

Upper respiratory infections: causes and properties



**ASSIGN
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Case Study: Upper Respiratory Infections

Nature of Upper Respiratory Infections

The upper respiratory tract includes the mouth, nose, throat, larynx, and trachea and diseases are named for the anatomical sites that are involved with the infection. Sinusitis is named for the inflammation and infection of the sinus cavity; pharyngitis, the inflammation and infection of the throat; laryngitis, the inflammation of the larynx; and tonsillitis, the infection and inflammation of the tonsils. Many times because the infections affect several sites at the same time, the infections can be grouped under either rhinopharyngitis or tonsillopharyngitis.

Rhinopharyngitis is a viral disease that causes the inflammation of the pharynx and mucous membranes inside the nose, increasing the production of mucous. Additional symptoms may include coughing, fever, headache, and fatigue, if left untreated, infection could lead to viral or bacterial pneumonia.

Tonsillopharyngitis is a bacterial or viral disease that causes the inflammation of the tonsils and pharynx, when caused by group A streptococcal bacteria, it is called strep throat. Common symptoms include sore throat, inflammation of the tonsils, high fever, headache, pain in the ears and neck, and fatigue.

Causative Agents and Mechanisms of Pathogenesis of Upper Respiratory Infections

Pathogenesis: Upper respiratory infections are very contagious and spread by inhalation of droplets containing the microorganism or hand to hand contact and then spread to the epithelial layers of the upper respiratory tract.

Causative Agents: Most upper respiratory infections are caused by viruses and are the most common of human infections worldwide. Bacterial infections can occur in the upper respiratory tract and are usually the result of group A streptococcus and outside of the United States corynebacterium diphtheriae is a major pathogen.

Abscesses can develop as a result of infections of deeper tissues of the mucosal sites like peritonsillar abscesses, retrotonsillar abscesses, and retropharyngeal abscesses.

Disease	Viruses	Bacteria and Fungi
Rhinitis	Rhinoviruses, adenoviruses, coronaviruses, influenza viruses, respiratory syncytial virus	Rare
Pharyngitis or tonsillitis	Adenoviruses, parainfluenza viruses, influenza viruses, rhinoviruses, herpes simplex virus	Group A streptococcus, corynebacterium diphtheriae
Peritonsillar or retropharyngeal	None	Group A streptococcus, Fusobacterium, species

Disease

Viruses

Bacteria and Fungi

abscesses

Staphylococcus aureus

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