

## SKIN TESTING FOR ALLERGIES

### What do we find out from allergy testing?

We try to determine whether something in your environment is triggering your nasal, sinus, and/or eye symptoms. Proteins which trigger allergic reactions are called allergens. Allergens we test for include tree, grass, and weed pollens, indoor and outdoor molds, cat and dog danders, dust mites, and cockroach.

### How is this done?

We have solutions containing these different allergens. We place the tip of a small plastic rod in these liquids and then prick your skin with the tip of this rod. If you were allergic, your skin became itchy, red, and swollen. This reaction occurs due to the presence of allergic antibodies called IgE.

## WHAT YOU CAN DO

### Dust mites

These are microscopic, spider-like creatures which feed on flakes of dead human skin. Dust mite feces is the major ingredient in dust that causes allergy symptoms. Dust mites are found in bedding (pillows, mattress, box spring, comforters), carpet, cloth-covered furniture, blinds, and drapery.

1. Place dust-mite proof covers on your pillow, mattress and box spring. These are cloth covers that either have a plastic backing or are tightly woven. These covers trap dust mites inside your pillow, mattress, and box spring. Then place your regular bedding on top of these covers. You may buy these covers online or from stores such as Wal-Mart, Target, and Bed, Bath and Beyond, etc. Place duct tape or electrical tape on top of the zipper to reduce the number of dust mites that escape through the zipper.
2. Wash your regular bedding in hot water (at least 130 degrees Fahrenheit) every 1-2 weeks. You do not have to wash your dust mite covers as often. Wash these covers in the delicate cycle.
3. Remove carpet or area rugs from your bedroom if possible. Stuffed animals should be removed from the bed.
4. Wear a face mask when cleaning. Clean the room thoroughly and completely once a week. Bathe, rinse your hair, and use a saline nasal rinse after cleaning. Leave your home for a few hours to allow dust mite feces, which is heavy, to settle.
5. Dust mites thrive in humid conditions. Central air conditioning or a dehumidifier should be used to keep humidity in your home < 50%.
6. Do not buy anything else (e.g. powders/sprays to kill dust mites) from these mail-order companies since they have not been shown to be very effective. Air cleaners have also not been shown to be helpful for dust mite allergy.

### Tree, Grass, and Weed Pollens

Generally these pollens are highest during the following months in Florida:

Tree pollen – mid - January to early May

Grass pollen – May to October – some say all year

Weed pollen – July through November

1. Keep your windows closed at home and in the car. Recirculate air in your car rather than bring in fresh air from outside.
2. Remain indoors with windows closed in the morning, for example, when the outdoor pollen levels are highest.
3. Wear a face mask if you mow the grass or do gardening frequently.
4. Bathe, rinse your hair, and use a saline nasal rinse in the evening.

### Pet Allergies

People are not allergic to an animal's hair but rather to a protein found in the saliva, dander (dead skin flakes) or urine of an animal with fur. These proteins are carried in the air on very small, invisible particles, which can land on the lining of the eyes and nose, or be inhaled directly into the lungs. Dander and saliva are the source of cat and dog allergens. Urine is the source of allergens from rabbits, hamsters, and guinea pigs; ask a non-allergic family member to clean the animal's cage. There are no "hypoallergenic" breeds of cats and dogs since all pets shed dander. However, it is possible that you may better tolerate certain breeds of dogs. I recommend spending time with a particular breed of dog before bringing the dog home.

1. The only measure that will really help you is to remove the pet from your home. It usually takes several months after a pet is removed from the home to see any significant improvement in your symptoms.
2. If you keep your pets as most do, please keep your pets out of your bedroom.

3. Obtain dust-mite proof covers for your pillows, mattress, and box spring. These covers reduce your exposure to pet dander, which is already present on your pillows and mattress.
4. Wear a face mask when you clean your home and brush or bathe your pet.
5. Remove carpets and soft furnishings, which collect animal dander. Tile, linoleum, or hardwood floors are best.
6. Wash your hands after touching or petting your pet.

### **Molds**

Excessive indoor humidity, resulting in water vapor condensation on walls, plumbing leaks, spills from showering or bathing, water leaking through foundations or roofs, may lead to growth of many types of mold. Mold is also often found in wooded areas and marshes.

In general, *Alternaria* and *Hormodendrum* are the molds most commonly found both indoors and outdoors in the United States. Other common molds include *Aspergillus*, *Penicillium*, *Helminthosporium*, *Epicoccum*, *Fusarium*, *Mucor*, *Rhizopus*, and *Aureobasidium (Pullularia)*.

1. Clean the area - Remove the mold as quickly as possible using a weak bleach solution (1 cup bleach in 1 gallon water) or a commercial product to prevent mold growth.
2. If mold or mildew is visible in carpeting or on wallpaper, remove them from your home. Also, if you have a leaky pipe or roof, quickly repair and seal these moisture sources.
3. Dry it out -- Use exhaust fans in the bathroom and wipe down the shower after use. Periodically clean the bathroom and other mold-promoting places with a product that kills mold and mildew, and throw away shower curtains at the first sight of mold.
4. Lower humidity -- Try to maintain a humidity level of 30 to 40 percent in your house.
5. Air it out -- Ventilate damp rooms, attics and even crawl spaces under the house to try to keep them dry. If you use a dehumidifier, empty and clean it regularly to prevent mildew from forming. Also, HEPA filters may help control airborne mold spores throughout your house
6. If you live in a wooded area or have frequent flooding or standing water in your yard, you may be exposed to large amounts of outdoor mold. Keep your windows closed at home. Do not rake leaves outside without wearing a facemask.

### **Should I use an air cleaner with a HEPA (High Efficiency Particulate Air) filter?**

It is not clear whether these air cleaners are helpful for allergy symptoms. They have been shown to help those with asthma and pet allergies and may relieve symptoms due to mold exposure.

### **Should I use an electrostatic air cleaner?**

Some of these cleaners can actually be harmful since they release ozone, which may cause nasal irritation. I would prefer that an air cleaner with a HEPA filter be used instead.

### **Should I use a vacuum cleaner with a HEPA filter?**

Most vacuums sold today have HEPA filters. It is not clear whether these types of vacuums are any better than vacuums without HEPA filters. You would think HEPA filtration would be helpful but studies have not consistently demonstrated any benefit. A face mask worn during vacuuming is helpful.

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### **What do I do if I was not found to be allergic to anything?**

You have a condition called non-allergic rhinitis. You have nasal and eye symptoms that are not due to anything you are exposed to in your environment. This condition often worsens with temperature and humidity changes, smoke, and odors. Another possibility is that we are missing something with our testing. Our tests are not perfect. Blood tests can also be done to assess for allergies but generally do not offer any additional information to the skin test results.

**Other possibilities include:** a chronic sinus infection, hormonal changes (pregnancy, underactive thyroid function), excessive use of a decongestant nasal spray (Afrin) over a long period of time, or blockage of your nasal passageway or sinus cavity due to a deviated nasal septum or enlarged adenoids in the back of your throat. A deviated nasal septum would cause constant nasal congestion only in one nostril.

### **How is non-allergic rhinitis treated?**

Nasal steroid sprays are often effective for relief of stuffiness, runny nose, and drip in the back of the throat. However, antihistamines usually do not help.