

Nasal Allergy

What Is allergic rhinitis?

Nasal allergy is frequently termed “allergic rhinitis”. Rhinitis is a non-specific term meaning an inflammation of the nasal lining. There can be a number of causes for this inflammation of which allergy is only one.

There is considerable debate about the role of foods in rhinitis. Excessive milk consumption has a long association with increased respiratory tract mucus production and asthma. Over the years I have seen rhinitis and asthma improve in some patients on a dairy exclusion diet. Such an association cannot be explained using a conventional allergic paradigm. The precise mechanism remains to be elucidated.

If an environmental allergen or allergens can be identified as a factor in rhinitis the rhinitis is labelled as allergic. Typically, allergic rhinitis is characterised by sneezing, a runny nose, nasal itch and nasal blockage. Your nose may not be the only organ that may be affected in allergic rhinitis. You may have itching of your eyes (allergic conjunctivitis), throat and ears. Many patients also have associated asthma and eczema. There are two types of allergic rhinitis:



Seasonal allergic rhinitis or hay fever

Nasal symptoms are generally only experienced during spring and/or summer (pollen months). It is usually due to pollens, which are carried by the wind and easily breathed into the nose. When most people talk about hay fever, it usually means a seasonal allergic rhinitis.

Perennial allergic rhinitis

Symptoms are experienced all year round. It is usually caused by allergens such as house dust mite, family pets and mould spores. House dust mites are commonly found in bedding.

How common is allergic rhinitis?

Depending on how it is defined allergic rhinitis is extremely common in the New Zealand population (up to 20%). The prevalence of allergic rhinitis and other allergic diseases appears to be increasing in the Western world. Environmental pollution, diet and increased cleanliness are all factors that have been implicated.

Asthma, eczema and allergic rhinitis were non-existent in Papua New Guinea forty years ago. Since then there has been a dramatic increase. It is thought to be due to the adoption of a Western diet and Western bedding. When the Berlin wall came down it was found that allergic disease in East Berlin was minimal. East Berlin was well recognised to have significant air pollution. The genetic stock was similar between the two cities. A major difference was that the West was more affluent with a Western diet and habits. There is evidence that part of the rise in allergic disease may be due to the reduction in infectious disease. One Japanese study has shown that children infected with TB are less likely to develop allergic disease later in life. The reality is that allergic rhinitis has a multifactorial etiology and a number of approaches are needed.

How is allergic rhinitis diagnosed?

Typical symptoms of allergic rhinitis are sneezing, nasal congestion, clear nasal discharge, itchy eyes, itchy nose and itchy palate. These symptoms may be seasonal or all year around. There may also be a history of asthma and eczema. Unfortunately not all these symptoms may be present, and at times other nasal conditions can cause similar symptoms. In the Northern Hemisphere, where the seasons are more distinct, the onset of seasonal symptoms can be linked to certain pollens. This is more difficult in New Zealand. Cats, in particular, have been strongly linked to allergy. Marked nasal symptoms on waking suggest the diagnosis of house dust mite allergy.

Skin prick testing can be non-specific, however it can be useful to indicate allergic tendencies and may identify specific allergen(s), so that the correct avoidance measures can be recommended.

Management of allergic rhinitis?

Allergen Avoidance

Total allergen avoidance is not possible in a practical world. Many of the avoidance measures advocated are controversial, however measures to reduce overall allergen load may be useful. The measures to be used will differ depending on the nature of the allergen.

Pollen:

Pollen particles are part of the reproductive mechanism of plants and are an environmental contaminant, which are difficult or impossible to eliminate. Measures, which can help to reduce the exposure, include:

- keeping windows in cars and buildings shut
- wearing glasses or sunglasses
- avoiding open grassy places, particularly in the evening and at night

Animal allergens:

Cats are a major problem and families with atopic (allergic) members should be advised against animals in the home. Once an animal has been removed from a house it can take up to 2 years for all the animal dander to leave a house. Many people prefer to keep the family cat and suffer in the process.

House dust mite:

House dust mites are found in mattresses, pillows, bedcovers, carpets and soft furnishings throughout the home. Optimal conditions for mite growth are achieved in well-insulated, centrally heated homes. Mattress/bedding barrier intervention has been shown to reduce mite allergen levels. Some evidence indicates that they improve asthma symptoms, but there is little evidence that they improve allergic rhinitis symptoms.

Drug Treatment

The mainstay of treatment for allergic rhinitis has been the use of topical corticosteroid nasal sprays, and the newer non-sedating antihistamines. These may be highly effective, when used either alone or in combination. There are compliance problems with sodium cromoglycate, because it has to be used three to four times a day. Topical anticholinergic drugs (e.g. Atrovent) are useful in controlling nasal discharge only.

Topical corticosteroid nasal sprays are a useful first-line treatment for most patients. Sometimes a course of oral steroids is useful to decongest the nose allowing topical nasal steroids access to the nasal mucosa. They can also be useful if there are initial problems tolerating a nasal steroid spray. To view or download instructions on how to use a steroid nasal spray please click on "Instructions for using a steroid nasal spray."



There is increasing evidence that a saline nasal spray is useful in controlling allergic symptoms. The exact recipe varies but I recommend half a teaspoon of salt and half a teaspoon of baking soda in a pint (600mls) of water. Some authorities recommend using rock salt saying that iodized salt is more likely to sting. www.ent-consult.com is a useful website.

Immunotherapy

Allergic rhinitis may, in general, be effectively managed with a combination of allergen avoidance measures plus topical corticosteroids and oral non-sedating antihistamines. There remains a small group of subjects who continue to have marked symptoms. Immunotherapy offers the chance of potential cure.

Immunotherapy generally does take a considerable period of time. The evidence would suggest that 60% of patients gain benefit from immunotherapy, although some people claim to have better results. Until recently immunotherapy was administered using regular injections.

There is good scientific evidence that desensitisation can be achieved by placing drops under the tongue (sublingually). Sublingual immunotherapy appears safer and just as effective as injection immunotherapy.

There is a small body of evidence indicating that immunotherapy administered through three, monthly intralymphatic injections can be as effective as three years of regular injections.

Diet

Excessive milk consumption has a long association with increased respiratory tract mucus production and asthma. Over the years I have seen a number of patients find that their rhinitis and asthma has improved on a dairy exclusion diet. Such an association cannot be explained using a conventional allergic paradigm and there is limited medical evidence showing causality. In the human colon, beta-casomorphin-7 (BCM-7), an exorphin derived from the breakdown of A1 milk, stimulates mucus production from gut MUC5AC glands. In the presence of inflammation similar mucus overproduction from respiratory tract MUC5AC glands characterises many respiratory tract

diseases. BCM-7 from the blood stream could stimulate the production and secretion of mucus production from these respiratory glands. As yet this is simply a hypothesis. I have put these ideas forward in Medical Hypotheses - Bartley J, Read McGlashan S. Does milk increase mucus production? Medical Hypotheses 2009 [PDF article]. If you are interested in trialling a dairy free diet one has to do it rigorously for 4 weeks and then challenge oneself after 4 weeks. The dairy free diet can be downloaded from my website [Milk.pdf].