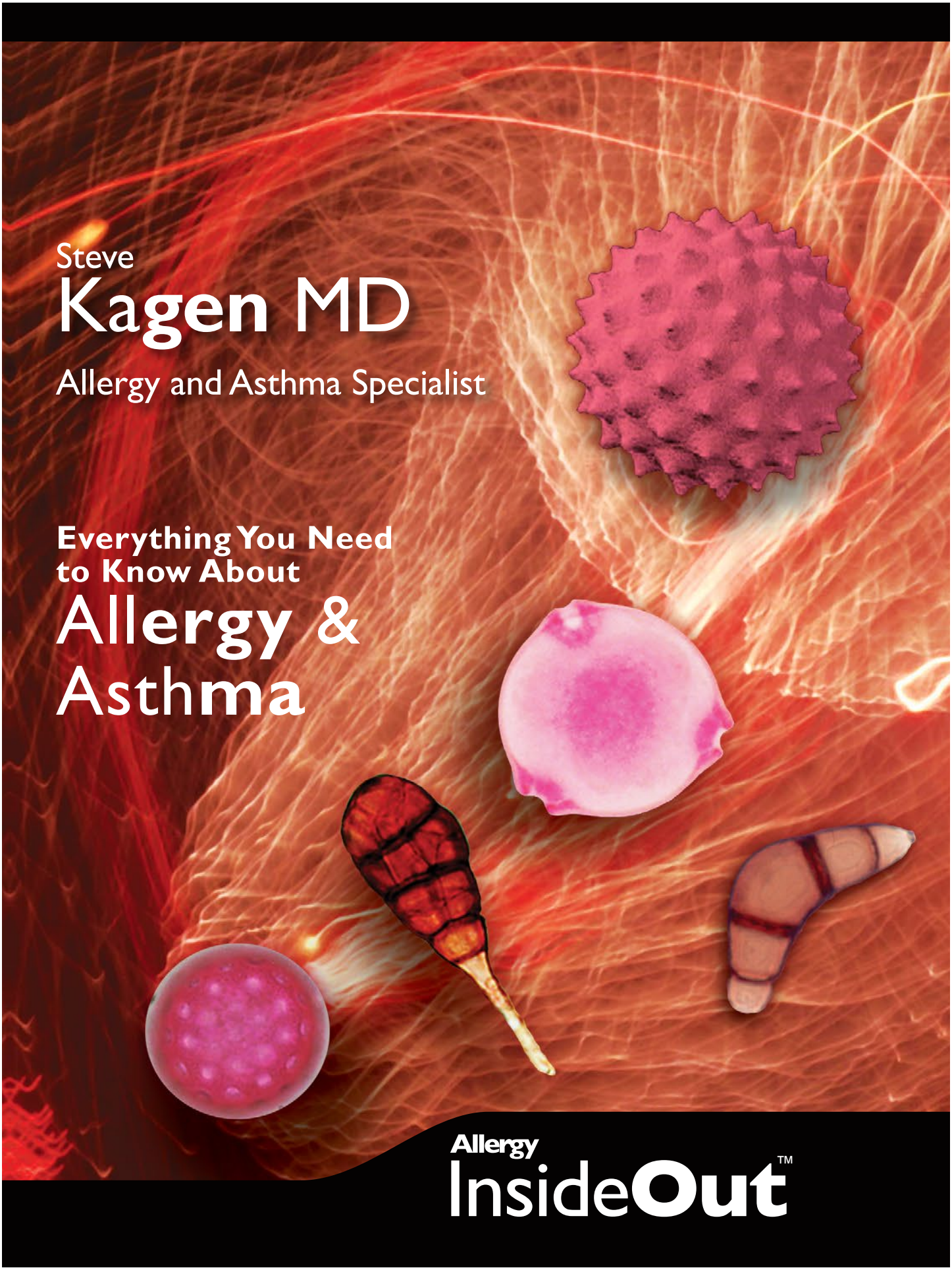

Steve
Kagen MD
Allergy and Asthma Specialist
Everything You Need
to Know About
Allergy &
Asthma
Allergy
InsideOut™

Table of Contents

Welcome to the World of Allergy!

In the chapters that follow, I have tried to put into writing what my allergy patients have been hearing from me over the past thirty years: a translation of the science of allergy and asthma into common English. Each section of Allergy InsideOut focuses upon what I believe are the most important ideas for allergy patients to understand. In my experience, smart patients get better. The more you know, the better you can breathe.

Because allergy and asthma are family illnesses, I truly hope that you will share the ideas herein with members of your family. Allergy InsideOut begins with Allergy Mythology, the 25 most commonly held wrong ideas about allergies and asthma. Some eye openers I am sure are waiting for you. Frequently Asked Questions, or FAQ, made its debut on the Internet at my educational website www.Allernet.com in 1995. Simple straightforward answers to the most commonly asked questions put to me in the clinic. Helpful Hints for Allergy Sufferers contains useful information especially for those with airborne pollen and mold spore allergies.

Pollen and Food Cross Reactions contains tremendously valuable info about relationships between pollen allergens and foods we humans eat. For many hay fever patients, this chapter is worth the price of admission, as it will allow people with pollen allergies to figure out what exactly is aggravating their stomach and intestines. Food Families extends the data base from which patients can detect food allergies.

Indoor allergies are very common worldwide, and Control of Indoor Allergens helps to solve the riddle of what to do if one is allergic to mite materials in household bedding and carpeting. Exercise Induced Asthma, Allergy & Asthma Medications, Air Pollution and Asthma, and KagenAir App fill in the information gap for those of you who have asthma and want to gain better control of the illness.

In my clinical allergy practice, about 15% of patients with allergies need allergen immunotherapy treatments to control their disease. Allergy Injections are the only treatment available that can prevent the progression of allergic diseases, and they are safe and effective. Hypersensitivity is a common ailment affecting millions of Americans. Little is written in allergy textbooks about this condition. The chapter on Hypersensitivity presents a brief overview of what it is and how best to minimize the hypersensitive state. In the final chapters, How to Avoid Stinging Insects, Latex Allergy, Latex Containing Products and Allergy Case Reviews, I explain what can be done for latex and bee sting sensitive patients. The case reviews are actual patient stories that will help explain part of the fun I have had in detecting exactly which allergens were causing my patient's symptoms. I hope you enjoy learning more about the world of allergy.

Steve Kagen, M.D.

About Dr. Kagen

About Dr. Kagen

Steve Kagen is a graduate of Appleton East High School. He received an Honors degree in Molecular Biology from the University of Wisconsin, where he was also awarded his M.D. in 1976. Dr. Kagen has trained at both Northwestern University and the Medical College of Wisconsin, and is Board Certified in both Internal Medicine and Allergy and Immunology. He is also Board Certified in Diagnostic Laboratory Immunology, being the first Wisconsin allergy specialist to be awarded this certificate of accomplishment. Dr. Kagen is an Assistant Clinical Professor of Allergy, Asthma and Immunology at the Medical College of Wisconsin.

Dr. Kagen has published articles in his specialty, and has lectured locally, regionally and internationally regarding his allergy and asthma research. Dr. Kagen and his research colleague, R. Muthiah, Ph.D., discovered the major worldwide allergenic protein present in a dust mite (L. destructor) for which both of them received a United States patent.

Dr. Kagen is also Director of the National Pollen Network (NPN), a network of certified allergy specialists who work together to better educate the public about the importance of pollens and molds as causes of hay fever, sinus and asthma. The Kagen Allergy Clinic and NPN provided daily maps of the United States to national cable channels that displayed levels of regional pollens and molds on CNN and other TV broadcasts.

Dr. Kagen's efforts to improve the health of his patients who suffer with allergy and asthma symptoms are considerable. Steve directed a national reference allergy/immunology laboratory and, along with Dr. Muthiah, developed a number of allergy blood tests available only at the Kagen Allergy Clinic. Working closely with Dr. Kagen is Allergy and Asthma Specialist Dr. Joe Zondlo.

Dr. Kagen also created a new iPhone and iPad and Android app to help people discover how their environment affects their health, available on iTunes App Store and www.KagenAir.com. The KagenAir™ app is a valuable source of real-time information about allergy and asthma. Steve combines the art and practice of medicine with the most modern technology available to diagnose and treat allergic and asthma disorders.

Dr. Kagen received the American Academy of Allergy, Asthma and Immunology Community Outreach Award in 2005 for creating The Allergy Family® Guide, which is an educational program for 5th grade students and their families about allergy and asthma.

In 2006, Dr. Kagen was elected to the United States House of Representatives, where he made health care a Civil Right by ending discrimination against patients with pre-existing medical conditions.

The real world of allergy and asthma is poorly understood by most individuals, including most physicians. People still believe outdated myths about allergy and asthma disorders. This is true even though today the specialty of Allergy and Immunology is the most advanced and best understood medical science.

Here is your opportunity to learn what is really true about allergy. My close friend and colleague, James Kidd, III, M.D., and I believe that mistaken beliefs are harmful to our patients. Myths prevent our patients from better understanding their illness, and as we know from our clinical experience, only smart patients get better.

The following inaccurate statements are the 25 most common Myths about allergy and asthma. These mistaken beliefs need to be corrected in all our minds. I sincerely hope you will benefit from a better understanding of the world of allergy.

ALLERGY MYTHS

1. " Everyone is allergic to something."

Allergy is a genetically determined immune disorder that does not occur in everyone. It occurs in 24% - 30% of the U.S. population. Allergy and asthma symptoms are induced by the over production of the allergy antibody, IgE. Antibodies help fight infections. If your antibody levels are too low, then you may suffer from an immune deficiency, like HIV AIDS. Too much allergy antibody increases your chances of experiencing allergy symptoms, such as allergic rhinitis (hay fever) and asthma.

So, everyone is not allergic to something.

2. " My child is allergic to everything."

It is extremely unlikely for anyone to develop allergic immune reactions to everything. You may be allergic to many different food, pollen and mold spore allergens, but not to all foreign substances. Sometimes it just feels that way.

3. "Allergy and asthma are due to psychological stress."

Just the opposite is true. It is extremely stressful not to be able to breathe. Allergy and asthma patients whose symptoms are out of control experience more stress because they do not sleep well at night, and they never really get enough rest. Stress cannot cause hives nor can stress induce the lips to swell.

You have real stress if you are unable to breathe easily. Asthma arrives before the stress.

4. "You can out think asthma. Relax, you can breathe."

Asthma is not in the mind. Relaxing is a great idea, and it is easy to do when you can breathe without resistance through your nose and lungs.

Allergy and asthma are real, physical ailments that cannot be reversed by thinking. If so, then lay an egg, ovulate right now. Turn up your heart rate to 138 beats per minute. Do it, now! There are some parts of your body you are simply unable to control by " thinking about it ."

5. " Children outgrow their allergies. "

This myth is a great source of comedy and confusion. It is also a disservice to children. It is true that infants allergic to milk may be able to eat milk products after several years of avoiding milk containing foods. The same is not true for other conditions such as peanut allergy, which persists throughout life.

Allergic children usually outgrow their pediatricians, not their allergies. The fact is patients grow into allergy, not out of it.

6. " My cat does not bother me, but my neighbor's cat does. "

A cat is a cat is a cat.

I believe that humans need animals to become more human. Cat allergic patients have a very strong denial system. They seldom admit having symptoms of sneezing and wheezing when around their own pet cats. The neighbor's cat is another story altogether. The neighbor's cat and the mother in-law's cat will both induce immediate and strongly felt allergic and asthmatic responses. Avoidance of these cats is mandatory and should be adhered to religiously.

Some cats produce less salivary and pelt allergens than others, but they all make some measurable cat specific allergens that can remain suspended in the air for several hours after the room has been disturbed.

7. " People crave the foods they are allergic to."

The source of this fantasy is unknown. It remains totally untrue. There is no scientific reason to believe that humans crave foods that make them ill. Tell your friends to enjoy their meals.

8. " Short haired dogs cause less allergy than long haired dogs."

Dogs cause allergy and asthma symptoms by releasing allergens from their dander/skin and from their saliva. As long as a dog has skin and saliva there will be dog allergens in their presence. The length of the dog's hair does not determine how allergenic a dog might be.

It's the dander, stupid!

9. "Allergen skin tests do not work in children."

Not true! Allergy skin tests are very reliable in children as early as 6 weeks of age. There is a great deal of discrimination against allergic children on the basis of their ages. If a child is ill, then it is the duty of the child's caregivers and doctor to determine exactly what is wrong. Allergen skin testing can be done simply, accurately and painlessly.

10. "Asthma patients cannot take antihistamines."

Antihistamines are safe to use in patients with asthma. In order for the lungs to be clear, the sinuses must also be clear. Treating the allergic inflammation in the head makes the patient's asthma quiet down as well.

A clear head makes a clear lung.

11. " Bee pollen pills are good for asthma."

Hold on a minute. Is someone selling snake oil?

Bee pollen pills are not drugs. They are unregulated collections of allergenic pollens and other unknown materials collected by insects for insects. Bees collect energy for their developing larvae, not humans. The label on the bee pollen container should read, " Not for human use. For use by bees only."

These "natural" remedies are only good for someone's profits. They are not a cure for asthma. Indeed, some asthma sufferers experience severe allergic reactions when consuming bee pollen, because of what is in the pills - pollen allergens!

12. "Antibiotics lower your resistance."

Antibiotics do not lower your resistance. They may at times induce diarrhea, but that has nothing to do with your body's ability to fight infections. Overuse of antibiotics can, however, result in bacteria becoming resistant to the antibiotic being over used.

Antibiotics work by killing bacteria. But because bacteria often develop resistance to antibiotics, their use should be limited to patients who have significant clinical infections.

13. "Asthma is not caused by allergies."

Asthma has been proven to be caused by allergic reactions within the airways of the lungs. There is no doubt that asthma is an inflammatory airways disease within the lungs.

All asthma patients must have an allergy investigation to make an accurate diagnosis of their symptoms, according to the National Heart, Lung and Blood Institute Guidelines on the Treatment of Asthma.

An allergy evaluation by an Allergy and Asthma Specialist will identify the exact cause of the disease. Because each and every patient is unique, a doctor cannot guess what may or may not be causing someone to wheeze and cough.

Take the guess work out of treating asthma. See an Allergy and Asthma Specialist sooner than later. Get it right the first time.

14. " If you have symptoms of allergy when cutting the lawn, you are allergic to grass. "

If you experience itchy eyes, sneezing and wheezing when cutting the lawn, you are most likely sensitive to mold spore allergens rather than to grass pollen proteins. When the lawn is being cut with a power mower, mold spore levels increase dramatically. The twirling blade sucks up molds from the earth below and rockets them into the air, spraying the spores in all directions throughout the neighborhood.

It is a good idea to cut the lawn before grass pollinates. If you are able to, cut the grass when it is wet, so fewer allergens become airborne.

15. " People do not die from asthma."

About 5,000 people die from asthma in the U.S. Living in a major metropolitan area and being poor dramatically increases the risk of death from asthma. It is currently believed the higher death rate in these areas is due to the under treatment of asthmatics living in poverty and to higher exposures to ozone. Ozone has been shown to increase the ability of pollen and mold spore allergens to induce allergic immune responses.

Education is the key to turning these deadly figures around. Patients who understand their illness have a better chance to change things for the better. Today, there is no reason to die from asthma. Yet, it still occurs.

16. " If you are allergic to feathers, then you cannot receive vaccines made in eggs. "

Egg allergic patients can safely receive vaccines manufactured in egg cultures.

Improvements in vaccine production technology have reduced the level of egg allergens in these products dramatically. Occasionally an egg allergic patient may have a skin eruption (hives) within 30 minutes after having a vaccine injection, but this reaction is easily treated in the doctors office.

The egg allergic patient should wait in the office for 30 minutes after receiving a vaccine prepared from egg cultures. If a physician believes it is necessary to reassure the patient, the patient may also be skin tested with the vaccine under consideration prior to vaccination.

17. "You cannot take penicillin if you are allergic to mold. "

One of the great advances in medicine this century was the discovery of penicillin in the mold Penicillium. Being allergic to molds does not, however, make you allergic to penicillin. Likewise, being allergic to penicillin does not mean you are allergic to molds.

The majority of patients who believe they are allergic to penicillin have no such problem. They may have been told they were allergic to penicillin after having a rash from a viral infection during the same time they were also taking penicillin coincidently.

Ask your doctor what is best for you if you had a rash when on penicillin.

18. " If you are allergic to shellfish, then you cannot receive radio-contrast dyes. "

This myth is perpetuated mostly by X-ray and emergency departments in hospitals. Having experienced an allergic reaction to shellfish does not mean anything about X-ray dyes! There is no relationship whatsoever between the two. Some radiologists state that "all shellfish allergic patients must be allergic to sulfa or sulfur." Not true.

Sorry, but the allergens present in shellfish are not in radio-contrast dyes. If you have had an allergic reaction to shellfish, see an Allergy Specialist - not a Radiologist.

19. " If you are allergic to molds, then you should remove all of the plants from your home . "

Don't kill your plants, indoor plants are nice.

The tiny amounts of mold spores released from indoor potted plants will do nothing to aggravate mold allergic patients.

20. " Cutting down the cottonwood trees will clear the air of spring pollens that cause hay fever. "

Every year I save flowering cottonwood trees.

Our local alderman tried to convince the City Council that it was the fluff from the cottonwood trees that caused all his residents to experience hay fever symptoms in early May. Wrong. Cottonwood trees pollinate weeks before their fluffy seeds fly into the air. Unfortunately, at the same time the cottonwood fluff is airborne so is grass pollen.

So, it is the invisible grass pollen that causes hay fever symptoms in May at the same time you see the white, puffy cottonwood seeds in the air. Give the cottonwoods a break.

21. "The ears of children with allergies turn red when they eat something they are allergic to. "

I have no idea where this wrong minded idea originated, but it is a myth.

Ears become red when there is more blood flowing into the soft tissues within the ears. The redness of one's face, hands or ears is not an accurate indicator of what someone might be allergic to, nor is it a very good way to determine what someone is thinking.

22. "Allergy shots do not work. "

Allergen Immunotherapy is the only form of therapy that actually reverses the immune imbalance in allergy patients. Studies have proven the effectiveness of allergy injections in hay fever and asthma by decreasing inflammation in the upper and lower airways of allergy sufferers.

Asthma medications make you feel better, but they do not treat the underlying cause of the disease. Allergy injections are 90% effective in preventing the progression of the allergic disease and reducing inflammation in the airways.

After receiving an allergy injection, the patient does not stand up and say, "Wow. I feel great! " Allergy shots do not make you feel better immediately. They help by inducing a state of tolerance to the specific allergens one receives in the injection. That's why it is so important to make an accurate diagnosis before starting allergy injections.

It usually takes three months for allergy injections to become effective. If a patient is no better after one year on allergen immunotherapy, then we stop the therapy and conclude that the patient is unresponsive. This occurs in only about 10% of patients.

23. "Tea and coffee are good for asthma."

Tea and coffee contain the stimulants caffeine and theophylline. Both of these drugs open the lungs a little.

Beans and leaves, however, are a poor choice for managing allergy and asthma symptoms today. There are extremely effective medications available to control almost all patients symptoms.

Drink tea and coffee because you like it, not because you think it will "cure" allergy symptoms.

24. " It is my husband's fault that our daughter has asthma."

Allergy and asthma are diseases that run in families. An allergy patient has a genetic tendency to develop allergic immune reactions to allergens in the immediate environment.

Both parents contribute to the genetic material of a child. So, it is unfair to blame a husband for a child's symptoms of asthma. In fact, the mother has more to do with allergy tendencies in her children than the father, but let's not start finger pointing after the fact of conception. Let's blame Eve, the mother of us all.

25. When the doctor asks, "How are you doing?" The patient with allergy or asthma answers after first clearing his or her throat, "I'm doing fine. I just can't breathe so good".

Allergy and asthma patients do not know what normal breathing really is. They developed their symptoms slowly over a period of years. Many have had nasal congestion their entire lives.

Is it possible to know what normal really is, if you can't remember what it is like to breathe easily through the nose and lungs?

Patients with allergy and asthma do not know what normal breathing really is.

FAQs About Allergy

1. *What does the word "allergy" mean?*

The word allergy is defined in medical dictionaries as "a hypersensitive state". Allergy is derived from the Greek allos, meaning other, and ergon, meaning work. If a person has an allergic reaction to something, what they are really experiencing is an altered state or exaggerated reaction. Thus, allergy patients live in an altered state of hypersensitivity.

The word allergy is not prejudiced with regard to its cause. Allergy reactions can be induced by immune mechanisms (IgE antibody) or by hypersensitivity to an irritating fume, vapor, medication (codeine) or a noxious odor.

2. *What causes allergy?*

Allergic reactions are usually caused by the interaction of a person's immune system with the outside world. Foreign proteins like small proteins in pollens, molds and dust mites can cause an immune reaction in anyone with the genetic ability to do so. If the immune reaction induced by these foreign proteins involves IgE antibodies, then the possibility exists for an allergic reaction to occur. Any substance which is able to induce a person to make an allergy antibody type of immune reaction is referred to as an allergen.

3. *What are the most common allergens?*

The most common causes of allergy and asthma symptoms are allergens found in pollens, molds, dust mites, animal dander and insects. Many people experience symptoms of allergy due to exaggerated reactions to foods and medications.

4. *How are allergies diagnosed?*

The diagnosis of an allergic disease is made on the basis of a detailed medical history and physical examination usually. Most often, this will also involve allergen skin testing which detect the exact causes of the allergic reactions and subsequent symptoms.

5. *Can allergies be diagnosed by a blood test?*

Allergy blood tests are a way to determine what you may have been exposed to at some unknown time in the past, but they cannot be used to predict future allergic reactions.

6. *What are the most common allergic diseases?*

The most common allergic diseases are hay fever (allergic rhinitis), asthma, food allergy eczema (dermatitis), contact dermatitis and urticaria (hives).

Allergy has different names depending on where in your body the reaction occurs. If an allergic reaction occurs in your nose, eyes and sinuses, physicians call it allergic rhinitis. If the allergic explosion is in the lungs, we call it asthma. All of these allergic diseases are inflammatory in nature. There is inflammation in those parts of your body, and we give the condition different names.

7. *How are allergies treated?*

It starts with an accurate diagnosis. So, if you have allergy symptoms, get tested!

Once you know what you are allergic to, avoid it. When avoidance is impossible, then drug therapy is used. And when avoidance and drug therapy fail to control your symptoms, then allergen immunotherapy (allergy injections) is used to prevent the progression of the disease.

It is important to know that allergen immunotherapy is the only treatment that can actually bring your immune system back to normal. All allergic diseases, like hay fever and asthma, are long-standing diseases that require long-term management.

8. *What is a sensitizer? How does it work ?*

A sensitizer is any substance that can induce excessive immune responses in an individual. Allergy is most often a heritable trait, and not everyone has the genetic predisposition to develop an allergic responses to sensitizing agents and allergens.

Aeroallergens are allergens present within the air. Aeroallergens contact the human immune system by entering through the mucus membranes of the eyes, nose, throat and lung. When the allergen interacts with the immune system, there is set into motion a cascade of biochemical reactions resulting in immediate symptoms. Immediate means within 15 - 20 minutes there will be sneezing, wheezing, and itching.

Some sensitizing agents can cause direct release of histamine from allergy cells without allergy antibodies. These substances are referred to as irritants.

9. How many people have allergies?

About 50 million Americans have allergy problems. The most common cause of allergy is the house dust mite. The house dust mite produces allergenic proteins primarily in its droppings, or fecal pellets. The incidence of allergic diseases overall in the United States' population ranges between 23 - 30% of individuals. This tendency to become allergic to allergens is predetermined by an individual's genetic makeup. About 23 million people experience asthma symptoms in the U.S.A.

10. Is there a time of year when allergies are more of a problem?

The allergy season never really ends. Spring is the tree pollen season. Summer is the grass pollen season. In the fall, people experience both ragweed and mold allergies. Finally, in winter, people suffer from "indoor" allergies. The most common indoor allergens are dust mite, cockroach droppings, mold spores and household pets.

11. Can a person outgrow an allergy?

Most people grow into allergies, not out of them. One can, however, lose a sensitivity to certain foods if one totally avoids the offending food. This occurs in children who have the unfortunate experience of having hives in infancy due to cow's milk allergy. Later in life, the same person who had hives early in life may tolerate milk and other cow proteins.

Unfortunately, one cannot totally avoid exposures to pollens, molds and dusts. Thus, year after year, after being repeatedly exposed to these airborne proteins, allergic individuals continue to have allergy symptoms.

12. Can allergies develop later in life?

Allergy does not discriminate on the basis of age. Allergic reactions can develop at any time in life, whether it be age one day, one year, twenty years, forty years or sixty years. The peak age at which allergy develops, however, is in the late teens. For reasons yet unexplained, the immune system of a 19 year old is best able to produce allergic immune responses.

13. Are there any long-term effects from allergic reactions?

Allergic reactions in the sinuses and lungs occurring year after year may result in a change in the anatomy of the body part being affected. For example, if asthma symptoms are allowed to occur without adequate control, then the lungs may misbehave forever regardless of continued therapy. In the past it was believed that asthma did not result in emphysema.

However, recent research has indicated that a patient suffering from uncontrolled asthma may develop a form of permanent emphysema, or fixed airways disease.

Asthma, by definition, means reversible airway obstruction that is most often accompanied by allergic inflammation.

14. What allergies cause fatal reactions?

The most common causes of fatal allergic reactions are shellfish, peanuts, white fish (perch, cod) and stinging insects, such as Yellow Jackets and imported fire ants.

15. Should people wear ID bracelets if they have had serious allergic reactions?

Yes. Patients with life-threatening reactions to antibiotics or bee stings should definitely wear ID bracelets, and they should also carry an emergency kit containing epinephrine. Contact your physician for a prescription for an Epi Pen if you had a severe allergic reaction in the past. It should be immediately available in your home at all times.

16. What is the best treatment for allergic disease?

The most important thing in treating any human disease is receiving an accurate diagnosis of the problem. For most patients suffering from allergic diseases such as hay fever, sinus headaches, asthma, and food allergy, a visit to a Board Certified specialist in allergy and asthma is worthwhile.

Educated victims do much better than those who are never diagnosed correctly. When patients die from asthma attacks, it's primarily because of under treatment by the patient and/or under diagnosis on the part of their physician.

17. Are there particular food allergens to be aware of?

Foods most responsible for causing allergic reactions are nuts, peanuts, milk, egg, wheat and soybeans. The most common food preservatives responsible for inducing allergy symptoms are metabisulfites, which are present in most wines. Monosodium glutamate, or MSG, is a flavor enhancer used in many foods at Chinese restaurants. MSG causes reactions several hours after a meal with swelling in the eyes and lips, but no itching typically associated with allergic reactions. The diagnosis of food allergy can be difficult. You need an exact diagnosis in order to prevent future allergic reactions.

Kagen Air™

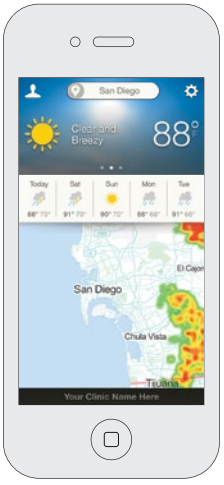
DISCOVER HOW YOUR ENVIRONMENT AFFECTS YOUR HEALTH.

We care about what's in the air and how the weather affects your family's health. We've been monitoring the air for a quarter century and developed an easy way for you to discover how your environment affects the way you feel. It's the KagenAir™ app.

We constantly monitor changes in the weather across North America. By comparing your daily symptoms with changes in your local weather, we can help you discover which factors affect you most—revealing your unique Aller-Rhythm™ display.

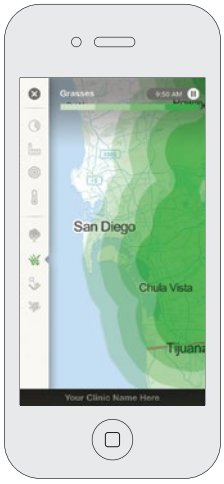
Your unique Aller-Rhythm™ display is created by comparing your symptoms with changes in your local weather. Discover how weather affects the way you and your children feel everyday.

Discover…	what makes you feel the way you do.
Receive…	the forecast about weather coming your way.
Learn…	how to help your family breathe better.
Connect…	with medical specialists close to home.
See…	Allergy Hot Spots™ each day.



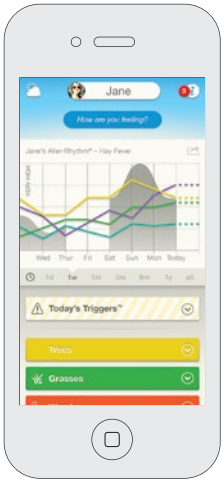
Monitor Weather

The KagenAir™ app monitors local environmental factors in your area everyday. By comparing how you feel with changes in your weather, we can help you discover which factors affect you most.



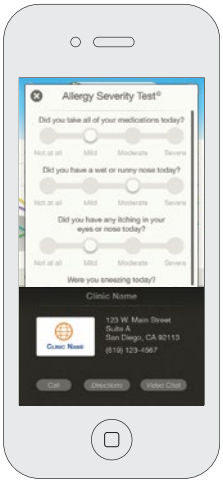
Forecast Symptom Severity

Our patent pending software and monitoring systems we created will help you identify weather factors in your area that may cause your symptoms to flare.



Discover Your Unique Aller-Rhythm™

Answer five questions and you can discover why you feel the way you do. Your unique Aller-Rhythm™ display reveals factors that may affect you.



Talk with a Specialist

The KagenAir™ app makes it easy to find help from doctors and pharmacists who are interested in helping you feel better.

Learn more about how the KagenAir™ app can help you.
www.KagenAir.com | info@KagenAir.com

Helpful Hints

1. **Is it a cold or an allergy? Sometimes it is difficult to tell. Allergy symptoms typically include sneezing, an itchy and runny nose, itching in the eyes, nasal and sinus congestion, headaches and fatigue.** Cold symptoms are due to virus infections which produce similar symptoms of runny nose, sinus congestion and headache. Colds may also be associated with fever, chills and muscle aches. Viruses do not produce any itching.

   Allergy does not cause a fever and colds do not cause itching.

2. **Seasonal hay fever, otherwise known as allergic rhinitis, results in over 10 million doctor visits annually in the U.S.** Symptoms of hay fever include itchy eyes, sneezing, itching on the roof of the mouth, nasal congestion, sinus headaches and fatigue.

3. **Pollen and mold spores cause seasonal hay fever. Avoidance of these sources of hay fever is nearly impossible.** The easiest way to avoid these outdoor allergens, however, is to not go outside. Since this is impractical for most all of us, when outside drive your car with the windows up and air conditioning on. At home, keep the windows closed and the central air conditioning on. Air conditioning removes pollen and mold spores from the air, and it reduces your chances of experiencing allergy and asthma attacks.

4. **The best way to reduce indoor mold levels is to reduce indoor humidity using your air conditioner or dehumidifier during the high humidity seasons.**

5. **Pollens from weeds, trees and grasses may travel hundred miles in the air.** Therefore, it may not be your neighbor's yard or the nextdoor cottonwood tree that is causing your hay fever and asthma symptoms.

6. **Sinus infections are called sinusitis in the language of physicians.** Sinusitis means inflammation in the sinuses. Infections of the sinuses frequently follow flares of allergy since allergic immune reactions result in excessive mucus in the nose, sinuses and middle ear.

7. **Millions of Americans obtain relief by taking over-the-counter antihistamines and decongestants to relieve their sinus headache symptoms.** If your sinus headache and drainage down the back of your throat continues, or is associated with fever, you should consult with your physician about possible treatment with antibiotics.

8. **Sinus is an ancient Roman word that means "sewer."** Humans have sewers (sinuses) to humidify and warm incoming air as it is inhaled into the lungs. When allergy patients are under treated or under diagnosed, mucus accumulates in the linings and cavities of the sinuses resulting in sinus infections. Keep your sinuses clear and dry.

9. **Children who have uncontrolled hay fever have more frequent ear and sinus infections.** Think of it this way. If you have a wet head, you are likely to become infected with viruses and/or bacteria.

   The wet head gets sick, and the clear and dry head stays healthy.

10. **Indoor allergens responsible for causing hay fever, sinus and asthma symptoms include house dust mites, cockroaches, mold spores and cat, dog, guinea pig, rabbit danders.**

11. **Families with a genetic predisposition towards the development of allergy and asthma should not have indoor pets.** The allergy family should not have wall-to-wall carpeting either, because carpets retain indoor allergens. Wall-to-wall carpeting provides an ideal nest for house dust mites and molds to live in.

    The allergy family home should be animal free.

12. **The normal " cold " lasts 6 - 7 days.** If symptoms of runny nose, sneezing and sinus congestion last more than 7 days, you are likely to have allergy as a cause for your symptoms. An Allergy Specialist can determine if you have allergy and asthma.

    Get it right from the first sneeze.

13. **Pollens travel hundreds of miles through the air.** It may not be your neighbor's oak tree that is making you sneeze. African tree pollens were identified by Florida allergist Dr. Mary Jelks in Florida's air.

14. **Try to time your outdoor activities so that you are outside when the pollen and mold spore levels are at a minimum.** Grass pollinates in the early morning hours between 6 and 10 AM. If you are going to exercise outside, do it when there is little wind.

15. **Windy days have higher pollen and mold allergen levels.** You may prefer to stay indoors on windy days. Outdoor activities for allergy sufferers are best during calm days.

16. **Weeds pollinate at sunrise and sundown as air currents turn over.** If you are allergic to weed pollens, mid-day activities should be better for you.

17. **Drive your car with the windows up during the outdoor allergy season.** Also, turn on your car's air conditioning to decrease your exposure to allergenic pollens. If you are driving your car with the windows down, your car in is nothing more than a pollen collector.

18. **Take your medications wisely.** Some medicines, like the asthma rescue drug albuterol, take several minutes to work. If you have exercise-induced asthma, and your doctor prescribed albuterol, you are probably better off using it 30 minutes before you exercise. Don't use it two seconds before you start running and expect it to help you compete.

19. **There are many effective treatments for asthma today, including leukotriene inhibitors, inhaled steroids, and both short and long-acting bronchodilators.** Each patient is unique, however, and needs a different combination of medications. Better breathing is really dependent upon patients being educated about how and when to use these agents.

Remember, only you can prevent allergy and asthma attacks.

Ask your doctor what is best for you.

Pollen and Food Cross Reactions

Everyone knows pollens originate from plants, so it should not be surprising to learn many pollens contain allergens that are also found in foods we eat. This is very important to many allergy sufferers. The human immune system cannot tell if the allergenic protein came from a pollen or from a food. It does not matter to an antibody sitting on the outside of an allergy cell. Referred to as cross-reactivity, this situation often produces undesirable results.

It is important to know that these relationships exist even though the relationships between pollens and foods may not affect every allergy patients. Possible cross-reactions may occur in the mouth, lips, lungs and entire body. Only the patient will know if certain foods simply do not agree with them.

Symptoms of food allergy due to cross-reactions between pollens and foods include itching on the roof of the mouth or the lips, wheezing soon after eating, sneezing or sinus headaches associated with a sensation of excessive mucus down the back of the throat. Systemic reactions such as hives, swelling of the lips or face and anaphylaxis are also possible if one exercises too soon after eating allergens.

The food and pollen "cousins" are listed on the next page. Their clinical significance in anyone can only be determined by the affected patient. Close observation and some detective work can help to reveal those foods which may cause allergy symptoms. For an allergic child, it is even more difficult. Children do not know what normal is. They may have itching in their mouth so often that they cannot understand what normal really is.

Although the list below may seem strange, it is far from complete. New discoveries every year have taught us that many yet undiscovered relationships exist. It has been our patients who have led the way. If you believe you have found another connection between different foods, or between foods and pollens, please let us know.

Pollen and Food Cross Reactions

POLLEN and FOOD COUSINS

This information is intended to help you to determine if these pollen and food relationships have any clinical significance in you.

RAGWEED POLLEN

BANANA, WATERMELON, CANTALOUPE, SQUASH, PUMPKIN, SUNFLOWER SEEDS, and sometimes LATEX or RUBBER PRODUCTS.

GRASS POLLEN

TOMATO, POTATO SKINS, CARROTS, CELERY, CARAWAY, PARSLEY, ANISE, CORN, OATS, WHEAT, BARLEY, LETTUCE, CHIVES and other GRASS LIKE FOODS.

BEER MAY ALSO CAUSE NASAL AND SINUS CONGESTION IN GRASS ALLERGIC PATIENTS. BEER IS LIQUID GRASS.

BIRCH POLLEN

ALL STONY AND PITTED FRUITS such as APPLES, PEACHES, PEARS, CHERRIES, as well as CELERY AND CARROTS.

CAT ALLERGENS

PORK

HOUSE DUST MITE ALLERGENS

SNAILS AND POSSIBLY OTHER SHELLFISH WITH 8 LEGS.

Remember, this is not a "do not eat it" list. This is a pay attention list, not a do not eat it list.

Food Families

The food families listed below are grouped together to make it easier for allergy patients to determine what if any foods may affect them adversely. These plants and foods are related not only by their genetic composition, but also by their possession of similar allergenic proteins.
Here are some things to keep in mind as you begin your detective work.

Not all foods in a family will adversely affect someone who is allergic to another one of the foods in the same family. Each patient is unique and will respond differently.

Another fact to keep in mind is that allergens may be either proteins or carbohydrates, otherwise known as sugars. Carbohydrates can mimic protein allergens in their three dimensional conformation. This means that some allergenic proteins will cross-react with sugars, especially on the outside of fresh fruits. (See Food and Pollen Cross Reactions)

When fruits are peeled, the outer carbohydrate allergens are often lost down the drain. This makes it less likely for the fruit to cause itching in the mouth or other allergy responses such as hives or asthma. Also, cooking carrots or tomatoes thoroughly will denature the carbohydrate allergens making it possible for patients allergic to grass pollen allergens to eat these foods without experiencing allergic reactions.

Celery even when cooked and boiled can still induce adverse gastrointestinal symptoms in patients allergic to birch pollen allergens.

APPLE:
apple, pear and quince;

ASTER:
artichoke, chicory, dandelion, endive, lettuce, sunflower seeds and tarragon (Ragweed is in this family which also includes the insecticide pyrethrum - or Raid Bug Spray)

BLUEBERRY:
blueberry, cranberry and huckleberry;

BUCKWHEAT:
buckwheat, garden sorrel and rhubarb;

CASHEW:
cashew nuts, pistachio nuts and surprisingly mango;

Food Families

CHOCOLATE:
cocoa (chocolate) and cola;

CITRUS:
orange, lemon, grapefruit, lime, tangerine, kumquat, and citron;

FUNGI:
fresh mushrooms and yeast sometimes even when baked thoroughly;

GINGER:
ginger, cardamon and turmeric;

GOOSEBERRY:
currents and gooseberries;

GOOSEFOOT:
beet, beet sugar, spinach, chard, lambs quarter and Russian thistle;

CEREAL GRAINS: (GRASSES)
barley, bamboo sprouts, cane, corn, oats [oats also naturally contain ragweed pollen], millet, rice, rye, sorghum and wheat;

LAUREL:
avocado, bay leaves, cinnamon, and sassafras;

LILY:
asparagus, chives, garlic, leeks, onion and sarsaparilla;

MALLOW:
cottonseed and okra;

MELON or GOURD:
cantaloupe, cucumber, pumpkin, squash and watermelon;

MINT:
balm, basil, catnip, horehound, marjoram, mint, peppermint, rosemary, sage, savory, spearmint, and thyme;

Food Families

MUSTARD:
horseradish, mustard, radish, turnip, watercress and cabbages (cauliflower, Chinese cabbage, collards, kraut, Brussel sprouts, broccoli, kohlrabi, kale, rutabaga);

MYRTLE:
allspice, clove pimento and guava;

PALM:
coconut and date;

PARSLEY:
carrot, celery, parsley, parsnip and the spices (anise, dill, celery seed, cumin, coriander, caraway, fennel and angelica);

PEA, LEGUME and CLOVER:
peanut, pea (green, black-eyed, field), beans (navy, lima, pinto, soybean, string, whatever-bean), as well as acacia and tragacanth;

PLUM:
almond, apricot, cherry, nectarine, peach, plum, and wild cherry.

POTATO:
eggplant, potato, tomato and all peppers (except black and white pepper) including cayenne pepper, capsicum, paprika, chili pepper, red pepper, green pepper. Tobacco, hyoscyamine and belladonna are in this family as well.

ROSE:
blackberry, dewberry, raspberry and strawberry;

WALNUT:
black walnut, butternut, English walnut, hickory nut, and pecan.

The foods above colored in red are known to cause food-induced anaphylaxis. These foods are not the only ones responsible for severe food reactions. The foods in red should not cause any problems for those who are not allergic to them.

Food Families

Being an allergy detective is not an easy task, especially if you are the mother of an allergic child. The best advice to parents of kids with food sensitivity is to feed the child whatever goes in without complaints. It is not best for the child to be forced to eat that which does not " fit " so to speak. Children seem to be able to determine what feels good in their bellies.

Keep in mind that foods may cross react even though they may not be in the same food family. Take a look at the Latex and Food Cross Reactions list for example. There are many foods which contain latex like allergens in them even though the plants are not closely related genetically.

This makes it even more difficult at times to discover all of the foods that affect someone with food allergies.

I hope this information will be helpful to you and your family.

Control of Indoor Allergens

It is impossible to totally avoid all indoor allergens, but there are simple things that can be done in the home to reduce inhalation of potentially dangerous aeroallergens. Consider the following ideas as you attempt to control your family's exposures to indoor allergens.

BEDROOMS

1. **All carpeting should be removed from the bedroom floors because this is the ideal nest area for house dust mites.** Throw rugs, which can be washed in hot water, linoleum or hardwood flooring would be ideal in the bedroom. The dust mite requires moisture to survive, and these floorings drastically decrease the level of mite exposures in the bedroom.

2. **Air conditioning will decrease the humidity in the bedroom and the rest of the home.** Reducing indoor humidity will decrease the level of indoor mold spores and mite allergens. If central air conditioning is not possible, a bedroom window air conditioner will at least provide clean air while sleeping.

3. **All mattresses and pillows should be encased in mite proof impermeable coverings or fabrics.** These are available by mail order from several national allergy supply companies.

4. **Pillows should be Dacron filled without any feathers.**

5. **No pets should be allowed in the bedroom, and certainly not on the bed!**

6. **Sheets, pillow cases, comforters, mattress pads and blankets should be washed in hot water (130^0 F) once a week.**

7. **Wear a mask while vacuuming.**

8. **If wall to wall carpeting cannot be removed from the bedroom, then a weekly application of benzyl benzoate powder should be applied to the carpet.** This agent kills the mites. Vacuum the carpet after applying the powdered mite killer using a vacuum with an effective filtration system.

KITCHENS, BATHS AND DAMP AREAS

1. **No carpeting should be placed in the kitchen or bath areas.** This will lead to the increase in mold spore levels within the home.

2. **Do not place carpeting on top of concrete in the basement.** The carpeting retains moisture due to condensation, and this greatly increases the growth of molds which are food for the house dust mites.

3. Keep the indoor humidity between 25% to 50%. Reduce indoor moisture and you will decrease the level of molds and mites.

4. While cleaning the floorings with chlorine based solutions, open the windows to allow for adequate ventilation. Chlorine is an irritant of the airways and may cause asthma flares in sensitive individuals.

HEATING, COOLING AND FILTERING SYSTEMS

1. Central air conditioning will reduce indoor pollens, mold spores and pet allergens.

2. Furnace and air conditioning filters should be changed, cleaned or replaced when they no longer allow air to move easily through them. Some air filters actually are more effective in removing allergens when they are clogged and dirty. As long as air is moving through them, allergens will be filtered out.

3. A portable high-efficiency particulate air (HEPA) filter should not be placed on a rug or carpet.

PETS

The best pet to have is the neighbor's pet - in their home. Pets should not be allowed in homes of allergy sufferers even for a brief visit. Avoidance is the best approach. Resist the impassioned pleas of the children for a dog or a cat. And remember, fish do not spread aeroallergens throughout the home.

If pets absolutely cannot be avoided, then make certain that the animals are not allowed in the bedrooms.

IRRITANTS

Irritating fumes and vapors need to be kept to a minimum. Allergy sufferers are sensitive to cigarette and tobacco smoke, wood smoke, strong cooking odors or perfumes as well as irritating fumes from hair sprays and cleaning solutions. Keep the indoor air clean.

These suggestions and practical tips will help to make your home or apartment a friendlier and less allergenic place to live.

Exercise Induced Asthma

Exercise-induced asthma is very common. As many as 1 in 10 Americans experience this condition at some time in their lives. Nearly 90% of asthma patients will have shortness of breath, coughing, chest tightness or decreased exercise tolerance due to exercise induced spasms in their airways. In fact, 40% of allergic rhinitis (hay fever) patients will suffer from asthma during exercise.

Even though this condition is common, and in most cases easily treatable, most patients do not even know that their exercise potential is being reduced by their ticklish, sensitive airways.

Over the past several years, physicians, athletes and exercise enthusiasts have gained a greater understanding of exercise induce asthma. Here are some practical tips that may help to prevent this problem.

HOW TO MODIFY EXERCISE INDUCED ASTHMA WITHOUT MEDICATIONS

* *Do warm up exercises for 20 minutes before stretching.*

* *Exercise in warm and humid air.*

* *Use the nose to inhale and thereby warm the incoming air.*

* *Exercise at sub-optimal levels at first.*

* *Limit periods of maximal exercise to less than 5 minutes.*

Exercise induced asthma typically occurs within 5-8 minutes after starting to work out. Breathing becomes difficult at this time and lung capacity can be drastically reduced. In most athletes the maximal decrease in breathing ability occurs after 15 minutes, and recovery may take from 20 minutes to 2 hours.

Up to 25% of patients with this condition will experience a major asthma attack during exercise. Attacks can start 6 -10 hours after stopping exercise. This fact alone emphasizes the importance of becoming what I refer to as an "educated victim." Control your asthma instead of your asthma controlling you.

COMMON TRIGGERS

* *Cold or dry air*
* *Dehydration and too little water intake*
* *Inadequate warm up period*
* *Air pollution*
* *Airborne allergens from pollens and mold spores*
* *A recent viral infection or chest cold*
* *Uncontrolled sinus congestion which activates bronchial spasms and nasal congestion - forcing athletes to inhale through the mouth*

MEDICAL MANAGEMENT

There are a number of effective treatments available, but each patient is unique. Every athlete may require a different combination of medications to be symptom free while exercising. The timing of these medicines is also critical for their maximal effectiveness. Also, inhaler technique is important. Make certain your doctor demonstrates the proper use of all your medicines before you use them.

Below is a partial list of medications that work.

Faster Acting Inhaled Bronchodilators:

ProAir, Proventil and Ventolin (albuterol), DuoNeb (albuterol + ipratropium), Respimat (albuterol + ipratropium), Spiriva (tiotropium), Xopenex (levalbuterol)

Longer Acting Bronchodilators:

Foradil (formoterol), Serevent (salmeterol)

Inhaled Corticosteroids:

Alvesco (ciclesonide), Asmanex (mometasone), Flovent (fluticasone), Pulmicort (budesonide), QVAR (beclomethasone)

Inhaled Corticosteroid with a Long Acting Bronchodilator:

Advair (fluticasone + salmeterol), Dulera (mometasone + formoterol), Symbicort (budesonide + formoterol)

Preventive Agents:

Leukotriene inhibitor (montelukast)

Allergy & Asthma Medications

WHICH MEDICINE IS RIGHT FOR YOU?

A brief description of commonly used allergy and asthma medications is presented below. These drugs do not treat the causes of allergic disorders, but they do reduce allergy symptoms. The only therapy that treats the underlying immune disorder is allergen immunotherapy, commonly known as allergy shots.

There are many other medicines available, but these are the ones most often prescribed at the Kagen Allergy Clinic.

Remember, the material presented here is for informational purposes only and is not intended to be specific or personal medical advice. Be certain to ask your doctor what is best for you.

ANTIHISTAMINES

Allegra (fexofenadine)

Allegra is the brand name for the non-sedating antihistamine fexofenadine. Allegra inhibits allergy symptoms caused by histamine including itching, sneezing and hives (swellings in the skin). Fexofenadine is safe and effective at varying doses in adults and is now available as a liquid for kids.

Chlorpheniramine

This is an inexpensive antihistamine that causes sleepiness. It is effective for about 4-6 hours, and it is useful in cases of mild allergic rhinitis and hives.

Clarinex (desloratadine)

This is a non-sedating antihistamine with greater potency than Claritin.

Claritin (loratadine)

This is the brand name for the non-sedating antihistamine loratadine. It is a once daily medication effective in relieving symptoms in the nose, sinuses and skin. Claritin is also available in a pediatric liquid, a dissolving oral tablet and a combination tablet with pseudoephedrine (Claritin-D).

Ketotifen

Ketotifen is a very effective and safe antihistamine that is useful in the controlling hives and hay fever (allergic rhinitis) symptoms. It blocks histamine and other allergy causing chemical mediators, and is available at several compounding pharmacies in the United States.

Zyrtec (cetirizine)

Zyrtec is the brand name for cetirizine, a once daily, mildly sedating antihistamine that is especially effective in the skin. Zyrtec is available in a pediatric formulation as a liquid and a chewable 5 milligram pill. Zyrtec is best taken before bed. Xyzal (levocetirizine) is the natural form of Zyrtec (cetirizine).

ASTHMA MEDICATIONS

BRONCHODILATORS

Bronchodilators open the passageways of the lungs. These drugs are used as "rescue" medications. They can get you out of trouble if your asthma symptoms become worse by opening your airways. They also help to prevent asthma symptoms induced by exercise. If bronchodilators are required on a regular basis, then the patient's asthma is out of control and a doctor visit is necessary.

Albuterol (inhaler, liquid)

Albuterol is related to adrenaline. It opens constricted airways and is effective within several minutes. Its peak action occurs about 20 minutes after inhaled and it is effective for 3 - 6 hours depending upon the patient's activity level. Other albuterol like agents include Ventolin (another brand of albuterol) and Levalbuterol (Xopenex).

Respimat (albuterol + ipratropium)

Respimat is a combination of albuterol and ipratroprium. Both agents can relax constricted airways and open the lungs. Ipratropium relaxes the lungs primarily on inhalation. Some patients feel like coughing after they inhale ipratroprium, which is also available as the bronchodilator inhaler called Atrovent.

Serevent (salmeterol)

Serevent is a long-acting bronchodilator. Because it takes a while for it to work, Serevent should not be used on an emergency basis. When used regularly, some asthma patients become accustomed to it, and the drug is less effective.

Theophylline

Several years ago, theophylline was the first drug asthma sufferers would take to relieve their breathing problems. Several brands of theophylline are still in use today. Theophylline relaxes smooth muscles in the passageways of the lungs, opening up the airways. Theophylline is also able to slightly inhibit the allergic reactions in the body, and relaxes the breathing muscles in the chest (the diaphragm), which allows for easier breathing. Theophylline can be toxic if too much of it accumulates in the body. Blood tests for theophylline levels need to be drawn twice each year, or if symptoms of headache, tremors, sleeplessness or nausea occur.

INHALED CORTICOSTEROIDS

Inhaled corticosteroids have been tremendously helpful in preventing deaths from asthma. Steroids are extremely important in reducing the allergic inflammation within the airways of asthma patients. All inhaled steroids can control inflammation, and each one has its own characteristics and special uses. Rarely, inhaled corticosteroids may cause complications, such as oral thrush, weight gain, cataracts, excessive stomach acid if swallowed, delayed growth in early childhood - but only when they are used for a long time and at higher doses. When using inhaled asthma medications, it is very important to use a spacer, and to rinse the mouth with water and spit out any excess steroid agents that did not travel all the way into the lungs.

Inhaled steroids most often prescribed include:

Alvesco	**(ciclesonide)**
Asmanex	**(mometasone)**
Flovent	**(fluticasone)**
Pulmicort	**(budesonide)**
QVAR	**(beclomethasone)**

All of these inhaled steroids are effective in controlling inflammation, but only if patients remember to use their medications as prescribed.

Allergy & Asthma Medications

LEUKOTRIENE INHIBITOR

Singulair (montelukast)

Singulair is an effective leukotriene receptor inhibitor that does not open the lungs; it prevents inflammation caused by allergic reactions. It is available in a chewable 4 mg or 5 mg tablet for children and a 10 mg tablet for adults. Rarely seen side effects of Singulair include headache and stomach upsets. Singulair is effective in decreasing the need for additional bronchodilators such as Proventil.

Singulair is a once daily approach to controlling childhood and adult asthma. It does not relieve acute asthma flares. Therefore, asthma patients still need to have a rapidly acting bronchodilator available for emergency uses (albuterol).

ANTI - IgE VACCINE

Xolair (omalizumab)

Xolair is an anti-allergy vaccine that may be effective for some patients with moderate asthma. It reduces levels of circulating IgE antibodies in allergy patients and can prevent allergic reactions from happening. Xolair is only available as an injection, given every 2-4 weeks under the skin.

SUBLINGUAL ALLERGEN TABLETS

The U.S. Food and Drug Administration has approved three new sublingual (under the tongue) tablets to partially prevent some allergy symptoms. Two grass pollen allergen sublingual tablets, Grasteck® and Oralair®, and a ragweed allergen sublingual tablet, Ragwitek®, will be available in 2014. A house dust mite allergen sublingual tablet may also be available soon.

These sublingual tablets may reduce allergy symptoms by 20% if started several months before the beginning of grass and ragweed pollination.

Ask your Board Certified Allergy and Immunology Specialist what is best for you.

ORAL CORTICOSTEROIDS

Medrol (methylprednisolone)

Medrol is a corticosteroid that has potent anti-inflammatory effects throughout the body. Like other corticosteroids, Medrol has benefits and side effects. The benefits are that the allergic reactions in the lungs, nose, sinuses, skin and elsewhere are drastically reduced.

The side effects may include an increase in appetite, inability to sleep, excessive stomach acid and weight gains. Steroids may also raise the blood pressure and blood sugar levels to the point of becoming hyperglycemic (like a diabetic). When used at doses greater than 20 milligrams daily for more than 12 days, corticosteroids may cause the adrenal glands to shut down, which can be a serious medical problem.

Each patient is unique with regard to how much Medrol is needed. In general, the amount of steroid therapy required by a patient depends upon the patient's degree of inflammation and the amount of mucus production. Tapering doses of steroids may be necessary when used daily for periods of time greater than 5 days. Medrol and other steroids must be taken after food to reduce excessive acid production and possible ulcer development.

Prednisone

The difference between Medrol and prednisone is that Medrol (methylprednisolone) does not need to go through the liver for it to work. Prednisone must pass through the liver to become active. Some asthma patients do not respond to prednisone, but they will improve on Medrol. The benefits and side effects of prednisone are the same as those for Medrol.

Allergy & Asthma Medications

NASAL ALLERGY MEDICATIONS

Astelin (0.10%) 137mcg and Astepro (azelastine 0.15%) 205.5 mcg

Astelin (azelastine) is a mildly sedating antihistamine available as a nasal spray. It can make patients sleepy, so if you plan on being awake and functional, think twice before using it in the morning. It is recommended for use in adults as 2 sprays per nostril twice daily. Headache, loss of ability to smell and nausea are the most common side effects reported with Astelin nasal spray, aside from its bitter taste.

Atrovent (ipratroprium: 0.03% and 0.06%)

Atrovent (ipratroprium bromide) is an inhaled form of an anti-cholinergic agent that reduces mucus secretions in the nose – especially during exposures to irritating fumes and vapors. It is best used about 30 minutes before going outdoors into cold air and prior to inhaling smoke and other irritants. It works for about 3 - 4 hours in non-allergic rhinitis patients. The most common side effects with use of Atrovent nasally is dryness in the nose.

Dymista (azelastine + fluticasone)

Dymista is a combination of an antihistamine (azelastine) and a cortocosteroid (fluticasone) that helps patients who have allergies and hypersensitivity.

Nasalcrom (cromolyn)

Nasalcrom is a solution of cromolyn sodium that can prevent allergy symptoms. Nasalcrom must be used before exposures to allergens for it to work. Nasalcrom should be used 3-4 times daily during peak allergy seasons.

Patanase (olopatadine)

Patanase is an antihistamine that helps reduce sneezing and mucus secretions in hypersensitive patients when inhaling cold air or irritating fumes and vapors.

Allergy & Asthma Medications

INHALED NASAL STEROIDS

Inhaled nasal corticosteroids are very effective in reducing the allergic inflammation in the upper airways of the nose and sinuses. The steroid preparations below help allergy sufferers feel more normal during their allergy seasons.

The frequency and dose of nasal steroids required by each patient depends upon how much inflammation is present. Everyone is unique. Children have a difficult time telling their caregivers when they are not well, especially since kids with allergies do not know what normal breathing really feels like.

Listen to the nasal twang allergic kids make when eating, sleeping and talking, and you might have an idea of how much mucus children are making. As a general rule, if allergic kids need to blow their noses in the morning, they needed to use their nasal steroids the evening before.

Nasal steroids:

Nasacort AQ	*(triamcinolone)*	*Nasonex*	*(mometasone)*
Nasarel	*(flunisolide)*	*Omnaris*	*(ciclesonide)*
QNASL	*(beclomethasone)*	*Rhinocort*	*(budesonide)*
Flonase	*(fluticasone)*	*Veramyst*	*(fluticasone)*
Zetonna	*(ciclesonide)*		

Common side effects of these agents include bleeding of the nose, soreness in the nostrils and occasional headaches – but very few patients need to stop their steroid nasal sprays due to side effects. The dose of nasal steroids each allergy patient requires depends upon the amount of inflammation in the nose and sinuses.

Ask your Allergist what is best for you or your children.

OCULAR MEDICATIONS

Crolom 4% (cromolyn sodium)

Crolom is available as an ocular prescription that prevents allergy cells from releasing histamine. Crolom should not be used when wearing a contact lens. It is most useful in hay fever sufferers during the outdoor allergy seasons and in the cat allergic patient prior to cat exposures. Cromolyn does not make you feel better; it prevents allergic reactions from happening.

OCULAR ANTIHISTAMINES

There are many antihistamines designed for allergy eyes. Antihistamines do not cure allergies, but they can reduce the itching and burning. The drugs below with a * contain a decongestant to *get the red out*.

Alaway	*(ketotifen)*	*Bepreve*	*(bepotastine)*
Naphcon	*(pheniramine)*	**NaphconA*	*(pheniramine + naphazoline)*
Opticrom	*(cromolyn)*	*Optivar*	*(azelastine)*
Patanol	*(olopatadine)*	*Pataday*	*(olopatadine)*
Zaditor	*(ketotifen)*	**Visine-A*	*(pheniramine + naphazoline)*

If only one eye is red and itchy, then there is a good chance that it is due to an infection, in which case these medicines will not be effective. Call your doctor sooner than later if your eye symptoms do not improve.

Summary

All of these medications can be very effective in reducing your allergy and asthma symptoms. Like other drugs, however, they only work if they are used as recommended by your doctor.

Remember, smart patients get better. The more you know, the better you can feel.

You Are What You Breathe

Air Pollution & Asthma

There are many different triggers of breathing difficulties in asthma sufferers. Inhalation of cold air, a respiratory viral infection, inhalation of airborne pollen and mold spores may all cause severe asthma attacks in predisposed individuals. Air pollution has also become a significant cause of lung disease in industrial nations in the past twenty years.

In urban communities "breathing alerts" during the summer months are commonplace. Pollutants and respiratory irritants include ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2) and diesel exhaust fumes. All of these can close the airways of asthma sufferers when atmospheric levels become even slightly elevated. Asthma sufferers, who already have sensitive airways, react to lower levels of pollutants than normal individuals.

The precise role of air pollution as an aggravating factor in asthma and emphysema is yet to be determined, although during intense periods of air pollution there is a threefold increase in visits to Emergency Rooms by asthmatic children. Children with respiratory illnesses are more severely affected by air pollution than are adults. It has been estimated that a 50% reduction in air pollution could reduce disability and death from asthma and emphysema by 50%.

What are the levels of air pollutants that trigger breathing problems? Each patient with allergy and asthma is unique and will respond differently. Ozone is the most reactive gas in our atmosphere. It interacts with all biological life forms. Exposure to ozone levels as low as 0.12 parts per million (ppm) irritate asthmatic airways. An ozone level above 0.2 ppm in one hour is especially dangerous, especially for asthmatics.

Sulfur dioxide levels of 1 part per million (ppm) to 1.5 ppm are present in urban areas during major periods of air pollution. A level of 0.25 ppm for SO_2 causes constriction of the airways in asthmatics during exercise.

Nitrogen dioxide levels should be below 1.0 ppm to avoid irritating human airways, although NO_2 is less of a problem than ozone and SO_2.

Patients with asthma need to know what is in the air before going outside. Pollens, mold spores and air pollutants can make breathing difficult.

Below are several tips to keep in mind before outdoor activities during periods of high air pollution in the summer months and even in the cold winter air:

1. Avoid inhaling cold air - wear a warm air mask in winter;

2. Avoid outdoor activities when air quality is poor;

3. Stay in air conditioned areas during periods of high air pollution from ozone or sulfur dioxide (SO_2);

4. Prevent asthma attacks by using your asthma medications as prescribed;

5. Delay your outdoor journey for the day if your asthma is already out of control. He who hesitates is lost was not spoken of the asthma sufferer.

Knowing what is in the air is just as important as knowing exactly what you are about to eat. If you don't know what it is, don't put it in your mouth. So, if you are not certain what is in the outdoor air, don't put it in your lungs.

Below is a handy chart to track the levels of airborne irritants.

OZONE EXPOSURES and AIR QUALITY

[Ozone exposures in parts per billon over an 8 hour average.]

AIR QUALITY	HEALTH RISKS
0 – 64	Good
65 – 84	Moderate Risk for Asthma Attacks
85 – 104	Unhealthy for Sensitive Patients
105 – 124	Unhealthy for Everyone

Allergy Injections

Allergic diseases are very common ailments which affect 23% - 30% of the people living in the U.S.A. For most allergy sufferers, medications and avoidance measures can adequately control most of their symptoms. Of all the patients we see in the Kagen Allergy Clinics, about 1 in 5 require allergy injections to bring their immune systems back towards normal, and their allergic disease under better control.

Allergen immunotherapy is the only treatment available that can reverse the allergy patient's excessive immune response. Allergy injections work by decreasing allergic reactions to allergens such as those found in the pollens of grass, ragweed and trees.

Allergy is really too much immunity. Too much of a good thing called immunoglobulin E. IgE is an antibody that ordinarily helps to fight parasitic infections. Unfortunately, it also acts like the fuse on allergy cells, or mast cells. Once this antibody sees the pollen or mold spore allergen that induced its formation, it triggers the release of histamine and other allergy inducing chemicals from the allergy cell into the areas of the body being affected. We refer to the allergy antibody and the allergy cell respectively as the allergy fuse (or IgE) and the "allergy bomb" or mast cell.

Allergy injections help to strip off the allergy fuse from the mast cell bombs. In this way the allergy patient is prevented from having allergic reactions. Allergy shots prevent the progression of allergic diseases including asthma. Allergen immunotherapy is the ultimate preventive medicine.

To be effective, allergen immunotherapy injections must be given weekly for a period of 6 - 12 months. Thereafter, a maintenance dosage is given at intervals of 2 - 4 weeks for several years. This varies from patient to patient. Once allergy symptoms are brought under control for at least 2 years, the allergy injections can be stopped. The normal duration of allergy injections is between 4 - 6 years for most patients, although some require it for many more years.

IMPORTANT POINTS TO REMEMBER

** Allergy injections work. They enhance your immune system. Gradually, your immune system will better tolerate the environment in which you live.*

** Each patient is unique. No two patients are allergic to exactly the same allergens. Each patient, therefore, needs a different recipe with regard to allergen content and dosage.*

** Allergy injections may cause reactions. You will be receiving injections of something that you are allergic to. Most reactions, if they occur, are mild and localized to the area where the injections are given. The most common reactions include small areas of swellings, itching in the arm and perhaps a delayed sensation of warmth. Rarely, life threatening reactions may occur,*

and for this reason you must remain in the physician's office for at least 30 minutes after your allergy injections.

**Tell the nurse if you experience any reaction at all to your injections. If reactions do occur, then the dose of the next injection may need to be modified.*

**You should not receive your allergy injection if you are wheezing, tight in the chest, or if you have a fever and are already feeling ill. If ever there is a question as to whether you or your family member should receive an allergy treatment, ask your nurse or your physician.*

MORE INFORMATION ABOUT ALLERGY INJECTIONS

ALLERGY SHOTS: Allergy shots begin with weekly injections of an allergy vaccine specifically prepared for each individual patient. Each week the dose is gradually increased in strength so that after 9 - 12 months a maintenance dose is reached. The injections are then given every 2 weeks, and subsequently every 3 - 4 weeks for several years. Some patients require allergy injections on a regular basis for many years to help control their allergy symptoms.

SAFETY: Because you will be receiving an injection of something you are allergic to, it is important to remain in the physician's office for at least 30 minutes after the treatment is given. There is always a potential for a reaction even after many years of having had no reactions to therapy.

WAITING PERIOD: For your safety, you will be required to remain within the waiting room area for 30 minutes following your allergy injections. Serious reactions usually occur within an hour after having the injection.

DOSAGE ADJUSTMENTS: If you begin to have reactions to your allergy treatments, the Allergist will adjust the dosage according to what your body's immune system is able to tolerate. Gradually, the dosage will be increased to the point where your symptoms will be controlled.

CONSISTENCY AND TIMING: In order for your allergen immunotherapy to be most effective, it is necessary for you to be consistent and timely in receiving your treatments. An interval of greater than 10 days may result in either a repeat of your previous dosage or a decrease from that point.

QUESTIONS: Contact your Allergist should any questions or problems arise.

The goal is to keep your allergies under control so that allergies do not control you.

Many patients have what I refer to as a " wet head ." They make a lot of mucus. Symptoms may include having excessive mucus, a wet nose, " gunk " down the back of the throat, drainage from their sinuses, dizziness from fluid that accumulates in the middle ear and frequent sinus infections because of all the mucus.

These people feel as though they are having allergy symptoms, but when they are tested for allergies, they have negative allergy skin tests. The question then becomes, "If I don't have allergies, what do I have?"

At the Kagen Allergy Clinics, there are two common causes of the "wet head":

(1) Acid reflux into the lower esophagus, and

(2) Non-specific hyper reactivity (or hypersensitivity).

Acid reflux can be either obvious or silent. If a patient with excessive mucus has a 'busy stomach' or clear cut symptomatic acid regurgitation, a simple test is to take antacids (Zantac at night and Prilosec in the AM). The sinus, nasal and " gunk " sensation in the throat should end almost completely after one week on this treatment. If symptoms do not improve, then one must consider the diagnosis of non-specific total body hypersensitivity.

Sensitive patients often have the following complaints:

-sneezing and/or sensitive eyes in the sunlight (sunglasses are a must);
-sensitive to alcoholic beverages (easy drunks);
-an ability to smell things that others cannot;
-sensitive to any change in the humidity or temperature;
-ticklish from across the room;
-cold feet at night (they wear socks and sweat suits to bed);
-sensitive to any change in their hormone levels such that they feel when they ovulate;
-a runny nose when entering cool rooms and cold air;
-fatigue, especially around 2:00 in the afternoon; and
-sensitivity to all medications, so that pediatric doses of medications often are effective or may even cause side effects.

The hypersensitive patient can feel it whenever anything changes inside or outside of their body (i.e., changes in temperature, humidity, irritating odors, hormone changes, stomach acid or air pressure).

These "sensitive" patients can appear to be allergic, where I use the term allergic to mean having allergy immune reactions to allergens such as pollens, mold spores, animals or medications. As a matter of fact, the term allergy as originally defined meant that a patient was hypersensitive, either by immune or non-immune mechanisms. Today, doctors use the term allergy to mean that a patient has IgE antibodies to something that makes them ill. This is really not the proper use of the term allergy.

So, if you need to wear sunglasses and like to put socks on in bed, you may have sensitivity to anything that CHANGES around you. There is no blood test or skin test to determine this diagnosis. It is a diagnosis based upon your medical history, the clinical judgement of your Allergy Specialist, negative tests for allergies, and a favorable response to the following therapies:

(1) Atrovent (0.03% or 0.06% solution) sprayed into the nose 3-4 times daily especially 40 minutes BEFORE changing from one environment to another (i.e., going outside) or AstePro (azelastine) 1 sniff each nostril in the AM and at night.

(2) Sunglasses to control the amount of light entering the eyes.

(3) Lipton Tea (1/3 cup of warm tea) which helps prevent hypersensitive patients from having a "wet head" and headaches.

(4) NO Light - darkness for 5 minutes at noon (hold your hands over the eyes).

(5) Magnesium Oxide (250 mg) twice daily (but not taken with Calcium).

These suggestions originated as a result of my asking my non-allergic patients, "What works for you?" Most all patients with hypersensitivity included these responses in their answers to me. They are simple to follow, and they are very effective for most patients with " wet heads ." Importantly, if the above suggestions do not work, keep in mind that some patients with no allergies improve when using nasal corticosteroids.

I hope this information is useful to you. Please be certain to discuss these ideas with your doctor.

Do Not Look or Smell Like A Flower

How To Avoid Stinging Insects

1. **Do not look or smell like a flower.** Make yourself unattractive to insects by not wearing flowery prints, brightly colored clothing, or perfumes when going outdoors. Scented hair tonics, hair sprays, colognes, deodorants, suntan lotions, and other pleasing odors for the human body attract people and insects alike.

2. **Keep all prescribed medications handy.** If you have had a life threatening reaction, then you need to be ready immediately to treat yourself as soon as a severe reaction begins to occur, especially if you itch in an area other than where you were stung.

3. **Epinephrine works best if it is used soon after the reaction begins.** Make certain that a friend is nearby who is ready and willing to give you an injection of epinephrine when needed (Epi-Pen).

4. **Avoid areas where stinging insects hang out** - orchards, flowering plants, outdoor barbecues, uncovered foods and cans of soda, trash and garbage cans.

5. **Do not give the bees an open invitation to approach your skin.** Yard work should be done while wearing clothing that covers the toes, legs and arms.

6. **Drive the car with the windows up and closed.** Camping out is O.K. if you have the tent sealed with mosquito netting.

7. **Have a professional pest control service remove a nest on your property.** No need to be a dead hero.

8. **Keep an insect bomb or spray available.** It is best to have some one else who is not allergic to insects destroy the flying pests.

9. **Venom allergy injections cure stinging insect allergy.** Venom shots build up anti-toxic antibodies in the patient which can prevent life threatening reactions.

10. **Wear a medical identification tag or bracelet that can speak for you if you are unconscious.**

Latex Allergy

The following is a partial list of foods which may contain latex like allergens that may cause allergic reactions in some latex sensitive patients. It is impossible to determine whether food sensitivity begins before latex allergy reactions or the reverse.

There are very important relationships that all patients with latex allergy must become aware of. Share this information with your friends and neighbors.

KIWI	AVOCADO	BANANA
POTATO	HAZELNUT	PAPAYA
TOMATO	PEACH	PEAR
CHERRY	PLUM	APRICOT
MELONS	OREGANO	SAGE
DILL	PASSION FRUIT	FIG
MANGO	GINGER	ALMOND

The above foods may or may not need to be avoided by latex sensitive patients. Each patient is unique. This list is not a "DO NOT EAT IT" list. Rather, it is a PAY ATTENTION list. It is the patient's symptoms that determine if there is an allergic reaction after eating these foods. These foods are known to contain latex like protein allergens. So, pay attention!

A Partial List

Latex Containing Products

The following items may contain latex like allergens that may cause allergic reactions in some latex allergic patients. The reactions may be mild or even potentially life threatening.

BALLOONS
RUBBER CATHETERS
PACIFIERS
RUBBER TOYS
ENEMA CUFFS
INTRAVENOUS INFUSION SETS
RUBBER RAFTS AND TUBES
LATEX INJECTION PORTS
LATEX GLOVES
LATEX CONDOMS
SURGICAL DRAINS
KOOSH BALLS
RUBBER HOSES ON SCUBA DIVING TANKS
SNORKELS
MEDICAL SUCTION DEVICES
ANY LATEX CONTAINING PRODUCTS

THIS LIST IS NOT COMPLETE.

It does not contain all of the many latex containing products.

Be aware that latex is ubiquitous in our environment.

Read labels carefully and do not be afraid to ask if latex is in the item which is about to come into contact with you.

Medic Alert identification bracelets are a great idea. All latex allergic patients should also carry an epinephrine kit such as the Epi-Pen for self administration if necessary.

BANANA INDUCED HIVES IN A CHILD

Danny was a five year old boy who loved to eat fruits. Shortly after eating a banana one morning, he complained to his mother that his mouth was " itchy . " Thinking nothing of it, his mother continued her daily routines - cleaning, cooking, washing everything in view and preparing for her hectic taxi services. Just before she left the house with Danny, she noticed that his lips were not normal. They were swollen and puffed up like a blow fish. He was also breaking out all over in red hives. Instead of going grocery shopping, she sped to the closest hospital for help.

Danny was treated with Benadryl, an antihistamine which offers sick kids and also mothers some relief by reducing itching and by inducing sleep in most children. After the swellings went down, she wondered if the banana had something to do with Danny's troubles, and she sought my advice.

I discovered that Danny was allergic to ragweed and dust mites by doing allergy skin testings. Food testing was negative for banana, apple, carrot, tomato, egg, milk, beef, pork, nuts and even peanuts. So, why did he have swollen lips ?

The answer is that Danny is allergic to ragweed pollen allergens and these allergens are also found in certain other plants humans eat, including banana, watermelon, cantaloupe and sunflower seeds.

Patients who are allergic to ragweed are also at risk of having allergy symptoms when eating foods that contain cross-reactive ragweed like allergens. Avoidance is the best treatment, and nothing beats being prepared.

SUNFLOWER SEEDS AND ITCHING IN THE MOUTH

Fred was a forty two year old machinist who was "fine" until one day when he complained to his wife about his mouth feeling a bit itchy. He had just eaten a whole bag of sunflower seeds, and so his wife told him not to eat so many seeds next time.

Fred always listens to his wife, but he never really hears her. The effects of listening so hard after years of marriage resulted in his inability to learn new things, especially if it was his wife doing the teaching.

The very next week, Fred ate another batch of sunflower seeds, but even before he was done the itching returned right on the roof of his mouth. He washed it away with a few beers and felt "fine" in the morning.

Unknown to him, his wife had scheduled a visit for him with her girlfriend's friend, me, an Allergist. I was happy to see him, since grown men rarely see doctors since men are always doing " fine " and they never really need doctors much anyway.

I did some allergy skin tests on Fred, who after a while enjoyed just lying still for a half hour. Fred itched a lot on his back where the tests were put on. I told him he was allergic to ragweed pollens and grass pollens and even to tree pollens. After several times of going over the same questions with him in different words, Fred eventually admitted that he did kind of sneeze all summer long, and he did have a lot of springtime sinus drainage. Maybe, even, this had something to do with his snoring loudly at night when the windows were open in June and in August.

But, what did that have to do with the itching on the roof of his mouth from eating sunflower seeds ? You guessed it. Ragweed allergens are also in sunflower seeds. They are somehow distantly genetically related.

CELERY, EXERCISE AND ANAPHYLAXIS

Jerry was a twenty seven year old compulsive road runner. He was always on the go. He came in to see me after having a life threatening reaction during one of his ten mile runs. The only thing that stood out was his statement that he had eaten only celery and water about a half hour before running. He had eaten celery before many times when not running, and nothing bad happened.

I tested him for allergies to food and inhalant allergens. Nothing showed up on his skin tests. I then did allergy blood tests (RASTs) in our laboratory, and he was positive to celery and to birch pollen allergens.

There are no proteins in celery, and it was supposed to be proteins that caused allergies. Everything I knew was wrong when it came to figuring out what happened to Jerry.

Celery has allergens in it that look like birch pollen allergens, even though celery does not have protein in it. Some carbohydrates (sugars) can mimic protein allergens. Allergy antibodies can be fooled by look-a-likes. Birch protein allergens look like the carbohydrates on the outsides of apples, pears and peaches, and on celery. Also, some allergy sufferers do not have positive skin tests. Their riddles can only be solved by doing special allergy blood tests.

Jerry can eat celery, but only if he does not exercise for two hours afterwards. For unknown reasons, some allergy patients cannot exercise within several hours after eating. I leave it to the next generation of Allergy Specialists to figure out why. Life is very complex, but it seems to be very much related.

OREGANO ALLERGY AND ANAPHYLAXIS TO LATEX

In medical school, Dr. Don experienced two severe life threatening allergic reactions in restaurants after eating spicy Italian meals. Being a wise guy, he consulted with an Allergy Specialist at his University to determine exactly what he was allergic to. He was hoping to avoid any future bad reactions, especially since he enjoyed eating foods he did not cook.

His first allergy investigation revealed that he was allergic to several spices, oregano and dill. He was also very sensitive to grass pollen allergens.

A few months after learning what not to eat, he developed another peculiar reaction. While putting on a pair of latex examination gloves, he began to itch. He later experienced sneezing and wheezing when inhaling powder from latex gloves in exam rooms. It did not help that he wanted to be a general surgeon, and therefore, he would need to protect himself from viral infections such as AIDS and hepatitis by using lots of latex gloves regularly.

Is there a connection between spices and latex? We studied Dr. Don's serum and found cross reactions between latex, oregano, sage and dill. Grass allergic patients must take care when eating these spices also, since grass allergens were found to cross react with these spices and with latex. Grass, oregano, dill, sage and latex contain similar foreign proteins that cross react with one another. These allergenic plants must be genetically related.

Being allergic to grass, dill, oregano and sage food allergens predisposed Dr. Don to develop subsequent latex sensitivity. Avoidance still remains the treatment of choice for food and latex allergic patients.

HIVES AFTER TAKING SYNTHROID CONTAINING ACACIA

Gertrude was a sixty two year old active school teacher. She visited an Allergy Specialist to try to find the cause of her hives which would come and go every day during the past three years. The hives were not really bad, just bad enough to scare some of the children in her class. The hives on her chest and back were not as ugly as those on her face and neck.

Not much had changed in her health recently, except that her primary care doctor placed her on a new pill, Synthroid. Several years earlier, she was found to have hypothyroidism, a lower than normal thyroid hormone output. The Synthroid worked. It picked up her energy and it made her hair come back in and her skin felt softer than before.

Gertrude wondered if it was the Synthroid that gave her the hives. So, on her own without discussing it with her doctor, she stopped the thyroid medicine for a week. The week she did not take her thyroid pills was her best for her skin - no hives when off of Synthroid.

She sought my opinion, and I studied her pills and found that they contained not only what she needed, a thyroid hormone, but also something she did not need, acacia gum. Acacia was commonly used years ago to hold pills together. Drug manufacturers stopped using acacia, mostly because so many people developed allergic reactions to it.

To prove that it was the acacia gum that was the real cause of her hives, I studied Gertrude's serum for allergy antibodies to the acacia gum in her pills. The test was positive for allergy to acacia.

Gertrude is without hives, and is doing well while taking a generic thyroid hormone that does not contain acacia.

TOMATO GASTRITIS IN A GRASS ALLERGIC PATIENT

Mike was a happy child of eight years. He enjoyed playing outside all the time, especially with his younger brother. They would go on adventures in the woods all summer long next door to where they grew up. Occasionally, Mike's nose would run, but he felt " fine. "

During fifth grade Mike began to notice that his chest would "clog up" whenever he would try to run really fast. An attentive parent took him in to see an Allergist, who found that Mike was very allergic to grass allergens.

The Allergist asked Mike if he liked to eat vegetables. "No way," he replied, "they make my mouth burn and itch." Not only that, when Mike did eat tomatoes or something green and leafy resembling grass, he would get a "gut bomb." (Medically speaking, a gut bomb occurs when a person eats something and then within an hour it is flying out his or her rear end.)

The Allergist instructed Mike and his Mom that he should avoid eating foods related to grass, such as tomato, corn, wheat bread, green spices, lettuce, fresh carrots and especially celery. (See: Celery, Exercise and Anaphylaxis case) Also, Mike was given an inhaler to control his asthma along with specific demonstrations on how and when to use it for prevention of his chest " clogging up. "

Patients allergic to grass may find that they have "gut bombs" and itching in the mouth after eating foods related to grass.

Lucky for Mike, his grass allergen immunotherapy (allergy injections) has controlled his asthma and his sensitivity to grass pollens and grass like foods. He likes vegetables now.

ALLERGY AND ASTHMA FROM HOUSEHOLD LADY BUGS

Mary, a forty five year old house wife, was in great health until the winter of 1998. A mild La Nina winter resulted in a huge number of Lady Bugs appearing daily at her home. Inside, she would vacuum up hundreds of cute, tiny beetles daily. If her finger touched a bug and then it touched her eye, that eye would immediately itch and swell shut.

Mary had no hay fever like symptoms previously, but now she had nasal congestion, itchy eyes and night time wheezing and shortness of breath. Her house was beginning to bug her.

She was referred to me for an allergy evaluation. All of the routine pollen, mold spore and mite allergy skin tests were negative. So, I asked her, "Is there anything unusual about your home?" "Well," she replied, "my house used to be white, and now it is hard to tell what color it is because of all the bugs on the outside of it." Wow, was I impressed about the insect life at her home.

She was not alone. Other allergy and asthma sufferers also complained to me about the influx of Lady Bugs and the coincidental flare of their allergy symptoms in the La Nina winter in Wisconsin.

Mary's serum was used to identify the Lady Bug proteins responsible for her allergic disease. Insects have potent aeroallergens. Having identified exactly what was wrong, we called the Orkin man to exterminate the allergenic Lady Bugs.

Our changing climate is having a significant effect on our close encounters with insects, and on our increasingly intense exposures to allergenic pollens. There will be more pollen and more insects to come due to global warming.

ANAPHYLAXIS IN A RESTAURANT - GINGER OR SHRIMP?

Wanda was a fun twenty two year old who liked to eat out. One night she almost lost her life in a sea food restaurant. She had ordered some shrimp as a starter, and just after eating the first one, she felt a closing sensation in her throat. She passed out from not being able to breathe, and at the same time she was swelling up all over and wheezing loudly. Luckily, the emergency room was not far away. Adrenaline and lots of other drugs saved her life.

Not wanting to go through this again, she stayed away from shrimp. Her sister asked if she wanted

to try some crab or lobster. Wanda was not sure what to do. She wanted to eat lobster, but just maybe it would have the same effect as the other shell fish that almost took her life. What to do?

She consulted an Allergy Specialist, me, and I tested her skin for shrimp sensitivity. The shrimp test was negative. When asked to recall exactly what she ate that fateful night, Wanda said that she dipped the shrimp in a sauce, a ginger sauce.

I used Wanda's serum to determine exactly what she was allergic to. Shrimp, lobster and crab blood tests were negative for allergic reactivity. The tests were positive to ginger and to latex.

With this new information in hand, Wanda did admit that latex condoms and gloves were "a problem" due to severe itching upon coming into contact with them.

Our allergen detective work told me that Wanda was not allergic to shrimp. She was allergic to latex which shares common allergens with ginger. Wanda is now a happier sea food restauranteur as she knows what is safe to eat.

HIVES AND A BUSY STOMACH

This is the story of one, but it is common to many. Julie was a thirteen year old brought in by her mother to see me for evaluation of her hives. Julie did not complain much. Most of the talking came from her mother. She told me that her daughter had suffered for a year with itching in the skin, welts all over and, furthermore, that I was the "doctor of last resort."

Julie denied any recent infections that might have started the hives, and she could not think of anything that may have caused the process. She took no regular medicines. Julie was stumped, and so was I until she admitted having "a busy stomach."

Julie said that her stomach was always active, with acid like burning sensations that occasionally shot up to her throat. She did not think much of it since both she and her mother had the "same type of stomachs."

I studied Julie's serum for IgG and IgE antibody reactions to Helicobacter pylori, the bacteria that can cause stomach ulcers. After giving her antihistamines and antacids to control both her itching and her stomach acid, I told Julie to return in a week to see how she responded to the medicines, and to review her laboratory tests with her and her mother.

She returned with a smile. The skin was totally clear and her stomach was improved. The tests were positive for reactions to H. pylori, indicating an active infection or colonization.

Infection anywhere inside of the body can cause hives. Helicobacter pylori is a very common pathogen, and luckily the diseases that it causes are curable with appropriate antibiotics. No infection most often means no hives.

SINUS CONGESTION AND HEARTBURN

Every patient presents a different puzzle. Brett was a sixty six year old farmer who finally came to see me after selling his farm to his sons. He complained about always having a lot of mucus in the back of his throat, both day and night, forever. And he wanted it better by tomorrow so he could take in a few shows in Las Vegas. I told him I could not go with him - too much paper work.

He did not complain of itching, sneezing, sinus headaches. It was only the gunk and the constant drainage. He was sure he was allergic to something. Brett moved off the farm several months prior to seeing me, and his symptoms had not changed. He took his nose and his sinuses with him, but not the animals or the organic debris.

Brett could not think of anything that made his mucus worse, or better. It was always there, especially at night when lying down. That was my clue.

I ordered some X -ray studies of his stomach to see if there was acid regurgitation into his esophagus. Acid is all right in the stomach, but if it gets into the chest, there is mucus to pay. The studies showed that Brett had a huge hiatal hernia, which means he had his stomach up in his chest region. He had no way to keep the acid out of his chest.

When acid comes up into the lower end of the esophagus, the brain detects its presence, and immediately mucus is produced in the mouth, nose and sinuses to wash the acid down into the stomach where it belongs. In order to have a dry head, you need to have a quiet stomach with the acid where it belongs - in the stomach, not in the chest.

These allergy patient case reviews highlight some of the common and interesting problems we see at the Kagen Allergy Clinics. The patients help tremendously in detecting exactly what is wrong through their detailed medical histories.

Patients are usually right.
They get to spend 24 hours a day with themselves.
We doctors only get a few moments to get it right.
We had better be very good listeners.

Summary & Credits

Summary

Thank you again for learning more about the world of allergy. If any questions arise which were not answered in Allergy InsideOut, please feel free to send them to me at: www.allernet.com. I will do my best to respond as soon as possible.

I would like thank all of my patients for giving me an opportunity to serve them. Without their stories, I would have none to tell. I have enjoyed the journey, and I hope that they have enjoyed the experience as much as I have. Jordan Fink, M.D., my Chief, always reminds me that it is our patients that tell us what is wrong with them, and I am still trying to become a better listener.

Allergy InsideOut could not have been successful without the cooperation of my entire family, both my immediate and tolerant relations - Gayle, Melissa, Michael, Thomas, Stephanie - and my devoted employees in the Kagen Allergy Clinics and Allergy Research Laboratory. Thank you for all of your support over the years.

Credits:

Bradley T. DePasse was responsible for the artwork and formatting of these materials.
He is a tremendously talented graphic and computer artist at Ark Media Group, Appleton, Wisconsin

Kagen Allergy
C L I N I C

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