

Your essential guide to allergies



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What is allergy?

Allergies are caused by our body's immune system reacting to one or more foreign molecules in our everyday world.

Our immune system is designed to protect us from infection by reacting to foreign molecules - such as bacteria - which it doesn't recognise. Occasionally, however, it also begins to treat harmless foreign molecules as dangerous; these are then described as 'allergens'.

When you have an allergy, the symptoms may include:

- mild itching of the skin,
- lumps or swellings on or under the skin,
- wheezing
- anaphylaxis - severe allergy symptoms which may cause collapse or occasionally even death

If you have an allergy you probably recognise one or more of these symptoms. In this booklet you will be able to find a little more about what is happening in your body to cause your discomfort and how the problem can be reduced or even avoided.



What's happening inside

So, what is happening in your body to cause your allergy symptoms?

To develop an allergy your body needs to encounter an allergen more than once.

Sensitisation

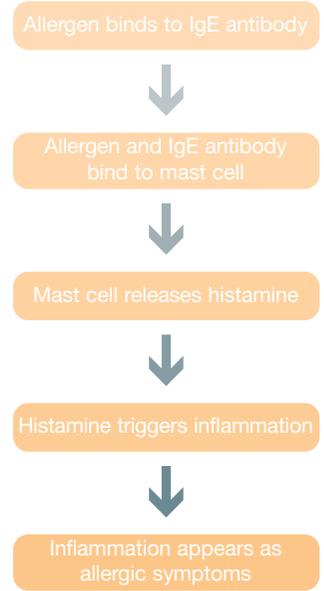
The first time you come in contact with a particular allergen a process called 'sensitisation' occurs.

Your white blood cells begin to produce antibodies (called Immunoglobulin E - or IgE for short). These IgE antibodies are especially designed to react with the particular allergen you have been exposed to. It is your immune system's way of preparing itself to deal with the allergen when it meets it again in the future.

The allergic response

Next time you meet the allergen your body is ready for it. The antibodies fasten themselves to the allergen. Then, together, antibody and allergen attach to cells called 'mast cells', prompting them to release a substance called histamine. It is histamine that triggers the different sorts of

inflammation which you recognise as allergy symptoms.



The presence of IgE antibodies in your blood is therefore one way of detecting whether you are suffering from an allergy. And because your body designs IgE especially for each different allergen, looking closely at your IgE antibodies can be a useful way of detecting exactly what you are allergic to. (More information on allergy testing can be found on page 5)



Who becomes allergic?

Only a small number of people who are exposed to an allergen develop an allergic reaction. So why do some people develop allergies while others do not?

The cause of allergy seems to be an entangled web of 3 factors - genetic inheritance, your home environment and the allergens you are exposed to all appear to play a role.

Genetic inheritance is a very important factor. Allergies definitely seem to run in families and males are more likely to develop allergies than females. Your mother's diet when pregnant, and whether or not she smokes during this time, also seems to affect your chance of developing an allergy.

Home environment seems to be particularly critical in the first year of life. Parental cigarette smoking is known to trigger allergy. Your diet when you are a baby and the early introduction of certain foods commonly associated with allergies also play a role. Air pollution has been implicated, as have many other environmental factors, such as taking antibiotics early in life and lack of trivial infant illnesses.

Allergen exposure is of course necessary if you are to become sensitised. So, exposure to allergens in food and in the air, in conjunction with a family history of allergy and an environment which tends to encourage allergy, all lead to sensitisation in early life followed by the development of allergy symptoms.

The Allergic March

The Allergic March is the term used to describe how the symptoms of allergy seem to change over time. As a person grows, their allergy symptoms often follow a predictable pattern:

Early life



Allergy under the age of 3 years usually involves eczema and food allergy

Middle childhood years



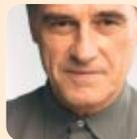
Eczema and food allergy resolve. Asthma develops.

Adolescent



Asthma begins to stabilise. Allergic rhinitis becomes common.

Mid-life



Asthma may recur.



Testing for allergies

Managing your allergy is greatly helped if you can identify what is causing your symptoms. Once the problem allergen has been identified, you can take avoidance measures and try to remove it from your environment. This will reduce your symptoms and your need for medication.

Two of the most useful types of allergy test are:

- Skin prick tests
- Specific IgE tests (RAST or ImmunoCAP® tests)

Skin Prick tests

Skin prick tests are generally carried out in hospital allergy clinics. They are used for the common allergens in the air and for some food allergens.

To perform the test small amounts of liquid each containing particular allergens are pricked into your skin, generally on your inner forearm. If IgE antibody to any of the allergens is present, its particular skin prick will become red and itchy and a small swollen 'weal' appears.



Skin prick test showing swollen weals indicating a positive result

Skin prick testing is not a suitable test:

- If you have extensive eczema
- If you are taking antihistamine medication
- If there is a risk you could have a severe allergic reaction - called anaphylaxis - to one or more of the skin pricks

There is also only a limited number of allergens for which skin prick test solution is available, so it may not always be possible to accurately identify the cause of your allergy by this method.



Specific IgE blood tests

Specific IgE blood tests detect and measure whether your body is producing IgE antibodies to a wide range of different allergens. They can provide you with two sorts of information:

- Specific IgE blood tests detect with considerable precision which allergens might be causing your symptoms. They can uncover whether your body is reacting to any of 450 allergens including grasses and tree pollens, animals and a wide variety of food, chemicals and drugs.
- Because they measure the quantity of IgE, not just its presence, they give you a measure of how sensitive you are to a particular allergen. Results are given a grade from one to six or are shown in units called KU_A/L. The higher the grade, the more sensitive you are to a particular allergen.

How the test works

To carry out a Specific IgE blood test a small blood sample is taken from a vein, using a fine needle and syringe. The sample is then sent off to a specialist laboratory for testing.

Laboratories used to use a system for this type of test called 'RAST', named after the technology used, Radio Allergo-Sorbent Tests. RAST has now been superseded by ImmunoCAP technology, which is carried out in the majority of NHS Pathology laboratories.

The laboratory tests each sample for a range of selected allergens, those which are suspected of causing your allergy symptoms. The most common ones tested for are cat, dog, house dust mite, pollen, moulds and foods. If you have Specific IgE antibodies to two of these common allergens you are considered 'atopic' and may be more likely to develop allergy symptoms.



ImmunoCAP measures whether your body is allergic to any of 450 possible allergens

Class	Level of specific IgE found	Interpretation
0	<0.35kU _A /L	Negative but symptoms should be monitored.
1	0.35+	Negative but symptoms should be monitored.
2 - 6	0.7 - 100+ kU _A /L	Positive. The higher the class (value), the more allergic you are.

Total IgE

Some doctors might measure the total IgE in your blood. But, while this tells you the amount of IgE, it gives no indication of which allergens you could be sensitive to. Total IgE is also not one hundred percent specific to allergy; it can also be raised by parasitic infections, immune diseases and certain cancers.

Provocation tests

Provocation tests include:

- bronchial and nasal challenges with the suspected allergen; and
- Double Blind Placebo Controlled Food Challenges.

Provocation tests are the 'Gold Standard' of allergy tests but can only practically be done in hospital as they trigger severe allergic reactions.

Other tests

There is a wide range of allergy tests available. Those that you can access through your NHS GP or hospital are clinically proven. Many tests are also available through private clinics, the Internet, health food stores and alternative therapists.

Be cautious before selecting a test to help you to identify your type of allergy. The results of your test may mean a significant change to your lifestyle so take great care that your chosen test has been scientifically proven to work.

Food Allergy

Approximately 20% of people in the UK report having had an adverse reaction to food. The true prevalence of food allergy, however, is much lower and seems to be about 2% of the general population.

True food allergy is a reaction to food involving the immune system. Allergic reactions may occur to minute amounts of the offending food in the diet. It may be either:

- **IgE mediated** - where the allergic symptoms are caused by the body's immune system producing IgE antibodies. Most food allergies are of this type.
- **Non-IgE mediated** - where the allergic symptoms are still caused by the immune system, but without the production of IgE antibodies. Coeliac disease is a good example. (More information on Coeliac Disease can be found on page 15)

Non-allergic reactions to food

Several other adverse reactions to food can be mistaken for food allergy, including:

- Food intolerance or hypersensitivity
- Food toxicity
- Food aversion

Food intolerance

Food intolerance or hypersensitivity does not involve the immune system. It may have one of several diverse causes:

- **Malabsorption** (poor absorption) due to a deficiency of an enzyme in the intestine. One relatively common example is intolerance to lactose, the sugar in milk, due to a lack of the intestinal enzyme lactase.



Adverse reactions to:

- **naturally occurring chemicals** in food (e.g. salicylates, histamine, serotonin and tyramine),
- **preservatives** (e.g. sodium benzoate and sulphites),
- **flavour enhancers** (e.g. monosodium glutamate, aspartame)
- **colouring** (e.g. tartrazine).

These adverse reactions are usually related to the amount of offending additive or chemical in the food; the more that is eaten, the worse the reaction will be.



Food Toxicity

Food may occasionally be a source of toxins and poisons, which:

- can occur naturally in food, for example glycoalkaloids, which may be found in potato, or cyanogenic glycosides, found in beans; or
- can also be present as a result of bacterial contaminants, for example free histamine resulting from bacterial degradation of the flesh in scombroid fish, for example tuna, results in scombrototoxicity, which has all the appearance of an allergic reaction including intense itching, headache, rapid pulse and skin flushing. These reactions are due to the direct toxic effect of the spoiled food.

Food Aversion

Some people are psychologically convinced that certain foods disagree with them but when tested fail to react to that food.

The symptoms of food allergy

Allergic reactions to food may cause:

- **Gastrointestinal symptoms, including:**

- nausea,
- vomiting,
- flatulence,
- abdominal pain,
- cramping,
- diarrhoea

- **Non gastrointestinal symptoms, including:**

- rashes,
- eczema,
- swelling,
- nasal allergy,
- wheeze,
- angioedema
- in rare cases life-threatening anaphylaxis.

- **Oral Allergy Syndrome (OAS).**

Fresh fruit, vegetables and nuts may cause local reactions on the lips, in the mouth and in the throat. This so-called Oral Allergy Syndrome tends to occur more commonly in people who are allergic to birch and grass pollen.

- **Exercise-induced Anaphylaxis**

Some people who are allergic to food may develop flushing, shortness of breath, hives and fainting following strenuous exercise. This problem is known to be food related. It can occur for up to 12 hours after eating food such as shellfish, celery and wheat.



Allergic symptoms to food sometimes develop after strenuous exercise

The common offenders

If an allergic reaction occurs immediately after eating a food the diagnosis of food allergy can be easy to make. But if the reaction to the food is delayed the offending food is very difficult to isolate.

Some foods are more commonly associated with allergy than others:

Foods, which commonly cause allergies in adults

Tree Nuts (Brazil nut, Hazelnut, Almond, Walnut, Peanut)

Fruit (Peach, Apple, Strawberry, Citrus fruit)

Vegetables (Tomato, Celery, Onion, Parsley)

Meats (Pork, Beef)

Shellfish (Mussels, Crab, Shrimp, Squid)

Foods that commonly cause allergies in children

Infants tend to develop allergies to different foods from adults:

Cows Milk Protein,

Hens Egg White,

Soya Milk,

Codfish,

Wheat

Peanut

Although these foods are the ones most commonly implicated in food allergy, almost any food can be a potential allergen.

Food allergy diagnosis

If the history of your symptoms suggests you have food allergy, there are two ways by which this can be confirmed:

- **Specific IgE blood testing**

Among the 450 allergens that Specific IgE blood testing can identify are 201 different foods. Specific IgE testing can therefore be a helpful way of identifying particular food culprits. (But don't forget that occasionally food allergy does not result in IgE production, so a negative skin prick or Specific IgE blood test result does not *always* mean that you are not allergic to food.)



Specific IgE blood testing can identify reactions to more than 200 food allergens

- **Elimination diets**

In adults food allergy can often be confirmed by a four-week trial of a 'Few food elimination diet'. For a four week period you are limited to a diet of lamb or chicken, rice and rice products, pears and pear juices, carrots, sweet potatoes, asparagus, beetroot, parsnips and water. All other foods, spices, drinks and condiments are strictly avoided. If food allergy is the underlying problem a marked improvement in symptoms may result.

In infants and children you MUST contact either your GP or paediatrician for further advice. It can be dangerous to feed children nutritionally unbalanced elimination diets without medical advice.

A final word of caution, when evaluating food allergy you should be very wary of unproven diagnostic and treatment regimens, such as Applied Kinesiology, Vega Testing, hair analysis, Leucocytotoxic tests.

Managing food allergy

Food allergen avoidance

The main thrust of food allergy treatment is specific allergen avoidance - in other words, trying to eliminate the food or foods causing the allergy symptoms from your diet. If an essential foodstuff needs to be excluded, you should consult a dietitian to ensure your diet is nutritionally adequate.

Following 6-12 months of allergen avoidance, cautious reintroduction of a "prohibited" food can be attempted, as food allergy often gradually improves with time. If, however, you have suffered a severe reaction or anaphylaxis as a result of a food allergen this should only be introduced on the advice of your doctor and under hospital supervision.

Pitfalls of allergen avoidance

Avoiding food allergens may not be quite as straightforward as it seems:

Cross-reactivity within food groups

A certain amount of cross-reactivity occurs between similar foods and this should be borne in mind if your symptoms recur even though you are avoiding a specific food. For example, if you are allergic to

peanuts, then there is a high risk of being allergic to beans, peas, lentils, carob, senna and liquorice (all members of the legume family).

Families of foods which may cross-react are:

- Legumes - peanuts, peas, lentils, beans, senna, liquorice, soya
- Milk - butter, cheese, cream, milk and infant formulae, yoghurt
- Fish - plaice, tuna, salmon, mackerel, sardine
- Citrus - orange, grapefruit, lemon, lime, tangerine
- Nightshade - peppers, aubergine, potato, tobacco, tomato
- Crustacean - lobster, prawn, crab, shrimp
- Grain - wheat, barley, oats, rye, rice, millet
- Tree nut - brazil, hazelnut, almond, walnut
- Mollusc - oyster, mussel, snail, squid, octopus, clam

Hidden allergens

To fully avoid specific allergens hidden allergen sources also need to be identified. In particular, be careful with processed foods, which are notoriously inadequately labelled.

Coeliac Disease

Medical treatment for allergy

Medical treatment may sometimes be needed if your symptoms are particularly severe. Your doctor may prescribe

- antihistamine;
- adrenaline; and
- corticosteroid medication.

If you have suffered from severe allergic symptoms - anaphylaxis - you should always wear a Medic Alert bracelet and carry an adrenaline injection (Epipen) for self-administration. (For more information about anaphylaxis, see page 27.)

Food allergy prevention medication

For children your doctor may recommend allergy prevention medication such as cetirizine or loratidine. This may reduce the body's response to food allergens and slow the so-called 'Allergy March' (see page 4).



Coeliac Disease (CD) is very common in the United Kingdom, affecting 1 in 300 people. It is an inherited life-long condition causing inflammation of the lining of the small bowel. The inflammation is triggered by an immune reaction to a protein called gluten (or gliadin) is found mainly in wheat and to a lesser extent in rye, oats and barley.

The symptoms of CD vary from feeling lethargic and tired through to vomiting, diarrhoea and weight loss.

Until recently the only diagnostic tool for CD was an internal biopsy where a small sample is taken of the intestinal wall and examined. Milder cases remained undiagnosed or misdiagnosed.

This changed with the development of blood tests for CD. One of the early blood tests to be used by laboratories was the "Endomysial test". This is now being replaced by a blood test for Tissue Transglutaminase antibodies, sometimes known as Celikey®. Another good blood test is for Anti-Gliadin Antibodies. This test measures antibodies in the blood to

gluten or gliadin in the diet. These Anti-Gliadin Antibodies disappear on a gluten-free diet and are a good indicator that the disease is resolving.

Treatment of Coeliac Disease

The only effective treatment for CD is lifelong complete avoidance of gluten. It is completely safe to eat maize, corn or rice. The Coeliac Society of Great Britain provides extensive information on gluten-free diets and foods.

For more information visit <http://www.coeliac.co.uk>

Two conditions may be confused with Coeliac Disease:

Crohns Disease, an autoimmune disease of the small bowel which affects people in the 14 to 24 year age groups.

Irritable Bowel Syndrome (IBS) is generally diagnosed when there are symptoms of diarrhoea, constipation and abdominal bloating or pain but all tests for other bowel diseases are negative.



Allergic asthma

Asthma is a common condition, which affects one in ten children and one in twenty adults. Although asthma usually begins in childhood, and half of those affected will outgrow it by adolescence, it can also occur at any age.

There is often an allergic background and a tendency for asthma to run in families, as do related conditions such as eczema and hay fever. Most asthma sufferers are actually allergic to certain environmental agents such as cats, dogs, house dust mites, pollens and mould spores.

Asthma cannot be cured but it can be kept under control so that those affected can live normally and enjoy active involvement in sport and other activities.

What happens in asthma?

The typical symptoms of asthma include:

- wheezing,
- a dry troublesome cough,
- tightness of the chest and
- shortness of breath.

These symptoms are due to narrowing of the air tubes in the lungs - brought on by tightening of the muscles surrounding the airway, inflammation and swelling of the airway lining and production of thick sticky mucus within the airway. This process is usually triggered by a specific allergy or when something irritates the lungs.

Things that worsen asthma

- Asthma attacks are often triggered by allergies to house dust mites, grass and tree pollens, furry animals, birds, some foods and mould spores.
- Triggers such as the cold virus, air pollutants, exercise and emotion can worsen symptoms.
- Drinks containing sulphur dioxide can trigger asthma attacks.
- Medication such as aspirin, some anti-inflammatory tablets as well as "beta blocker" blood pressure tablets and eye-drops for glaucoma may aggravate asthma in adult life.

Modern asthma treatment

Asthma cannot be cured but with the right treatment most asthma sufferers can lead completely normal lives. There are two types of treatment:

- Preventer medication
- Reliever medication

These are usually given in tiny droplet form via inhaler devices.

Preventers - guard against asthma attacks by preventing inflammation and swelling of the membrane lining the airways of the lungs. They do not give instant relief but their effect is built up over a period of time and, to be successful, they must be used every day.

Relievers - help relieve breathing difficulties during an asthma attack. They relax the muscles surrounding the airway tubes and give instant relief of symptoms. If they need to be used frequently, it is an indication that your asthma is poorly controlled and the dosage of Preventer treatment should be increased. **If the dose used increases to more than recommended, please contact your doctor.**

Identifying allergens

For effective treatment of asthma it is important to identify which environmental allergens are triggering the problem. This is done by Skin Prick Tests or Specific IgE blood tests (see page 5), which are generally used to test for antibodies to house dust mites, cats, dogs, pollens, mould spores, feathers and cockroaches.

Once the specific allergy is identified, avoidance of the allergen may help to reduce and control your symptoms. Your GP or Practice Nurse will then work with you on a personal Asthma Management Plan and will help you to monitor your treatment.



Reliever medication gives instant relief of asthma symptoms

Allergic Rhinitis

Allergic rhinitis affects up to 25% of the UK population and, while not life threatening, is nevertheless the cause of significant personal discomfort and cost to society through medical care and days lost from work.

Symptoms of allergic rhinitis include:

- runny nose,
- itchy eyes and nose with sneezing and blockage
- fatigue,
- irritability,
- disturbed mood,
- difficulty thinking and understanding
- sleep disturbance

Allergic rhinitis has also been associated with a variety of other conditions, including chronic sinusitis, glue ear, exacerbation of asthma, nasal polyps, sleep disturbance and even dental problems.

Types of allergic rhinitis

Allergic rhinitis may be either seasonal or perennial:

Seasonal (intermittent)

Seasonal allergic rhinitis is better known as hay fever. It is triggered during spring and early summer by tree and grass pollens. Sufferers experience intensely itchy and runny nose with explosive sneezing, watery, puffy eyes and itchy palate and ears.



Perennial (persistent)

Allergens such as house-dust mites, cat and dog dander, horsehair, cockroach and perhaps hamster or rabbit allergen result in perennial allergic rhinitis. Sufferers have symptoms all year round and are often misdiagnosed as having a permanent cold.

The symptoms of perennial allergic rhinitis can be very subtle and include constantly blocked nose, snoring, watery discharge from the nose running down the back of the throat, loss of taste and smell and sneezing on waking in the morning.

Perennial allergic rhinitis usually starts before the age of 10 years, while seasonal allergic rhinitis occurs more commonly in young adults.



Investigating allergic rhinitis

The first step in the investigation of allergic rhinitis is to attempt to identify the allergen involved by looking carefully at the history of the symptoms and by a thorough examination of the nose.

Your doctor will then try to confirm the allergy with Skin Prick Testing or a blood test such as ImmunoCAP for specific IgE levels. (For more information on allergy testing see page 5)

In a minority of patients with all the symptoms of nasal allergy, all allergy tests prove negative. These people have Chronic Non-allergic Rhinitis and are treated in a similar fashion to Allergic Rhinitis.





Treatment of allergic rhinitis

Allergen avoidance

Once the offending allergen is identified, then allergen avoidance measures can be instituted, for example

- Avoiding grass pollens
- Removing pets from the home
- Treating mattresses, pillows and carpets to eradicate house dust mites.
- Excluding from the diet any particular food which has been implicated.

Everyone suffering from any symptoms of allergic rhinitis should avoid cigarette smoking, as it makes symptoms worse.

Where allergen avoidance fails or is impractical, it may be necessary to commence medication to control symptoms and inflammation.

Medication

In Perennial Allergic Rhinitis, treatment should be taken continuously or symptoms will return. For Seasonal Allergic Rhinitis treatment only needs to be taken during the peak pollen season.

Antihistamines

Antihistamines are the mainstay treatment in seasonal allergic rhinitis. They control the itch, sneeze, runny nose and itchy eyes.

Nasal corticosteroids

Administration of low-dose steroid sprays to the nose has revolutionised the treatment of allergic rhinitis - particularly the perennial type. They control the underlying chronic inflammation and therefore are the treatment of choice for most people. These preparations are safe to use for prolonged periods of time at the recommended dosages.

Decongestants

Decongestants may either be used as a nasal spray or taken as tablets to relieve nasal blockage and congestion.

Care should be taken with certain nasal sprays. They relieve congestion very rapidly but over-use of those containing ephedrine is associated with the return of more nasal congestion as the spray wears off. Continuous use should always be restricted to 7 - 10 days at a time.

Immunotherapy

Injection Desensitisation Immunotherapy - desensitising the immune system by a series of small injections of the trigger allergen - is an effective option when allergic rhinitis cannot be controlled by medication. **Because there is a risk of anaphylaxis during treatment it can only be carried out in specialised hospital clinics.**

A new type of immunotherapy - Sublingual Immunotherapy (SLIT) - where the allergen is given as oral drops, is currently undergoing evaluation and results so far are very promising.

Dietary restriction

Some people whose allergic rhinitis symptoms have not responded to other measures will benefit from excluding from their diet common food allergens such as cow's milk, hen's egg, citrus, alcohol and wheat. You should avoid the offending food for a 4-week period before finally concluding that exclusion is beneficial.

If you then decided that the food should be avoided long-term the advice of a qualified dietician should be sought to make sure your diet is nutritionally balanced.



Allergic Eczema

Allergic eczema, also known as atopic dermatitis, is a long-term, recurring itchy disease of the skin. It often starts in early childhood as a weepy rash on the face and outer surfaces of arms and legs and then progress into a dry scaly itchy rash commonly on the inner creases of the elbows and knees. Some children may not outgrow eczema and the condition often continues into adulthood, where it affects the ankles, hands, wrists and neck.

Preventing eczema

Diet

The risk for developing eczema is high when there is a history in the family of severe eczema, asthma and nasal allergies. For these families it is therefore advisable to start general allergy prevention measures when a new baby is on the way and continuing after the birth, including:

- avoiding smoking by parents during pregnancy and after birth
- breast-feeding until at least 6 months of age

- avoiding common allergy-provoking foods such as milk, eggs, fish and peanuts in the breast-feeding mother's daily diet.
- Avoiding solid foods in babies up to 6 months of age followed by the careful introduction of the potential allergy-provoking foods such as cow's milk, wheat and peanut at 12 months, and eggs and fish only being introduced after 18 months.

Up to 25% of eczema in infants is related to a food allergy and food additives and colourings may also aggravate eczema in older children. Food allergy does not usually play an important role in adult eczema.

Clothing

Eczema sufferers should avoid hot humid and cold dry weather, excessive sweating, woollen or synthetic clothing close to the skin and perfumed soaps. Cotton underwear as well as cotton clothing and bed linen are recommended.



Detergents

Non-biological washing powders should be used. Bubble baths, household antiseptics and medicated soaps are best avoided.

Other irritants

Swimming pool chlorine may irritate and dry out the skin. Local household skin irritants include wool, mohair, nylon and feathers.

Allergens to avoid

Specific IgE blood tests can help identify causative allergens. House dust mites, dog and cat allergens and bacteria may aggravate eczema.

Bathing

Bath water should be lukewarm and moisturising emollients must be applied to the skin within 3 minutes of patting the skin dry (never rub the skin dry). If the non-perfumed soaps irritate the skin then use aqueous cream as a soap instead.

Treating eczema

Emollients

These skin moisturising creams and ointments, the mainstay of eczema treatment, are completely safe and should be applied liberally at least

three or more times per day to hydrate and protect the skin.

Cortisone or Steroid Creams

These produce rapid relief and are used for short periods to settle acute eczema flare-ups.

Antibiotics

Eczema sufferers are more prone to skin infections such as bacterial, fungal and viral infections, including the common wart. Antibiotic creams and occasionally oral antibiotics are prescribed to treat infected eczema.

Antihistamines

The older sedating type antihistamine tablets or syrup such as chlorpheniramine will reduce itching especially at night.

Newer long acting anti-histamines such as cetirizine and loratidine have also proved to be very good for reducing skin inflammation if used for extended periods.

Antihistamine creams may make the skin more sensitive and should be avoided.

Wasp and bee stings

During the summer months a group of insects called Hymenoptera - which include the Yellow Jacket Wasp, Honey Bee and Paper Wasp may sting unsuspecting people. If you are allergic to the stinging insect's venom, you might develop an allergic reaction, which may range from mild to life threatening.

On average four bee or wasp sting related deaths are reported each year in the UK. You are therefore more likely to die in a car accident rushing to hospital than from the actual sting itself.

Wasps and bees are social insects and rarely attack people, but tend to sting if disturbed. In the UK, the vast majority of allergic reactions to insect sting are due to wasps. Bee sting allergy tends to occur in high-risk groups such as beekeepers, gardeners and farmers. Once stung you can identify a bee sting because the stinger is left behind in the skin; a wasp does not do this.

Diagnosis of wasp and bee venom allergy

Wasp and Bee Venom allergy is usually diagnosed by measuring specific Venom IgE antibodies in the blood. The test has certain drawbacks, however, because

it does not predict severity of future reactions. High levels of venom specific IgE do not necessarily predict a severe reaction.

Features of sting allergy

Normally some pain, redness and swelling accompany a sting. This is not an allergy; it is a local toxic reaction to the venom. This non-allergic reaction develops over a period of a few hours with no adverse consequences and settles over a day or two.

However, if you are allergic to insect venom you will have a more immediate and severe reaction. This may be:

- a mild reaction with redness and swelling spanning two joints, intense itching and pain all occurring within minutes of the sting.
- a severe reaction including generalised swelling and itching, faintness, sweating, a pounding headache, stomach cramps and vomiting, a feeling of "impending doom", a tight chest or choking sensation with swelling of the throat and in extreme cases, anaphylactic shock and death.

The severe reaction will develop within 10 minutes of a sting, so early intervention is essential. There is no predicting whether future stings will result in more or less severe allergic reactions or anaphylaxis. However, if a long time has lapsed since last stung, the reaction is likely to be less severe.

Wasp and bee avoidance measures

If you know you are allergic to wasps and bees you should:

- Try wherever possible to avoid being stung and stay away from areas they frequent.
- If a wasp or bee approaches, remain calm and still, do not try to swat the insect as this may frighten it. If it lands on you, gently blow it off your skin.
- Insects are drawn to flower fragrances and bright colours with dark backgrounds. Therefore white clothing is safest for insect allergic people to wear.
- Avoid perfumes, uncovered cold drinks, fruit juices, and sugary foods outdoors as these attract insects. Wasps also tend to creep into fizzy drink cans and other beverages.

- Never walk on grass barefoot and avoid orchards in blossom. Carefully shake out clothing left on the ground.
- Avoid mowing lawns, trimming hedges or pruning trees.
- Keep dustbins and food well covered. Bees and wasps tend to frequent clover fields, picnic areas and soiled dustbins in particular.
- A few cloves stuck into an orange, which is placed on the picnic table tend to discourage bees and wasps from causing a nuisance at picnics.
- If you come across a beehive or wasps' nest in the garden, do not disturb it. Instead seek help in having it removed.



Wasps and bees rarely attack people

Anaphylaxis

If you are stung

- Immediately scratch or flick off the barbed stinger (don't squeeze more venom into the skin).
- Apply ice or a cold compress to the sting.
- In a mild reaction a freshly cut onion will soothe the skin if applied to the sting area for 20 minutes.
- Life threatening reactions are more likely to occur in highly allergic individuals, elderly people with pre-existing cardiac or respiratory diseases or in multiple stings. Stings to the face, neck and scalp or more likely to trigger anaphylaxis.
- Do not exercise or have a hot bath after a sting as this may increase the venom distribution.



Emergency treatment

Mild reactions require no more than a double dose of oral antihistamine.

More severe and generalised reactions in adults require immediate antihistamine administration, use of an asthma reliever inhaler and cortisone tablets.

Severe reactions with shock and respiratory difficulties require immediate intra-muscular adrenaline. (For more information about anaphylaxis see page 27).

Desensitisation

Venom Desensitisation Immunotherapy is a highly successful means of treating people with severe general allergic reactions to venom. It should, however, only be performed in specialist hospital-based clinics because of the risk of anaphylaxis.

Anaphylaxis, or anaphylactic shock, is a sudden catastrophic allergic reaction that involves the whole body. It usually occurs within minutes of exposure to the offending allergen (insect stings, nuts and medicines being the commonest causes).

What causes anaphylaxis?

Why some people develop anaphylaxis and others do not, is difficult to explain. But it usually happens to people who are known to have allergies and particularly those who suffer with difficult to control asthma.

The most common cause of anaphylaxis is from eating a food to which you are allergic such as nuts, peanuts, eggs, fish and shellfish. Peanuts and tree nuts (such as brazil nuts, hazelnuts, almonds and walnuts) are the foods most likely to provoke a reaction.

Even eating a tiny amount of a particular food can cause anaphylaxis. Some people are so sensitive that the food essence can trigger a reaction, for example in a restaurant when the person at the next table is eating fish!

Allergy to venom from wasp stings can cause anaphylaxis as can allergy to latex and drugs such as penicillin, codeine and aspirin.

Symptoms of anaphylaxis

The initial reaction is swelling and itching of the area that the allergen has entered. Food, for example, initially causes swelling and itching of the mouth and throat while a wasp sting will cause intense itching and swelling at the sting site.

A generalised reaction then rapidly follows with an itchy rash that spreads over the whole body. The face and soft tissues begin to swell and breathing becomes difficult. The palms and soles of feet become intensely itchy.

The person becomes very agitated with a "feeling of impending doom", tightening of the throat and chest occur, while the blood pressure may begin to drop followed by a loss of consciousness.

These symptoms develop very rapidly within a few minutes of coming into contact with the allergen.



Treatment

Anaphylaxis needs to be treated urgently as the symptoms of respiratory obstruction and shock develop rapidly.

Emergency treatment consists of an injection of a drug called adrenaline or epinephrine, which raises blood pressure, relieves breathing difficulties and reduces swelling. Once adrenaline has been given, people normally recover very quickly. They should also immediately take a dose of antihistamine and may even need a short course of cortisone tablets.

Taking precautions

If you have previously suffered anaphylaxis it is important to take the following precautions:

- Make sure you always carry an adrenaline injector e.g. EpiPen - so you can inject adrenaline yourself. The injector is easy to use and is activated by pressing firmly against the front of the thigh muscle.

- If your anaphylaxis has previously been severe, use your adrenaline injector straight away with any future reactions - any delay puts you at far greater risk of collapse and dying. Although many people carry an adrenaline injector, the most common cause of death is failure to use it.

- If your anaphylaxis has previously been mild, as soon as you recognise the symptoms immediately take antihistamine medication and monitor the situation for a few minutes before giving adrenaline. Milder symptoms then usually resolve over the next half hour.

- Have at least two adrenaline injectors; carry one on your person and keep the other accessible at work or school.

- Other people at home, work or college must be informed about your allergy, where you keep your medication and how to use it.

- Make sure that your medication is always easily accessible and that the "expiry date" has not passed.

- Wear a prominent Medic Alert bracelet or necklace engraved with information for emergency medical workers about your specific anaphylactic condition.
- Following severe anaphylaxis go to the local hospital Accident and Emergency Unit for further observation. When the adrenaline wears off you may need further treatment, such as antihistamines and cortisone tablets or occasionally oxygen and intravenous fluid therapy. There is a risk of developing a delayed reaction some hours after the initial reaction and you should remain in the hospital for at least 4 hours for observation.



Following anaphylaxis monitoring in hospital is required

How can anaphylaxis be prevented?

If you have ever had an anaphylactic reaction, you must be referred to an Allergy Clinic for full assessment to identify the cause of the reaction.

If you have one anaphylactic reaction there is no predicting how severe the next reaction might be. Future reactions may be identical, more severe or less severe. You are however unlikely to ever completely outgrow the allergy and need to take constant precautions. Never assume that you will be all right just because you have not had a reaction for some time.

Check for 'hidden' ingredients on food labels and be very careful with restaurant food. Foods such as nuts and eggs may have a variety of different names and may be added to processed foods.

It is wise to seek the advice of an experienced dietician for help with excluding the offending allergen from your diet.

Don't put yourself at risk





Emergency care for anaphylaxis

If you are at risk from severe anaphylaxis it is important that your friends and family are informed. The following advice may help them in an emergency.

In an emergency, for someone with suspected anaphylaxis:

- If they are conscious and having breathing difficulties, help them to sit up.
- Alternatively, if they are shocked with low blood pressure, they are better off lying flat with their legs raised.
- If they are unconscious, check their airways and breathing and lay them in the recovery position.
- If you know that they are susceptible to anaphylaxis, check if they carry a preloaded adrenaline syringe (Epipen). If necessary, help the person to inject it into the muscle of the thigh. This can be administered through clothing.
- Dial 999 for an ambulance and tell the controller that you think the person may have anaphylaxis. If available, antihistamine and steroid tablets should also be given.

Useful addresses

For more information about allergies:

Allergy UK

This charitable organisation can provide patient orientated educational material and a host of allergy related products and information.

Address: Deepdene House,
30 Bellegrove Rd, Welling, Kent, DA16 3PY
Website: www.allergyuk.org
Tel: 0208 3038525
Fax: 0208 3038792

Anaphylaxis Campaign

This organisation can provide support for food allergy sufferers and those with anaphylaxis. They supply information, product alerts and training booklets and videos.

Address: PO Box 275, Farnborough,
GU11 6SX, United Kingdom
Helpline: 01252 542029
Website: www.anaphylaxis.org.uk

Asthma Campaign

Offers help for asthma sufferers in the form of numerous informative booklets, lung peak-flow charts and advice on correct inhaler usage.

Website: www.asthma.org.uk

BBC Guide to Allergies

A basic introduction to allergy on the BBC Health Website presented in a clear form which can be printed off the Internet.

Website: www.bbc.co.uk/health/allergy

Food Allergy & Anaphylaxis Network

Based in the United States, this website can provide patient orientated educational material about food allergies and also has a good FAQ section.

Website: www.foodallergy.org

Medicentres

A group of Private clinics in London who offer a wide range of GP and nurse services. Providing Specific IgE allergy testing and advice. Contact the address below for full list of Medicentre clinics.

Address: 150 Fenchurch Street, London
Website: medicentre.co.uk
Tel: 020 7626 3792

National Eczema Society

Charity to assist eczema sufferers with general advice and self-help groups.

Helpline 0870 241 3604
Website: www.eczema.org

Sainsbury Customer Careline

For information on allergen free products available.

Freeform: 0800 636262
Website: www.sainsburys.co.uk

Surrey Allergy Clinics

Dr Adrian Morris' website with information on allergies and private allergy clinics in London.

Website: www.allergy-clinic.co.uk

World Allergy Organisation

Umbrella organisation to oversee allergy management across the globe. Provides allergy educational material via the Internet on their excellent website.

Website: www.worldallergy.org