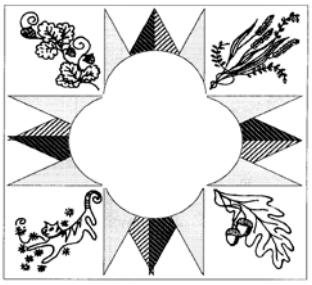

THE ALLERGY
& ASTHMA
CENTERS OF CAPE COD

FAQ'S

Who develops asthma and/or allergies?
Asthma and allergies can affect anyone, regardless of age, gender, race or socioeconomic factors. While it is true that asthma and allergies develop more commonly in children, they can occur for the first time at any age or, in some cases, recur after many years of remission. Although the exact genetic factors are not yet understood, allergies and asthma can run in families. Factors such as hormones, stress, smoke, perfume or other environmental irritants may also play a role.

What are allergies?
One of the marvels of the human body is that it can defend itself against harmful invaders such as viruses or bacteria. But sometimes the defenses are too aggressive, and harmless substances such as food, drugs or pollen are mistakenly identified as dangerous. These triggers are called "allergens." The immune system then rallies a defensive response, launching a host of complex chemicals to attack and destroy the supposed enemy. In the process, some unpleasant and, in extreme cases, life-threatening symptoms may be experienced by the allergy-prone individual. These allergic reactions may occur anywhere in the body, but usually happen in the skin, eyes, lining of the stomach, nose, sinuses, throat and lungs – places where the immune system normally fights off invaders that are inhaled, swallowed or come in contact with the skin.

What are the causes of allergic reactions?
There are hundreds of ordinary substances that can trigger allergic reactions. Among the most common are plant pollens, molds, household dust (dust mites), animal dander, foods, medicines, feathers and insect stings. These triggers are called "allergens." An allergic reaction may occur anywhere in the body, but usually appears in the skin, eyes, lining of the stomach, nose, sinuses, throat and lungs – places where special immune system cells are stationed to fight off invaders that are inhaled, swallowed or come in contact with the skin.

What are common allergies?

- Food allergies
  While an estimated 40 – 50 million Americans have allergies, only 1 – 2% of all adults are allergic to foods or food additives. Food allergies are more common in children. The most common food allergies are to milk, peanuts, soy, eggs, and wheat.

- Pollen and animal dander allergies
  The pollens from trees, grasses and weeds are a major source of allergies, along with animal dander. Allergic Rhinitis, also known as “hay fever” is a term that describes the symptoms produced by nasal irritation or inflammation due to contact with allergens. Symptoms include runny nose, itching, sneezing and stuffy nose due to blockage or congestion. These symptoms are the nose’s natural response to inflammation and irritation. Diagnostic testing can be done to identify which pollens or animals are causing your symptoms, and your allergist can develop a treatment plan for your individual condition.
- Stinging insect allergies
  Most people are not allergic to insect stings and should know the difference between an allergic reaction and a normal reaction. More than 500,000 people enter hospital emergency rooms every year suffering from insect stings. A severe allergic reaction known as anaphylaxis occurs in 0.5% – 5% of the U.S. population as a result of insect stings. At least 40 deaths per year result from insect sting anaphylaxis. Simple testing can be done to determine if you are allergic to insect stings, and excellent treatment is available.

Are allergies inherited?
The mechanism for inherited allergies is not yet well understood. We do know that the stronger the family history of allergy, the more likely it will be that other family members will be allergic.

Do people outgrow their allergies?
Allergies or asthma, especially in children, may eventually become more easily controlled, or may even seem to be “outgrown.” This may take years, however, so that treatment may be necessary for prolonged periods. Asthma may occur in childhood, improve, but recur later in adulthood.

What is an allergist?
An allergist is a doctor who is an expert in the diagnosis and treatment of allergic diseases and conditions such as:

- Asthma and chronic cough
- Hay fever
- Sinus infections
- Eye allergies
- Reactions to food, insect stings, and drugs
- Skin allergies, including eczema, hives and swelling
- Immune system problems
- Frequent infections

After earning a medical degree, the physician must complete a three-year residency training program in either internal medicine or pediatrics. The physician then completes an additional two or three years of fellowship study in the field of asthma, allergy and immunology. To become a Board Certified Allergist, the doctor must then pass a written examination given by the American Board of Allergy & Immunology (ABAI). The ABAI is the only certification board in allergy that is approved by the American Board of

Medical Specialties (ABMS), the overriding board that sets out training standards required to be board certified in almost all medical specialties.

How can an allergist help me?

If you have allergies or asthma, you may be accustomed to frequent symptoms, perhaps thinking that a stuffy nose or wheezing is normal. With the help of an allergist, these symptoms can be controlled or cured.

We work with you to determine the causes of your symptoms, and to develop a tailored treatment plan that matches your lifestyle. Our goal is to have you lead a normal, healthy life free of allergy or asthma symptoms.

What can I expect during my first visit?

- Evaluation
  The allergist will first review your symptoms, how often they occur, and what triggers them. The evaluation will include:
  - Medical history
    You will be asked about your health, your living environment and whether members of your family have asthma or allergies such as hay fever, hives, or skin rashes like eczema.
  - Physical exam
  - Allergy tests and breathing tests
    The allergist usually performs specific allergy skin tests to find out what triggers your symptoms. The allergist may test for allergic reactions to plant pollens, molds, animal dander, dust mites, stinging insect venoms, foods, or drugs. You may have skin testing in our office, or we may send you to an outside laboratory for blood tests, depending on what type of allergic reaction(s) you have had in the past. The allergist also may perform a test to measure how your lungs are working. The quick and easy breathing test is called spirometry. It measures how much air you can blow out of your lungs after taking a deep breath.
- Prevention Education
  The best way to treat allergies or asthma is to avoid the allergens that trigger your symptoms. When it is not possible to completely avoid allergens, an allergist can provide tips on how to decrease your exposure.
- Treatment
  Once we know what specific allergens are causing your symptoms, we will develop a plan tailored to your individual needs. Although avoiding the things that trigger your symptoms is one of the most effective strategies, there are a variety of treatments for both allergies and asthma.

Medicines that target allergies or asthma may be the most effective treatment for you, or the allergist my recommend allergy shots (immunotherapy). This treatment involves periodic injections with tiny

amounts of an allergen. Immunotherapy may nearly cure your allergy. Your reactions will become milder or can disappear entirely. This treatment has proved to be effective for over 100 years.

Why do such things as perfumes, strong odors and aerosol sprays seem to cause increased allergy or asthma symptoms?

Most people with allergies and/or asthma have unusually sensitive airways. Factors that may cause only mild irritation in non-allergic people can cause a great deal of aggravation and discomfort in those with allergies or asthma, and can actually reproduce their symptoms. Avoidance of these irritants is the best treatment, but good control of the underlying allergy may improve tolerance.

What is allergy skin testing?

Skin testing is performed to detect whether a person reacts to an allergen by introducing the allergen to the skin of the back or arm. If the person is allergic to the specific allergen, a small wheal and flare (hive) will occur at the skin test site. Most skin testing is done to test for allergies to environmental allergens such as pollens or animal dander.

How is allergy skin testing done?

In this office, two methods are generally used. A majority of tests are done by "prick" method. Drops of the skin test material are applied in rows across the back as tiny scratches are made through each drop, pressing the allergen into the skin. Results are usually read in 10 to 20 minutes. Additionally, some "intradermal" tests may be done after negative or indeterminate skin prick test results. These involve a small injection into the superficial layers of the skin of the arm. "Patch" tests are used to identify materials causing skin reactions on contact. A small amount of the suspect material is placed on a patch and the patch is taped on the skin and left for 48 hours before being read.

Is the skin testing painful?

No, the tests usually do not hurt. People who are allergic to one or more of the allergens may experience itching at the site of the test. After the test, a cream is placed on the test site to help with the itching. Some people may have a delayed reaction to the tests, which consists of redness or a small swelling at the site. For most people, taking an antihistamine after the testing will alleviate the symptoms.

How accurate is allergy skin testing?

In general, skin test results correlate very well with clinical symptoms. As is true in all of medicine, however, there are some exceptions, and linking your physical examination with your medical history is, therefore, a very important part of allergy evaluation.

Is there anything I need to do to prepare for skin testing?

Medications containing antihistamines can suppress skin test reactions. Antihistamines are present in many cold remedies, allergy medicines, and motion sickness pills. Antihistamines must be stopped five days prior to skin testing (see our guidelines information in our New Patient Forms section). Some antidepressants also have antihistamine activity and may interfere with skin tests. If you cannot go without these medications, or question whether or not your particular medication should be stopped, check with our office.

What is allergy immunotherapy?

Treatment of allergies involves avoidance when possible, appropriate medication and allergy immunotherapy. This treatment involves periodic injections with tiny amounts of the allergen to which you are allergic. A tolerance

to the allergen is gradually built up so that you can be exposed to the allergen without developing the same degree of allergic symptoms. Allergy injections may be prescribed for stinging insects, pollens, mites, molds and animal dander. Food allergy cannot be safely treated with allergy immunotherapy at this time.

What is in the allergy shot(s)?
Allergy injections contain small amounts of the purified substances (allergens) to which the particular patient is allergic. Allergy injections may be prescribed for stinging insects, pollens, mites, molds and animal danders.

How effective are allergy injections?
The amount of relief depends in part upon the disease being treated, the age of the patient, and the allergen involved. Most patients derive significant relief from their symptoms and some eventually become completely free of symptoms. Unfortunately, a few patients derive no benefit and other means of therapy must be found. There is also evidence that allergy shots may prevent the development of new allergies in some patients.

Are there any side effects of allergy immunotherapy?
Since the shots contain materials to which the patient is allergic, it is possible to produce allergic symptoms from the injections. Many patients experience short-term itching or swelling at the injection site. Taking an antihistamine on the day of the injection can minimize this reaction. Rarely, the patient may experience hives, trouble breathing, or a generalized allergic reaction. A reaction is more common if the injection is given when a patient is having active asthma symptoms. Always report any breathing difficulties before receiving allergy immunotherapy. Allergy injections also should not be given if a patient is ill or has a fever. Patients who are taking a beta blocker have some special needs when on immunotherapy which will be discussed with the doctor before moving forward with the treatment.

How long must I wait in my doctor's office after receiving an allergy injection?
We want our patients to remain in the office for 30 minutes after receiving an allergy injection. This is necessary so that if you have a severe reaction it can be treated promptly.

How long should I take allergy shots?
This varies with the allergy being treated and the response of the patient. In general, patients require injections at regular intervals for three to five years. This will vary with the allergies being treated, and the response of the patient.

Must the injections be given regularly?
Since development of tolerance is a slow process, and since very low doses of the allergenic substances must be used at the start, the injections should be given at the prescribed intervals. If injections are given irregularly, control of symptoms may be reduced or delayed, and risk of allergic reactions to the injections is increased.

How often must injections be given?
Development of tolerance is a slow process. At the start, we recommend having injections two times a week to build up tolerance. Allergy injections must be given at least 48 hours apart. Once the desired maintenance dose is achieved, you can cut back to shots every 14 to 21 days. Immunotherapy with venoms for stinging insect allergy follows a slightly different schedule. Keeping to the schedule of injections is very important. If injections are given irregularly, control of symptoms may be reduced or delayed, and risk of allergic reactions to the injections is increased.

What is asthma?

Asthma is a chronic lung disease in which the lining of the airways become inflamed and swollen and muscle spasms restrict the flow of air to the lungs. It is a relatively common condition and the incidence of the disease has grown in recent years. Currently, it is estimated that 12 million Americans – including more than four million children – have asthma.

What are common asthma symptoms?

If you experience difficulty breathing, a tight feeling in the chest, coughing, and wheezing, you may suffer from asthma. Sometimes a chronic cough is the only symptom, and many of these cases go undiagnosed. The symptoms of asthma are most frequently noted at night and in the morning, but an asthma episode can happen at any time. Symptoms can range from mild discomfort to life-threatening attacks which require immediate emergency treatment.

What causes asthma?

Although the exact cause of asthma is still being studied, it is known to be a combination of inflammation of the lung combined with narrowing of the lung passages activated by the body's immune system. There are a number of factors that are known to trigger an asthma episode including:

•Exposure to Allergens

Substances that cause an allergic reaction, including pollen, dust, mold, feathers, animal dander, and some foods can trigger an asthma attack in some individuals.

•Viral Infection

Simple colds can cause severe asthma exacerbation.

•Exercise

Some people can experience asthma symptoms during or after exercise.

•Emotional Stress

•Weather Conditions

Cold, windy weather or sudden changes in the weather can trigger asthma reactions.

•Other Environmental Exposures

Smoke from cigarettes, fireplaces, wood-burning stoves, or forest fires

Chemical fumes in the home or workplace

Perfumes or other strong smells

What can I expect from treatment?

First, the asthma specialist will determine the severity of your asthma through breathing tests (spirometry or "PFT" or Fen), and will possibly recommend allergy testing to see if allergens are causing your asthma to become worse. All of our testing and treatment is based on scientifically proven research.

After testing, the doctor will work with you to develop a plan tailored to your individual symptoms. The doctor may prescribe medications to keep your asthma under control or alleviate acute symptoms.

With proper diagnosis and treatment by an asthma specialist, most people with asthma can pursue normal lifestyles and expect to:

•Sleep through the night without disruptive coughing episodes, and awaken with a clear chest

•Avoid acute asthma "attacks" and eliminate the need for emergency room visits or hospitalization

•Prevent missed days from work or school

•Lead a full life with normal physical activity