

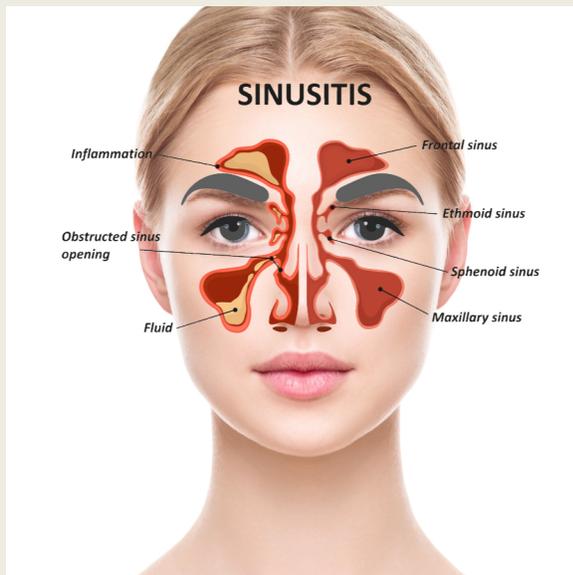


Medicine for Managers

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Sinusitis

The sinuses are four paired cavities in some of the bones making up the face. Their functions are unclear but it is thought that they exist to reduce the weight of the facial bones and that they contribute to the resonance of the voice, that they provide surfaces to moisturise inhaled air and, perhaps somewhat fancifully, that they act as a 'crumple zone' to protect the more important structures during a facial injury.



The sinuses are listed on the right side of the picture above. The maxillary sinuses in the cheeks are the largest. They are all situated around the nose and each sinus has a connection directly into the nose.

Sinusitis occurs when the sinuses become inflamed, usually the result of a cold or other upper respiratory infection. These are normally viral but may be complicated by secondary

bacterial infection resulting in worsening symptoms and the production of thick, green or yellow purulent mucus, which may block the exit from the sinus.

The symptoms are initially typically a runny or blocked nose followed by loss of taste or smell, bad breath and facial pain or pressure.

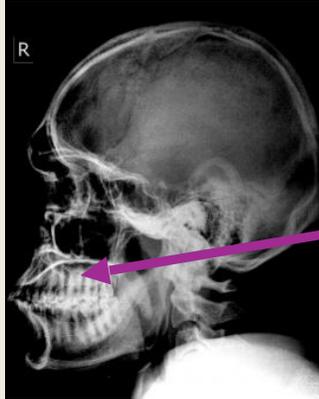
The nature and position of the pain will depend on the sinuses involved.

Maxillary sinus infection will result in facial pain or toothache (because the roots of the upper molar teeth may project into the maxillary sinuses and the nerves emanating from the tip of the tooth root are irritated by the pus which accumulates).

The left of the picture illustrates the way in which the accumulated mucus may result in symptoms;

- By causing inflammation of the sinus lining

- By thick mucus obstructing the outlet of the sinus causing trapped mucus to be infected
- By the accumulation of fluid in the sinus which is or becomes infected.



X-ray shows tooth roots projecting into the maxillary sinus

Sometimes, a decayed and infected upper tooth may discharge pus through the root into the maxillary sinus producing sinusitis as a result.

Frontal sinusitis results in tenderness and pain in the forehead.

The sinusitis is accompanied by the signs of acute infection; fever, sweating, nausea, loss of appetite and generally feeling terrible.

Sinusitis usually resolves in about 10-14 days.

With mild symptoms the usual symptomatic treatments are generally adequate; paracetamol, ibuprofen and decongestants, such as nasal sprays, which can be purchased at the pharmacy.

Although not now encouraged I personally am a fan of grandma's technique of steam inhalations with steaming water containing Friar's Balsam, or menthol or eucalyptus, Vick or Olbus Oil.

Steam is an effective decongestant. It makes the nose run and drains secretions, although ***care must be taken not to burn oneself with the steam.***

If the symptoms worsen, a visit to the GP may be necessary to obtain a course of antibiotic. About 30-40% of patients with acute sinusitis require an antibiotic to destroy the infection.

Sometimes the sinuses do not drain effectively and the infection persists causing a chronic sinusitis with nasal congestion, mild persisting pain and post-nasal drip.

Chronic infections can also be caused if the sinus is obstructed by polyps, foreign bodies in the nose, reduced immunity as in HIV or diabetes, smoking or sniffing particular drugs such as cocaine.

Treatment of chronic sinusitis is by removal of the cause where possible and by vigorous decongestant treatment with antibiotic if needed.

If symptoms of sinusitis persist, it may be necessary for the patient to be referred to an ENT surgeon for sinus surgery.

The technique usually involves the insertion of a small endoscope into the nose to identify any obstruction to normal sinus drainage (which can then be removed) or using a technique to widen the channels leading from the sinus into the nose to encourage more effective drainage.

Complications of sinusitis are very rare.

The severe complication of such an infection,

estimated at about one case in 10,000, is the spread of infection from the sinuses around the eye, into adjacent bones, into the blood or into the brain where it may form an abscess.

The signs are usually swelling or reddening around the eye or of the cheek, and general deterioration of the person's condition.

In general sinusitis is manageable with appropriate treatment and resolves without difficulty.

As with many infections, the knack is to identify it early.

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