



# Stop the sneezing and improve the breathing

## Managing allergic rhinitis

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### Introduction

Allergic rhinitis refers to the inflammation of the mucous membranes of the nose (rhinitis) that is caused by an allergic reaction to inhaled allergens. An allergen is a harmless substance that causes the release of chemicals (mainly histamine) in a person with an allergy to that specific substance. This reaction then leads to the typical symptoms of allergic rhinitis (often called hay fever) that include a runny nose, itching, sneezing and nasal congestion (swelling). Although allergic rhinitis is not life-threatening, it can have a severe impact on quality of life and can lead to other complications. Allergic rhinitis can be managed effectively in most patients resulting in a substantial improvement in their quality of life.

### Causes

Some of the most common allergens that cause symptoms of allergic rhinitis include:

- Pollen from trees, grass and weeds
- Moulds
- Insects (house dust mites, cockroaches)
- Pets (animal skin, fur, feathers and saliva)
- Rodents

In addition to these common allergens, there may be some factors that can trigger or worsen the allergic reaction. These include:

- Smoke from cigarettes or wood
- Air pollution

- Perfumes and colognes
- Hairspray
- Chemicals and fumes
- Cold temperatures
- Wind
- Humidity

Allergic rhinitis seems to run in families and those who have parents suffering from allergies are also at risk of developing allergic conditions.

### Symptoms

The following initial symptoms occur shortly after exposure to an allergen:

- Itchy nose, eyes, mouth, throat or skin
- Sneezing
- Runny nose and post-nasal drip
- Watery eyes

With continuous exposure and no treatment, the following additional signs and symptoms may develop over time:

- Nasal congestion (stuffy nose)
- Decreased sense of smell
- Coughing
- Sore throat
- Clogged ears
- Headache
- Dark circles and puffiness under the eyes (allergic shiners)
- Horizontal nasal crease over lower half of the bridge of the nose (allergic salute) due to constant upward rubbing of the nose to improve breathing
- Fatigue and irritability

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Symptoms may be intermittent, or persistent (lasting all year round), depending on the cause of the allergy and how often the patient is exposed.

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## Management

### Avoidance

The first and most important step is to avoid allergens and triggers as much as possible. In order to avoid allergens, the patient should know exactly what the cause of his or her allergy is. It is possible to test individuals to accurately determine the causal allergens. Sometimes avoidance can be difficult though, especially when the patient is allergic to moulds or pollens that are mostly airborne and could be present everywhere. In these instances, there are some practical measures a patient can take to reduce exposure as far as possible.

Where possible, patients allergic to pollens should stay indoors with air-conditioning when pollen counts are high, keeping doors and windows of buildings and cars closed. Pollen counts are higher on warm windy days. Taking a shower before bedtime will rinse off allergens, reduce transfer to bedding and decrease allergen exposure during the night.

### Treatment and medication

#### Normal saline

Normal saline nasal sprays or rinses can be used to clear allergens from the nasal passages. It is useful to reduce exposure to allergens but is also recommended before using medicated nasal sprays to increase efficacy of the medication.

Patients should use at least 200 ml of saline solution per nostril for irrigation. The required amount of solution should be poured out into a bowl and may be warmed slightly. Ensure that the solution is not hot. Fill a syringe from the bowl and squirt the solution into one nostril aiming at the back of the head (do not aim towards the top of the head). Keep the head tilted slightly forward over a sink or in the shower when you rinse. The solution should go into one nostril and come out the other. Some patients may experience a slight burning sensation initially that usually subsides with repeated irrigations. Swallowing small quantities of the solution is not harmful. The rinsing may be performed once or twice daily, depending on the severity of the allergies. Saline irrigation is more effective than using a saline nasal spray.

It is important to administer nasal sprays correctly for maximum efficacy. The head should be tilted slightly forward to avoid the spray from running down the back of the throat. Inside the nostril, the nozzle should be directed towards the outer wall, away from the septum (middle of the nose). After administering the spray, the patient should sniff gently to pull the spray into the higher parts of the nose.

#### Topical cortisones

Topical cortisones should be considered as the first-line treatment for allergic rhinitis. They are effective in treating all four of the major symptoms associated with allergic rhinitis, i.e. itching, sneezing, runny nose and congestion. Beclomethasone, fluticasone and mometasone are cortisone nasal sprays available in South Africa without prescription for the prevention and treatment of allergic rhinitis. Treatment usually starts with the maximum dose to get symptoms under control and can then be reduced to the minimum effective dose for maintenance. Side-effects are usually mild and related to an unpleasant smell or taste and drying or bleeding of the nasal membranes. To minimise side-effects, patients can reduce the dose, stop treatment temporarily, use a moisturising spray or use a water-based formulation instead of an alcohol-based product.

Cortisone sprays provide relief within one day. However, it may take days to weeks to reach maximum effect. Patients with intermittent symptoms can use cortisone sprays when necessary, but should start and continue treatment for at least two days before and after exposure. Patients with persistent symptoms should use cortisone sprays continuously and may even acquire sufficient symptom control when using the spray on alternate days.

#### Antihistamines

Nasal sprays containing antihistamines work within 15 minutes and can be used when necessary. Azelastine and levocabastine are available as nasal sprays in South Africa and alleviate itching, sneezing and rhinorrhoea (runny nose), with some effect on congestion.

Oral antihistamines are less effective than cortisone nasal sprays, but are an option for patients with mild or intermittent symptoms. The first-generation antihistamines may cause sedation which limits their use. Second-generation antihistamines are less sedative and available products include cetirizine, levocetirizine, loratadine, desloratadine, fexofenadine and ebastine.

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#### Decongestants

Nasal decongestants are effective in reducing congestion and relieving sinus pressure, but should be used for only short periods (no longer than 7–10 days) at a time. Using topical decongestants for extended periods can lead to rebound nasal congestion which means that the nasal spray is not effective any more to reduce congestion. Several products containing decongestants such as oxymetazoline, phenylephrine and

xylometazoline are available in South Africa. Decongestant sprays may be used for a few days when initiating treatment with a cortisone or antihistamine nasal spray to alleviate symptoms until the cortisones are fully effective.

### Referral

Patients with severe symptoms and those who do not respond to treatment that was effective in the past, should be referred to a doctor or specialist. Pregnant patients who do not have sufficient relief of symptoms with saline irrigations should also be referred to a doctor for further assistance.

### Conclusion

Topical treatment of allergic rhinitis is more effective than oral treatment options and nasal cortisones should be considered as the first choice for treatment. Short-term use of nasal decongestants with cortisones can help relieve symptoms until cortisone sprays are fully effective. Patients who do not respond to cortisone nasal spray alone may add an antihistamine nasal spray or a second-generation oral antihistamine. Effective management of allergic rhinitis can improve the quality of life and productivity of patients.

### References

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