

Controlling Allergy Triggers in the Home



Millions of children have allergies. In fact, in the U.S., allergies cost children an average of 2 million missed school days each year.

Does your child suffer from frequent sneezing,

coughing, nasal congestion, runny nose, rash, and itchy watery eyes? Does he have dark circles or a crease across his nose from constantly rubbing it? Do the symptoms worsen when outdoors or after exposure to animals? If so, the problem may be his body's response to *allergens*.

An *allergen* is a substance that the body is exposed to that it regards as an "invader." These invaders trigger a chain of events that lead to the body's release of histamine into the bloodstream. Histamine causes the allergic symptoms that affect the eyes, nose, throat, lungs, gut, and skin. Allergic symptoms can be minimal so that they are only a nuisance. Or, they may affect a patient much more severely.

Allergies are usually inherited, which means that parents can pass on genes for allergies. If one parent has allergies, there is a 40–50% risk of the child having allergies. If both parents have allergies, there is an 80% risk.

Children can experience allergies seasonally due to exposures of outdoor triggers or year-round if they are exposed to the allergen daily at home or school. Many triggers for allergies can be controlled to some degree.



Children spend 8–12 hours a day in their bedrooms sleeping, so controlling measures should first focus on the bedroom.



Triggers

Dust mites are one of the most common causes of allergies. They are microscopic, living creatures similar to spiders that feed off of human skin scales. Dust mites thrive in warm, humid places and are the main component of house dust. Even the cleanest house has dust mites in bedding, upholstery, curtains, carpet, and stuffed animals. Controlling measures include:

- Frequently clean your home, and vacuum carpets and upholstery with a high efficiency particulate air (HEPA) filter.
- Consider removing bedroom carpets/rugs.
- Keep upholstered furniture out of the bedroom.
- Wash stuffed animals in hot water, or place them in a freezer bag and freeze them overnight.
- Keep the humidity in your home about 50% in the summer and 35% in the winter.
- Cover mattresses, box springs, and pillows with allergen-impermeable covers.
- Avoid heavy curtains, and damp wipe venetian blinds weekly.
- Change air filters every month during heating and air conditioning seasons.



Mold and mildew can grow in any warm, moist area. Mold will often grow outdoors on leaves and in standing water. Molds are frequently seen indoors in bathrooms, kitchens, and utility rooms. Controlling measures include:

- Remove piles of leaves and standing water from around the house.

- Empty pans under air conditioners and refrigerators frequently to prevent standing water in the home.



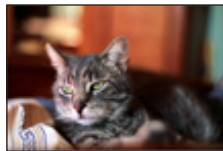
- Purchase a dehumidifier for your home, and run the air conditioner in warm climates.
- Wipe down wet shower walls with a dry cloth after use, and leave shower doors open to increase air flow.
- Throw away moldy foods, and empty the garbage frequently.
- Clean indoor mold growth; prevent future growth by controlling moisture. Keep the area clean with an anti-mold solution.



Pollen is released by trees, weeds, and grasses during the plants' fertilization process. Pollen allergies are seasonal. The local weather forecast can help you determine pollen counts for your region. Controlling measures include:

- Plan indoor activities during known high-level pollen activity.
- Severe allergy and asthma patients should avoid outdoor exposure when pollen counts are high.
- Allergy and asthma patients should wear a mask while mowing the lawn or completely avoid exposure to freshly cut grass.

Animal dander is a protein from the animal's skin or saliva. Pets in the home can cause a significant problem for allergic children. Cats are the most troublesome pet. Controlling measures include:



- Remove pets from the indoors. Most importantly, the bedroom should be off-limits for pets. Pet dander can persist in a home for 6 months after the pet has left.
- Shampoo pets once a week. Measures taken to control dust mites in the home will also help control dander. However, reducing dander in the home is not enough. It must be eliminated to prevent triggering an allergic response in a patient.

Cockroaches can cause severe allergic responses that can lead to difficulty in controlling asthma in children. Studies show that in areas where cockroach infestation is out of control, there is a higher rate of allergies and asthma. Controlling measures include:



- Vacuum regularly.
- Keep the house clean and sanitary by wiping up spills, and keeping garbage and pet food covered and sealed.
- Keep pests out of the house by sealing cracks, repairing window screens, etc.
- Get rid of places where pests can hide such as stacks of magazines, newspapers, boxes, and clutter in general.
- Kill the pests with the least toxic method. If you have an infestation or severe problem, you may need to establish a regular schedule with a pest control company.



Insect bites can be painful to all people, but children with an allergy to insect venom can find themselves in a dangerous situation. The honey bee, yellow jacket, hornet, wasp, and fire ant are all capable of injecting life-threatening venom. Multiple stings or bites increase the risk of a dangerous outcome for the child; however, only a small number of children have a fatal response. The usual sequence of events after a dangerous sting or bite is itching at the bite, nose, and eyes. This symptom(s) is then followed by nasal congestion, sneezing, coughing, wheezing, the development of hives or swelling, and then a feeling of anxiety, weakness, and difficulty breathing. One may even lose consciousness. These are symptoms of an *anaphylactic reaction* to the sting, and it can be deadly. Always take your child to an emergency department, or call an ambulance if she has experienced this reaction. The child should be given a prescription for an Epipen® – a medicine to have at home and school in the event that she is stung again by the same insect. Controlling measures include:



- Dress children in light-colored long-sleeve shirts, pants, and socks; always assure that they have on shoes when outdoors. Dark or brightly colored clothes attract insects. Playing outdoors with bare feet increases the risk of hornet stings and ant bites.
- Avoid using lotions and perfumes while outdoors. Food and drinks also attract insects, so use caution when picnicking outside. Throw away rotten fruits and vegetables from gardens.
- Be sure that garbage cans are kept clean and covered, and use care when emptying them. Playground toys and tables, as well as near-by trees, are perfect locations for hornet nests. In the

spring and summer, be sure that there are no nests around your child's play area.

Food allergens are usually discovered in infancy. The most common food allergens are cow milk and egg. Children may outgrow their sensitivity to milk and egg after age one. Other foods that can cause allergies for children are peanuts, other nuts, fish, shellfish, wheat, and seeds. It is possible to acquire these allergies in adulthood. As well, one may be more sensitive to the food if it is eaten in large quantity or eaten raw. Symptoms from food allergies include itchy mouth and throat, rash, hives, runny nose, nausea, abdominal cramping, and diarrhea. Asthma patients can have more severe reactions to foods because the response affects their breathing. Food allergens are another common cause for an anaphylactic reaction. Controlling measures include:



- ☐ Obviously, parents will want the child to avoid foods that cause them to have allergic reactions.

However, the likely situation is that a parent suspects a food may be causing allergies, but he has not been able to isolate which food it is. A child can undergo a blood or skin allergy test for certain foods. Or, the parent can keep a food diary of everything that the child eats for several days. Then eliminate one food or ingredient from the child's diet for one week. Be sure to read food labels on store-bought foods as some ingredients are used extensively in manufactured products. After the week is over, if the child's symptoms have not changed, reinstate the food into the child's diet. Choose another food or ingredient to eliminate. Continue this process for several weeks to see if the elimination of a certain food makes a difference in the child's allergy symptoms.

Putting Your Plan into Action!

Rate your child's allergy symptoms by placing a check mark (✓) in the box "never," "sometimes," or "always."

About the Authors

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For additional home and health-related information, visit Texas AgriLife Extension Service's Family and Consumer Sciences website at: <http://fcs.tamu.edu>.

This document is meant for educational purposes only and is not intended to replace the advice of your doctor or other health care provider.

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	Never	Sometimes	Always
My child sneezes:			
My child coughs:			
My child is congested:			
My child has a runny nose:			
My child has a rash:			
My child's eyes itch:			
My child has dark circles under her eyes:			
My child has a crease across his nose:			
My child has diarrhea or stomach cramps:			
Today's date:			

Now, re-read the "controlling measures" for each allergen shown above, and check mark (✓) the box when the task has been accomplished. Some tasks may need regular attention, so make a calendar for these activities.

In 1-2 months, re-rate your child's symptoms to see if your child has seen any improvement. Then, tell your friends and family. Likely, they will benefit from these controlling measures as well.