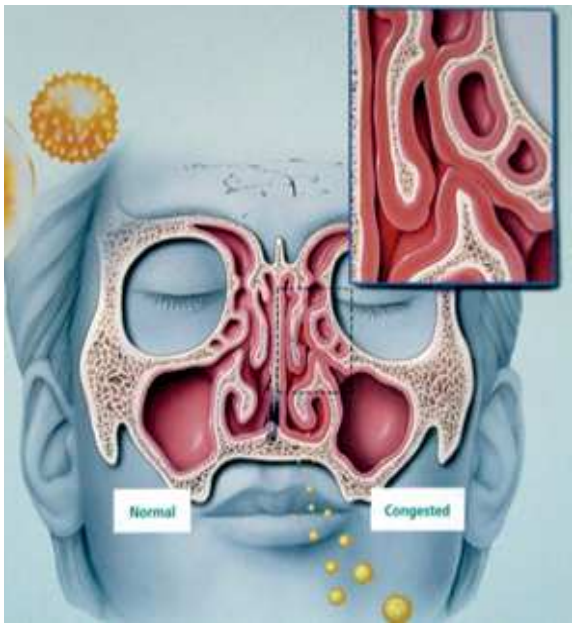
Wellness Unit E-Newsletter

Vol VII

MiCARE

"DOC, I HAVE SINUS !"

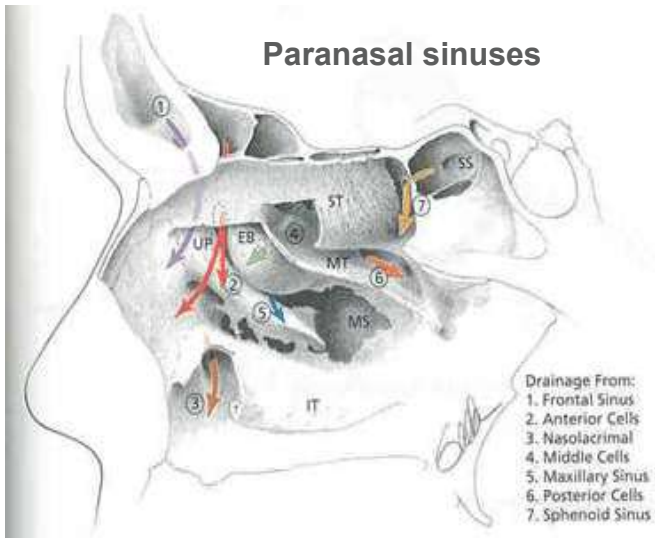
Does frequent runny nose and sneezing mean you have 'sinus' ? I think what most laypersons would mean to say 'sinusitis'. Even then, those symptoms are not even suggestive of 'sinusitis'. Instead those symptoms more likely belong to the commoner disorder called 'Allergic Rhinitis' – a form of nasal allergy with overlapping symptoms with 'sinusitis'.



Actually everybody has sinuses. In this context, it is called "paranasal sinuses"-"paranasal" as they are situated around the nose i.e "nasal"

These sinuses are air-filled spaces in the skull that are lined with mucus membranes.

They are situated behind the forehead and nasal bones (the frontal sinuses), cheeks (the maxillary sinuses), between the eyes (the ethmoid sinuses) and just behind the ethmoid sinuses in the middle of the head (the sphenoid sinus). Usually, mucus is able to drain out and air is able to circulate. It is when these sinuses are blocked that they cause 'sinusitis' symptoms – fever, pain over the cheek/forehead, foul smell in the nose and yellowish/greenish nasal discharge.



As part of the same air passages, and lined by the same mucous membrane (inner lining of the nose), the nose and sinuses tend to be affected by the same problems.

What is Allergic Rhinitis (AR)?

Also commonly called 'hay fever' usually in the Western countries, AR is an inflammation of the inner lining of the nose that occurs when an allergic individual encounters an airborne allergen such as dust mites, pollen, mold, or animal dander like dogs and cats.

Usually inhaled, these triggers generate allergy symptoms such as sneezing, coughing, runny nose, sore throat and itchy or watery eyes, phlegm dripping into the throat (postnasal drip), chronic cough and puffy/red itchy eyes. Those with positive family history of allergy or other forms of allergy eg. bronchial asthma, eczema, urticaria are also more likely to have AR. Although AR can develop at any age, it usually appears in individuals before the age of 30.

Dust mite (under microscope)

What are the other causes for the symptoms ?

There are other types of rhinitis that should not be confused with AR. All types of rhinitis affect nasal and sinus function. However, many other types of rhinitis respond to different triggers but may present quite similarly to AR. These fall into a general category of **non-allergic rhinitis (NAR)**.

Pollen

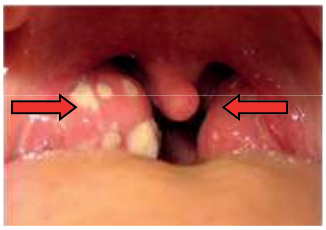
Causes may include:

- Infection, such as the viral influenza or common cold
- Nasal polyps (frequently present in AR patients)
- Hormonal imbalance eg. pregnancy
- Overuse of decongestant nasal sprays
- Use of certain medications (aspirin, antihypertensives, some painkillers, oral contraceptives)
- Exposure to cold temperatures, high humidity, chemicals or other irritants
- Eating spicy or hot temperature foods

However, nasal obstruction can also be due to structural problems within the nose eg. enlarged nasal turbinates or deviation of the nasal septum (DNS). Also, symptoms of nasal allergies must also be differentiated from cold/influenza and sinusitis. If blood is present in the nasal discharge, it is imperative to exclude cancerous growth in the nasal passage. Therefore the role of the ENT doctor is to distinguish between the different possible causes from history, clinical examination and endoscopy. Blood or skin prick test allergy panel to identify the allergic triggers can provide much information on the allergy triggers, commonly house dust mites, cockroach or fungal elements in our community.

Nasal Endoscopy

A positive skin prick test



Enlarged tonsils

What are the complications of AR?

Uncontrolled AR can seriously impair quality of life. It can interfere with sleep, resulting in daytime sleepiness, and affect the ability to learn and perform tasks. In addition, untreated or improperly treated AR may eventually lead to other complications. These include chronic sinusitis, recurrent inflammation or enlargement of the adenoids and tonsils, chronic ear infections (otitis media) and ear dysfunction. Nasal polyps have also been associated with AR, though the connection is unclear.

Treatment- What to do ?

The most important part of treatment is to understand the recurrent and prolonged nature of the disease process. While symptoms can be improved over the short-term with treatment, commitment to long-term treatment with follow-up to exclude complications and optimise drug dosage is vital. Stopping the treatment completely just when symptoms are receding would almost certainly bring them back again. That would bring the patient and the doctor back to square one !

The best way to treat AR is to avoid or limit exposure to the allergen as much as possible. Therefore, it is important to identify the allergens. Avoidance techniques will vary depending on the type of allergy.

The principles in the management of AR include:

- **Medication:** this includes the use of nasal steroid and/or antihistamine sprays, topical decongestants, antihistamine tablets, leukotriene modifiers as prescribed by your ENT doctor.

- **House mite avoidance:**
  - Change bed linens every week, pillow cases daily and wash bedding in hot water to kill mite
  - Remove carpeting, drapes, wall hangings and other dust accumulators
  - Wet mop and vacuum frequently
  - Replace stuff toys (eg. teddy bears) with metal, wooden and plastic ones
  - Dehumidifiers and HEPA air purifiers/ filters

- **Pets:** People allergic to their pets should remove the animals from the house, if possible, or at least keep the animals out of the bedroom. Wash pets frequently to minimize the amount of allergens on their skin

- **Surgery:** eg. trimming of the inferior turbinate to relieve nasal obstruction resulting from swollen turbinates for the long term. Chronic rhinosinusitis and nasal polyps may need Functional Endoscopic Sinus Surgery (FESS) and polyp removal under general anesthesia.

- **Immunotherapy:** Taken when allergies cannot be controlled by avoidance or medications. Taken over a period of months or years, these shots can help people build up a tolerance to their allergen triggers. This, in turn, can lead to the prevention or reduction of allergy symptoms. However, this form of treatment may not work at all or may even cause a severe reaction in people who are especially sensitive to allergies.

Understanding the myths of allergic rhinitis

"Will it turn into a cancer?" NO ! Long term AR or sinusitis has not been linked with cancer.

"Will it continue forever?" The severity of AR symptoms usually improves as a patient ages. While some people eventually outgrow the disease or the disease improves over the years, the condition can worsen over time in some people. Hence it is important to start treating it to avoid long-term complications. It is best to assume that you have it for the longer term and learn to manage it. In short, one just cannot afford to be satisfied with the success of short-term management.

"It can't be cured." Immunotherapy offers hope. However, many researches are still ongoing. There are still debates about the exact dosage, schedule, and frequency. Now the easy availability of the sublingual immunotherapy (drops/fast-dissolving tablets placed under the tongue) offers a great chance at overcoming some common allergies.

Contributed by:

Dr Vincent Tan Eng Soon
MD (UKM), DOHNS RCS Edinburgh (UK), MRCS Edinburgh (UK), Post grad Cert Allergy (Southampton, UK)
MS ORL-HNS (UKM)
Fellowship in Rhinology (Singapore)
Fellowship in Head and Neck Oncology and Surgery (Amsterdam)
Consultant Ear, Nose, Throat (ENT), Thyroid, Head & Neck Surgery
KPJ Klang Specialist Hospital