

Indian Academy of Pediatrics (IAP)



GUIDELINES FOR PARENTS

Allergic Rhinitis

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11 FAQs on ALLERGIC RHINITIS

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2. Can this also affect other family members, as we all live together? Why does allergy occur?
3. So doctor, what are the things that I must avoid or take care of to prevent this in my child?
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10. How we can differentiate allergic rhinitis from common cold? What will happen, if we are unable to complete the treatment for allergic rhinitis?
11. Can we have a permanent cure for my child? Any available treatment which can just wipe this out?

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Allergic Rhinitis

Q1

My child suffers from frequent sneezing and nose blocks, which keeps happening round the year, and when he/she goes for outdoor play. Why does that happen doctor?

Frequent sneezing, runny nose and/or blocked nose are common symptoms of a condition called "allergic rhinitis".

The symptoms may typically occur early in the morning when the child may experience bouts of sneezing. Some children may also complain of an itchy nose leading them to continuously rub their nose.

There are certain substances that trigger allergic reactions. In some children, symptoms are present only during certain seasons such as summer and spring, which are pollen seasons. Pollen acts as a trigger, aggravating the symptoms. These children get symptoms when they are outdoors. Others may have year-round symptoms due to the allergic triggers present indoors, such as dust mites, animal furs, and fungi.

Symptoms may be mild. However, they may be severe enough to affect sleep and day-to-day activities. The frequency of symptoms may vary depending on how often they are exposed to these substances.

Q2

**Can this also affect other family members, as we all live together?
Why does allergy occur?**

Allergies can run in families and more than one person may be affected. This is because of the genetic basis of this condition. Allergic rhinitis is not contagious; one cannot catch allergy by living in the same household.

Allergic rhinitis is a condition caused by inhaling tiny particles that trigger allergic reactions. Our body's defense system, known as the immune system, is designed to fight infections and foreign matter. Sometimes our body's immune system is oversensitive and reacts abnormally to common airborne substances such as grass and weed pollens, fungal spores, animal furs, and dust mites to name a few. However, this abnormal response only occurs in some susceptible individuals.

In those individuals who have an allergic tendency, contact with a trigger substance such as dust mites or pollen, the body's defense system releases certain chemicals. One such chemical is called histamine which leads to the symptoms of runny nose, itching in the nose, sneezing, and nasal stuffiness.

Normally, our nasal passage and the inner lining of the nose act like a filter to prevent the allergic triggers from entering our lungs. It is important to treat allergic rhinitis to prevent complications such as snoring, poor sleep, day-time fatigue, and reduced attention span. Poorly controlled allergic rhinitis may lead to asthma or make asthma control difficult as the nose and lungs are connected.

Allergic rhinitis may also be associated with skin allergy, nasal polyps (localized swelling in the nose), and allergic conjunctivitis (redness and watering of eyes).

Q3

So doctor, what are the things that I must avoid or take care of to prevent this in my child?

You can take measures to reduce contact with allergens and irritants that can induce allergic symptoms; these are called as “triggers”.

Triggers can be present inside our house such as dust, incense sticks, kitchen smoke, fumes from mosquito coils, strong deodorants and perfumes, fungus over damp walls in the kitchen or washroom areas, etc. House dust mites may be present on furry toys, upholstery, furniture, carpets, and beddings. One can become allergic to their droppings. The saliva from the pet animals such as dogs and cats get on to their fur when they lick themselves. Contact with the dried saliva may cause allergic reaction.

One of the most important indoor triggers is cigarette smoke. Even passive smoking can cause much harm to the nonsmokers, if there is a smoking member in the house.

Outdoor triggers such as grass and weed pollens, smoke from vehicles, construction activities, lighting of fire-crackers during ceremonies or festivals such as Diwali, use of colors in Holi, etc. can all act as triggers (**Fig. 1**).

Households must be free from all smokes: Cigarette, kitchen, mosquito coils, incense sticks, etc.

Bathe pets regularly and get them treated for fleas and other ectoparasites. If pets can be avoided, that can be the ideal option.

Clean the bedcovers regularly in hot water. Avoid putting rugs or carpets.

Do not allow children to indulge too much in furry soft toys and wash them regularly. Clean all the hard surfaces with damp cloth.

Clean your refrigerator, air-conditioners, bathrooms, showers, doors, and windows regularly.

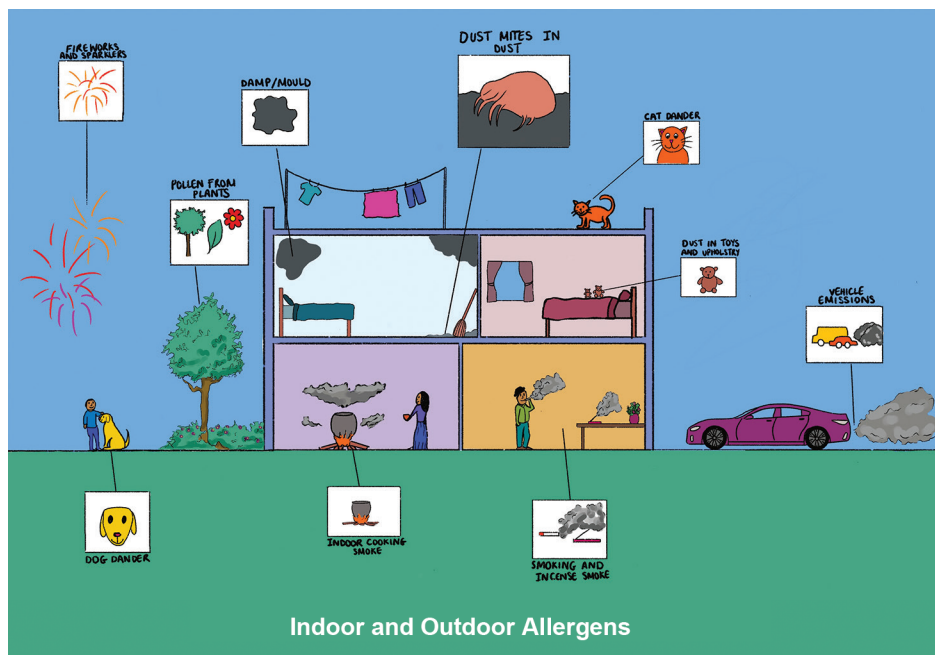


Fig. 1: Indoor and outdoor triggers.

Q4

My neighbors told me that eating foods like banana and curd can aggravate these symptoms. Does my child need any dietary restrictions?

There are no dietary restrictions in allergic rhinitis. Your child can have all the foods, he/she likes to eat, with the obvious exception of junk and processed food. It is important that your child eats a balanced and varied diet. Giving seasonal fruits and vegetables helps boost the immune system as they contain micronutrients such as vitamins and minerals.

Some children may have an associated food allergy, where certain foods to which the child is sensitive must be avoided. However, the decision to omit any food must be taken after consulting your doctor.

Q5

When do I need to consult your doctor for these issues? Is it OK that I try some cold syrups or home remedies for some more time?

Itchy, runny or blocked nose and/or sneezing are the main symptoms, you need to be watchful for. If any of the symptoms are present along with the following situation, you need to report to your doctor immediately:

- Frequent symptoms lasting for at least 4 days in a week or infrequent symptoms lasting for a month or more
- Greenish-yellow nasal discharge
- Child unable to sleep peacefully in night because of his symptoms
- Child has to miss his school or unable to play with friends due to his problems.
- Associated coughing, breathing difficulty or musical sounds from chest
- Watery eye discharge with itching
- Bleeding from nose
- Ear discharge or pain
- Change in voice
- Headache

Cold syrups contain medicines and hence must not be taken by the parents themselves without consultation with a doctor. Most of the times, they just give relief from symptoms of rhinitis, temporarily. Similarly, home remedies might suppress symptoms for some time, giving a sense of relief, but they do not treat the underlying basic problem (inflammation), which is causing allergy.

Hence, if any of the above-mentioned symptoms are present in your child, do consult a pediatrician, who will assess your child's issue and suggest appropriate treatment.

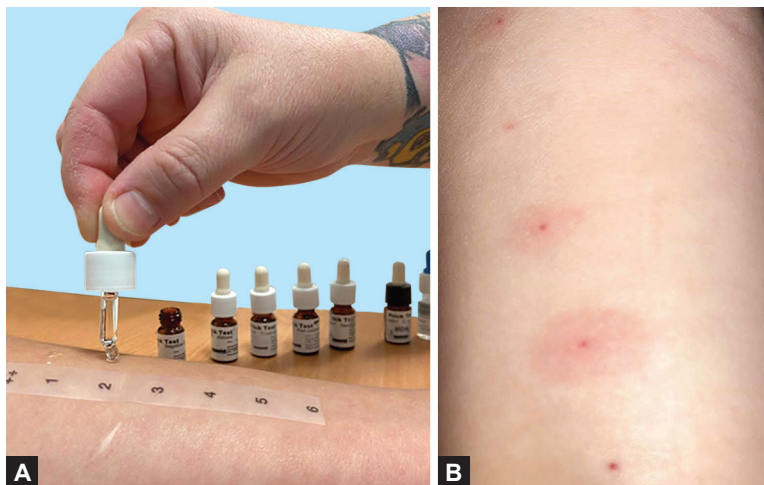
Q6

Doctor, are there any tests to confirm this allergy in my kid?

Nasal allergy is mostly suspected in presence of repeated symptoms of watery nose, itching, nasal block, and sneezing. The chances of allergy in child increase, if any of the parents or close first-degree relatives are suffering from any type of allergy.

There are two types of tests available to support allergy diagnosis. The first type is a skin prick test in which your child will be tested for allergens on his or her forearm (**Figs. 2A and B**). It is done by injecting small quantities of the allergens over the forearm, and then reading for the responses after few minutes. This test is more economical and usually performed under your doctor’s supervision at his clinic or hospital. Results are available within 20 minutes, and you will likely come to know about cause of your child’s allergy once the identified allergen is correlated with the relevant history by your doctor.

Specific immunoglobulin E (IgE) levels, second type of test, can be measured in the blood for which a blood sampling is needed. Results are usually available in 48 hours and many types of allergens can be detected. This test is costly and available at various commercial laboratories. However, we must remember that although these tests are available at commercial laboratories, we must not directly get these done, without proper consultation with the child’s pediatrician and an allergy specialist.



Figs. 2A and B: Allergy testing.

Q7

What will be the medication for this doctor and for how long?

As the problem is mainly in the nose, it is better to give the medicine locally in the nose. The best medicine is nasal instillation of low dose steroids, given by a nasal spray (**Fig. 3**). A minimum of 6–12 weeks duration is needed to control the symptoms adequately but sometimes your doctor might extend the treatment depending upon the response in your child. Other medicines such as local or oral antihistaminics may be given for few days to control sneezing, itching or nasal discharge. They do not control the underlying inflammation and are given along with intranasal steroids to provide early relief of symptoms, only for initial few days. Saline nasal washes can help in opening up of blocked nose and removal of accumulated mucus from the sinuses. Hot water steam, yoga, and *pranayama* are also helpful in reducing the symptoms.

Along with these medicines, it is very important to remove or reduce the triggers from the child's surroundings, which cause these allergic symptoms.

The treatment should be taken as per your doctor's advice. If the cause of allergy is found after allergy testing, appropriate therapy can be taken from your allergy specialist.

The steps of taking nasal spray:

- Shake the bottle well before each use.
- If your nose is blocked by mucus, blow your nose gently or rinse with saline.
- Tilt your head slightly forward.
- Gently put the bottle nozzle into one nostril with the help of opposite hand.
- Keep tip of the nozzle tilted toward your ear (same side of nostril).
- Breathe in gently and press the spray at the same time.
- Avoid sniffing during or after spray.
- Repeat the same procedure for the opposite nostril.
- Wipe the tip of the spray device with a dry soft cloth and put the cap back on.
- Two different nasal sprays can be administered at 10 minutes interval following the same technique.



Fig. 3: Correct technique of nasal spray instillation.

Q8

Why do we need to give nasal spray doctor? Can't we give some syrups instead? I am worried about the side effects.

Nasal sprays are safer than oral medications. They act locally on the nose, and hence the onset of action is very fast. Not much of the medicine is absorbed into the body, so it does not reach other body organs. As the site of action is local, the dose of medicine required is also very small. Due to these reasons, there is no risk of any immediate or long-term side effects with the use of nasal sprays.

Oral preparations such as syrups contain medicine in higher dosages, as they must travel all the way up to the nose, once ingested and during this, much of the medicine is metabolized by the body. Oral medicines also reach other body organs via the blood after absorption, where they are not needed, and hence tend to have more side effects as compared to nasal sprays.

Intranasal steroids are effective as well as safe choice in the treatment of allergic rhinitis.

Q9

Doctor, my mother told me that we do not need to treat this so aggressively; as my kid grows up, this will regress. Is that true? Can anything go wrong if we neglect it?

As we have discussed earlier, allergic rhinitis is a part of group of allergic disorders having strong genetic predisposition. Asthma, which is a disease of lower airways, is also one such allergic disease. We all know that our lungs are connected to the exterior through airways in the chest, followed by throat and nose. So, all this is a single unit and allergy starting in the nose or throat can eventually land up affecting our airways. This means, if we neglect allergic rhinitis in our children, sooner or later there is a possibility that these children may develop asthma. About 4 in 10 children with allergic rhinitis are known to develop asthma, if not treated. Similarly, about 7 out of 10 asthmatics already have allergic rhinitis.

Hence, we must manage allergic rhinitis once, it is diagnosed in our child.

Q10

How we can differentiate allergic rhinitis from common cold? What will happen, if we are unable to complete the treatment for allergic rhinitis?

The most important aspect of successful treatment is timely diagnosis. Any child with frequent nasal symptoms such as sneezing, itching, runny or blocked nose may be suffering from allergic rhinitis. Dark circles under the eyes (allergic shiners), transverse hypo- or hyperpigmented skin line over the lower third of nose (allergic crease), frequent upward swipe of nose with fingers or palm of hands (allergic salute), or wrinkling of nose or mouth to relieve nasal itching (allergic mannerism), and frequent ear fingering are some of the early signs which point toward a possible allergic phenomenon. On the other hand, common cold happens due to seasonal respiratory viral infections, usually lasts for 7–10 days with predominant sore throat, dry cough, fever and less of sneezing, and runny nose. Sinus infections usually cause high-grade fever, purulent nasal secretions, stuffy nose, headache, tiredness, cough, loss of smell, bad breath, facial pain, aches, and pressure sensation over the sinus area.

Untreated or poorly managed allergic rhinitis can adversely affect both body and mind. The physical complications could be spread of inflammation to ear or sinuses, hearing deficit, snoring and most importantly involvement of lower airways eventually leading to “asthma”. Psychological effects could be sleep disturbances in night, fatigue, poor scholastic performance, excessive daytime sleepiness and hyperactivity.

Q11

Can we have a permanent cure for my child? Any available treatment which can just wipe this out?

Many children outgrow their allergic tendencies as they grow up, and they may not have any symptoms as an adult. Effective pharmacological treatment is one option, which can suppress the allergy and help our body’s process of naturally outgrowing the disease. Treatment compliance is very important in keeping a check on disease progression.

Another option is “immunotherapy”. In this, after identifying the offending allergens, desensitization of these allergens is done gradually over few weeks to months. This alters the natural course of disease and may suppress the disease permanently. Immunotherapy should be considered, only after consulting your pediatrician and if needed, an allergy specialist and understanding all the pros and cons of the therapy. It is done for selected cases and in trained hands at a dedicated center.

Early detection and management are the key to the effective treatment of allergic rhinitis.