



Patient Name _____

Date of Test _____

Allergy Resource Guide

Allergies can affect anyone, regardless of age, gender, race or socioeconomic factors. Sometimes allergy symptoms even appear unexpectedly in people who have never had them before! Although the exact genetic factors are not yet understood, there is a hereditary tendency. Allergies can affect all parts of our bodies, including the ears, eyes, intestinal tract, nose, throat, lungs and skin, to name just a few. Ask anyone who suffers, and they'll tell you it's more than just an annoyance; for some, allergies can even be life-threatening. Learning about your types of allergies is the first step to treatment and to returning to the lifestyle you deserve!

There are three main goals of inhalant allergy management:

1. **Identify potential allergies through testing**
2. **Remove or avoid antigens by understanding and managing your environment**
3. **Develop a medical treatment plan specific to the patient**

ALLERGY TESTING WORKUP



Trees (Spring)

- ___ Red Maple
- ___ White Hickory
- ___ American Elm
- ___ Eastern Sycamore
- ___ River Birch
- ___ Eastern Cottonwood
- ___ Black Willow
- ___ Red Mulberry
- ___ Red Ash
- ___ White Oak
- ___ Red Cedar
- ___ Bald Cypress
- ___ Bayberry
- ___ Sweet Gum
- ___ Loblolly Pine



Grasses (Summer)

- ___ Timothy
- ___ Perennial Rye
- ___ Sweet Vernal
- ___ Velvet
- ___ Johnson
- ___ Bahia
- ___ Bermuda



Animals (Epidermal)

- ___ Cat
- ___ Dog Epithelium
- ___ Dog Dander/Pelt
- ___ Mouse Epithelia
- ___ Feather Mix
- ___ Horse



Dust Mites

- ___ D. Pteronyssinus
- ___ D. Farinae



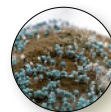
Weeds (Fall)

- ___ Rough Pigweed
- ___ Ragweed Mix
- ___ Lamb's Quarter
- ___ English Plantain
- ___ Dog Fennel
- ___ Sheep Sorrel
- ___ Nettle
- ___ Cocklebur
- ___ Common Mugwort
- ___ Rough Marsh Elder
- ___ Baccharis



Cockroach

- ___ German Cockroach
- ___ American Cockroach



Molds

- ___ Aspergillus
- ___ Alternaria
- ___ Clado Herbarum
- ___ Clado Sphaerospermum
- ___ Penicillium
- ___ Drechslera (Curvularia)
- ___ Pullularia
- ___ Fusarium Mix
- ___ Mucor
- ___ Rhizopus
- ___ Epicoccum Nigrum
- ___ Bipolaris
- ___ Candida
- ___ Rhodotorula
- ___ Trichophyton



Food

Your Follow-Up Appointment Has Been Scheduled For:

Date _____ Time _____ Location _____

Please contact Charleston ENT & Allergy if you have any questions at 843-766-7103.

Management of Inhalant Allergies and Your Environment

DUST AND DUST MITES

One of the most important perennial airborne allergens involved in most allergic problems is the dust mite. House dust mites are microscopic, spider-like arthropods that are normal inhabitants in homes. They feed on human skin scales and are found in large numbers on 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. Household mites increase in numbers (many thousands per grams of dust) during periods of high humidity (60 to 75% relative humidity).



Keys to minimizing and managing dust mite impact:

1. Enclose mattresses, box springs and pillows in impermeable covers
2. Wash bedding in hot water weekly, including mattress pads
3. Wipe vinyl mattress covers with a damp cloth before making the bed
4. Do not use fans in bedrooms, including ceiling fans
5. Do not store anything under the bed
6. Do not use the bedroom as a storage space
7. Keep closet doors closed
8. Do not store winter clothes with summer clothes
9. Eliminate clothes not used in two years
10. Eliminate dust catchers (curtains, stuffed animals, etc.)
11. Vacuum thoroughly at least once a week
12. Change vacuum cleaner bags frequently
13. Damp-mop hardwood floors
14. Dust furniture frequently
15. Install high-efficiency (HEPA) central heating/air-conditioning filters and clean monthly

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 allergenic. Ornamental plants produce heavy waxy pollen that is non-toxic. Shifts in the intensity or direction of the wind will change your degree of sensitivity. Staying indoors may minimize your symptoms.



Certain pollens are present year-round, particularly the grasses. This group includes ragweed and the grasses that are the most important 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 mainly outdoor airborne allergens, pollen grains can be transported into the home through open windows and doors.

Key prevention strategies are:

- Wear a face mask outdoors
- Avoid outdoor activities during high pollen times, which typically rise during the morning, peak about midday and then start to fall
- Keep windows closed and use central heat and air conditioning

Pollen Seasons	TREES	January through May
	GRASSES	March through October
	WEEDS	June through October

ANIMALS (EPIDERMAL)

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



Four strategies to reduce the impact of animal dander:

1. Don't let pets sleep in the bedroom
2. Bathe them regularly
3. Brush or groom them outside
4. Remove feather pillows and comforters

Molds

Another group of airborne factors in most allergic problems are mold spores. The 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 of the allergenically important fungi reproduce by spores, which are dispersed by wind, water or insects. Most mold exposure occurs outdoors, making it difficult to avoid; however, mold can also be found indoors. Spoiled food, garbage containers, shower curtains, sinks, cool mist vaporizers, humidifiers, windowsills, damp basements and soiled upholstery are common habitats for molds. Molds found in the home are causes of ongoing allergy symptoms. You will be tested for mold spores common to our area and treated specifically for the ones to which you are sensitive.



Molds are a year-round factor and, if you are allergic, will be included in your treatments each week.

- Use exhaust fans to reduce excess humidity in the house. Dry, cool air and sunlight are effective in reducing mold growth
- Dust-proof covers for mattresses, box springs and pillows are also necessary to control mold
- Remove all obviously 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 four to six 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 less frequently visited areas of the home
- Vent the clothes dryer to the outside of the house
- Avoid leaving damp clothes in the washing machine or closets
- Use Borax in the laundry to reduce mold growth
- Avoid raking damp leaves and wear a face mask while performing yard work
- Shrubs, vines, leaves and debris should not be permitted to accumulate near exterior walls
- Direct water away from the house by using splash blocks or drainage pipes
- When building a new home, put heavy polyethylene under the basement foundation and outside foundation walls
- Install a dehumidifier to cross-ventilate and heat basement areas
- Avoid sleeping beneath ceiling fans or in below-ground rooms
- Maintain humidity around 40 to 50% in the house. High humidity promotes the growth of dust mites and molds. Low humidity dries the bronchial passages and nose, causing discomfort

Your Treatment Plan

WHAT ARE THE “BUILDUP” CHOICES?

Conventional buildup: Allergy injections/shots are given as often as once daily or as infrequently as once weekly until the maintenance step is reached. Depending on the visit frequency, this build-up process generally takes anywhere from three to fifteen weeks. These injections do not require a provider visit, and the recommended office wait time after the injection is at least 20 minutes. You may schedule your appointment on a per-visit basis, or you may schedule your appointments in advance, up to one month at a time.

Cluster buildup: After a brief provider visit, three sets of injections are “clustered” every 30 minutes, accomplishing a full immunotherapy step in approximately two hours. In three serial weeks, the goal of “maintenance” is more rapidly achieved so you can experience the benefits of immunotherapy sooner. Ask your provider if this alternative of longer, less frequent visits interests you.

ARE THERE IMMUNOTHERAPY ALTERNATIVES TO SHOTS?

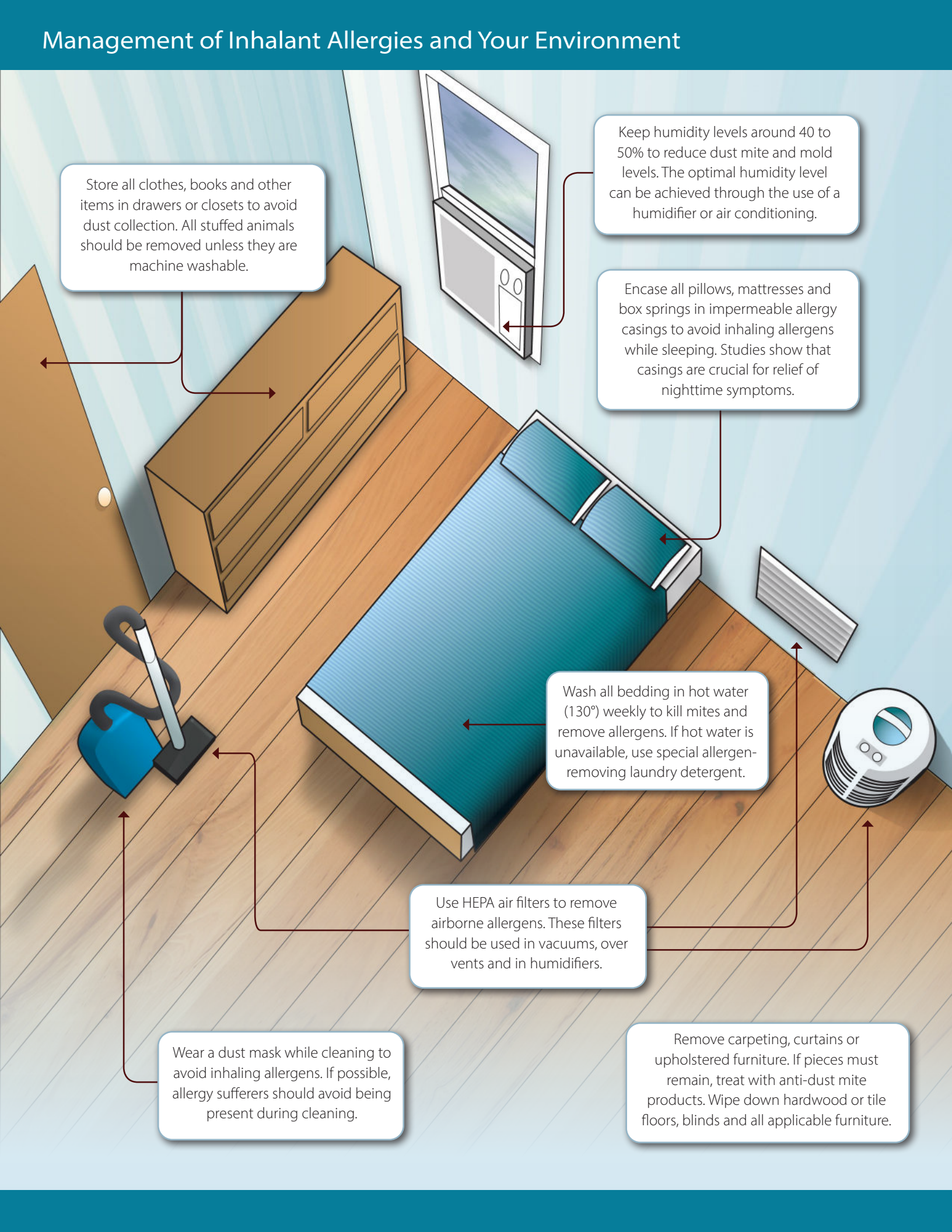
Allergy drops: Although allergy shots are considered the historical United States standard, oral immunotherapy possibilities exist in the form of drops and tablets. In drop therapy, the same custom variety of extracts used in injection immunotherapy are dropped under the tongue. This route is widely utilized in Europe and the World Health Organization has endorsed them as a viable alternative. Because the FDA has not yet approved these allergy extracts for oral drop administration, they are classified as “off-label.” Insurance companies do not cover the cost of oral drops; however, the convenience of taking them at home as well as eliminating the need for office visit co-pays may make the overall out-of-pocket costs competitive. Tablet immunotherapy is single allergen and FDA-approved. Allergy drops/tablets can be taken in the convenience of your home because the likelihood of a severe adverse reaction is rarer than with allergy shots. Ease of oral route, eliminating the need for office visit co-pays and at-home convenience are major advantages, making it a comparable alternative.

Non allergic rhinitis: The majority of patients tested are allergic to something, but up to one-third of rhinitis sufferers end up with negative environmental testing results. This is called “non allergic rhinitis.” Triggers of non allergic rhinitis include certain odors, irritants, weather changes, foods, hormones, medications and other chronic health conditions. It is important to identify because treatment plans will be completely different from those who are allergic. Even if you’re not allergic, we can help!

Subcutaneous Immunotherapy (SCIT or Allergy Shots)	Shots vs. Drops	Sublingual Immunotherapy (SLIT or Allergy Drops)
Shot, usually in upper arm.	How Taken	Drop, under the tongue.
Daily to weekly during initial treatment phase. Biweekly or monthly as treatment progresses.	How Often	Daily.
20-minute wait after injection.	Time Commitment Post-Dose	None.
Conventional buildup can take one to four months, depending on how often you come in. Cluster buildup takes 3 weeks, with one 2-hour visit each week.	Length of Buildup	10 days.
Most Charleston ENT & Allergy locations.	Where Received	Allergy visit for instructions, then at home.
This depends on your insurance plan. The range could be \$0-\$1200. Our benefit coordinator will review with you in detail prior to the serum being made.	Price of Serum Vial	On average, \$100 per month.
Variable, \$5-\$30	Cost of Serum Administration	Done at home. Only cost is the vial.
\$0-\$300	Cost of Epinephrine Auto-Injector	\$0-\$300
3-5 years	Total Time Commitment	3-5 years

The patient’s financial responsibility is subject to the terms of the patient’s insurance contract. Your insurance company may require a deductible, co-pay or coinsurance. It is advisable to contact your insurance provider to verify benefits.

Management of Inhalant Allergies and Your Environment



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.

Keep humidity levels around 40 to 50% to reduce dust mite and mold levels. The optimal humidity level can be achieved through the use of a humidifier or air conditioning.

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

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.

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

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

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

Your Treatment Plan

ALLERGIC RHINITIS

Allergic rhinitis occurs when your body overreacts to allergens in the air. Symptoms include runny nose, itchy eyes, sneezing, stuffy nose and fatigue from poor sleep. Many people mistake allergic rhinitis for the common cold and overuse antibiotics as a consequence. Testing is required to determine your unique triggers so that you can begin to avoid them. Knowing your sensitivities allows your provider to personalize your medicines so as not to over- or under-medicate you. They will develop unique treatment plans that stimulate your own body's immune responses to prevent and treat your allergic diseases. Pretty cool, huh?

Did you know? Allergic rhinitis is more than just a nuisance! It can negatively affect a person's quality of life through the following:

- Decreased concentration and focus
- Limited activities
- Decreased decision-making capacity
- Impaired hand-eye coordination
- Problems remembering things
- Irritability
- Sleep disorders
- Fatigue
- Missed days of work or school
- More motor vehicle accidents
- More work or school injuries



DID YOU KNOW? IMMUNOTHERAPY (IT) REALLY WORKS!

IT allows more symptom-free days with less medication. IT can reduce the risk of asthma in children with allergic rhinitis by as much as five times! IT can prevent the development of new allergies. IT can induce long-term remission of allergic rhinitis and asthma. IT benefits can last more than a decade after stopping treatment. IT is homeopathic because the material used is extracted from nature.

What is IT?

IT, or Immunotherapy, is not like any other medication you've ever taken. Unlike medications that put a band-aid on allergy symptoms, immunotherapy "cures" the underlying problem by building protective immunity. After allergy testing, treatment is personalized to your specific allergic sensitivities. Doses begin very low to minimize adverse reactions and are increased in a step-wise "build up" fashion toward the most concentrated "maintenance" dose. After a period on the maintenance dose, more symptom-free days with less medication are anticipated. Three or more years of maintenance can lead to long-lasting relief for up to a decade and beyond.



DID YOU KNOW? OVER-THE-COUNTER DOES NOT MEAN IT'S SAFE OR THE BEST CHOICE FOR YOU!

Not all medications are created equal. Oral antihistamines primarily help with itching and sneezing but, unfortunately, are not much better than no treatment at all. Nasal sprays work as well as antihistamines for itch/sneeze but are far better for stuffiness and runniness – these are best used regularly. Immunotherapy is the most effective of all, with the potential for disease prevention and long-lasting benefit even after stopping treatment. Ask your provider to decide which is best for you.



DID YOU KNOW? ASTHMA CAN BE VERY SERIOUS.

Asthma is the most common chronic illness in children and is often hereditary. Approximately three-quarters of patients think their asthma control is okay when only one-quarter is controlled. Half of the people with asthma have at least one asthma attack each year. Asthma can be fatal. Allergies play a big role in triggering asthma.



Asthma

Asthma symptoms occur when the linings of the airways become inflamed and airway muscle spasms block the flow of air to the lungs. Excess mucus may clog the airways. An asthma attack is characterized by shortness of breath, chest tightness, coughing or wheezing. Sometimes a cough is the only symptom. In susceptible people, factors such as allergies, hormones, stress, smoke, perfume or other environmental irritants may also play a role. Effective asthma treatment includes monitoring the disease with special breathing tests, identifying and avoiding allergen triggers and using personalized treatment plans. Well-tolerated and safe medications can improve asthma control by reducing impairment and risk.

ALLERGIC CONTACT DERMATITIS

When a rash won't go away or keeps coming back, it may be the result of something contacting and irritating your skin. Most times, the appearance of a rash occurs days after exposure, so identifying the trigger can be difficult. We can help! Patches containing small amounts of the most common triggering substances can be applied to the skin to identify the underlying problem so that you can avoid it. After the painless testing is done, a list of safe products free of your triggers will be provided so that you won't risk future accidental exposure.

FOOD ALLERGIES

More than 50 million Americans have an allergy of some kind. Food allergy symptoms are most common in young people, but they can appear at any age. A person can even develop an allergy to foods you have eaten for years with no problems. The majority of adverse



reactions are caused by eggs, milk, wheat, soy, peanut, tree nuts, fish and shellfish.

Symptoms of an allergic reaction may involve the skin, the gastrointestinal tract, the circulation system and the respiratory tract. Symptoms of food allergy can range from mild to severe; there is no predicting whether reactions will be similar, so one must be very careful! They can appear in one or more of the following ways:

- Vomiting and/or stomach cramps
- Hives
- Shortness of breath
- Wheezing
- Repetitive cough
- Shock or circulatory collapse
- Throat tightness, hoarseness, trouble swallowing
- Swelling of the tongue, affecting the ability to talk or breathe
- Weak pulse
- Pale or blue coloring of the skin
- Dizziness or feeling faint
- Anaphylaxis

Anaphylaxis is potentially fatal by affecting different parts of the body within seconds to minutes of exposure to the allergic food. It must be treated promptly with an injection of epinephrine (adrenaline).

To make a diagnosis, your provider will ask detailed questions about your medical history and your symptoms. Skin tests and/or blood tests identify food-specific immunoglobulin E (IgE) antibodies in your body and predict the potential likelihood of a reaction. Negative test results may be very useful in ruling out an allergy. Positive test results to foods indicate you have a sensitivity, and your ingestion history may implicate it as potentially harmful. Further blood tests may be necessary to predict the potential severity of reactions. An oral food challenge is the best way to determine whether the food poses a danger.

Many people with food allergies wonder whether their condition is permanent. Unfortunately, there is no definitive answer. Allergies to milk, eggs, wheat and soy may disappear over time, while allergies to peanuts, tree nuts, fish and shellfish tend to be lifelong. Read ingredient labels, be extra careful when eating in restaurants, and always have your epinephrine readily available.

People allergic to a specific food may also potentially have a reaction to related foods. For example, a person allergic to pecans may be cross-reactive to other nuts, or a person allergic to shrimp may react to other shellfish. Determining if you are cross-reactive is not straightforward and we are glad to help.

Additional Testing Options

PENICILLIN TESTING

Up to 90% of patients who think they are allergic to penicillin are not really allergic when assessed by skin testing. This means almost 9 out of every 10 patients who claim to have an allergy to penicillin aren't really allergic and can safely take penicillin and related antibiotics. Penicillin allergy testing is simple, safe and reliable. The testing can be done at most Charleston ENT & Allergy locations. Testing takes 1-2 hours and consists of prick testing, intradermal testing and possible oral challenge. Penicillin skin testing paired with an oral challenge is estimated at 99% accurate at determining you may safely take penicillin antibiotics.

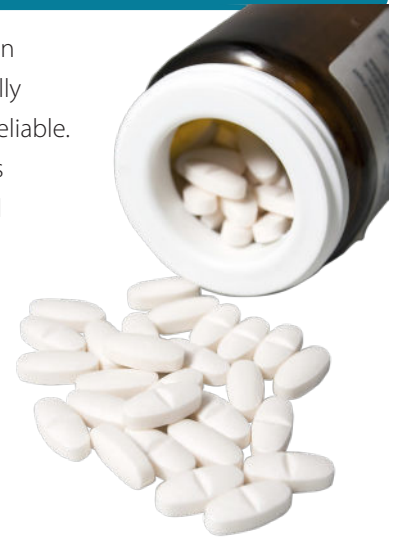
You may want to consider getting tested for penicillin allergy if:

- You have a history of reaction to penicillin antibiotics.
- It has been more than five years since your last reaction to penicillin.
- You grew up thinking you were penicillin allergic.

You may be unable to have penicillin testing if you have:

- Stevens-Johnson syndrome.
- Toxic epidermal necrolysis.
- A history of anaphylaxis when given penicillin antibiotics.

If you are interested in penicillin testing, please speak with your provider.



VENOM TESTING

One to two million Americans have allergic reactions to insect venoms such as fire ant, honey bee, wasp, yellow jacket and hornet. Most individuals have no prior warning of stinging insect allergy and the allergy can develop over time as a result of repeated exposure to venom. Subsequent sting reactions have up to a 60% chance of being greater in severity. Documented death as a result of reactions to stinging insects occurs in about 40 persons per year. The numbers are probably 4 to 5 times greater since these fatalities may occur without reporting that they are associated with a known insect sting.

Most Charleston ENT & Allergy locations offers:

- Blood work or skin testing for stinging insects and fire ant allergies.
- Immunotherapy, which can significantly reduce the potential for a fatal reaction.
- Venom immunotherapy is 95 to 97% effective.

If you are interested in testing or treatment, please speak with your provider.





About Charleston ENT & Allergy



Better care in every sense. Welcome to South Carolina's largest private ENT practice, Charleston ENT & Allergy. For more than 20 years, we have diagnosed and treated all ages for the full range of ear, nose, throat, head and neck conditions. Whether you need relief for seasonal allergies or more complex ENT conditions, our team of board-certified specialists are dedicated to treating you with the highest possible level of comprehensive care. If you need tests, we can do them. If you want help with allergies, snoring, sleeping or hearing,

it's right here. If surgery is your best solution, we make it easier with our own state-of-the-art surgical suites and comfortable post-op recovery rooms, with board-certified Pediatric Anesthesiologists on hand to care for the little ones. You'll leave soon after, feeling very well treated—and you'll be headed home, not to a hospital room.

To better serve our patients, we have created the first of its kind partnership between our allergist, immunologists and ENT doctors. This integrated approach allows for a comprehensive evaluation of the patient's health with a strategic plan for treatment. Our allergists are board certified and specifically trained for asthma, allergic skin disorders, immune deficiency, food allergies and drug allergies. We are confident this new concept will ultimately lead to improved health outcomes for our patients and less time spent at the doctor.

With fourteen convenient locations, Charleston ENT & Allergy is a few steps away. No parking fees, hassles or multiple trips. Make just one call, come to your nearest office and you'll be seen promptly. Same-day appointments are even available.



Charleston
ent
& ALLERGY

If you have any questions,
please call us at
843-766-7103.

West Ashley

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James Island

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Mount Pleasant

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North Mount Pleasant

403 Faison Road
Mount Pleasant, South Carolina 29466

Summerville

298 Midland Parkway
Summerville, South Carolina 29485

Windmill Station

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Moncks Corner

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