Allergy Resource Guide

Allergy problems are as varied as the individuals having them. Two groups of substances cause the development of sensitivities and their symptoms. The first consists of airborne factors called “INHALANTS,” which enter the body through the process of breathing. An “ANTIGEN” is an extract of a specific allergen used to desensitize a patient’s allergic response.

We are testing you to determine what you are allergic to and your degree of sensitivity to allergens. This is extremely important for getting prompt seasonal relief. Your treatments will be based on your degree of sensitivity. The specific degree of sensitivity normally changes with seasons as the airborne allergens change. Therefore, at this time, you may exhibit specific sensitivity responses to the various pollens of trees, weeds, grass, etc. that may or may not be present in the air at the time of testing.

There are three main goals of inhalant allergy management:
1. Identify allergens through testing sensitivity levels.
2. Remove or avoid allergens by understanding and managing your environment.
3. Use immunotherapy to modulate the immune system (desensitization).

**ALLERGY TESTING WORKUP**

<table>
<thead>
<tr>
<th>Dust/Dust Mites</th>
<th>Other</th>
<th>Trees</th>
<th>Grass</th>
<th>Weeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Dust Mite Farinae</td>
<td>☐ Cockroach</td>
<td>☐ Birch</td>
<td>☐ Bermuda</td>
<td>☐ English Plantain</td>
</tr>
<tr>
<td>☐ Dust Mite Pteronyssinus</td>
<td></td>
<td>☐ Cottonwood</td>
<td>☐ June (Ky. Bluegrass)</td>
<td>☐ Ragweed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Elm</td>
<td></td>
<td>☐ Yellowdock</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Hickory</td>
<td></td>
<td>☐ Pigweed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Maple</td>
<td></td>
<td>☐ Mugwort</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Oak</td>
<td></td>
<td>☐ Lamb’s Quarters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Eastern Red Cedar</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Pine</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Ash</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ Sycamore</td>
<td></td>
<td></td>
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</tbody>
</table>

If you have any questions, please call us at: 859.781.4900
Management of Inhalant Allergies and Your Environment

Now that testing has established the allergens your body reacts to, we can begin developing a plan to help you deal with them. The most effective treatment for inhalant allergies combines removal and avoidance strategies with immunotherapy. The easiest and quickest relief from your allergies will come from removing or avoiding the allergens causing your symptoms. The remainder of this guide will educate you about where allergens may be hiding in everyday items, how to mitigate allergens in your home, what each category of allergens contains, how to remove allergens from your environment and how your diet can affect your symptoms.

While avoidance and mitigation are essential tools, the only way to provide your body with greater resistance against troubling allergens is through a process of introducing a personalized serum, which is called immunotherapy. The serum is customized to your specific needs and administered in increasing doses by injection or oral administration to gradually desensitize your system to the allergens your body does not tolerate well.

### COMMON ENVIRONMENTAL OFFENDERS

Allergens are spread throughout our world. Even with active management of your immediate environment, you can easily be exposed to a wide variety of allergens in everyday products. A few examples of allergens and where they often occur are:

<table>
<thead>
<tr>
<th>Allergen</th>
<th>Used in products</th>
<th>Hints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat hair</td>
<td>Earmuffs, slippers, rug pads, imitation fur, gloves, toy animals, etc</td>
<td>Cat dander is so buoyant that even with thorough cleaning, the hairs will still float in the air.</td>
</tr>
<tr>
<td>Dog hair</td>
<td>Rug pads and Chinese rugs</td>
<td>Shorthaired dogs produce more dander. When dog saliva dries on the floor or rug it becomes an allergen.</td>
</tr>
<tr>
<td>Feathers</td>
<td>Pillows, eiderdown comforters, sleeping bags, mattresses, animal feed and fertilizers, birds, nests that are located outside windows or in attics</td>
<td></td>
</tr>
<tr>
<td>Horse hair</td>
<td>Many rug pads, antique furniture, paintbrushes, etc</td>
<td>Sensitive patients should avoid exposure to horses, stables, riding areas and showrooms.</td>
</tr>
<tr>
<td>Rabbit hair</td>
<td>Gloves, coats, collars, muffls and coat linings</td>
<td></td>
</tr>
</tbody>
</table>

Keep humidity levels around 35–50% to reduce dust mite and mold levels. The optimal humidity level can be achieved through the use of a humidifier or air conditioner.

Encase all pillows, mattresses and box springs in impermeable allergy casings to avoid inhaling allergens while sleeping. Studies show that casings are crucial to relief of nighttime symptoms.

Use HEPA air filters to remove airborne allergens. These filters should be used in vacuums, with humidifiers and over vents.

Wash all bedding in hot water (130°) weekly to kill mites and remove allergens. If hot water is unavailable, use special allergen-removing laundry detergent.

Wear a dust mask while cleaning to avoid inhaling allergens. If possible, allergy sufferers should avoid being present during cleaning.

Remove carpeting, curtains and upholstered furniture – If pieces must remain, treat with anti-dust mite products. Wipe down hardwood or tile floors, blinds and all applicable furniture.

Store all clothes, books and other items in drawers or closets to avoid dust collection. All stuffed animals should be removed unless they are machine washable.

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**DUST AND DUST MITES**

One of the most problematic perennial airborne allergens is dust mites. This is not, as its name might imply, dust that comes in from the outside, nor is it related to housekeeping habits. It is a complex conglomeration of microscopic particles in homes and buildings.

House dust mites are microscopic spider-like arthropods that are normal inhabitants in homes. They feed on human skin cells and are found in large numbers in mattresses and bed sheets. They can also be found in upholstered furniture, rugs, pillows and stuffed toys. The mite bodies range from 10–40 microns in size. Due to their small size, the fecal pellets can be a major cause of bronchial asthma.

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Household mites increase in numbers (many thousands per gram) from March–October. The mites thrive in almost every environment. Many fungi relevant to allergies reproduce using spores, which are dispersed by wind, water or insects. Spoiled food, garbage containers, shower curtains, sinks, cool mist vaporizers, humidifiers, windowsills, damp basements and soiled upholstery are common habitats for molds. Maintaining proper humidity levels is vital to controlling mold in the home. High humidity promotes growth of dust mites and molds. Low humidity dries the bronchial passages and nose, causing discomfort. Molds found in the home are causes of ongoing allergy symptoms. You will be tested for mold spores common to your area and treated specifically for the ones that cause sensitivity. Molds are a factor year-round and will be included in your treatments each week if you are allergic to them.

**POLLEN (TREES, GRASSES, WEEDS)**

Pollen allergies are usually seasonal. Your allergic response may change if you are particularly susceptible to the pollens produced in a certain season. Only seed-bearing plants produce pollen. Not all pollens are allergic. Ornamental plants produce heavy waven pollen that is toxic. Shifts in the intensity or direction of the wind will change your degree of sensitivity. Staying indoors may minimize your symptoms.

Pollen are present year round (particularly grasses). This group includes ragweed and the grasses that are the leading cause of seasonal rhinitis (hay fever). Certain trees, such as cedars, pollinate in the winter. Some elm and oak trees pollinate during the fall and ragweed season. Although they are mainly outdoor airborne allergens, pollen grains can be transported into the home through open windows and doors.

Evenings are the worst time for pollen sufferers because during the day, heat carries pollen into the air. Cooler evenings return these allergens to the ground causing allergy symptoms.

Key prevention strategies for pollen allergies:

1. Wear a face mask outdoors.
2. Avoid outdoor activities during high pollen times.
4. Use central heat and air conditioning.

**MOLDS**

Mold spores are another group of airborne allergens that cause many problems. Molds (or fungi) are simple plants lacking stems, roots, leaves and chlorophyll. They do not require sunlight for growth and thrive in almost every environment. Many fungi relevant to allergies reproduce using spores, which are dispersed by wind, water or insects. Spoiled food, garbage containers, shower curtains, sinks, cool mist vaporizers, humidifiers, windowsills, damp basements and soiled upholstery are common habitats for molds. Maintaining proper humidity levels is vital to controlling mold in the home. High humidity promotes growth of dust mites and molds. Low humidity dries the bronchial passages and nose, causing discomfort. Molds found in the home are causes of ongoing allergy symptoms. You will be tested for mold spores common to your area and treated specifically for the ones that cause sensitivity. Molds are a factor year-round and will be included in your treatments each week if you are allergic to them.

The impact of mold on your health and lifestyle can be minimized by utilizing the following mold control strategies:

- Use exhaust fans to reduce excess humidity in the house.
- Dry, cool air and sunlight are effective in reducing mold growth.
- Buy dust-proof covers for mattresses, box springs and pillows.
- Remove moldy items such as shoes, luggage, books, plants, wallpaper and carpet.
- Check bathroom walls, floors and shower curtains for mold growth. Dry damp bathroom walls after showers.
- Use Aqueous Zephiran (obtained at drugstores) in a 17% solution for cleaning to protect against mold. Dilute one ounce of concentrate with one gallon of water.
- Sprinkle Borax in damp areas.
- Run one cup of vinegar through a regular cycle on your dishwasher every 4–6 weeks.
- Clean refrigerators periodically with a vinegar solution.
- Check windows, air conditioners, vaporizers, humidifiers, refrigerator rubber gaskets and drip pans for mold growth.
- Remove houseplants, especially from the bedroom and adjoining bathroom, to more infrequently used areas of the home.
- Vent clothes dryer to the outside of the house.
- Avoid leaving damp clothes in the washing machine.
- Use Borax in the laundry to reduce mold growth.
- Avoid raking damp leaves.
- Wear a face mask while performing yard work.
- Don't let shrubs, vines, leaves and debris accumulate near exterior walls of the home.
- Direct water away from the house using splash blocks or drainage pipes.
- When building a new home, put heavy polyethylene under basement foundation and outside foundation walls.
- Install a dehumidifier to cross-ventilate and heat basement areas.
- Avoid sleeping beneath ceiling fans or in underground rooms.
- Maintain humidity around 40–50% in the house.

**PETS (EPIDERMAL)**

Any non-human animal dander can sensitize an allergic individual. Most common sources are cats, dogs and the fur and feathers used in clothing and stuffed materials. It is extremely difficult to remove dander from a home with carpeting, upholstered furniture and diapers.

Four strategies to reduce the impact of animal dander:

1. Do not let pet sleep in the bedroom.
2. Bathe household pets regularly.
3. Remove feather pillows and comforters from your home.
4. Hire a groomer or brush pets outdoors.

Avoid an allergen overload!!

For example, if you are sensitive to molds and grasses, DO NOT cut the grass, come inside for a sandwich and then go to get an allergy shot. YOU HAVE NOW INHALED, INGESTED AND INJECTED THE ALLERGENIC SUBSTANCE. This is an allergen overload. You may experience adverse reactions.
ROTARY DIVERSIFIED DIET

Those with allergies need to learn to eat a diet that will control allergic symptoms and prevent the onset of new sensitivities. Approximately 50% of people with inhalant allergies are also allergic to some foods. If you suspect food allergies, a good way to start pinpointing them is to keep a food diary for two weeks.

In general, foods eaten every day are more likely to cause difficulty than those eaten infrequently. It is well documented that avoiding a food leads to “tolerance” of it, and that repetitive consumption of a particular food increases “sensitivity” to it. Patients with allergies must learn to “rotate” foods from day to day and to eat a wide variety of different foods. Some simple guidelines for implementing these principles are:

1. Eat as many different fruits as you wish, but do not eat the same fruit more than once a day. Do not eat that fruit again for three days. (Example: Monday–apple, pear; Tuesday–peach, grapes; Wednesday–grapefruit, banana; Thursday–apple, pear)
2. Eat as many different vegetables as you wish, but do not eat the same vegetable more than once a day. Do not eat that vegetable again for three days.
3. Eat meat one or two times per day, but do not eat the same meat twice per day. (Example: if bacon is eaten for breakfast, do not have pork chops for dinner.) Do not eat those same meats the next day. Eat that particular meat only every other day.
4. Eat fish of some type every seven days. Do not always use tuna as your fish selection.
5. Consume coffee or tea once per day if you have not been told to omit it or that you are allergic to it.
6. Do not eat a whole egg more than three times per week and do not use at all if you are allergic to egg.
7. Eat dessert once per day, preferably at lunchtime.
8. Include rice and dried beans in your diet at least once per week.
9. Drink at least eight glasses of water per day. Drink other fluids as needed.
10. Do not consume sweetened juices or fruit drinks. Use only natural juices.

PROVEN CROSS-REACTING FOODS

People with pollen allergies may experience symptoms when they eat certain fruits, vegetables, spices and nuts. This is called a cross-reaction. The following chart provides guidance on some common allergens, their peak seasons and the foods where cross-reaction may occur.

<table>
<thead>
<tr>
<th>Season</th>
<th>Allergen</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>January–February</td>
<td>Cedar</td>
<td>Beef, baker’s yeast, brewer’s yeast</td>
</tr>
<tr>
<td>Early spring and fall</td>
<td>Elm</td>
<td>Milk</td>
</tr>
<tr>
<td>Early to late spring</td>
<td>Pecan</td>
<td>Corn, bananas</td>
</tr>
<tr>
<td>April–August</td>
<td>Plantain</td>
<td>Banana</td>
</tr>
<tr>
<td>Late spring to early summer</td>
<td>Oak</td>
<td>Eggs</td>
</tr>
<tr>
<td>April until frost</td>
<td>Grass</td>
<td>Legumes (butter beans, lima beans, peas, peanuts, anything in a pod)</td>
</tr>
<tr>
<td>August until frost</td>
<td>Ragweed</td>
<td>Milk, melons, bananas, apples, wheat, mint, tomatoes, chamomile, sunflower seeds, cucumbers</td>
</tr>
<tr>
<td>All Year (especially when it’s 40–70 degrees)</td>
<td>Moldi</td>
<td>Cheese, yogurt, yeast, mushrooms, vinegar products, condiments, alcoholic beverages, etc.</td>
</tr>
<tr>
<td></td>
<td>Latex</td>
<td>Avocados, bananas, chestnuts, kiwis, melons, papayas</td>
</tr>
</tbody>
</table>

FOODS TO WATCH

Processed and prepackaged foods, such as those on the list below, often contain few nutrients, excessive calories and an abundance of less-than-desirable ingredients.

- Popcorn
- Corn chips
- Potato chips
- Salsa
- Cheese
- Mustard
- Ketchup
- Spaghetti sauce
- Lunch meat
- Hot dogs
- Gum
- Candy
- Snack Wafers

These foods are acceptable if eaten on occasion; however, if these foods comprise the bulk of your diet, they should be completely eliminated. You should eat fresh fruits and vegetables, properly prepared meals and other nutritious food to remain healthy!

ALLERGY INJECTIONS - OVERVIEW

Simply put, allergy injections start out relatively weak and gradually escalate to a full-strength dose. The starting point is determined by your individual sensitivity to the specific allergen being administered. Properly administered injections cause your body to react slightly to deal with the irritant but not enough to turn into a systemic reaction. This process gradually builds your ability to tolerate the allergen. The outline below provides a description of how your immunotherapy will progress through treatment.

1. Your first six injections are taken 5-10 days apart.
2. Injections continue at a weekly frequency utilizing progressively stronger serums with each successive vial.
3. When all antigens in the serum are at full strength you are considered to be in “maintenance.”
4. During maintenance, shots continue weekly for a period of at least one year.
5. After one year on maintenance, provided symptoms do not develop and at the advisement of your physician, the shot interval can be extended as follows:
   a. Every 2 weeks
   b. Every 3 weeks
   c. Once monthly

In the maintenance phase, you become the best judge of when an injection is necessary. You have the ability to feel when your body could be experiencing symptoms of an allergic reaction to environmental factors. Being aware of your health and the state of your allergies is key to a successful treatment plan.
About ENT & Allergy Specialists

ENT & Allergy Specialists is a group of 9 board certified Otolaryngologists devoted to the treatment of ENT diseases in both pediatric and adult patients.

Our expertise is in the diagnosis and treatment of ear, nose and sinus disorders, hearing and hearing rehabilitation, nasal allergies, throat and thyroid problems.

Our physicians and staff provide personalized, friendly service. We strive to be advocates for our patients. We understand that each patient is unique, and appreciate the trust our patients place in us.

Our Mission

To provide quality, personalized medical and surgical care to our patients.

If you have any questions, please call us at: 859.781.4900