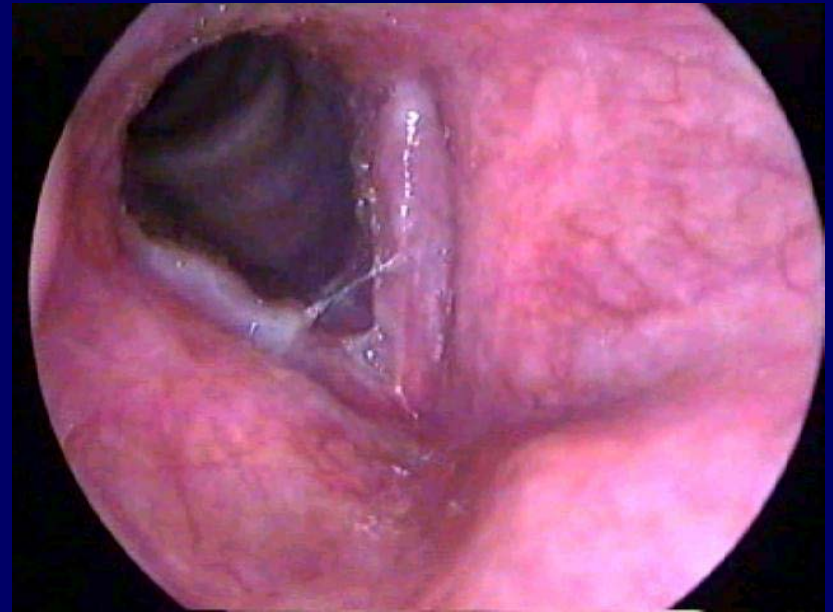


Go to http://www.entusa.com/normal_larynx.htm to View Video



Acute Laryngitis

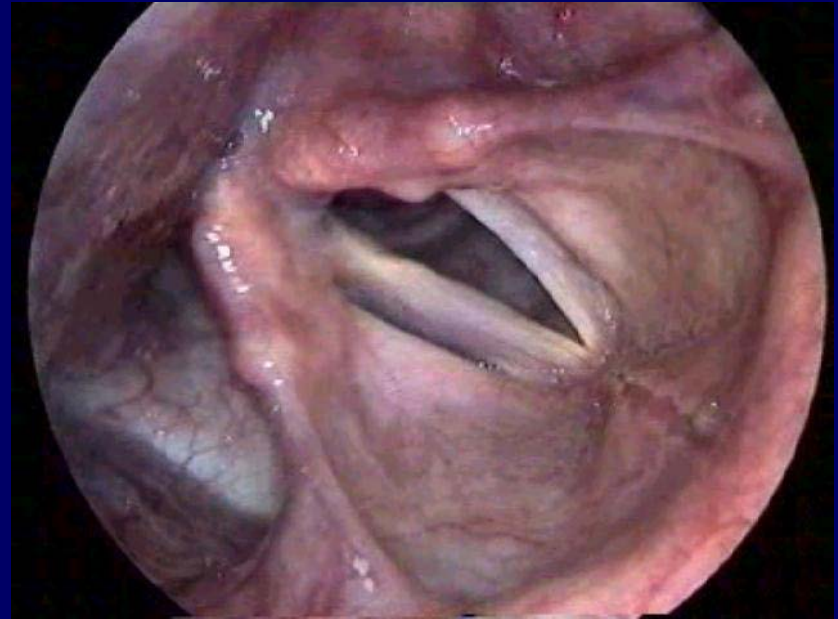
This video shows the function of the larynx in a 24 yr old patient with acute laryngitis. Talking was painful and she only talked in a faint whisper.



Go to <http://www.entusa.com/laryngitis.htm> to View Video

Vocal Cord Paralysis

This video shows the function of a larynx with a paralyzed left true vocal cord. The patient has lung cancer. She has a poorly compensated breathy voice which is difficult to understand. This patient had a 55 pack year history of smoking.

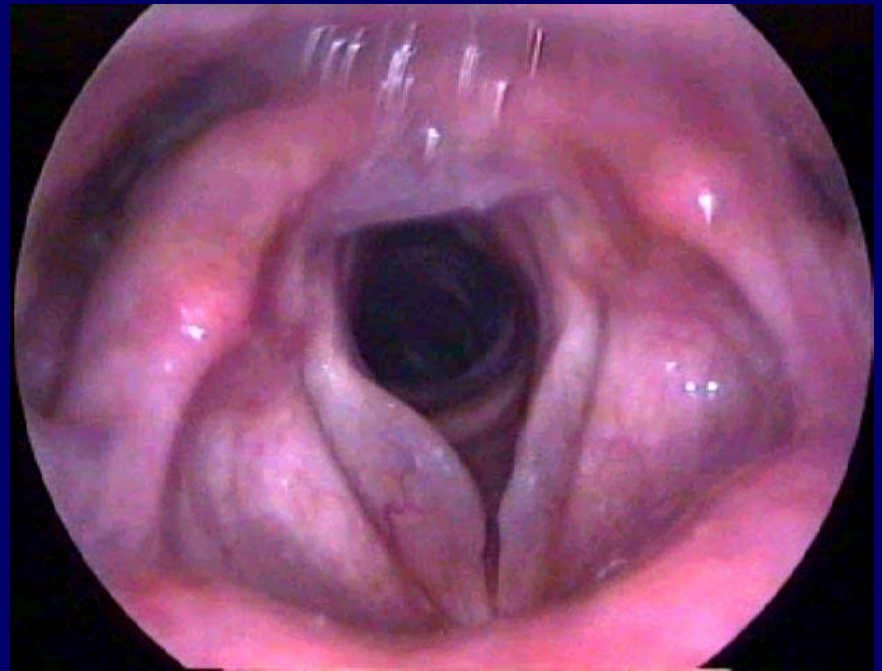


Go to http://www.entusa.com/vocal_cord_paralysis_2.htm to View Video



Vocal Cord Polyp

This video shows the function of a larynx with a vocal cord polyp on the right true vocal cord. This patient smoked one pack a day for 30 years.



Go to http://www.entusa.com/larynx_polyp-9.htm to View Video

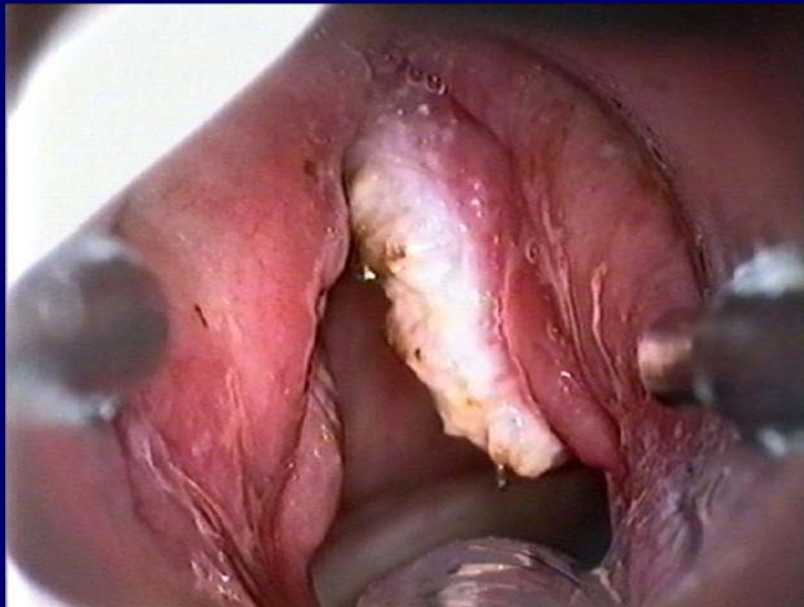
Laryngeal Cancer

This video shows the function of a **larynx** with a large T1b Cancer on both **true vocal cords** and anterior commissure in 72 yr old male with a **150 pack year** history of smoking. The patient quit smoking 8 years ago.



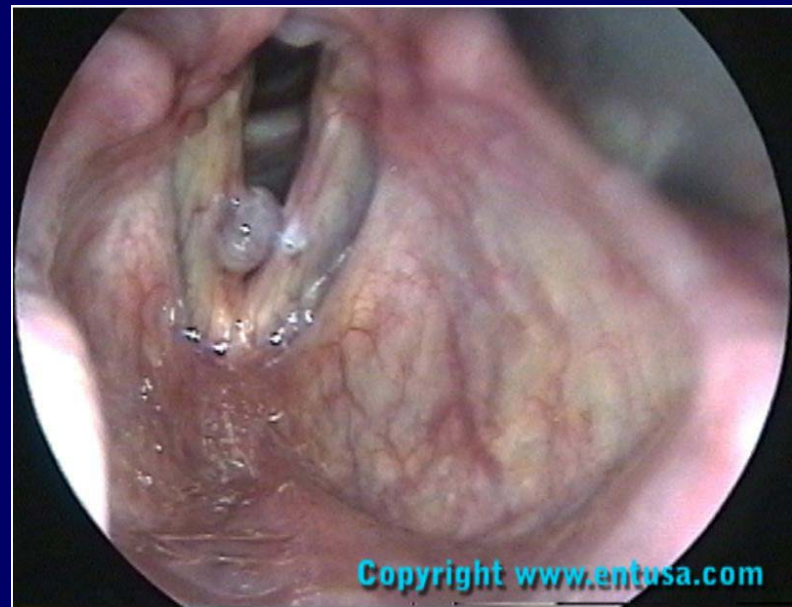
Go to <http://www.entusa.com/lxca-0807.htm> to View Video

Additional Laryngeal Movies



Biopsy of Verrucous Carcinoma

http://www.entusa.com/laryngeal_biopsy_video.htm



Large Vocal Cord Nodule

http://www.entusa.com/tvc_nodule.htm



Laryngeal Cancer

- Almost all cancers of the larynx are associated with smoking -- 65 of 68 larynx cancers in my practice
- 64 patients had a 20 pk/yr history or greater.
- Quitting smoking does not eliminate the patient's risk of getting a cancer but it does prevent the risk increasing. Fourteen patients with larynx cancer had quite smoking, four patients more than 25 years ago.
- Smoking causes permanent genetic damage to the epithelium.

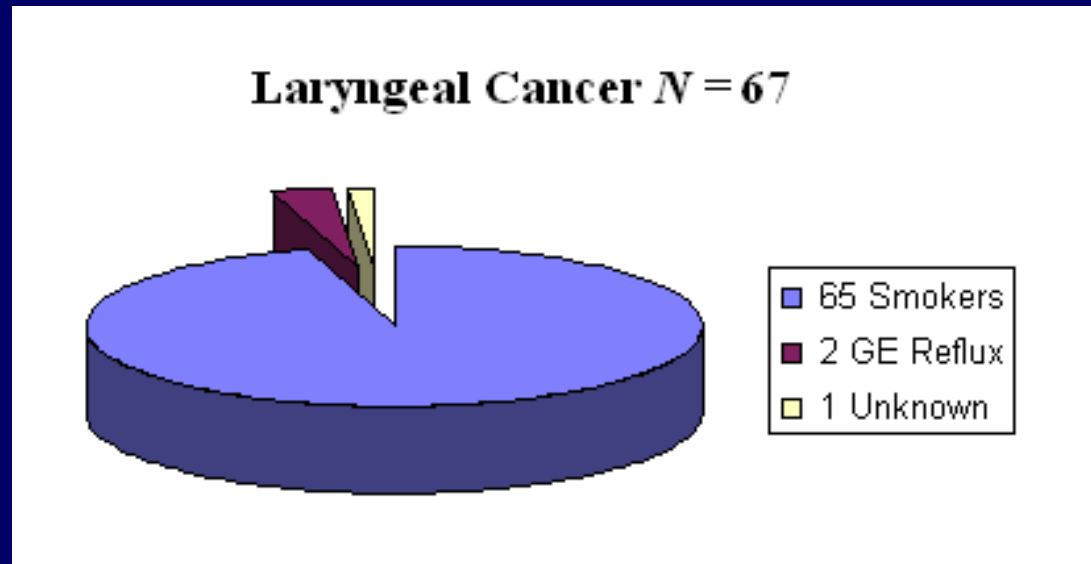
Learn More About Larynx Cancer: http://www.entusa.com/voice_box_cancer.htm

Laryngeal Cancer

- Smoking & Reflux Disease

To hear a laryngectomy patient speaking with an electrolarynx, go to:

http://www.entusa.com/voice_box_cancer.htm



14 of the smokers developed cancer after they had quit an average of 25 years



Smoking

- Tobacco use remains the leading preventable cause of death in the United States, causing more than 400,000 deaths each year and resulting in an annual cost of more than \$50 billion in direct medical costs.
- Each year, smoking kills more people than AIDS, alcohol, drug abuse, car crashes, murders, suicides, and fires---combined!
- Approximately 80% of adult smokers started smoking before the age of 18. Every day, nearly 3,000 young people under the age of 18 become regular smokers.
- Smokers pay twice as much for life insurance and will die an average of over 12 years sooner than non-smokers. Smokers have more than one chance in 10 of developing lung cancer.

Learn More About Smoking and Cancer At: http://www.entusa.com/cancer_smoking.htm



GE Reflux

- Cancer of the Esophagus & Larynx
- Asthma
- Chronic Sinusitis in children
- Symptoms
 - Dry Cough
 - Food Sticking in Lower Neck
 - Throat Pain – Radiating to the Ear
 - May or May Not Have Heartburn

Learn More About GE Reflux: http://www.entusa.com/ge_reflux.htm

Learn More About Esophagoscopy: <http://www.entusa.com/gastroesophagoscopy.htm>



GE Reflux - OTC treatment

- Elevate head of bed by 6 to 8 inches. (Place blocks under bed posts.)
- Do not eat 4 hours before sleeping.
- Take Prilosec (generic omeprazole) at bedtime-- over the counter anti-reflux medications.
- Avoid the following Foods: Fried/Fatty, Caffeine (Coffee, Tea, Chocolate), Spices (Peppermint, spearmint, garlic, onions, cinnamon, herbs), Alcohol, Acidic Foods, Citric Foods, Tomato Juice.
- Avoid tight clothing.
- Avoid smoking.
- If overweight, lose weight.
- Check with your doctor about contraindicated medications, aspirin etc.



Hearing in Childhood

"I am just as deaf as I am blind. The problems of deafness are deeper and more complex, if not more important, than those of blindness. Deafness is a much worse misfortune. For it means the loss of the most vital stimulus-the sound of the voice that brings language, sets thoughts astir and keeps us in the intellectual company of man."

Helen Keller in Scotland A Personal Record Written By Herself. Methuen & Co. Ltd. 36 Essex Street W.C. London Page 68.

Learn More About Hearing Loss In Children: http://www.entusa.com/hearing_loss_in_children.htm



Hearing in Childhood

- High risk registry

- Family history of hearing loss.
- Congenital infections such as toxoplasmosis, syphilis, rubella, cmv, and herpes.
- Head & face abnormalities.
- Birth weight less than 1500 grams or 3.3 lbs.
- Hyperbilirubinemia at a level to need exchange transfusion.
- Bacterial meningitis (brain infection).
- Ototoxic medications such as aminoglycosides (strong antibiotic).
- Severe depression of Apgar scores.
- Mechanical ventilation or intubation to aid in breathing.



Hearing in Childhood

- Milestones

- 3-6 months Child should respond to your voice or speech. Does he react to your voice when he cannot see you?
- 7-10 months Should react when he hears, but cannot see, the dog barking, telephone ringing, footsteps, someone's voice, refrigerator opening, microwave ringing, etc.
- 11-15 months Can he point to or find familiar objects or people, when he is asked to? Does he respond to different sounds differently? Does he enjoy listening to music and other sounds and try to imitate them.
- Most children by 12 months of age are starting to say single words.

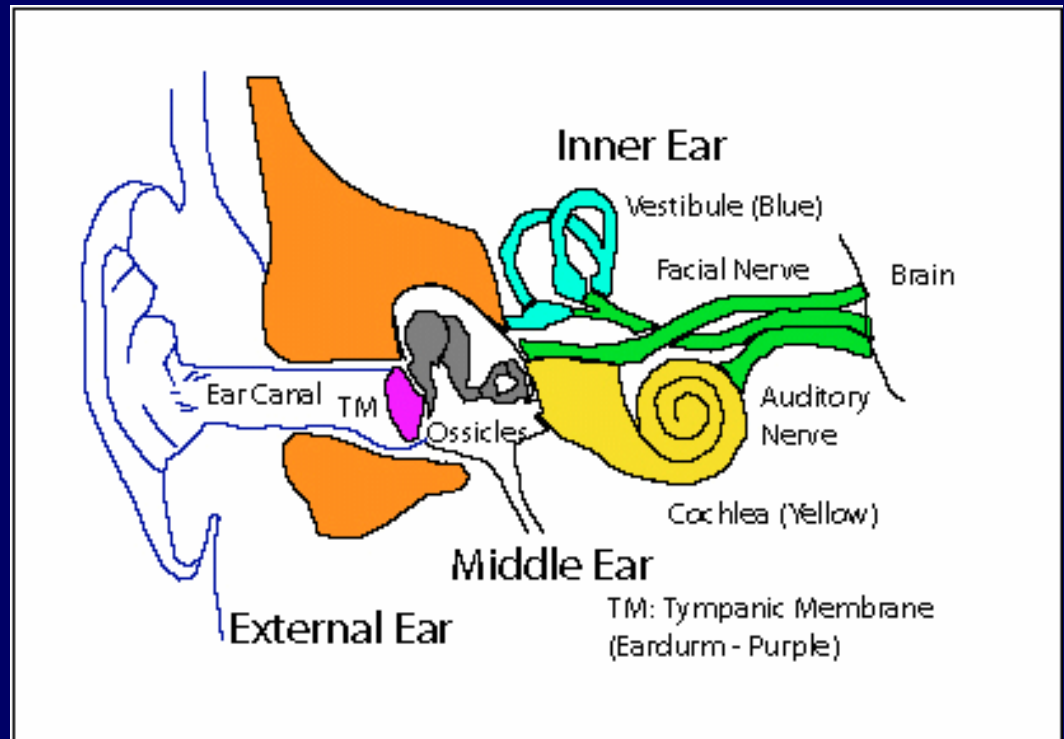
Types of Hearing Loss

Conductive Loss

- External Auditory Canal
 - Wax Impaction
- Ear Drum
 - Perforations
- Ossicles
 - Middle Ear Fluid
 - Discontinuity
 - Otosclerosis

Sensorineural Loss

- Presbycusis
- Noise Induced Loss
- Acoustic Neuroma



Learn More on Types of Hearing Loss: http://www.entusa.com/hearing_loss_types.htm

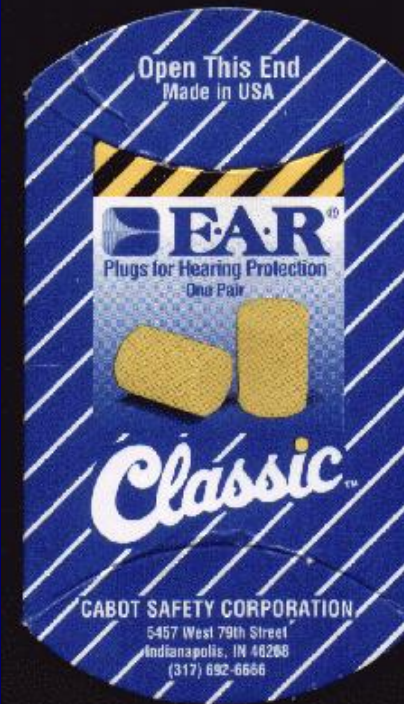
Types of Hearing Loss

- Loud Noise

- The most common preventable cause to hearing loss is noise exposure.

For more information on Noise Induced Hearing Loss go to:

http://www.entusa.com/noise_hearing_loss.htm





Types of Hearing Loss

- Loud Noise

Source--dBA SPL

- Heavy Traffic 80 dB
- Automobile (at 20 meters) 70 dB
- Vacuum Cleaner 65 dB
- Conversational Speech (at 1 meter) 60 dB
- Quiet Business Office 50 dB
- Residential Area at Night 40 dB
- Whisper, Rustle of Leaves 20 dB
- Rustle of Leaves 10 dB
- Threshold of Audibility 0 dB



Types of Hearing Loss

- Loud Noise

Source--Dangerous Level dBA SPL

- Produces Pain 140-150 dB
- Jet Aircraft During Takeoff (at 20 meters) 130 dB
- Discomfort Level 120 dB
 - Snowmobile
 - Tractor Without Cab
- Rock Concert 110 dB
- 100-105 dB
 - Die Forging Hammer
 - Gas Weed Trimmer
 - Chain Saw
 - Pneumatic Drill
- Home Lawn Mowers 95 to 100 dB
- Semi-trailers (at 20 meters) 90 dB



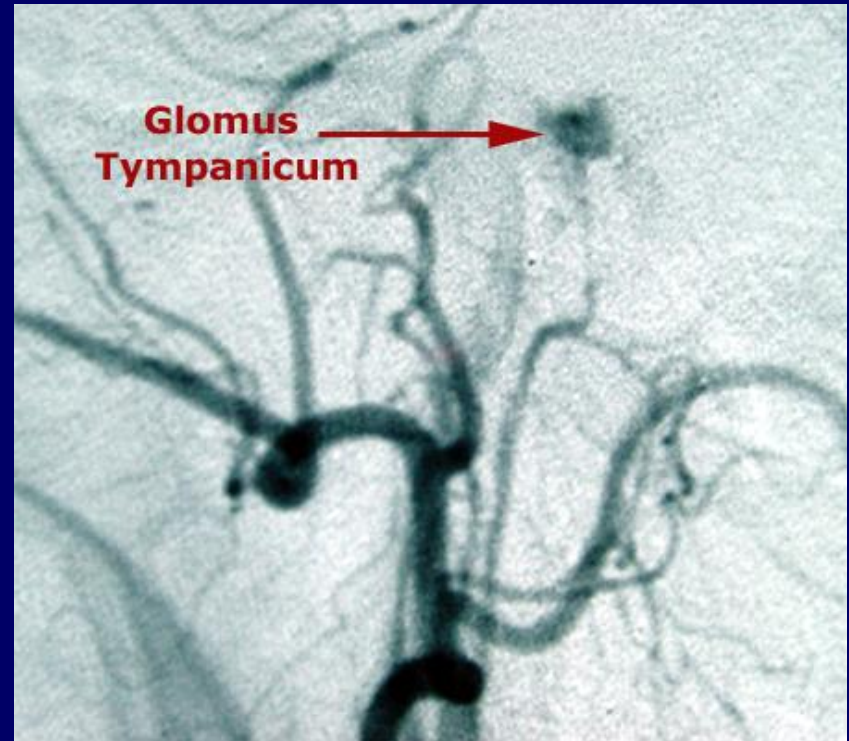
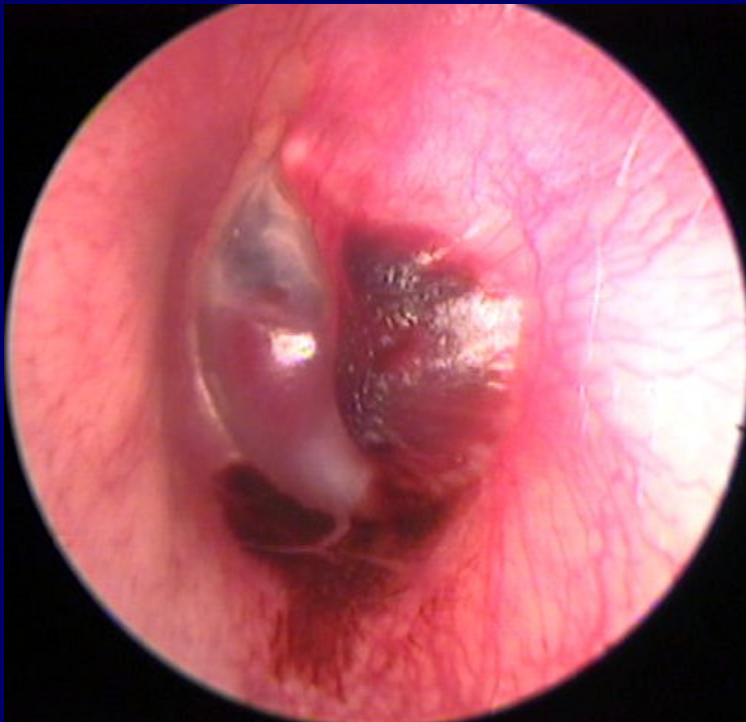
Tinnitus

Two Types – Objective and Subjective

- Objective:
 - Carotid Bruit
 - Systolic Ejection Murmur
 - Venus Hum – Rule Out High Intracranial Pressure
- -- Glomus Tumor – MRI Best Study
- Subjective:
 - Peripheral Hearing Loss
 - If Unilateral May be Central

Learn More About Tinnitus: <http://www.entusa.com/tinnitus.htm>

Glomus Tympanicum



Go to http://www.entusa.com/glomus_video.htm to View Video



Ear Pain

50% comes from the ear

- Almost always has an Abnormal Eardrum

50% does not come from the ear

- Temporal Mandibular Joint Disorder
- Maxillary Sinusitis
- Reflux Disease
- Oral Pharyngeal Inflammation or Carcinoma

Learn More on Ear Pain: http://www.entusa.com/ear_pain_&_discomfort.htm



Acute Otitis Externa

This is an acute bacterial infection usually caused by **pseudomonas**. The outer ear canal is swollen shut, and the auricle is very painful to touch. Treatment is to open the ear canal, place a wick, and treat with ear drops. The wick is cloth or foam rubber which will allow the ear drops to penetrate the swollen canal. Unfortunately, most oral antibiotics are ineffective. The **fluoroquinolones** have some effect, but they are not approved in children.

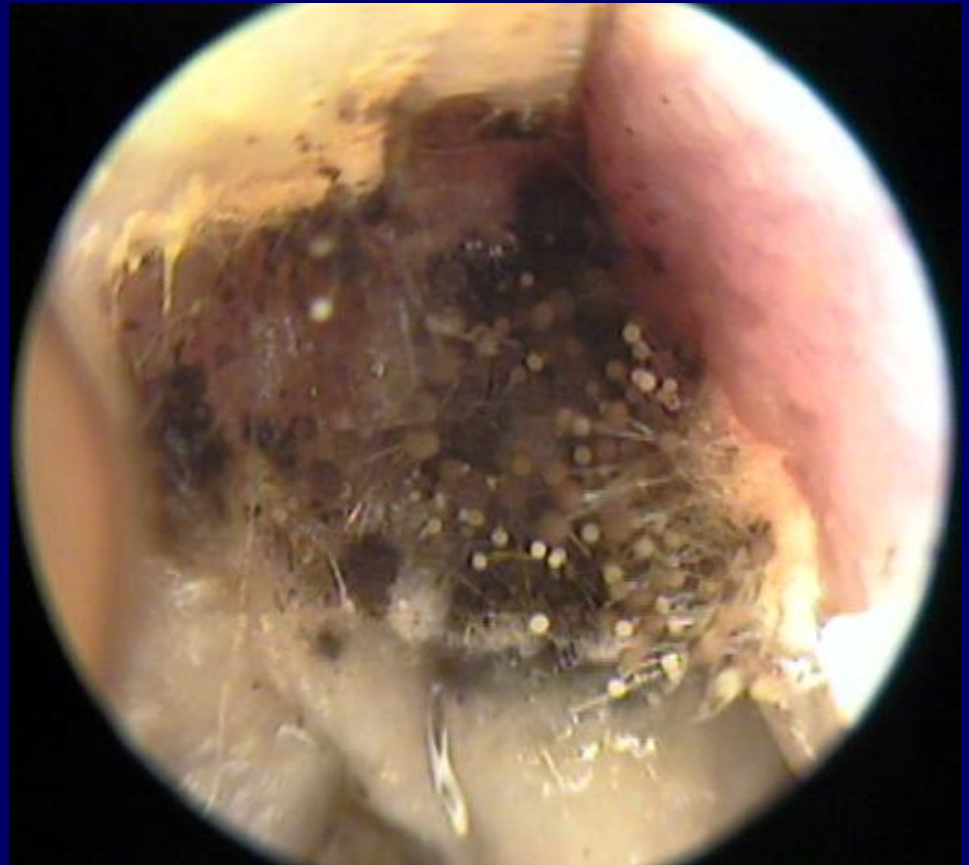
Pictures of Disease of the External Ear Canal:

http://www.entusa.com/external_ear_canal.htm

Otomycosis

Treatment

- Clean Ear
- Gentian Violet
- Oral Diflucan
- Fill Ear Canal with Ketaconazole Cream
- Lotrimin & Tinactin Solution
- Iodex Drops (Betadine & Steroids)



Chronic Otitis Externa

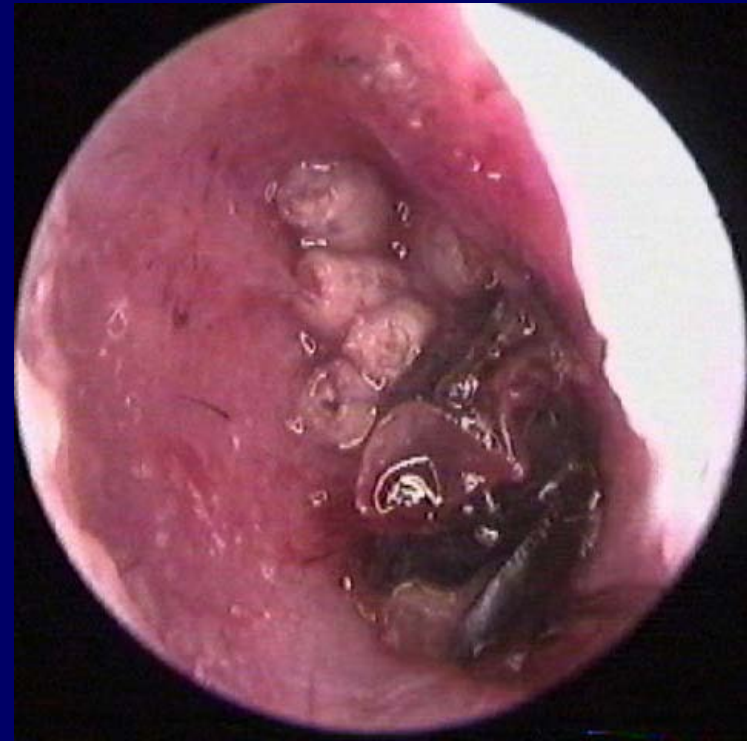
Treatment

- Clean Ear
- Gentian Violet (ototoxic)
- Oral Diflucan
- Fill Ear Canal with Ketaconizole Cream
- Lotrimin & Tinactin Solution
- Iodex Drops (Betadine & Steroids)



Ear Maggots

Foreign bodies in the ears are common. In this child a fly died in the ear canal and laid maggots. The child visited three doctors over a one week period before being referred to an ENT.



Go to http://www.entusa.com/glomus_video.htm to View Video



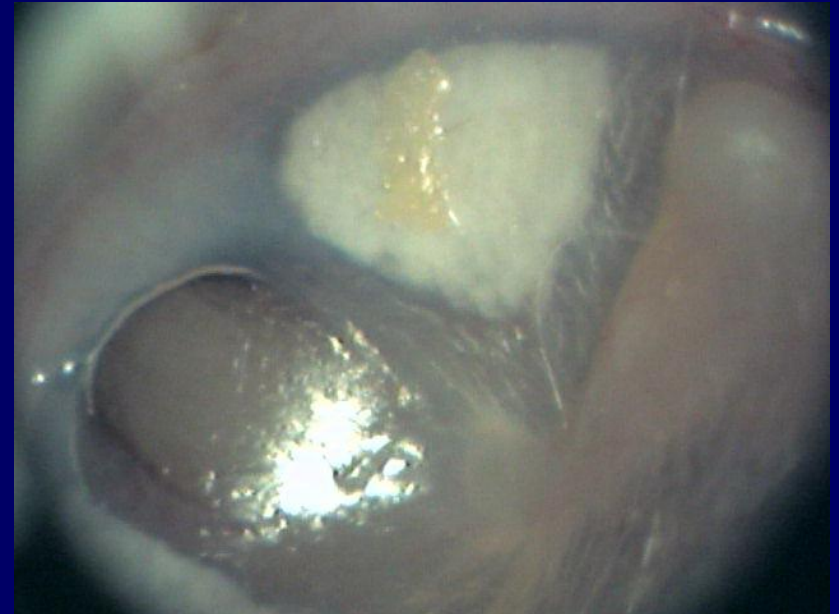
Eustachian Tube Dysfunction

- Middle Ear Negative Pressure
- Retraction of the Ear Drum
- Ear Fluid and/or Infection
- Retraction Pocket Formation
- Cholesteatoma

Retraction of The Eardrum

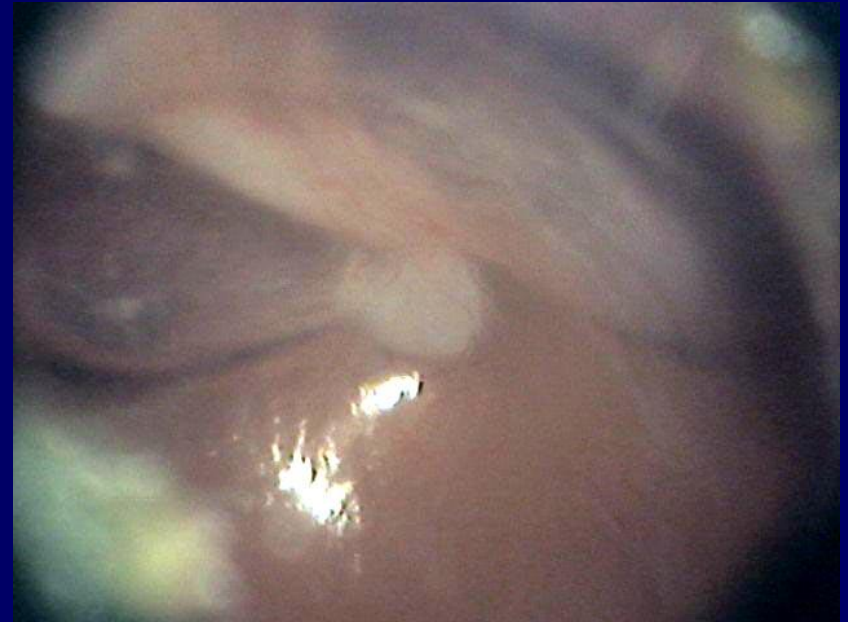
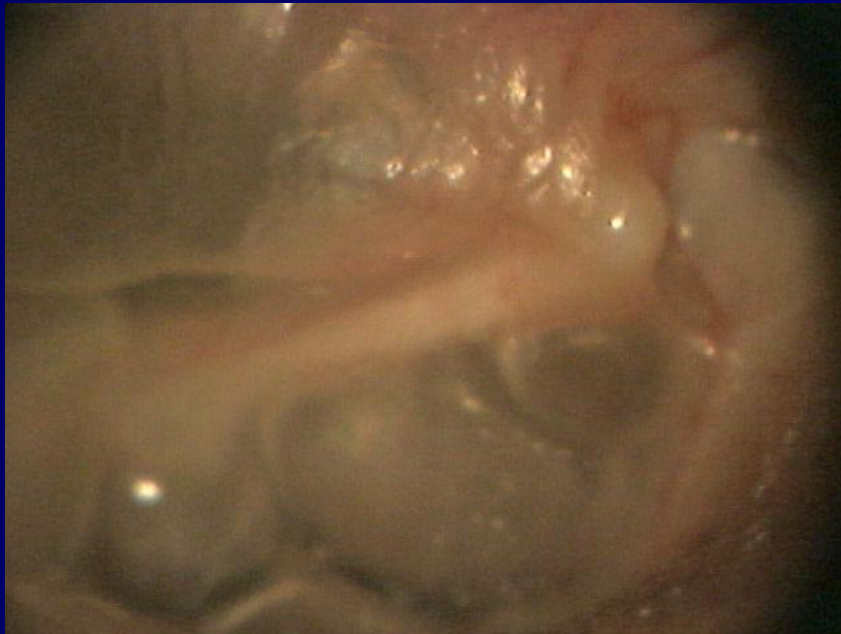
This eardrum has:

1. Tympanosclerosis
2. Monolayer
3. Retraction of the Manubrium



Serous Otitis Media

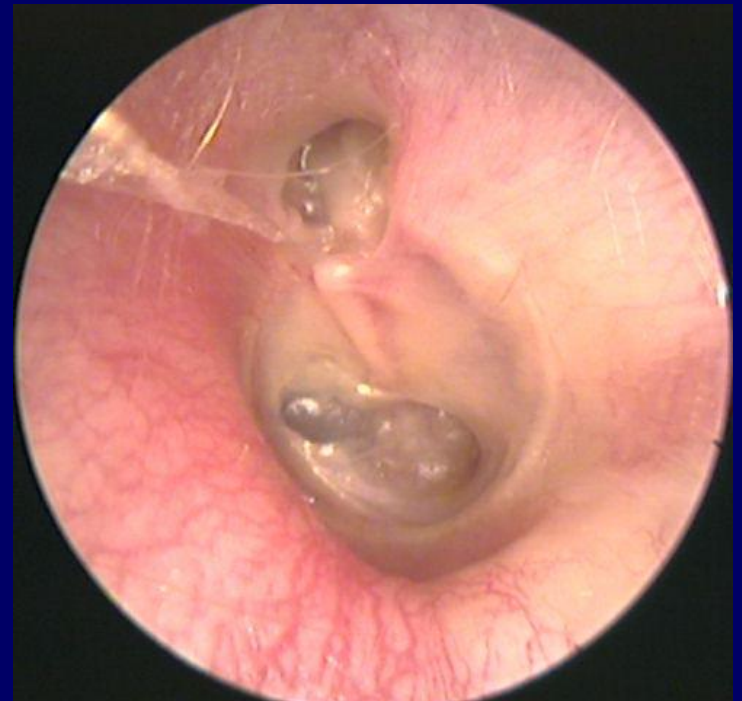
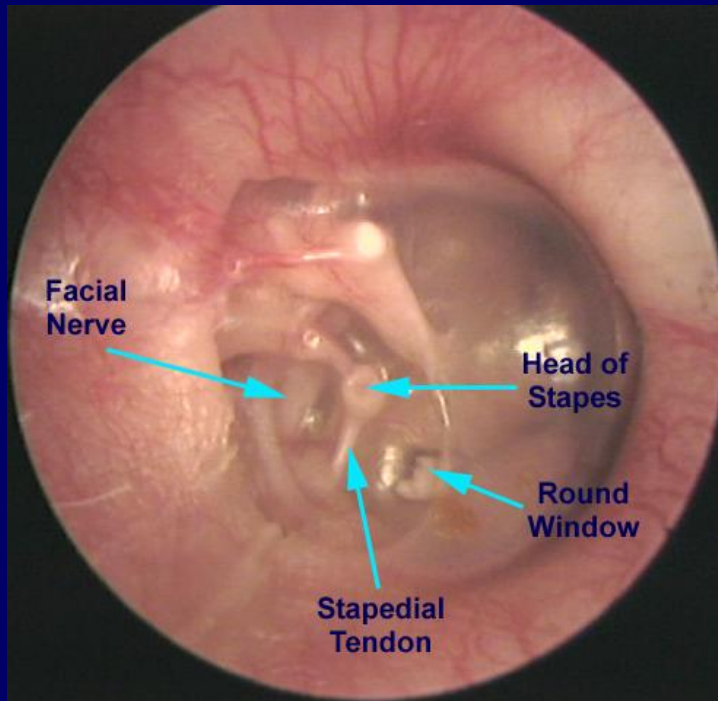
- Treatment-- ?? Antibiotics 50% Culture Positive
- If severe, Ear Tube Placement



View Serous Otitis Media Slideshow:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/SerousOtitisMedia-1/Serous-Otitis-Media.htm>

Retraction Pocket Formation



View Eardrum Retraction Pocket Slideshow

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/TM-Retraction-Pockets/TM-Retraction.htm>



Cholesteatoma Formation

- When a retraction becomes fixed deep in the middle ear, skin starts to build up and infection occurs. Pus and granulation tissue are common.

View Cholesteatoma Slideshow:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Cholesteatoma-1/Cholesteatoma-1.htm>

- Treatment is surgical with a tympanomastoidectomy.

Learn More About Mastoidectomy: http://www.entusa.com/mastoid_surgery.htm



Cholesteatoma Complications

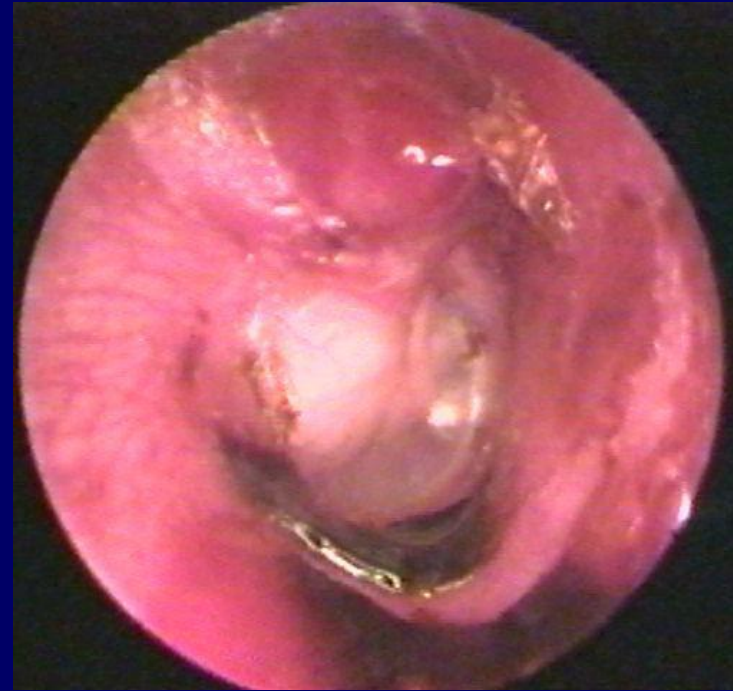
- Hearing Loss
- Dizziness
- Facial Paralysis
- Injury to the Dura
- Meningitis, Stroke & Death

View Cholesteatoma Slideshow:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Cholesteatoma-1/Cholesteatoma-1.htm>



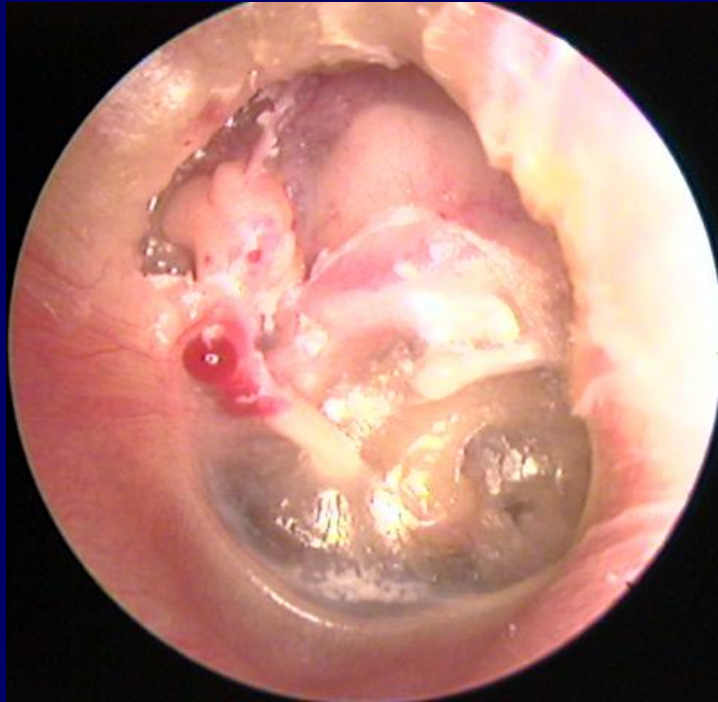
Cholesteatoma Formation



View Cholesteatoma Slideshow:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Cholesteatoma-1/Cholesteatoma-1.htm>

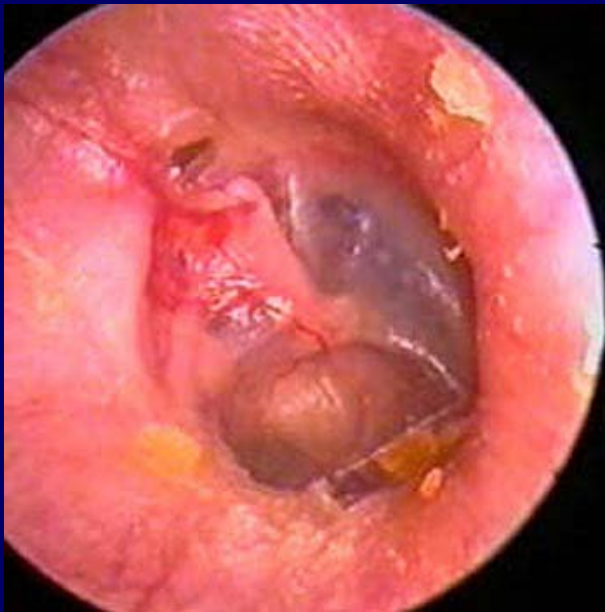
Cholesteatoma Formation



View Cholesteatoma Slideshow:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Cholesteatoma-1/Cholesteatoma-1.htm>

Valsalva



One of the easiest treatments of mild eustachian tube dysfunction is to have the child pop their ears.

- Blowing a balloon with the nose held shut.
- Blowing the nose with the nose held shut.
- Mathis bulb.

Go to http://www.entusa.com/valsalva_me.htm to View Video

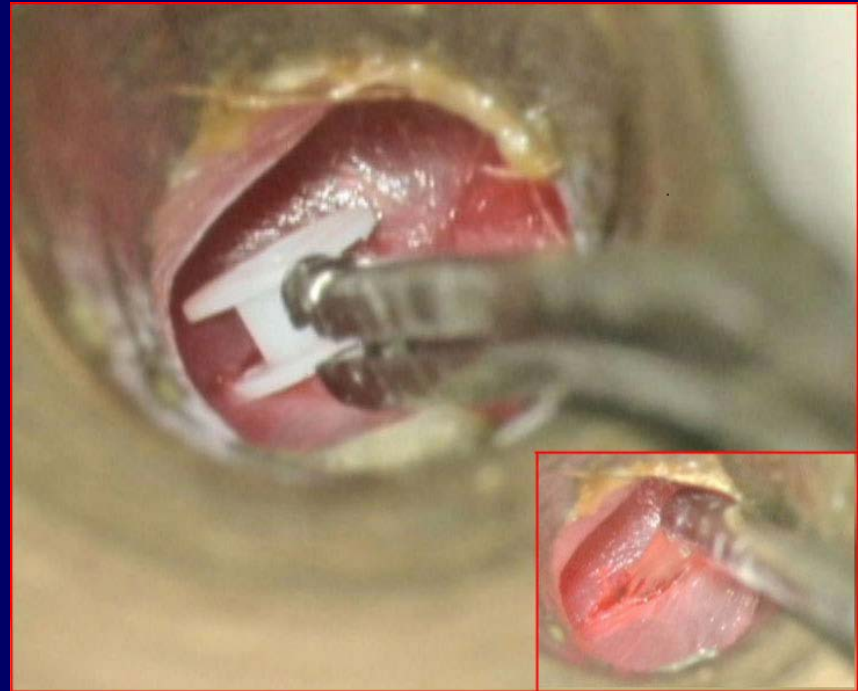
Myringotomy Tubes

Steps in Surgery

- Ear Canal Cleaned
--Not Shown
- Hole Made in Ear Drum
- Fluid Suctioned From Ear
- Ear Tube Inserted
- Ear Drops Placed in Ear

View Myringotomy Tube Slideshow:

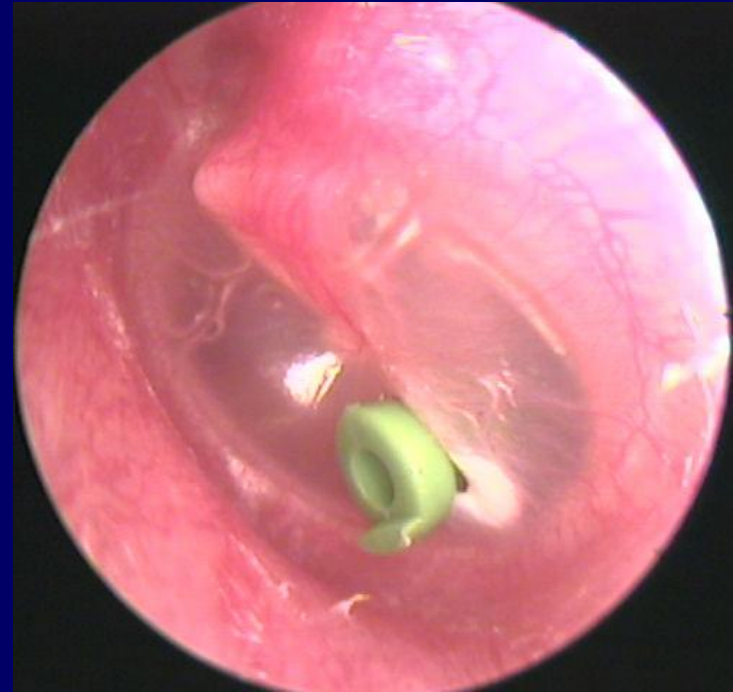
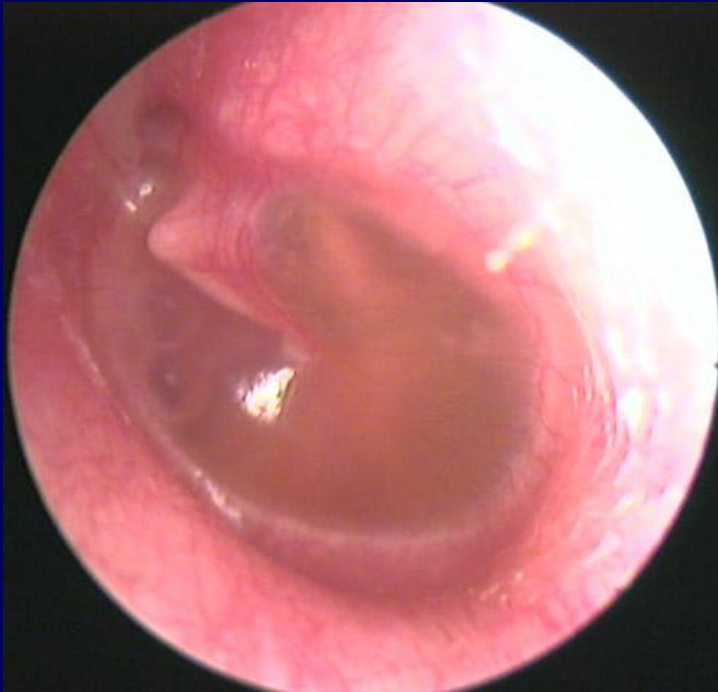
<http://www.entusa.com/JS-Slide-Shows-ENTUSA/EarTubes/EarTubes.htm>



Go to <http://www.entusa.com/ear-tube-surgeries.htm> to View Video



Myringotomy Tubes



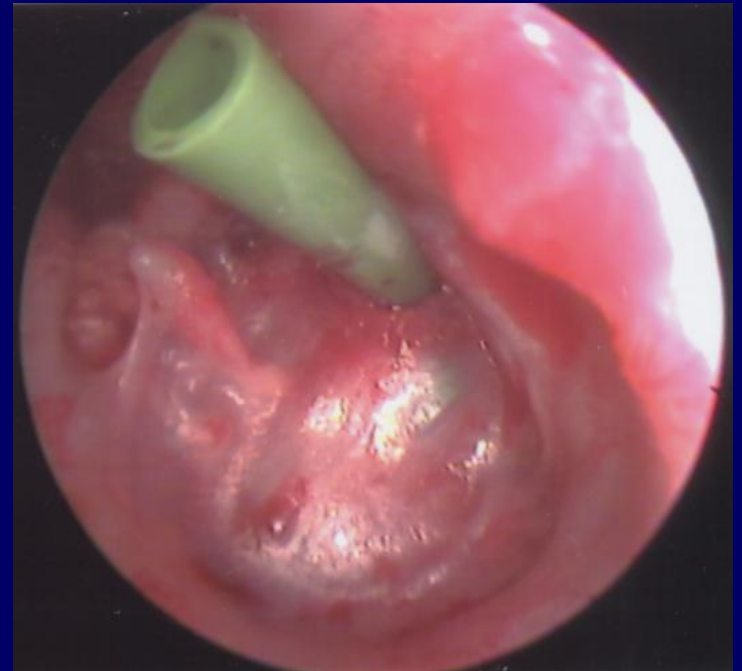


Myringotomy Tubes

A T-Tube is a myringotomy tube which stays in longer. However, there is a higher incidence of eardrum perforation once the tube comes out and the tube clogs more easily.

Learn More About Myringotomy Tubes:
http://www.entusa.com/ear_tubes.htm

View Myringotomy Tube Slideshow:
<http://www.entusa.com/JS-Slide-Shows-ENTUSA/EarTubes/EarTubes.htm>





Myringotomy Tubes - Complications

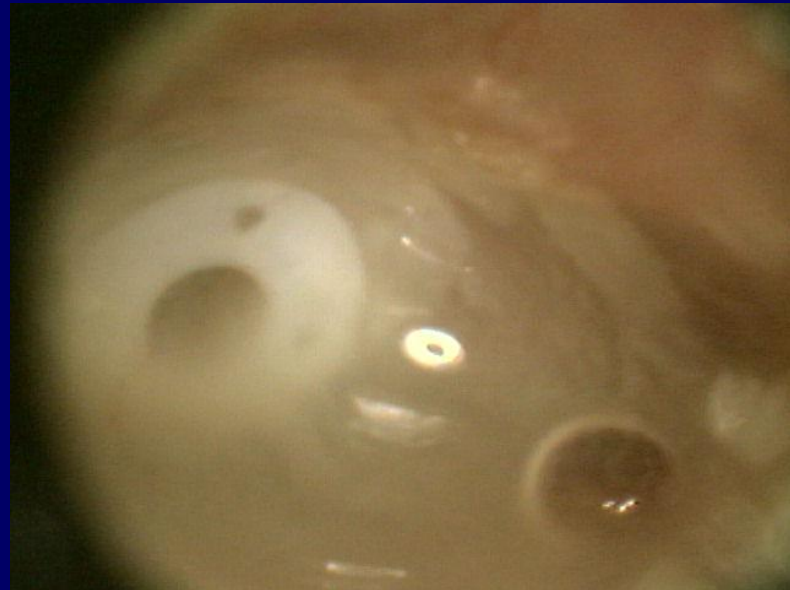
- Perforation of eardrum
- Eardrum heals over tube
- Otitis media – 33% are pseudomonas
- Tube intrudes completely into the middle ear
- Cholesteatoma
- Monolayer – not clinical significant
- Bleeding – usually minor from a tube granuloma

Learn More About Myringotomy Tubes: http://www.entusa.com/ear_tubes.htm

Myringotomy Tubes – Otitis Media



- 33% are Culture Positive for Pseudomonas
- Must Use Ear Drops



Learn More About Myringotomy Tubes: http://www.entusa.com/ear_tubes.htm

Myringotomy Tubes – Tube Granuloma

- Almost all are Culture Positive for Pseudomonas
- Must Use Ear Drops
- Usually resolve in 1 to 2 weeks of treatment with an antibiotic and steroid ear drop



Learn More About Myringotomy Tubes: http://www.entusa.com/ear_tubes.htm



Acute Otitis Media

- Treatment initially with antibiotics
 - Amoxicillin**
 - Amoxicillin/Clavulanate**
 - Cefdinir.**
 - Clindamycin**
- Bacterial Resistance is a big problem
 - Antibiotics with a long half life which are present for days in subtherapeutic levels foster bacterial resistance.

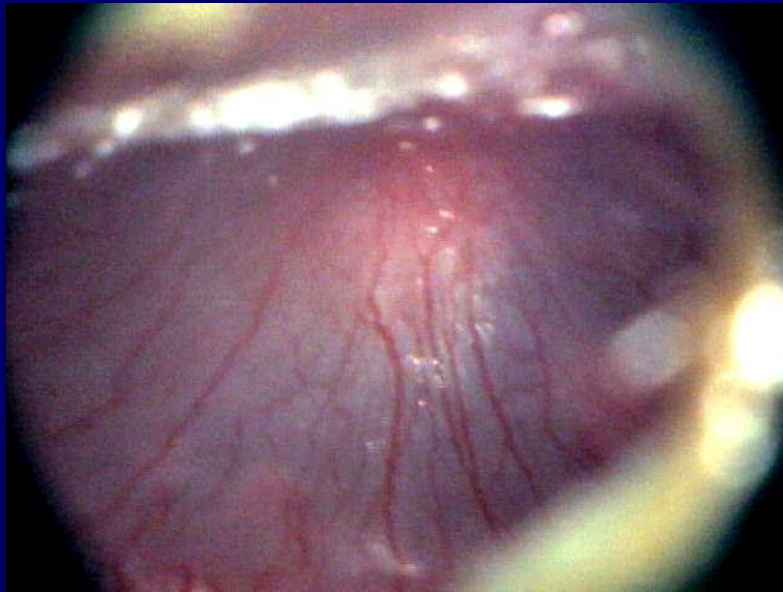
Learn More About Ear Infections: http://www.entusa.com/ear_infections.htm

View Slideshow on Acute Otitis Media:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Acute-Otitis-Media/Acute-Otits-Media.htm>



Acute Otitis Media



Learn More About Ear Infections: http://www.entusa.com/ear_infections.htm

View Slideshow on Acute Otitis Media:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Acute-Otitis-Media/Acute-Otits-Media.htm>



Acute Otitis Media

- Ways to help prevent ear infections

- No pacifiers after 1 year of age
- No smoking
- Supine sleeping position
- No bottle propping
- Do not give a bottle in bed
- No day care
- Breast feed

Learn More About Ear Infections: http://www.entusa.com/ear_infections.htm

View Slideshow on Acute Otitis Media:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Acute-Otitis-Media/Acute-Otits-Media.htm>



Acute Otitis Media

Types of Bacteria

- Streptococcus Pneumonia,
- Haemophilus Influenzae (this is not the flu virus),
- Moraxella catarrhalis.
- Less commonly, Mycoplasma Pneumoniae, Streptococcus Pyogenes, Staphylococcus Aureus along with other bacteria and viruses.

Learn More About Ear Infections: http://www.entusa.com/ear_infections.htm

View Slideshow on Acute Otitis Media:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Acute-Otitis-Media/Acute-Otits-Media.htm>



Most Common Respiratory Tract Pathogens by Disease State

	AECB	CAP	Sinusitis
	(Percent of Pathogens)		
<i>H. influenzae</i>	32	20	29
<i>S. pneumoniae</i>	15	40	42
<i>M. catarrhalis</i>	13	1	22
<i>M. pneumoniae</i>	----	10	---
<i>C. pneumoniae</i>	----	6	---
<i>Legionella spp.</i>	----	7	---

Reimer and Carroll. *Clin Infect Dis.* 1998;26:742-748.

Marrie. *Infect Dis Clin North Am.* 1998;12:723-740.

Bartlett et al. *Clin Infect Dis.* 1998;26:811-838.

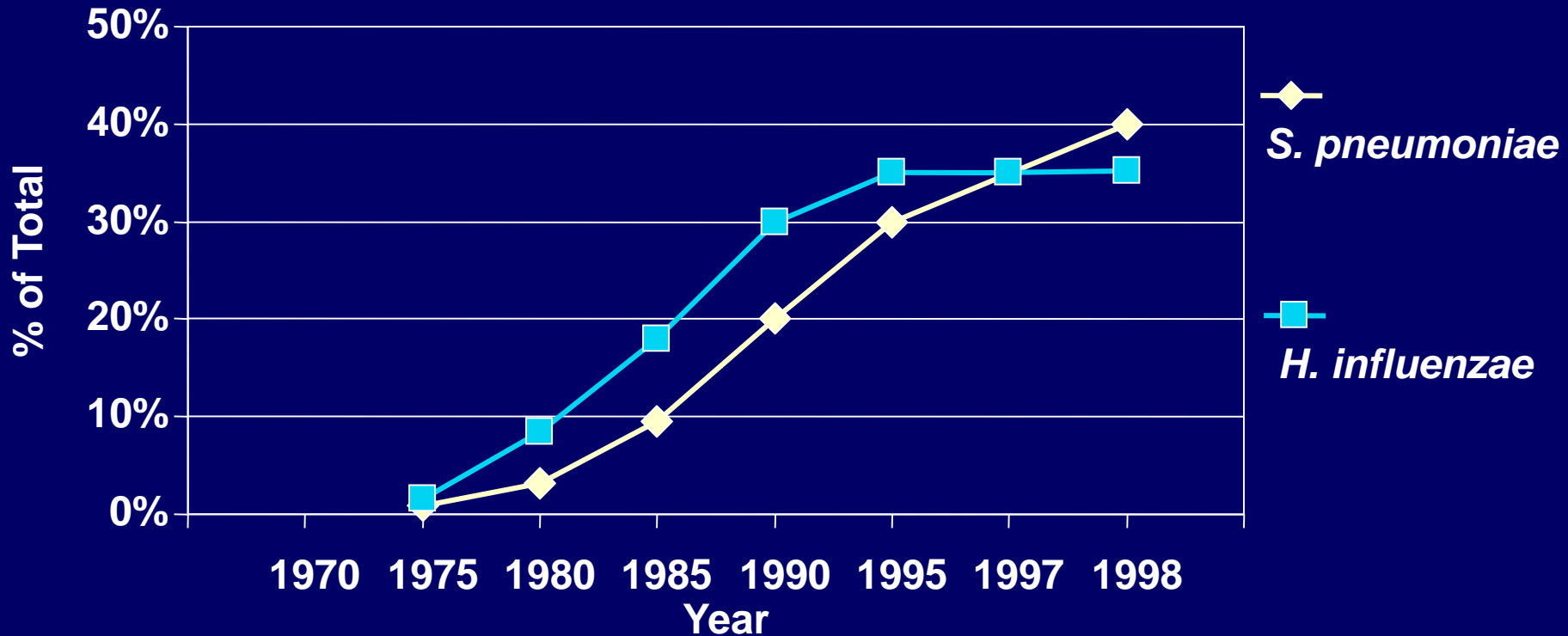
Adapted from Krasemann et al. *Clin Infect Dis.* 2001;32:S51.



Strep. Pneumonia Resistance

- A single plasmid can carry the genes for resistance to both the penicillin and macrolide antibiotics.
- The mechanism of penicillin resistance in this organism is by producing a penicillin binding protein and not by producing penicillinase (an enzyme which breaks down penicillin).

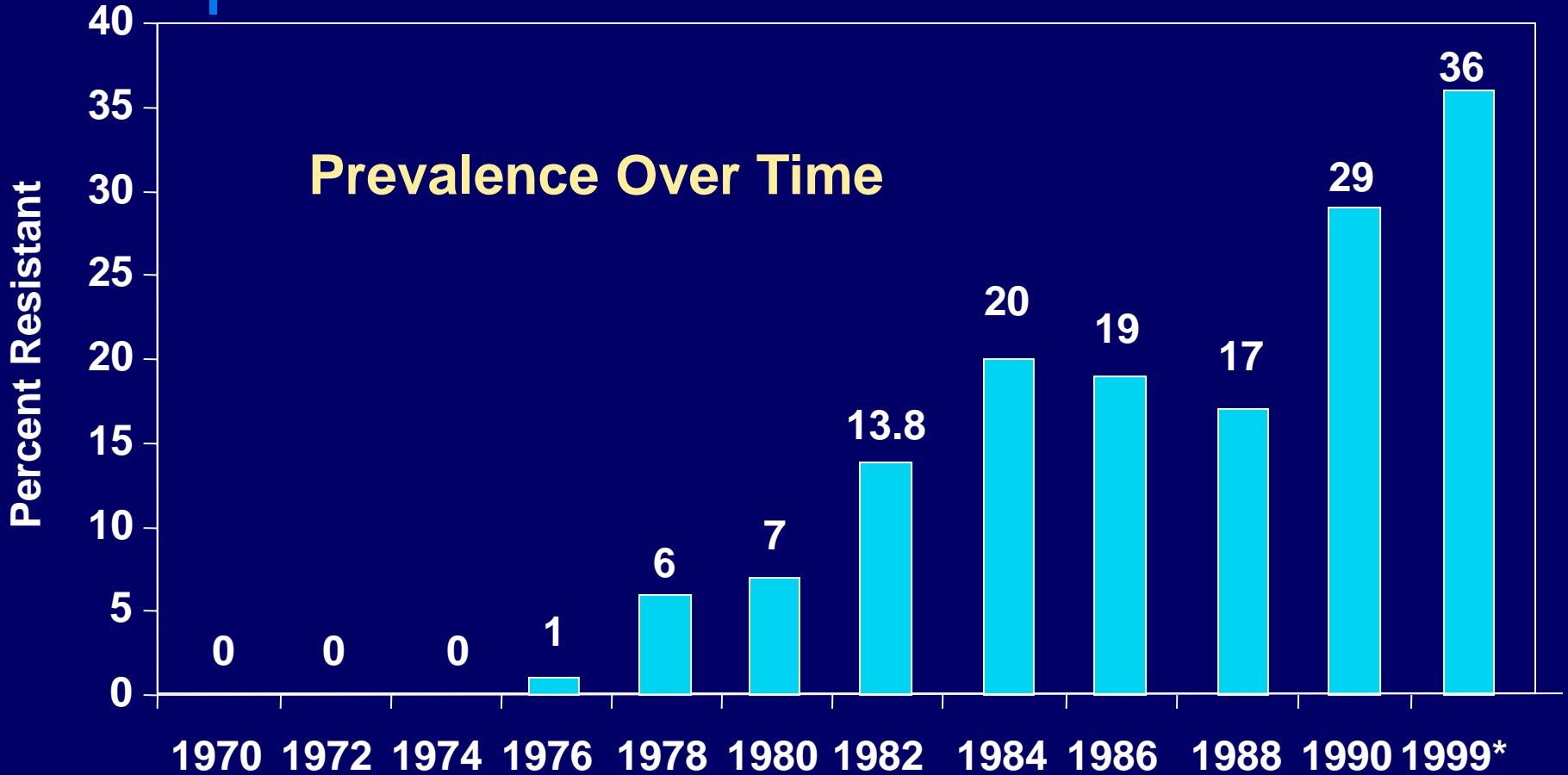
Nonsusceptibility to Penicillin and β -Lactamase Production by *H. influenzae*, *S. pneumoniae*



Thornsberry C. *Infect Med.* 1993;93 (suppl):15-24. Barry AL. *Antimicrob Agents Chemother.* 1994;38:2419-25.
Washington JA. *Diagnostic Microbiol Infect Dis.* 1996;25:183-190.
Thornsberry C. *Diagnostic Microbiol Infect Dis.* 1997;29:249-57; Doern GV. *Antimicrob Agents Chemother.* 1996;40:1208-13. Thornsberry C. *J Antimicrob Chemother.* 1999;44:749-59. Data on File. RESP.

Macrolide-Resistant *S. pneumoniae*:

Prevalence Over Time



Geslin P. *Clin Infect Dis.* 1992;15:95-98.

* 1999 RESP data, BMS data on file.



Antibiotic Treatment

– Acute Otitis Media

No Risk Factors

- **Amoxicillin** 40 – 90 mg/kg/day
- If **penicillin** allergic **TMP – SMX** or **Erythromycin-Sulfisoxazole** or **Macrolides**

If Treated Within Prior Month

- **Amoxicillin, Sulfa** or **Macrolides** are **NOT RECOMMENDED**



Streptococcus Pneumonia

– Acute Otitis Media

Most Likely to be Strep Pneumonia:

- **Increase otalgia and fever**
- **Spontaneous perforation**

Risk Factors for Strep Pneumonia Resistance:

- **Daycare**
- **Younger than 2 years of age**
- **Contact with an individual treated with antibiotics**
- **History of recurrent acute otitis media**



Streptococcus Pneumonia

– Acute Otitis Media

- Mechanism of antibiotic resistance is a penicillin binding protein and NOT by producing penicillinase. Thus, penicillinase inhibitors will NOT be effective
- A single plasmid can carry the genes for resistance to both the **penicillin** and **macrolide** antibiotics.
- Recommendations to increase the **Ampicillin** dosage to 90 mg/kg/day



Haemophilus influenzae

– Acute Otitis Media

Risk Factors for Haemophilus influenzae Resistance

- Preceding therapy with **amoxicillin**.

Most Likely to be Haemophilus influenzae

- Otitis-conjunctivitis Syndrome



Haemophilus influenzae

– Acute Otitis Media

- Mechanism of resistance is through the production of penicillinase.
- Treatment is with a **penicillinase inhibitor, cefuroxime, or cefdinir.**

Controversies in the Medical Management of Persistent and Recurrent Acute Otitis Media
Recommendations of a Clinical Advisory Committee Pichichero, ME, et.al Ann Oto Rhinol Laryngo:
109:2-12,2000



Acute Viral Sinusitis

– Medical Management

- Most Cases of Rhinitis/Sinusitis are Viral and do not respond to antibiotic treatment.
- [Wall Street Journal Aug 12, 2008](#) -- 21% of antibiotics are given for sinusitis even though studies show drugs often do little or no good.

Learn More About “Colds” and Rhinitis”: http://www.entusa.com/colds_sinus.htm



Acute Sinusitis/Rhinitis – Medical Management

The Nonprescription Drugs Advisory Committee of the Federal Drug Authority (FDA) has issued a warning against using cold and sinus medications in young children and children under two years of age. Specifically:

- Do not give cough medicine to children under 2 years of age.
- Too much medicine may cause serious life threatening side effects.
- Over dosage can occur if two medicines have the same type of ingredients.
- Cold and cough medicines only treat the symptoms of the common cold they do not cure the cold. The child will get better with time.

For more information go to: http://www.fda.gov/cder/drug/advisory/cough_cold.htm

FDA reaffirmed the above statements plus stated cold and sinus medications containing one or more of the following ingredients: decongestants, expectorants, antihistamines and antitussives. These medications were found not to be effective in children under the age of 6 years and the safety of their use in this age group had not been established. See Fox News: <http://www.foxnews.com/story/0,2933,303616,00.html>



Acute Sinusitis

– Medical Management

The American Academy of Otolaryngology - Head and Neck Surgery, on September 2007, published guidelines for the treatment of rhinitis and bacterial sinusitis. Rhinosinusitis affects 31 million patients in the United States each year. The vast majority of these infections are caused by virus and antibiotics are not effective. The common cold falls into this category.

Medical Management of Acute Sinusitis Recommendations of a Clinical Advisory Committee on Pediatric and Adult Sinusitis Brook, I, et.al, Ann Oto Rhinol Laryngo: 109:2-12,2000

Learn More About “Colds” and Rhinitis”: http://www.entusa.com/colds_sinus.htm



Acute Sinusitis

– Medical Management

Clinicians need to distinguish between bacterial and viral infections. A diagnosis of a bacterial infection should be suspected if:

- Symptoms of acute rhinosinusitis are present for 10 or more days.
- Symptoms worsen within 10 days after an initial improvement.

Medical Management of Acute Sinusitis Recommendations of a Clinical Advisory Committee on Pediatric and Adult Sinusitis Brook, I, et.al, Ann Oto Rhinol Laryngo: 109:2-12,2000



Acute Bacterial Sinusitis

– Medical Management

First Line

- **Amoxicillin**
- **TMP-SMX**

Second Line

- **Cefdinir**
- **Cefuroxime axetil**
- **Amoxicillin-clavulante**

Third Line

- **Macrolides**
- **Floroquinolones**
- **Clindamycin**

Medical Management of Acute Sinusitis Recommendations of a Clinical Advisory Committee on Pediatric and Adult Sinusitis Brook, I, et.al, Ann Oto Rhinol Laryngo: 109:2-12,2000

Learn More About “Colds” and Rhinitis”: http://www.entusa.com/colds_sinus.htm



Azithromycin

30% to 60% of *S pneumoniae* and *H influenzae* strains resistant or not eradicated.

Medical Management of Acute Sinusitis Recommendations of a
Clinical Advisory Committee on Pediatric and Adult Sinusitis
Brook, I, et.al, Ann Oto Rhinol Laryngo: 109:2-12,2000

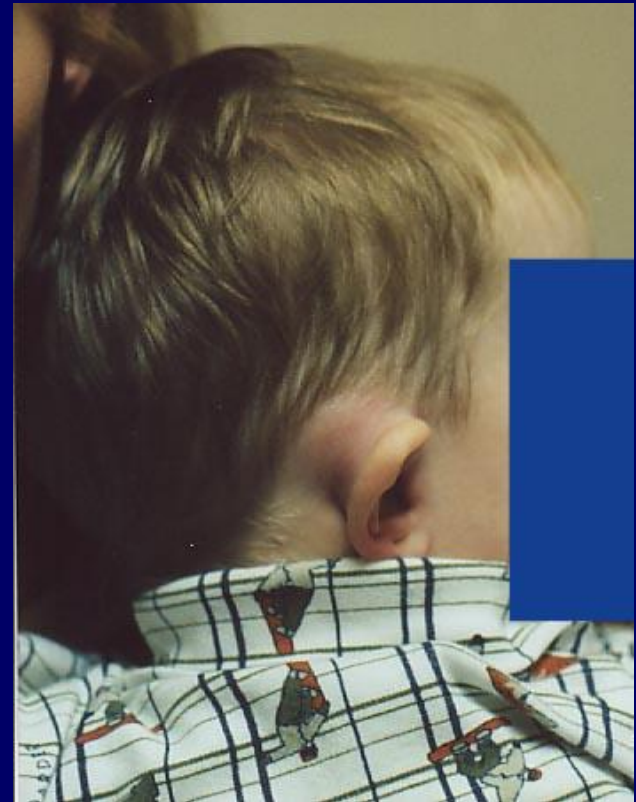


Prevnar - Heptavalent Pneumococcal Vaccine to S. Pneumonia

- Recommended for Children Under the Age of 2. Over the age of 2, sometimes a single dose is recommended.
- Decrease the incidence of ear tubes by 20% but a prevention NOT a treatment. Thus, if has recurrent otitis media on the basis of eustachian tube dysfunction, tubes will still be needed.



Acute Coalescent Mastoiditis





Acute Coalescent Mastoiditis

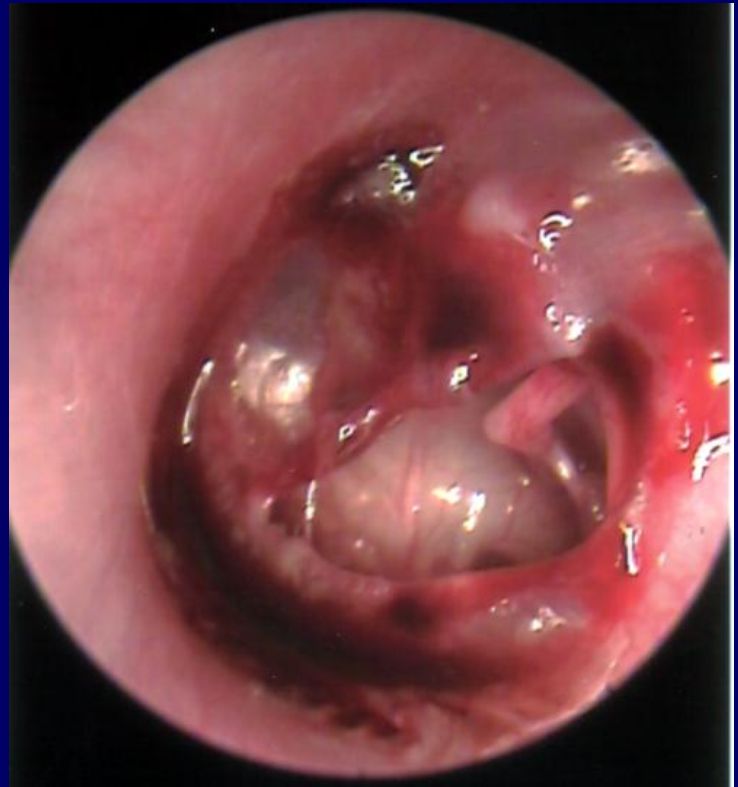
- Severe Condition Can Cause Death
- Usually Caused by Streptococcal Pneumonia
- In this Patient the Strep. Pneumonia was **penicillin**, **trimethoprim/sulfamethoxazole**, **erythromycin** and intermediate susceptible to **Ceftriaxone**
- Treated with IV **Vancomycin**.

Learn More About Acute Coalescent Mastoiditis:

http://www.entusa.com/acute_coalescent_mastoiditis.htm

Traumatic Perforation

Most heal in 2 to 3 weeks on their own and do not require surgery. If from a water impact, use antibiotic ear drops, otherwise drops do not have to be used. If vertigo is present, refer to an ENT, surgery for an inner ear fistula may be required.



Learn More About Eardrum Repair:

http://www.entusa.com/eardrum_repair.htm

View Slideshow of Eardrum Perforations:

<http://www.entusa.com/JS-Slide-Shows-ENTUSA/Eardrum-Perforations/Eardrum-Perforations.htm>



Osteoma

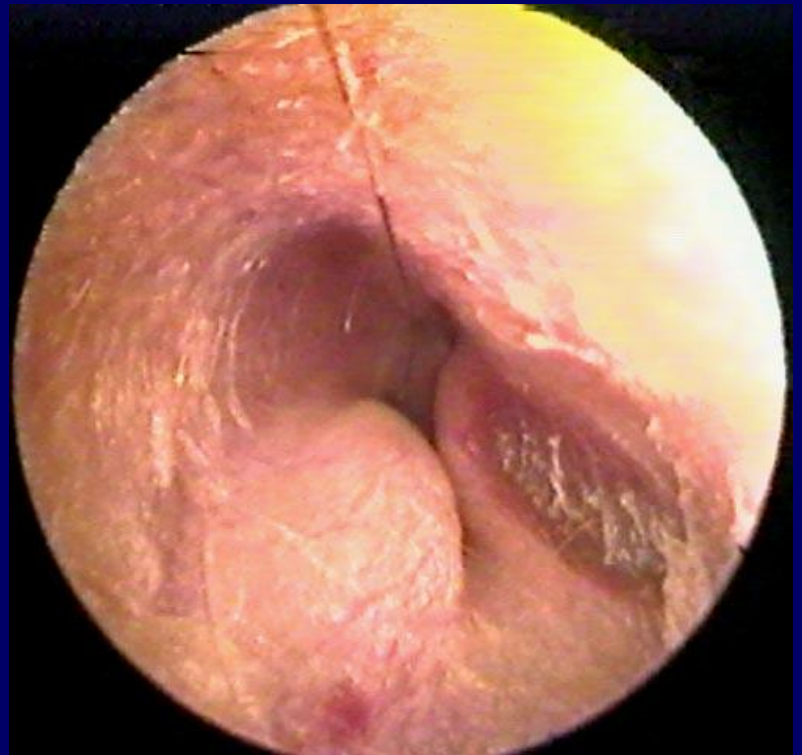
Treat if large or symptomatic -Causing external otitis or hearing loss.
Osteomas are usually solitary and can easily be removed with surgery.

View More on Diseases of External Auditory Canal:
http://www.entusa.com/external_ear_canal.htm





Exotoses



Treat if large or symptomatic -Causing external otitis or hearing loss.
Exotoses are usually multiple and can be removed with surgery. Sometimes felt to be caused by chronic exposure to cold water or alcohol.

Otosclerosis

- Congenital Fixation of the Stapes.
- Usually found in white females in early 20's.
- Treated with Surgery (Stapedectomy) or Hearing aid placement.
- Some evidence sodium fluoride helps



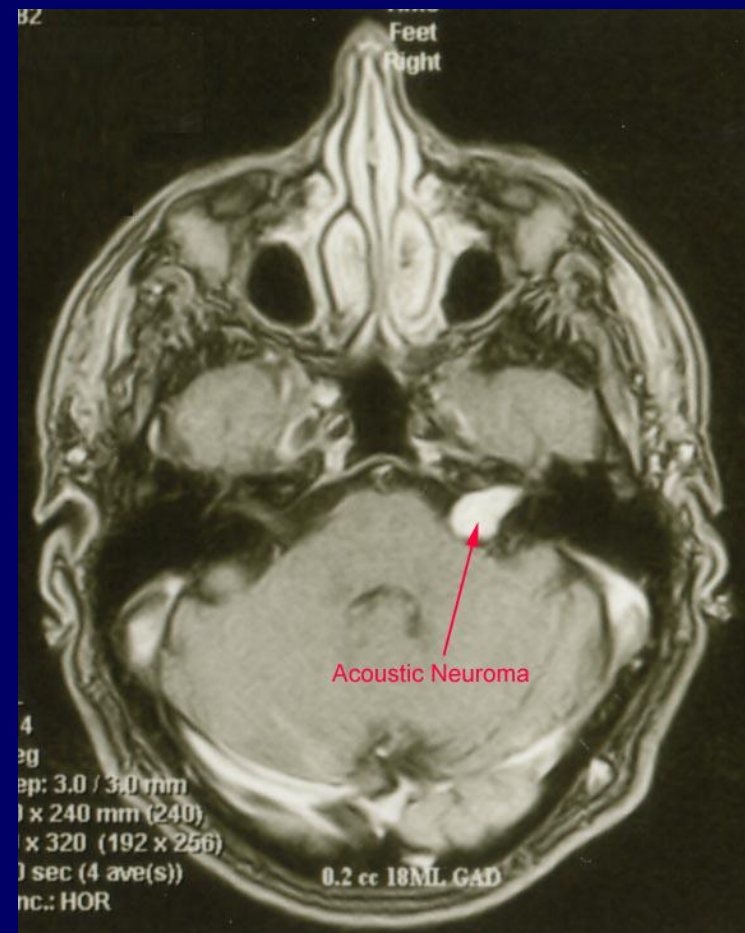
Learn More About Stapedectomy Surgery: <http://www.entusa.com/stapedectomy.htm>

Acoustic Neuroma

- Slowly Progressive Unilateral Hearing Loss.
- Less Than 3% Present With Vertigo.
- Usually Treated With Surgery.
- 10% of the population on autopsy have this condition

Learn More About Acoustic Neuromas:

http://www.entusa.com/hearing_loss_types.htm





Balance

Balance is determined by a complex combination of inputs into the brain. These inputs are:

- Vision
- Proprioception (sensation of position)
- Inner Ear

Learn More About Dizziness, Vertigo and Balance:

http://www.entusa.com/dizziness_vertigo.htm



Dizziness

- A loss of control or staggering like being drunk, but the room orientation is normal. The patient just cannot control his body.
- A lightheadedness or fainting.
- A sensation of motion or spinning.

Learn More About Dizziness, Vertigo and Balance:

http://www.entusa.com/dizziness_vertigo.htm



Length of Vertiginous Spell

Length of Spells

- Less than 10 min - Positional Vertigo
- 20 min to 24 hrs.- Meniere's Disease
(tinnitus, hearing loss, vertigo & ear pressure)
- 24 hrs to one week - Viral Labyrinthitis
- Over one week - Central Disease

Learn More About Dizziness, Vertigo and Balance:

http://www.entusa.com/dizziness_vertigo.htm



Positional Vertigo

Characteristics of Peripheral Vertigo

- -- Latency - 5 to 6 seconds
- -- Duration - Less than 60 Seconds
- -- Adapts - Less on Repeated Stimulation

Learn More About Dizziness, Vertigo and Balance:

http://www.entusa.com/dizziness_vertigo.htm

Positional Vertigo – Treatment Particle Repositioning Maneuver

The patient is placed on his back with his head turned to one side and hanging over the end of the table (Halpike-Maneuver). The ear which is causing the dizziness is placed downward. The PRM is then performed slowly over 2 minutes. The position of the patient's head is not changed to his body. A vibrator is used to help mobilize the particles.



Go to http://www.entusa.com/particle_repositioning_maneuver.htm to View Video

Allergic Rhinitis

Treatment:

1. Antihistamines
2. Nasal Steroids
3. Cromolyn Sodium
4. Allergy Desensitization
5. Leukotrinin Inhibitors
6. Decongestants (To be avoided if possible esp. if one has high blood pressure or diabetis.)



Learn More About Allergies: <http://www.entusa.com/allergies.htm>



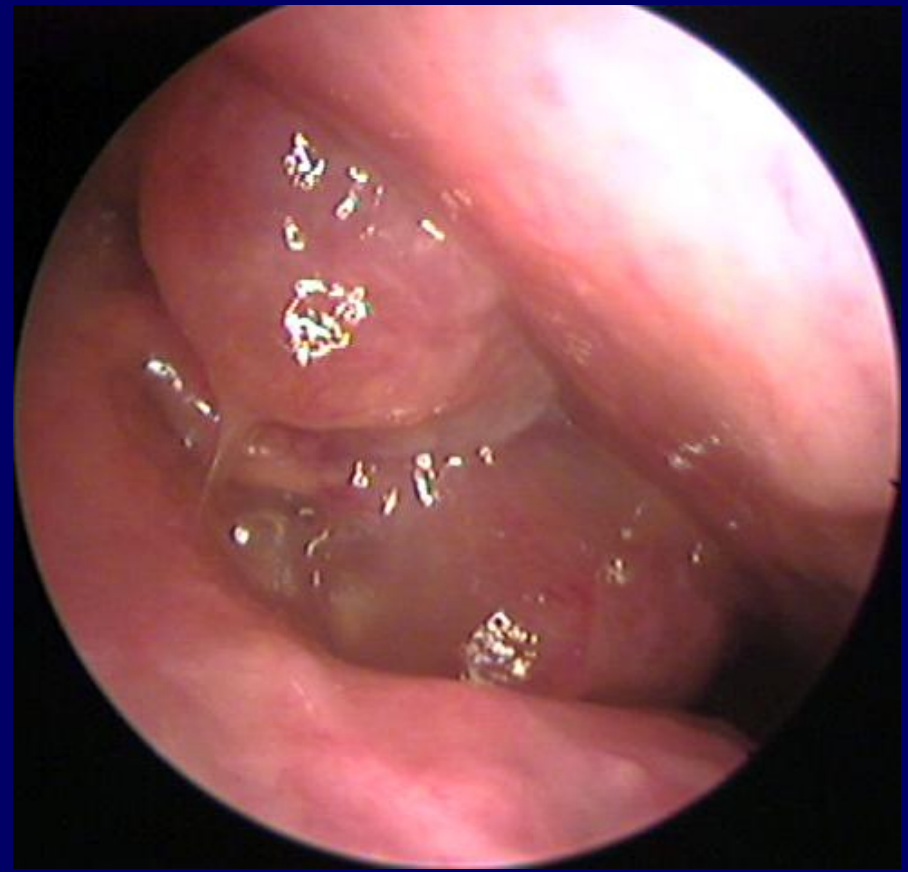
Nasal Polyps

Triad

- Nasal Polyps
- Aspirin Sensitivity
- Asthma

Learn More About Sinus Surgery

http://www.entusa.com/endoscopic_sinus_surgery.htm

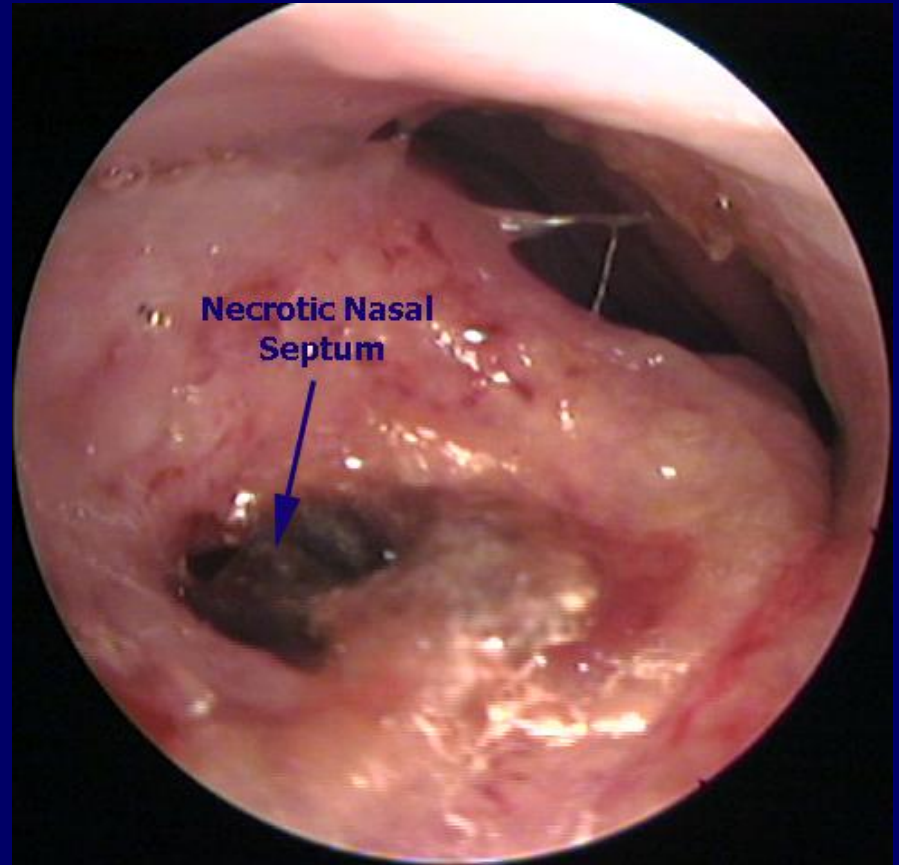


Nasal Steroid Complications

Examine patients on nasal steroids every 3 to 4 months for signs of mucosal atrophy.

View Nasal Pictures:

http://www.entusa.com/nose_photos.htm



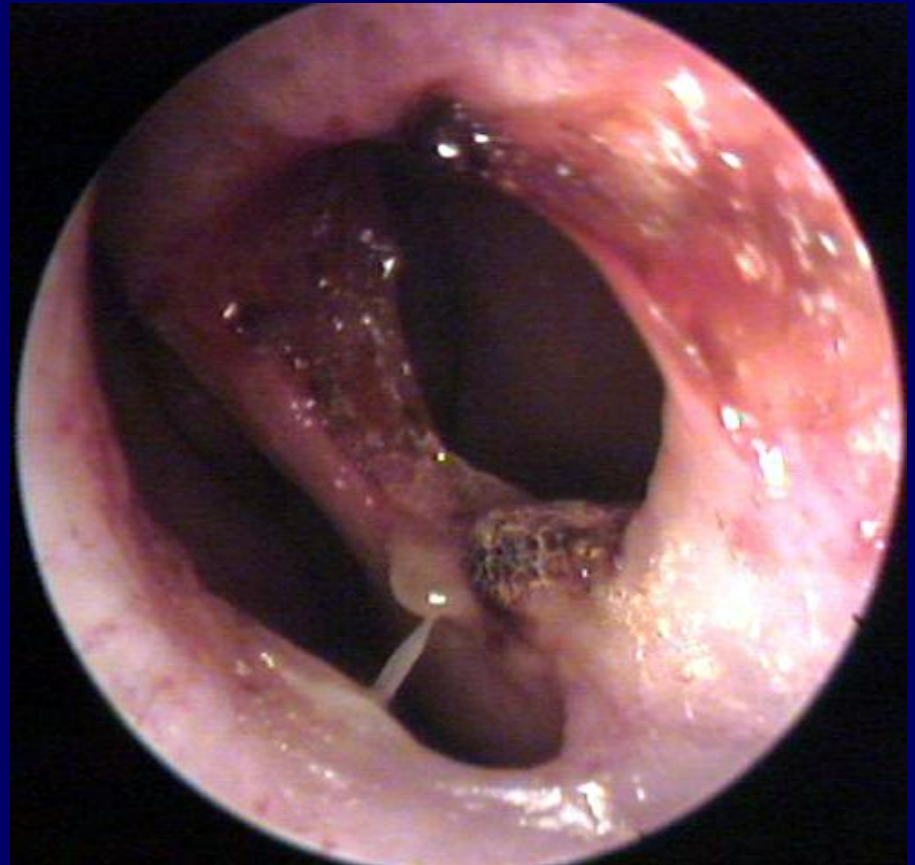
Septal Perforation

Symptoms

- Bleeding
- Whistling
- Crusting

Treatment

- Moisturizers
- Septal Buttons
- Surgery



View Nasal Pictures:

http://www.entusa.com/nose_photos.htm

Nasal Septal Hematoma

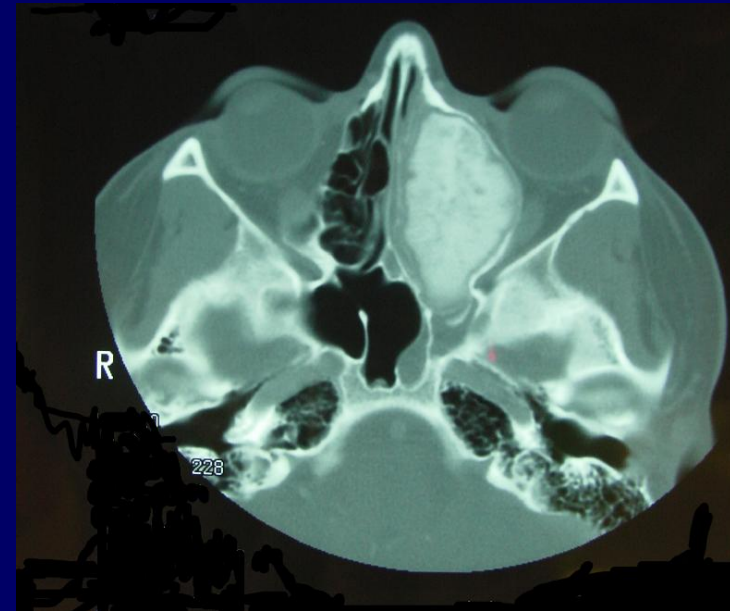


Unilateral Nasal Polyps/Drainage/Chronic Sinusitis

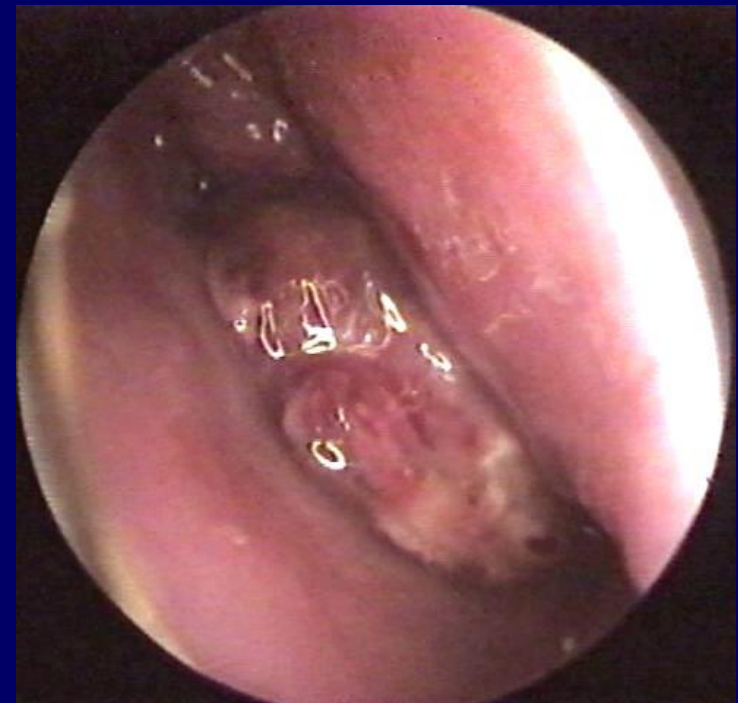
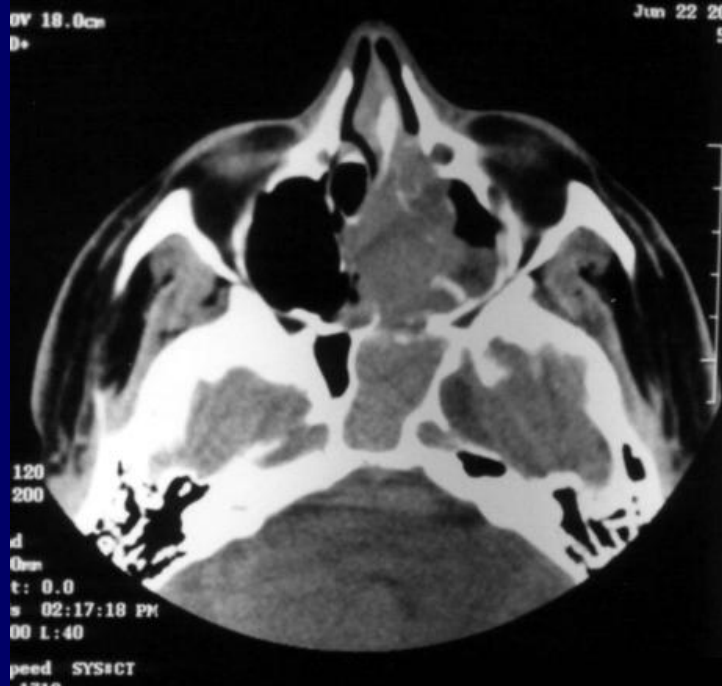
- Always think Carcinoma
- Inverting papilloma
- Fungal Ball (Allergic Fungal Sinusitis)

View Nasal Pictures:

http://www.entusa.com/nose_photos.htm



Unilateral Nasal Polyps/Drainage/Chronic Sinusitis



Oral Lesion

– Squamous Cell Carcinoma

Chronic sun exposure is the most common cause, but smoking can also be an etiology. The cancer is treatable with surgery or radiation therapy. The picture shows a T2 N0 (tumor size between 2 to 4 cm, with no lymph node spread) squamous cell carcinoma of the lower lip. The patient was treated with surgical resection and reconstruction using an Abbe-Estlander Lip Flap.



View HTML Slide Show On Abbe-Estlander Flap:
[http://www.entusa.com/JS-Slide-Shows-ENTUSA/
Abbe-Estlander-Flap-1b/abbe_estlander_slideshow.htm](http://www.entusa.com/JS-Slide-Shows-ENTUSA/Abbe-Estlander-Flap-1b/abbe_estlander_slideshow.htm)

Oral Lesions

- Basal Cell Carcinoma

This patient has a basal cell carcinoma lip cancer. It is a less aggressive tumor than squamous cell carcinoma, see above slide. Basal Cell Carcinoma spread and destroy tissue locally, but do not metastasize (spread by blood or lymphatics). Treatment is surgical excision or radiation therapy.



View Oral Pathology Photographs: http://www.entusa.com/oral_photos.htm



Oral Lesions

- Cheilitis (Candida)

This is crusting and cracking which occurs in the corners of the mouth. It is caused by a fungus and anti-fungal creams are usually curative.



View Oral Pathology Photographs: http://www.entusa.com/oral_photos.htm

Oral Lesions

- Herpes Simplex (Cold Sore)

Penciclovir cream is a prescription medication which is approved by the FDA for treatment. Other medications, Acyclovir ointment, **Valacyclovir** and **Famcyclovir** are only approved for genital herpes but many doctors also use them to treat oral herpes (cold sores). A new over-the-counter medication approved by the FDA is **Abreva**. It is also effective in the treatment of cold sores. It is believed to protect the skin cells from viral damage.



View Oral Pathology Photographs: http://www.entusa.com/oral_photos.htm

Oral Lesions

- Squamous Cell Carcinoma

This patient has a T1 (less than 3 cm) squamous cell carcinoma of the tongue. He used tobacco products.



View Oral Pathology Photographs: http://www.entusa.com/oral_photos.htm

Oral Lesions - Shingles

Shingles are caused by the Herpes Zoster Virus. They occur many years after an individual has had chicken pox. The lesions are seen on the patient's right jaw and right half of his tongue. This corresponds to the lower division of the trigeminal nerve and the lingual nerve. Treatment was with a seven day course of **Valacyclovir** given one gram three times a day.



View Oral Pathology Photographs: http://www.entusa.com/oral_photos.htm

Oral Lesions

- Aphthosis Ulcers

Aphthosis ulcers are shallow small painful ulcers which appear on mobile mucosa in the oral cavity. They are often found in individuals that are under stress. The cause of these ulcers is unknown. They can be treated by applying **Amlexanox** gel to the ulcers four times a day for 7 to 10 days.



View Oral Pathology Photographs: http://www.entusa.com/oral_photos.htm



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