

Allergic Rhinitis in Children

Symptoms

Rhinitis means inflammation of the mucous membranes in the nose. The common symptoms associated with rhinitis are an itchy nose, red eyes, watery discharge from the nose and/or eyes, a blocked nose and sneezing. There are two types of allergic rhinitis: seasonal allergic rhinitis (also known as hay fever) and perennial allergic rhinitis.

Perennial allergic rhinitis

Sufferers of perennial allergic rhinitis experience symptoms all year round, and it can be easily mistaken for an 'all-year cold'. The symptoms can appear shortly after exposure to an allergen and are often triggered by allergens in the home such as those from moulds, house dust mites and pets.

Additional symptoms can appear at latter stages of the disease. Some people can develop sinusitis, where the cavities in the skull near to the cheek bones and eye brows become filled with fluid (they are normally filled with air), leading to pain and discomfort and occasionally infection.

Young children can be at risk of developing glue ear as a complication of sinusitis because the tubes connecting the throat and ears are in close contact and become blocked, leading to ear symptoms such as pain and temporary hearing loss.

Nose bleeds can also be quite common with rhinitis. This is because the lining of the nose is itchy and is often rubbed or scratched.

It is always worth mentioning any of these symptoms to your doctor since accurate diagnosis and treatment can help to reduce problems.

Seasonal allergic rhinitis (hay fever)

Seasonal allergic rhinitis is caused by allergens from grasses, plants and trees. This often affects children at school and, while it is typically thought of as a summer complaint, the hay fever season in the UK starts much earlier in the year during the spring.

While some sufferers react to one type of pollen during the 'season', and then feel better later in the year, it is also possible to be sensitised to more than one type of these allergens, leading to a prolonged bout of rhinitis. For example, tree pollen comes out in spring, while the grass pollens are a problem during the summer, and moulds can cause rhinitis symptoms in the winter. Some sufferers even go on to experience year-round rhinitis.



However, there is a range of treatments for this condition and many sufferers find it extremely manageable.

Diagnosis

The diagnosis is usually made by a symptom history and allergy testing. There are also some other special examinations of the nose which may be performed, for example, a more in-depth look at the nose via an endoscopy.

Treatments

Medication for allergic rhinitis (hay fever) can be very effective and is important in helping to improve your child's quality of life. Research has shown that children with rhinitis may have difficulties sleeping and become irritable or lack concentration. These problems can affect a child's ability to cope with their normal daily routine. In addition, if rhinitis remains untreated it can sometimes lead to more serious conditions including asthma.

Some medications work by blocking the allergic response, others by reducing inflammation. Nasal steroid sprays and drops are very effective in treating the inflammation of allergic rhinitis, and very little of the medicine is absorbed into the body so side effects normally associated with oral steroids are rare. It is also important to try to limit exposure to allergens, where possible.

Allergen avoidance

Allergy tests can be useful in determining which allergens might be causing the symptoms of rhinitis. For some allergens, avoidance can be fairly straightforward, for example, to animals and other people's pets (many families are reluctant to give away their own pets where these cause symptoms). For house dust mite and moulds, the allergen load can be reduced through environmental measures including vacuuming, avoidance of soft furnishings including carpets, and mattress barrier covers. Such measures can be helpful in many patients. For a guide to allergen avoidance, [click here](#).

It is more difficult to avoid exposure to pollens, although some children may benefit from the following strategies:

- ▶ Stay indoors until after midday (if possible). This will reduce your exposure. Try to avoid going out on windy days or after thunderstorms
- ▶ Wear sunglasses to protect your eyes
- ▶ Do not mow the grass, and stay inside when it is being mown
- ▶ Consider planting a low allergen garden around the home



- ▶ Keep windows closed both at home and particularly when in the car (and where possible use re-circulating air conditioning in the car)
- ▶ Do not picnic in parks or in the country during the pollen season
- ▶ Try to plan your holidays out of the pollen season, or holiday at the seaside.
- ▶ If you are sensitive to particular weeds or trees that are outside your bedroom window, have them removed
- ▶ Shower when you arrive home and bathe your eyes frequently with a wet washer
- ▶ Carry a supply of tissues



Anti-histamines

Anti-histamines are probably the best known type of allergy medication, and are readily available from a pharmacy without prescription. However, there are a number of different types of anti-histamine; some have been used for many years, some are improvements on old drugs, and new anti-histamines are being developed all the time.

While anti-histamines used to have a reputation for making people drowsy, more modern anti-histamines only occasionally have those side effects.

During an allergic reaction, the immune system releases histamine which starts a cascade effect of allergy symptoms. The histamine itself can lead to narrowing of airways, and widening of blood vessels, causing swelling or oedema, where fluid leaks into the surrounding tissue. The effect of histamine in the tissues is also responsible for the itching that is associated with many allergic reactions. Anti-histamines work by blocking the action of histamine, and stop the whole cascade of symptoms.

Anti-histamines are extremely safe and are available over the counter from pharmacists (although often, anti-histamines available without prescription may be the older types which can cause drowsiness). A liquid or syrup form is usually prescribed for the control of allergies in small children although tablets are used widely for older children. Nasal sprays and eye drops containing anti-histamines are also available. These are very useful for soothing irritated noses and eyes during the hay fever season or when the symptoms of rhinitis flare up.

Nasal sprays

Nasal sprays are used to deliver anti-histamines and steroids to the nasal passages and are generally used in children over the age of six. Nasal anti-histamines help with symptoms of itching and sneezing, while steroids are used to control the inflammation in the nasal lining and can help relieve eye symptoms.

In general, allergists do not recommend using decongestant nasal sprays as these can actually worsen symptoms if used for more than a few days at a time.

Steroids may be given via nasal sprays or drops. These can take several days to work but, once they do, they are effective at reducing the symptoms caused by airborne allergens and the effects of allergic rhinitis. This medication is particularly useful if started before exposure to the allergens. For example, children with hay fever will gain most benefit if steroid sprays are commenced a few weeks before the pollen season.

Although adults can now buy steroid sprays over the counter from pharmacists, for children you must get a prescription. This is so the right dose can be found for your child and proper training can be given in how to use the sprays.

Your GP should be consulted for more information on nasal sprays and to find out which ones are suitable for your child and their symptoms.

How to use

- ▶ Sprays should be used every day to keep symptoms at bay – a lack of symptoms means that the treatment is working and should be continued
- ▶ Training is important because the steroid spray needs to reach and stay in a particular part of the nose for the medication to be effective. Used correctly and routinely, these nose sprays can prove effective for a lot of children
- ▶ When administering a nasal spray try to get your child to lean forwards so that the medication can be sprayed up the nose at an angle. The spray needs to hit the nasal lining to be most efficient
- ▶ Some children get nose bleeds when they start using sprays. These are not caused by the spray itself. Instead, they are a result of the inflammation caused by the allergic reactions they have been experiencing. Nasal sprays are aiming to reduce this inflammation and improve your child's health. If you are worried, visit your GP and ask about nose bleeds coinciding with starting nose sprays

Eye drops

Eye drops can be particularly useful if eye symptoms are one of the main symptoms of allergic rhinitis. As with nasal drops they work best when they are used regularly and started some time before the allergic symptoms appear. Many eye drops contain cromoglicate, which works by blocking the responses of the cells that release the histamine during an allergic reaction, and can be a useful alternative to an antihistamine in preventing allergic reactions.



How to use

- ▶ It can be easiest to administer eye drops by laying your child down and gently pulling down their lower lid. For example, to have their head in front of you as they lay on the end of a bed
- ▶ Younger children may require wrapping, for example, in a towel, to avoid them moving, and then placing them on your lap
- ▶ Older children sometimes like to sit in a chair while the drops are administered as they lean back and look up
- ▶ Adding one drop gently into the eye your child will naturally blink as a reflex and may find the drops initially uncomfortable
- ▶ Follow directions such as washing hands before administration, else you could be adding more irritants and infections



Immunotherapy

Immunotherapy is a specialist treatment that aims to modify the immune system so that it no longer reacts to allergens as a threat, and so will not launch an attack against them causing the allergy symptoms that are normally seen.

Subcutaneous immunotherapy is the most common type of immunotherapy treatment, and involves giving an injection to the patient, containing the allergen to which they are sensitised. Over the course of treatment, increasing amounts of the allergen can be given until the patient reaches a point at which they no longer experience symptoms of allergy to that substance. Alternatively, the outcome may be that symptoms become less severe or the patient requires less medication.

However, subcutaneous immunotherapy can have a high risk of causing severe allergic reactions during treatment. For this reason, it is very important that this treatment is only given in a controlled medical environment by an allergy specialist. Due to the possibility of severe allergic reactions it is not usually considered as a possible treatment for young children.

A newer, sublingual immunotherapy is being used at some specialist centres, with children who have airborne allergies. A standard course of this treatment involves a dose of the allergen given as a tablet or spray under the tongue, which is increased over time. There is a risk of some mild allergic reactions, but these generally disappear over time, and overall the treatment has shown to be successful in reducing the severity of symptoms and allowing patients to take less medication to control their allergy.

At present, sublingual immunotherapy is only available for children who have airborne allergies, such as pollens or dust mite, and is not available as a treatment for food allergens. It is also only available in a small number of specialist centres.



Good practice

- ▶ Some eye drops are available for use in children aged five years and over. However, you should talk to your prescribing doctor about suitability for your child
- ▶ If you have a baby with symptoms then it is important to discuss them with your GP as appropriate medication will need to be sought
- ▶ Prescribers' instructions usually say to discard medication after one month, and it can be useful to note on the bottle, in pen, dates for re-ordering, especially if you need to pre-order any medication

Tips

- ▶ It is important to understand the emotional stress that rhinitis places on children and that they know that they are supported. The symptoms of rhinitis can often be overlooked by those around the sufferers, and it is especially helpful if children can feel that their peers understand their symptoms and the impact that their condition can have on their lives
- ▶ When giving eye drops to young children, it can be helpful to have something with which you can distract the child once the eye drops have been given, for example, letting your child put a star on their chart
- ▶ It can be helpful to role play with your child using a doll, telling them what is going to happen and letting them repeat the procedure on their doll after having their own eye drops administered
- ▶ Remember to praise older children after medication, as medication can also be uncomfortable for them. Mentioning to others how well your child is coping while they are present can boost their self-esteem and make them more compliant

Self help

- ▶ Wash your child's face and hair if they have been playing outside (as pollen grains tend to stick to the skin and hair)
- ▶ Keep windows shut especially in the morning and early evening (when the pollens are released).
- ▶ Avoid drying clothes outside in high pollen counts
- ▶ Your child should take prescribed anti-histamines regularly even if they seem symptom-free. It can sometimes happen that in the morning they may not be affected, but by later in the day they are 'full' of

hay fever. Some medications are not suitable for younger children so it is important that you discuss these with your GP

- ▶ It can be uncomfortable if your child has a sore nose and you need to apply a nasal spray. To get your child to co-operate with their treatment you could try distraction techniques such as inventing a specific game, for example, I-spy or a word game, that can be played while you do it
- ▶ Encourage the child to wear sunglasses (teachers need to be aware of this, and sometimes it is a reminder to the child, too, not to rub their eyes)
- ▶ Use cool compresses (water and gauze is fine) to cool their eyes if they are really irritated.
- ▶ Shut the windows in the car so you are not driving around taking in lots of pollens
- ▶ Stay indoors as much as possible if the hay fever pollen count is very high. This can be checked on the weather report, or visit www.pollenuk.co.uk for regular updates
- ▶ Think, too, of indoor allergens, such as house dust mite and moulds, and try to follow the avoidance techniques at the end of this booklet to minimise rhinitis symptoms
- ▶ Eye wash solutions (available at your Pharmacy) can help to reduce irritation in the eyes for sufferers of allergic rhinitis



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