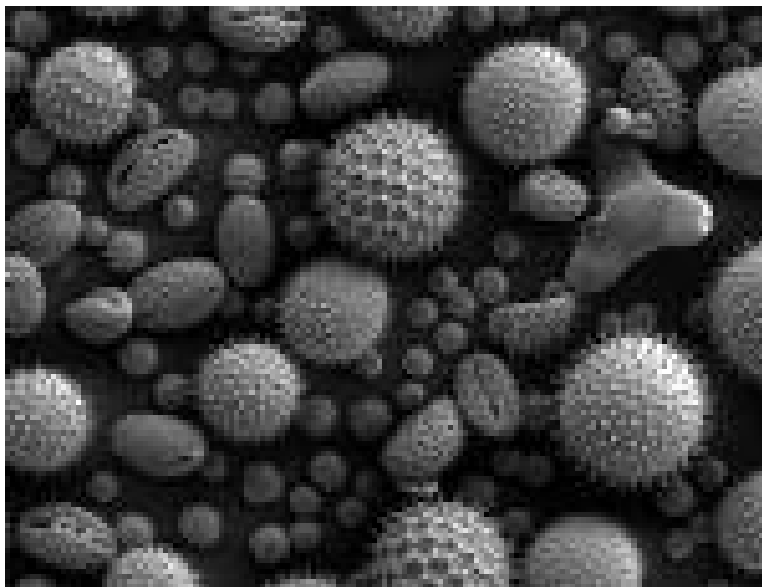


Controlling Your Asthma and Allergy Symptoms At Home



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Welcome!

Before we get started, let's get some of this legal stuff out of the way. I have retained some copyrights for this book.

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This book has been produced for informational purposes only.

Every effort has been made for this guide to be as up-to-date as possible. However, knowledge about this subject can change at any time. I cannot guarantee that everything in this guide will be exactly 100% accurate or relevant when YOU read this guide.

I am not a physician, nor do I play one on television, so I do not give medical advice. Please contact your medical professional about any actions you may take that could affect your medical situation.

Ok – now that all THAT is out of the way.... let's talk about the air you breathe.

Michael Larsen

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Introduction

Who Wrote This Stuff?

Michael Larsen spent the early part of his professional career as a certified industrial hygienist (CIH) and for almost 25 years evaluated the effect of air quality on human health. In 1984 he partnered with a physician he knew and started a new company in Washington, DC. With a handful of contracts, he set out to help the government's landlord manage the complaints of air quality; something they had just started calling "Sick Building Syndrome". The science of indoor air quality (non-industrial) was so new he had to invent all his own sampling and analytical protocols. After a while he realized sampling and analysis (the CIH's traditional tools) was no longer necessary, unless legal documentation was necessary. He has also worked with medical specialists (pulmonary physiologists) to help manage their most intractable patients.

Years later as a consultant to management he diagnosed and wrote the Indoor Air Quality Management Plans for some of the largest buildings in Washington, DC. This free eBook was written in the hope that the information here may help bring some relief to yourself or your loved ones.

What about your indoor air



Today we have more choices than ever before, but, the air we breathe is not one of them. We breathe the air that is there, and if it is filled with asthma triggering factors, or allergens, even in low levels, we will have problems. You are completely at the mercy of the air that is present.

Most people never think about managing the quality of their indoor air, but it is not only possible, but very beneficial. The asthma symptoms you experience are probably not the result of a single factor, but many different factors all contributing a little to the irritation or allergic symptoms you have. By systematically removing as many of these factors as you can, you will see your asthma symptoms reduce and perhaps even go away.

What's the difference between an allergen and irritant

An allergen is something that reacts inside the body when your skin contacts it, you breathe it in or you swallow it. It sets off an immune system chemical chain reaction. This chain reaction releases a series of chemicals, including histamines, from special immune cells in the body, called mast cells. Histamines are the major cause of allergy symptoms, such as congestion, itchy eyes, dripping nose, and sneezing. That's why when you see a doctor for allergic symptoms s/he may suggest an antihistamine.

Unlike allergens, irritants do not trigger the chemical cascade from the body's immune system. Medical specialists don't know exactly why irritants cause nasal and respiratory symptoms, but it may have something to do with the sensitivity of the tissues inside the respiratory passages. When exposed to an irritant, the nose or lungs reacts with the same types of symptoms mentioned above, but it can also trigger an asthmatic attack.

If you're bothered by allergens, you're likely to be bothered by irritants, as well. Both allergens and irritants can trigger an asthma attack. If your symptoms occur at certain times of the year, like spring or fall, then you may have seasonal allergies. If your symptoms occur year-round, then you might be sensitive to something in your indoor environment that triggers it.

Only your doctor can tell you for sure, and prescribe the right treatment for you.

What causes asthma and allergies?

There are a wide variety of things in your environment at home that can cause problems. Not all of these factors can be detected with your nose. Here we will discuss the things that that can cause allergies and irritation which can aggravate your asthma.

Irritants



Anything that causes irritation to your respiratory system can aggravate or precipitate asthma. Here are some common factors that can cause respiratory irritation:

- Tobacco Smoke
- Wood dust (can be allergenic as well)
- Smog (environmental pollution including ozone)
- Household cleaning products
- Perfumes, air fresheners and other personal care products that contain volatile organic products
- Automobile exhaust (or combustion products in general)

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- Household maintenance products (paint, turpentine, solvents, glues, epoxies, stains, sealers, etc.)

Strategies for managing household irritants

- Remember, irritants will cause no problems until they are released into the air. So, keep all volatile material tightly closed in their containers.
- For irritants that may be entering your house from the outside like automobile exhaust or environmental pollution, you must close up your house as much as you can. This may require new gaskets for windows, door jambs, or sills.
- For irritants released inside your home there are three possible alternatives:
 1. Remove the offending material (i.e. make the smokers go outside)
 2. Replace the offending material with something non-irritating or less irritating
 3. Reduce the amount of offending material released into your house when you are home. Alternatively, if the material cannot be replaced, use it judiciously, only when the sensitive individual is not home or in conjunction with a high quality air filter.

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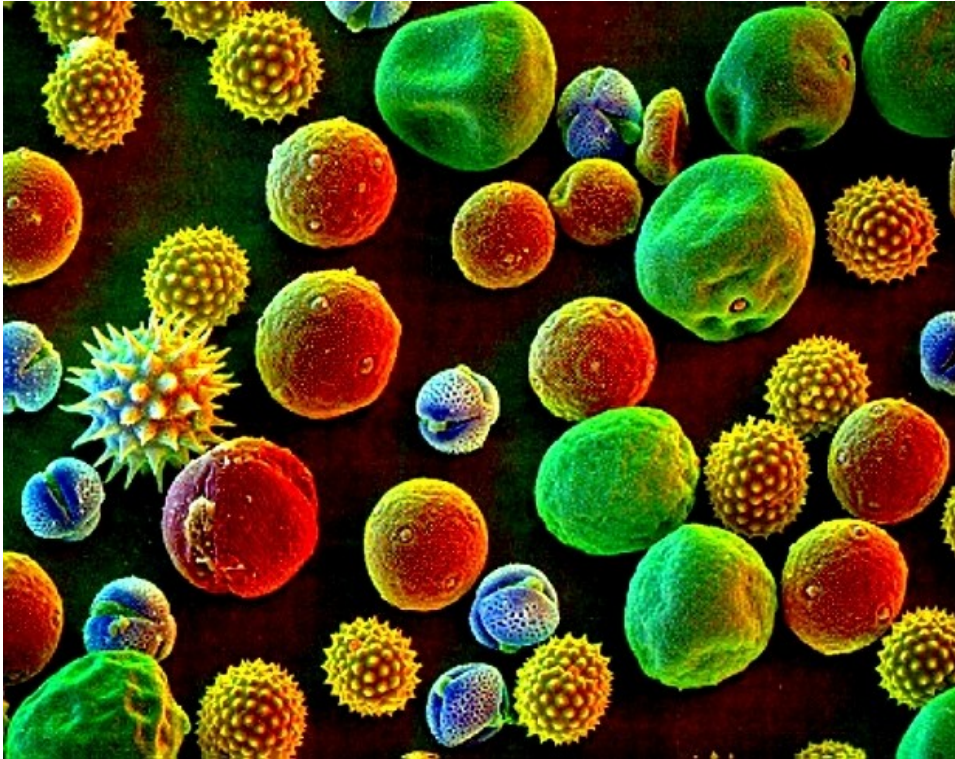
- If the material cannot be removed or replaced, you should consider cleaning the air by filtration. The first place to look is the filter you use on your heating and air conditioning equipment. Most home furnaces are not designed to be equipped with a HEPA filter, but the filtration efficiency on the filters you buy can certainly be upgraded. These filters can normally only filter out particulates such as dust, pollen and spores. If you need to buy a stand-alone unit, be sure to select the right kind of filters. If the irritant is a particle such as wood dust or components of tobacco smoke, a High Efficiency Particulate Aerosol (HEPA) filter must be used. If the irritant is a volatile organic such as cleaning products, perfume or solvents, an activated charcoal filter must be used to absorb the gasses and vapors.

A HEPA filter for a vacuum cleaner will look similar to this.



If you would like to know where to find things to help you manage irritants in your environment you can click [HERE](#).

Allergies



Allergens cover a very wide variety of organic material that if exposed to repeatedly, your body may begin to react to it as a foreign material. Then, a cascade of chemicals is produced by your body to “protect” you from the offending material. The allergic symptoms will generally show up where the allergic reaction is taking place. So if you encounter the plant poison ivy, the allergic reaction will be found where your skin touched the essential oils of the plant. If you breathe particles into your lungs, you will have respiratory symptoms. If you are allergic to wheat and you eat a wheat bearing product, your symptoms will be gastric in nature.

In the home, the primary allergens will be airborne, and come from an amazing variety of sources. Here are some:

Mold



Inside your home right now you have hundreds of different kinds of mold growing on any surface that contains organic material. It can grow in your carpet, on vinyl flooring, painted surfaces, furniture, drapes, and clothing. It can grow on all these surfaces because its needs are so simple. Mold only needs some organic surface (i.e. paint, vinyl, carpet, or wall paper), moisture and the proper temperature to grow. Let's use your carpet as an example. You have mold in your carpet. It's in your carpet because mold spores are everywhere. They are microscopic and cannot be seen by the naked eye. The job of mold is to break down organic material – all organic material. You know its working because if it did not, the

world would eventually become covered deeply by whatever mold did not break down. It's what nature uses to bio-degrade everything.

So let's say you come home from work and as you open the front door, a single mold spore floats in with you. The mold spore floats over to your carpeted area and slowly sinks down into the fibers and lays there. But, you say I vacuum diligently. Yes, and every time you vacuum, you may (or may not) pick up our little spore and blow it out the exhaust because unless your vacuum cleaner has a HEPA filter, the spore is so small it simply blows through any other kind of filter.

But, your spore simply lays there because it does not have one critical ingredient for growth – moisture. And one day, in your quest for clean carpets, in come the carpet cleaning man. A few hours later and your carpets are nice and clean and damp. Our little spore who has evaded being picked up by the vacuum cleaner, awakens. Moisture is present and it begins to grow. It grows by sending out tiny fibrils that releases enzymes to break down your carpet fibers and backing. It feeds on this material and grows as long as the moisture is present which, in the case of a carpet can be days or even weeks depending on the humidity. Then as the moisture levels drop, the mold which has been growing rapidly, stops growing. Now here is what makes mold insidious. *It does not die.* It goes through a process called sporulation, that turns what started out as a single spore, into billions and billions of spores, all laying

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there waiting for the next water to arrive. All those spores are now available to be entrained into the air with your vacuum or by simply walking across the carpet.

But, it's not a problem yet. It won't be a problem until (or if) your body determines that kind of spore is a "foreign body" and begins to produce antibodies inside you to fight it. When, or if it does, you will begin to experience allergy symptoms in your house. It's the reaction between the allergen (the antigen in medical terms) and the antibody that creates the cascade of chemicals that include histamine, that are responsible for the symptoms.

How do you know if you are sensitive to the mold in your house? That's an excellent question indeed. The simple answer is if your symptoms feel better when you leave your house, something inside may be causing you a problem.

No one knows why one person becomes allergic to a certain mold and others do not. It is generally believed that the chance of becoming allergic to something is proportional to the dose you receive. What's a dose? Your dose of the mold spores we are talking about is the amount of spores you breathe in; multiplied by the length of time you are exposed. Or in simpler terms, the dose is the concentration times the time. To reduce the dose, you must either reduce the time you are exposed, or the amount of mold spore you breathe.

Since you live in your house full time, your only choice is to reduce the amount of mold spore (allergen) in the air.

Strategies to combat mold

As I previously stated, mold only needs three things to thrive; an organic surface, water and the proper temperature. You cannot control the organic surfaces mold grows on or the temperature. The only thing you can control (to some degree) is the moisture, both in the air and on your surfaces.

Here are some strategies to reduce the risk mold in your house:

- Only clean your carpet, furniture or any other porous surface, with a non-aqueous cleaner. If that is not an options use a low water cleaning process during a low humidity time of the year, such as winter.
- Be aware of any part of your house that is repeatedly wetted by water such as bathrooms and the laundry room. These areas will grow mold at a much faster rate.
- If you live in a humid part of the country (i.e. anywhere but certain parts of the southwestern US) you may need to consider a [dehumidifier](#). The moisture that molds require can be either frank moisture such as water, coffee or coca-cola spilled on the carpet, or atmospheric moisture. Mold has enough moisture to grow, anytime relative humidity levels are 60% or higher. I have witnessed visible mold growth on clean painted walls in

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offices in the Washington, DC area, simply from the humidity levels in air.

- If you cannot control the moisture, you cannot control mold growth.
- If you have a mold allergy problem, consider removing porous material that has been exposed to water and replacing it with non-porous material that can be more easily cleaned. An obvious example is to replace your carpeting with a wood or vinyl floor.
- Clean non-porous surfaces with a mild disinfectant on a regular basis, especially in high humidity rooms such as laundry rooms or bathrooms.
- If you continue to experience problems, invest in a high quality HEPA filtered air cleaner to reduce the amount of mold spore in the air.
- When you vacuum, always use a model that contains a HEPA filter to keep from redistributing the mold spore that is present.

If you would like additional information on allergy avoidance products please click [HERE](#)

Pollen



Pollen is a seasonal issue for most of the country. Each spring, summer, and fall tiny pollen particles are released from trees, weeds, and grasses. They hitch rides on currents of air, and make unscheduled detours into human noses and throats. At these sites, the pollen can trigger the allergic reaction that doctors call pollen allergy, or seasonal allergic rhinitis. Many people know this as hay fever. While your doctor can tell you what tree, weed, or grass you are allergic to, that knowledge will not help much to relieve your symptoms.

The pollen in many areas of the country is released in such huge quantities that cars parked outside can receive a visible yellow-green coating overnight. This high concentration results in a very

high dose for people walking outside, and often allergic sensitization can occur.

Strategies to Combat Pollen in Your Home

Fortunately, pollen does not occur in large concentrations very long. Depending on your specific sensitivity, you may wish to adopt one or more of these strategies.

- If you know what type of pollen you are allergic to, you can get a better idea of when it is released in your area. Watch the pollen count. During that time you need to keep your house as tightly sealed as possible.
- Upgrade the filtration efficiency of the filters on your furnace or air conditioner as much as possible.
- When you vacuum, only use a cleaner with a HEPA filter to keep from redistribution the pollen in the carpet or on the floors.
- To keep the pollen in your house from being swept into the air during normal activities, damp mop non-porous floors and surfaces frequently during pollen season.
- If you continue to experience symptoms, consider adding a stand-alone room air cleaner equipped with a HEPA filter. The first place you should consider a room filtration device is your bedroom, because you spend so much time there. [HERE](#) is more information on pollen.

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Pet Allergens



We all love our pets, but it does not matter what kind of little creature we share our homes with; they all contribute allergens to our environment. But, simply knowing about this can help you make better decisions about taking care of your pet. Here are the things you need to know about your pets.

It does not matter if you have a dog or cat, gerbil or hamster, bunnies or birds, emus or lizards. All these lovable creatures will shed into our environment. A small, but not comprehensive, list of things our pets leave behind includes:

- Saliva
- Hair

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- Dander (skin flakes)
- Urine and other droppings
- Fleas and other parasites acquired in the environment

What everything on this list has in common is the protein content in everything they leave behind. Again, depending on the concentration of the material in your indoor air, and the length of time you are exposed, you may acquire a level of allergic sensitivity to your pet.

Strategies to Combat Pet Allergens in Your Home

- All the strategies we discussed above for cleaning your home all apply here. The intent is to reduce the amount of allergen on surfaces in your home so they are not available to be swept back up into the air where they can bother you.
- If appropriate, you can wipe the coat of your pet with a damp cloth daily to reduce the amount of saliva and dander before it's released to your home.
- Be mindful of water splashing from fish tanks and drinking bowls, as this will over time will foster mold growth.
- Allergen rated air filters on your furnace or air conditioner will help reduce the allergen load in the air. Be sure to change the filters as directed.

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- When you vacuum, only use a cleaner with a HEPA filter to keep from redistributing the pet allergens the carpet or on the floors back into the air.
- If your doctor has advised that you are sensitive to your pet, you should seriously consider not allowing your pet to sleep on your bed or even in the same room with you. Since your bedroom is the room you will spend the most time in, it should be as clean as possible with no pet allergens at all. If you have a stand-alone air cleaner, this is where it should be so you can have eight hours of allergen free sleep.
- Keep in mind that pet food left out will also attract other four footed creatures that will also leave behind hair, droppings, saliva and dander. As weather turns cooler, rats and mice begin to look for entrances into protected areas such as your house. If you suspect a rodent infestation, please consider a licensed exterminator.

If you would like more information about controlling pet allergens please click [HERE](#).

Insects

Please don't be offended, but every home has a wide variety of insects living along side you and your family. They are simply a part of the normal eco-system. You cannot eliminate all of them, but the number of these insects, can and should be controlled. Here are some of the worst offenders:



- Dust mites –

They are present in every home since their food source is human skin cells which we all slough off by the millions every day. Dust mites and their food source are often visible in the home and identified by the term “dust bunnies”.

Dust mites are likely to be the biggest asthma risk in your home. With the advent of carpeted bedrooms (which started to increase in the early 1970's) asthma incidence also began to increase because a large population of mites can live in the carpet. The other

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main reservoir of dust mites is the bedding where you sleep. If you have a carpeted bedroom, you or your children have a high risk of developing asthma.

This will not be pleasant to read, but it is very important. Your pillow, sheets, bedding and mattress will contain a population of dust mites that range from hundreds of thousands to several millions. They are harmless to humans, but leave droppings and body parts (when they die) that are all highly allergenic to humans. You will have millions of dust mites per square yard in your carpets. They feed on the skin cells everyone sheds every day. It is estimated that the average human sheds a third of an ounce of skin each day. For these tiny microscopic creatures, that's a lot of food.

- Ants – they will seek entrance into your home on a regular basis attracted by the water or food left out for your pets. If you have an ant problem, seek the help of a licensed exterminator, but be careful of the pesticides they may employ. Since pesticides are designed to kill, be mindful of what is being applied and where.
- Cockroaches – since these creatures can fly, no where is really immune from their presence. More commonly found in multiple dwelling units they can be difficult to eradicate. Again, be sure you do not cause more of a problem with the pesticide than the pest itself.

All of these creatures will leave behind droppings and pieces of wing and shell that all contain highly allergenic proteins. If they infest your carpet, they are harder to remove.

Strategies to Combat Insects in Your Home

- Dust mites – All of your mattresses and pillows should be covered with a dust mite proof covering. Don't worry about the ones already in your pillow, they will die inside the covering and not bother you again. If you have used the same pillow for a few years and noticed that it is becoming more and more firm, please throw it away and buy a new one that you can immediately cover with a dust mite cover.

Be sure to wash your sheets regularly in hot water.

- If you have a sofa, that someone sleeps on regularly, cover it with a dust proof covering to put a barrier between you and the mites.
- If you have an asthma problem, you should consider replacing your bedroom carpeting with a non-porous surface that can be more easily cleaned, and will not allow dust mite populations to build up.
- Make sure your vacuum cleaner has a HEPA filter to keep from redistributing the allergens into the air.

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- Damp or dry mop all non-porous floors and surfaces frequently to remove allergens that have settled onto surfaces.
- Be mindful that your pet's feeding area can feed more than your pet.
- If regular cleaning cannot reduce the insect population, consider a licensed exterminator. Try to find an exterminator that will use the smallest amount of the least toxic material possible and then in areas where you or you pets will not encounter it.

If you would like more information on controlling the allergens from insects, please click [HERE](#).

Conclusion

The indoor air quality in your home is something that should be managed just as well as the cleanliness of your kitchen or bathroom. The particulates, gasses and vapors that reside with us can all, in sufficient concentration, contribute to respiratory symptoms. The more we can reduce each of the offending factors, the more we can reduce or eliminate our symptoms.

The less irritation to our lungs on a day to day basis, the healthier we will be over the course of our lifetime.

If you would like to know more about where to find allergy fighting supplies and equipment, please click the image below.



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