



*Allergy* is a condition in which the immune system causes sneezing, itching, rashes, and wheezing, or sometimes even life-threatening allergic reactions. The more you know about allergies, the better prepared you will be to help your child.

### **What is an allergy?**

Allergies occur when the immune system that fights off illnesses sees a harmless substance as a threat and reacts to that perceived threat. The substance or allergen can be eaten, breathed in, injected, or simply touched. This allergic reaction can affect different parts of the body causing things such as:

*Anaphylaxis*: a severe, life threatening allergic reaction usually involving swelling, trouble breathing, and can progress to shock

*Asthma*: the airways in the lungs swell and constrict. This can be triggered by an allergic reaction but non-allergic triggers are often the cause (viruses, cold air, exercise, smoke exposure, etc)

*Contact dermatitis*: a scaly, red, itchy rash caused by touching things like poison ivy, oak or certain chemicals in items like creams, soaps, jewelry, or even nickel in the button of jeans

*Eczema*: also called atopic dermatitis; a chronic, itchy, scaly rash not due to a particular substance exposure

*Food allergy*: an allergic reaction to food that can range from stomachache to hives to anaphylaxis

*Hay fever*: this connotes seasonal allergies, which can cause runny nose, congestion, watery eyes, and sneezing

*Hives*: itchy welts that can be caused by foods, a virus, medicines, or other triggers. Viruses are actually a common cause of hives in young children.

*Insect sting allergy*: potentially severe reactions from the sting of yellow jackets, wasps, fire ants, or other stinging insects

*Drug allergy*: symptoms such as rashes or more severe reactions from

both prescription and over the counter medications

### **What causes allergies?**

Children get allergies from coming into contact with allergens, which can be inhaled, eaten, injected (from stings or medicine), or just touch the skin. Several of the more common allergens are:

- Pollens from trees, grasses, and weeds
- Molds, both indoor and outdoor
- Dust mites that live in bedding, carpeting, and other objects that hold moisture
- Animal dander from animals such as dogs, cats, rabbits, or horses
- Foods and medications
- Stinging insect venom

### **What is anaphylaxis?**

Anaphylaxis is a serious allergic reaction that can happen quickly and can be fatal. Anyone having anaphylaxis needs to be treated right away. If the patient has never had an allergy before, 911 should be called immediately. If the patient has known serious allergies, epinephrine should be administered immediately.

### **Treatment of anaphylaxis**

The life saving treatment for anaphylaxis is epinephrine. Your child's pediatrician or allergist will prescribe it if your child has had anaphylaxis or is at high risk for it. If this is the case, it should always be kept available for immediate use. Children who are old enough should be taught how to give themselves epinephrine if needed. The medicine comes in auto-injector syringes such as EpiPen, and a new formulation called AuviQ that actually talks to you to remind you how to use it. Children at risk for anaphylaxis should have epinephrine at school with instructions from the doctor about how and when to use it. Antihistamines such as Benadryl are also used to treat allergic reactions and help with swelling and itch, but they **do not** stop the serious life threatening reaction of anaphylaxis.

### **Symptoms of anaphylaxis**

Anaphylaxis can cause symptoms in many body systems and often occur very quickly. Symptoms occurring most commonly affect the :

**Skin**-hives, itching, redness, swelling

**Nose**- sneezing, runny nose

**Mouth**- itching, swelling of lips or tongue

**Throat**- itching, tightness, trouble swallowing, hoarseness

**Chest**- shortness of breath, cough, chest pain, wheezing, sense of

tightness

**Heart-** weak pulse, shock

**Gastrointestinal-** Diarrhea, vomiting, cramps

**Nervous system-** Fainting, dizziness, sense of impending doom

### **Causes of anaphylaxis**

The most *common* allergens that can cause anaphylaxis are:

**Foods-** peanuts, tree nuts (such as cashews, almonds, Brazil nuts, pecans, and walnuts), shellfish, fish, milk, and eggs. Rarely, anaphylaxis can be triggered by a certain food only when followed by exercise

**Insect stings-** Bees, wasps, yellow jackets, hornets, or fire ants

**Medications-** Antibiotics, anti-seizure medications are frequent causes, but any medicine such as over the counter aspirin or ibuprofen could cause a reaction.

*Environmental* allergies are inherited, so if a parent has allergies, there is a higher chance that the child will also have allergies. If both parents have allergies, that risk is even higher.

### **How can I tell if symptoms are from allergies or a cold?**

It is not always that easy to tell the difference, but Allergies affecting the nose can cause:

- Itchy, runny nose with watery nasal drainage, sometimes congestion
- Itchy, watery eyes
- Frequent sneezing
- Itching of the skin
- Often seasonal (spring and fall most commonly)

Colds can cause:

- Congestion
- Clear discharge in the beginning usually sometimes followed by colored discharge a few days before symptoms end
- May have fever
- May sneeze occasionally
- Often feel somewhat sick, fatigued, or decreased appetite

### **When do allergies in kids first appear?**

Some allergies show up early in life. Atopic dermatitis, for example, is very common in infancy and usually lessens in severity or completely disappears, as they get older. Hay fever, on the other hand, usually does not occur before preschool or early grade school. Asthma often starts in

infancy or young childhood and frequently improves with age. For some allergy sufferers, symptoms will diminish or resolve by puberty, others will continue into adulthood.

### **What treatments help allergies?**

There are many different medications that can alleviate allergy symptoms. These include antihistamine syrup, pills, or meltaways, nasal sprays, and eye drops. Most antihistamines are available over the counter. Most effective allergy nasal sprays require prescriptions. Some of the older, short acting antihistamines, such as Benadryl, cause significant sedation. Most of the newer over the counter antihistamines such as Zyrtec and Claritin are long acting and do not cause sleepiness in most patients. Before using allergy medicines on your child, read the label carefully. If the medicines you use do not relieve your child's symptoms or if the side effects are not tolerable, call your pediatrician. While medications can be helpful, if allergies are persistent or very bothersome, identification of allergy triggers can be important to help avoid them whenever possible. When that is not possible, immunotherapy is the only treatment that can sometimes cure allergy symptoms.

### **Should my child see an allergist?**

Sometimes your pediatrician may recommend that you see an allergist, a physician who specializes in the treatment of allergies. The allergist will most likely:

- Look for triggers for your child's allergy
- Suggest ways to avoid the triggers
- Give you a treatment plan

### **What are allergy shots?**

Allergy shots, which are called immunotherapy, may be recommended for your child if the symptoms are not well controlled with medication or if the medications cause intolerable side effects. The shots contain small amounts of substances to which your child is allergic. These small doses given over a long time can desensitize your child to these substances. Allergy shots often help decrease or over time, sometimes eliminate, symptoms of hay fever and prevent anaphylaxis from insect sting allergies.

### **What can I do to help my child?**

It is best to identify and avoid the things to which your child is allergic. Some things that can decrease exposure to environmental allergens are:

- Keep windows closed during pollen season, especially on dry, windy

days with high pollen counts.

-Keep the house clean and dry to reduce mold and dust mites.

-Avoid having pets and indoor plants.

-Avoid those things that you know cause allergic reactions in your child.

-Do not allow anyone to smoke near your child, especially in your car or home.

See your pediatrician for safe and effective medications that can be used to alleviate or prevent allergy symptoms.