DOWNLOAD PDF EAR, NOSE, THROAT, AND RELATED STRUCTURES

Chapter 1 : Anatomy And Physiology Of Ear, Nose And Throat - Pharmahelp

One of the oldest medical specialties in the United States, Otolaryngologists are physicians trained in the medical and surgical management and treatment of patients with diseases and disorders of the ear, nose, and throat (ENT), and related structures of the head and neck.

T is an abbreviation for Ear, Nose and Throat. In this gallery we present visualisations of the anatomy of ear, nose and throat. We are anatomically trained medical artists available to create great E. Ear anatomy The ear is made up of three areas, the external visible portion of the outer ear, also called the pinna. This part is responsible for collecting the vibrations of the air by which sound is produced. There is also the middle ear or tympanic cavity and the inner ear. These parts are not only responsible for detecting sound but they also aid balance and body position. Nose Anatomy The nose acts as a respiratory tract and contains the olfactory organ. Made up of parts the visible portion is called the external meatus. Containing two nostrils divided by the septum, these are the chambers from which the air enters into the nose. As the air enters the nose it enters the turbinates and nasal passages. The turbinates help trap particles entering the nasal passages. The sinuses are air-filled cavities which surround the nose. Throat Anatomy The throat is the muscular and cartilage tube that acts as the passageway for air, food and liquid and also helps in forming speech. The throat consists of the larynx, responsible for producing sound, these muscles also allow food to pass down into the oesophagus. The pharynx is considered part of both the respiratory system and the digestive system. The epiglottis is a piece of cartilage that lies above the vocal cords. The adenoids and tonsil are situated here and as they are lymphatic tissues they are part of immune system. Gallery of Medical Illustrations for E. T Need medical illustrations, medical art or visualisations? Get in touch to start a conversation about your communication needs. Get in touch About Medical-Artist. We help our clients communicate medical, anatomical and scientific information more clearly through the use of appropriate illustrations and visuals. Why not contact us today about how we can help you better communicate your message.

Chapter 2 : Ear Nose Throat Anatomy - Human Anatomy Diagram

Great Lakes Ear Nose & Throat At Great Lakes ENT, we specialize in the medical and surgical treatment of the ears, nose, throat and related structures of the head and neck. We expertly evaluate and treat tonsil and adenoid disorders, nosebleeds, earaches, hoarseness, sinus disease, skin lesions of the head and neck, seasonal allergies and more.

They share anatomy and have similar mucous membrane linings, which means they get similar infections; an infection, an allergy , or another problem affecting one of them from ear pressure pain and strep throat to problems with your sinuses and constant phlegm in the throat may also affect the others. Understanding the anatomy of your ears, nose, and throat will help you know how to keep them in good health and free of infections. A Diagram of the Ear The ear has three parts: The outer ear, or pinna â€" the part you can see â€" includes the ear canal 1 , and the skin lining this canal makes ear wax, or cerumen. The canal leads into the slightly angled eardrum 2 , also called the tympanic membrane â€" this transmits sound to the middle ear, which is behind the eardrum inside the skull. The middle ear includes the Eustachian tube 3 , which connects to the throat, and the ossicles tiny bones 4 , through which sound travels. The nerves that take sound to the brain are found in the inner ear. Ear Infections in Adults and Kids Adults and children get ear infections for the same reasons. Otitis media, an ear infection of the middle ear, occurs when the mucosa the lining of the upper respiratory tract that secretes mucus swells because of a cold, respiratory infection, or allergy, and the Eustachian tube 3 gets blocked. Adults get fewer ear infections than kids because their Eustachian tubes are bigger and more angled. When left untreated, an ear infection can lead to a more serious infection, permanent hearing loss, and problems with speech and language development â€" so speak to your doctor right away if you think you or child have an ear infection. The doctor may prescribe an antibiotic to kill the bacteria and recommend pain medications or prescription ear drops. Too Much Ear Wax? Ear wax is a natural protector against infections, explains Jones, and you should never try to remove it or you may end up pushing the wax further in â€¦ and needing to have it removed by an ear, nose, and throat specialist. Ear wax will come out naturally on its own, and constantly removing it can disturb the wax-producing glands. However, in some cases, excessive ear wax can accumulate in the ear canal, possibly causing ear pain, a plugged sensation in the ear, itching, ear odor â€" even hearing loss. If you want a way to keep ear wax to a minimum, says Jones, you can try flushing your ears by putting a few drops of hydrogen peroxide in each ear once a week. The wax will then come out on its own. But, Jones warns, this advice is for patients who know their ears are healthy. Ear Pressure Pain When you feel your ears pop, you know your Eustachian tubes are opening properly. On a normal day, the Eustachian tube opens about times. A topical nasal spray can help. Very rarely, says Jones, a malfunctioning Eustachian tube could be a sign of blockage by head or neck cancer. Anatomy of the Nose Like the ear, the nose is divided into sections. The septum divides it vertically one external nostril on each side , but the nose is also separated into front and back parts. The front, visible part of the nose is called the anterior, which is made from cartilage; the section that leads into the throat is called the posterior. Surrounding the nose are the sinuses , normally air-filled pockets that can cause pain if they become mucus -filled or infected. There are four sinus cavities â€" frontal sinuses, maxillary sinuses, ethmoid sinuses, and sphenoid sinuses. The septum has many blood vessels near its surface, which is why the nose bleeds rather easily. The Scoop on Sinuses Infected sinuses, also known as sinusitis , can cause facial and headache pain. When yellow or green pus is trapped in sinus cavities â€" above and below the eyes and around the nose â€" your entire head aches, you may experience nasal congestion, and you could have a sore throat or fever. And a number of things could be to blame, such as a virus, bacteria, fungus , or allergies. Opening them up, Jones says. Using saltwater solutions and irrigating the nose helps; talk to your doctor about appropriate techniques. Viral infections generally resolve themselves, while bacterial infections are treated with antibiotics. As with a blocked Eustachian tube, tumors could mimic sinusitis symptoms , especially if symptoms are on one side. How to Stop Nosebleeds Nosebleeds happen due to a number of different causes â€" dry air, allergies , colds, migraine headaches , even cocaine use. Sometimes a nosebleed can be due to blood clotting disorders or being on blood-thinning medication. To stop a nosebleed, sit and lean forward slightly. Squeeze the soft portion of

your nose â€” between the tip and the bridge â€” with your index finger and thumb and hold until the bleeding stops. Clearing Up Phlegm in the Throat Constant phlegm in the throat â€” often called post-nasal drip â€” has many possible causes, including pollution, dust, or an anatomical obstruction. An increase in mucus production is usually due to an infection or an obstruction, which the body wants to flush out. Anatomy of the Throat The throat, or pharynx, is divided into three parts. The nasopharynx 1 is located behind the nose. The oropharynx is behind the mouth 2. And the laryngopharynx 3 , or lower section of the throat, is in front of the esophagus 4 ; this is where the larynx, or voice box, and the vocal cords are housed 5. The often-infected tonsils 6 and adenoids 7 are found in the naso- and oropharynx. A number of common problems can affect the throat: Strep Throat and Other Infections Strep throat is an infection caused by a form of the Streptococcus bacteria, Jones says. Doctors test for strep when someone has a sore throat because of its dangerous complications, such as heart problems that can happen later if the strep is not treated. Strep throat is most common in children between the ages of 5 and 15, and symptoms of strep include sore throat, swollen tonsils, telltale white patches on the throat, fever, body aches, and even stomach pain. Strep throat should be treated with an antibiotic. When you speak, air moving through your vocal cords 1 causes vibrations and results in sound. Try These Dry Throat Remedies Lifestyle choices are often to blame for a dry throat, Jones says â€” too much caffeine or alcohol, not enough water, and smoking cigarettes menthol, too, can dry out the throat. Changing these habits may help, as can sucking on sugarless candy.

Chapter 3 : Schaumburg Ear Nose and Throat

Ear, Nose and Throat Ear Doctor in the St. Louis Metro Area Otolaryngologists, commonly referred to as Ear, Nose and Throat physicians or ENT's, are physicians trained in the medical and surgical management and treatment of patients with diseases and disorders of the ear, nose and throat (ENT), and related structures of the head and neck.

Reviewed by Dr Helen Huins Your ears do the remarkable job of allowing you to hear a huge range of sounds, from a whisper to a loud bang. To do this, the ear transforms sound energy into electrical signals which the brain can interpret. Your ears also help to maintain your balance. Structure of the ear The ear is roughly divided into three parts. The outer external ear includes the part you can see called the pinna and the narrow tube-like structure - the ear canal. At the end of the canal is the eardrum. This separates the external ear from the middle ear. The eardrum is a tightly stretched membrane, a bit like the skin of a drum. The middle ear is a small air-filled compartment which sits in the skull between the eardrum and the inner ear. Inside it are the three smallest bones in the body, called malleus, incus and stapes. These bones are connected to each other. The last in the group, stapes, also makes contact with the inner ear. The air space of the middle ear connects to the back of the nose by the Eustachian tube, a narrow tube which can let air in or out of the space. It can also allow infections like the common cold to spread from the throat and nose to the ears. The inner ear is made up of two components - the cochlea and the vestibular system. The cochlea is involved with hearing, whilst the vestibular system helps with balance. The cochlea is a snail-shaped chamber filled with fluid. It is lined with special sensory cells called hair cells which are sensitive to sound. The hairs are different lengths and each responds most at a particular pitch of sound the pitch of a sound is its musical note. These cells transform sound waves into electrical signals, which are then sent from the cochlea to the hearing area of the brain via the cochlear nerve. The vestibular system is made up of a network of looped tubes, three in each ear, called the semicircular canals. They loop off a central area called the vestibule. The vestibular system detects movement through special sensory cells which are activated as you tilt or move your head. The vestibular system is very sensitive to small movements of the head. This is why the room can appear to continue to spin when we stop spinning. The vestibular system sends signals to the vestibular nerve, which joins the cochlear nerve and carries electrical signals to the brain. How do you hear? Sound waves are created when air vibrates. To hear, the ear needs to change sound into electrical signals which the brain can interpret. The outer part of the ear the pinna funnels sound waves into the ear canal. When sound waves reach the eardrum they cause it to vibrate. Vibrations of the eardrum cause the tiny bones in the middle ear to move too. The last of these bones, the stapes, passes on the vibrations through another membrane to the cochlea. When the cochlea receives the vibrations, the fluid inside it moves. As the fluid moves, it causes the sensory cells to create an electrical signal. This electrical signal is sent to the brain. Special areas in the brain receive these signals and translate them into what we know as sound. Your ears create electrical signals to represent an extraordinary variety of sounds. For example, the speed at which the eardrum vibrates varies with different types of sound. With low-pitched sounds the eardrum vibrates slowly. With high-pitched sounds it vibrates faster. This means that the special hair cells in the cochlea also vibrate at varying speeds. This causes different signals to be sent to the brain. This is one of the ways we are able to distinguish between a wide range of sounds. How do you keep your balance? Balance is maintained not only by the vestibular system found in your ears but also by your visual and sensory systems. If any one of these systems is damaged, you may experience dizziness or loss of balance. The brain uses the visual system to help orientate us in our surroundings. The vestibular system detects both circular motion and movement in a straight line. This includes everyday actions such as stopping, starting or turning. The sensory system keeps track of the movement and tension of our muscles and joints. It also monitors the position of our body with respect to the ground. The brain receives signals from all these systems and processes the information gathered to produce a sensation of stability. The tubes and sacs within the vestibular system are filled with fluid. When we move our heads, this fluid also moves. The vestibular system also contains specialised sensory cells. Movement of the fluid causes these sensory cells to bend. This change results in an electrical signal which is carried, via a nerve, to the brain for interpretation. Once the

brain has interpreted the signals as movement, it controls your eyes so that they keep providing information about your position. The brain also sends signals to your muscles so that they help to ensure balance regardless of the position of your body. If the signals sent to the brain by the vestibular system do not match those which the eyes and sensory system send then dizziness and motion sickness can result. This can happen, for example, if you travel on a boat but you are looking at the boat rather than at the horizon. Your eyes see that you are not moving relative to the boat but your ears and body can feel that you are moving. Some common disorders of the ear.

Chapter 4 : What is the structure of the ear? | Ear, Nose and Throat - Sharecare

Otolaryngologists are M.D. or D.O. physicians that are trained in the medical and surgical treatment and management of diseases and disorders of the ear, nose and throat, and related structures of the head and neck.

Due to Ear, Nose And Throat we are able to hear , smell and speak. The internal part of the nose lies above the roof of the mouth. The nose consists of: Triangular-shaped projection in the center of the face. Two chambers divided by the septum. Made up primarily of cartilage and bone and covered by mucous membranes. The cartilage also gives shape and support to the outer part of the nose. Passages that are lined with mucous membranes and tiny hairs cilia that help to filter the air. Four pairs of air-filled cavities, also lined with mucous membranes. The sinuses are cavities, or air-filled pockets, near the nasal passage. As in the nasal passage, the sinuses are lined with mucous membranes. There are 4 different types of sinuses: This sinus is located inside the face, around the area of the bridge of the nose. It is present at birth, and continues to grow. This sinus is located inside the face, around the area of the cheeks. It is also present at birth, and continues to grow. This sinus is located inside the face, in the area of the forehead. It does not develop until around 7 years of age. This sinus is located deep in the face, behind the nose. It does not typically develop until adolescence. The ear is usually described as having three partsâ€"the outer ear, middle ear and the inner ear. The outer ear consists of the pinna and the ear canal. Since the outer ear is the only visible portion of the ear in most animals, the word ear often refers to the external part alone. The middle ear includes the tympanic cavity and the three ossicles. The ear may be affected by disease, including infection and traumatic damage. Hearing starts with the outer ear. When a sound is made outside the outer ear, the sound waves, or vibrations, travel down the external auditory canal and strike the eardrum tympanic membrane. The vibrations are then passed to 3 tiny bones in the middle ear called the ossicles. The ossicles amplify the sound and send the sound waves to the inner ear and into the fluid-filled hearing organ cochlea. Once the sound waves reach the inner ear, they are converted into electrical impulses, which the auditory nerve sends to the brain. The brain then translates these electrical impulses as sound. The throat is a ring-like muscular tube that acts as the passageway for air, food, and liquid. The throat also helps in forming speech. The throat consists of: Larynx also known as the voice box. The larynx is a cylindrical grouping of cartilage, muscles, and soft tissue that contains the vocal cords. The vocal cords are the upper opening into the windpipe trachea , the passageway to the lungs. A flap of soft tissue located just above the vocal cords. The epiglottis folds down over the vocal cords to prevent food and irritants from entering the lungs. They are made up of lymph tissue and are located at the back and the sides of the mouth. They protect against infection, but generally have little purpose beyond childhood. The hypo pharynx is the region between the oropharynx above at the level of the hyoid bone and the esophageal inlet below at the lower end of the cricoid cartilage. Embryologically, the larynx interjects into the hypopharynx anteriorly and is therefore considered a separate structure. Hypo pharyngeal cancers are often named for their location, including pyriform sinus, lateral pharyngeal wall, posterior pharyngeal wall, or postcricoid pharynx see images below. Most arise in the pyriform sinus.

Chapter 5 : Otorhinolaryngology - Wikipedia

The Ear, Nose And Throat are those organ which has some special sense and these are sensory organs. Due to Ear, Nose And Throat we are able to hear, smell and speak. In this article we cover Anatomy And Physiology Of Ear, Nose And Throat in detail with pictures.

Chapter 6 : Idaho Falls ENT Daniel Hinckley

Ear, Nose and Throat. Ear, nose, and throat (ENT) specialists are trained in the medical and surgical management and treatment of diseases and disorders of the ear, nose and throat and related structures of the head and neck.

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Chapter 7 : Winchester Ear, Nose & Throat - Home

Ear, Nose & Throat CHI St. Alexius Health's otolaryngologists physicians are trained in the medical and surgical management and treatment of patients with diseases and disorders of the ear, nose, throat (ENT), and related structures of the head and neck.

Chapter 8 : ENT Illustrations | Ear Nose Throat Anatomy Medical Illustrations

Our mission is to provide our patients with the most up-to-date care for the treatment of sinus, ear, nose, and throat disorders. We specialize in treating men, women, and children of all ages for diseases and disorders of the ear, nose, throat, and related structures of the head and neck.

Chapter 9 : Common Ear, Nose, and Throat Complaints | Everyday Health

Now Ear This. Your ears, nose, and throat are all part of your upper respiratory system, explains Paul Jones, MD, director of pediatric otolaryngology at Rush University Medical Center in Chicago.