



Asthma and Allergy
Foundation of America

What is Dust Mite Allergy?

If you have allergies or asthma, a tiny creature living in your home could be making big problems for you. Although you can't see them, if you have allergies or asthma you may be feeling their effects only too well. They are dust mites, and they live in many homes throughout the world.

Dust mites may be the most common cause of year-round allergy and asthma. About 20 million Americans have dust mite allergy. Dust mites are well adapted to most areas of the world—they are found on every continent except Antarctica. It may not be possible to rid your home entirely of these creatures, but there are ways in which you can lessen your allergic reactions to them.

What Is a Dust Mite?

Too small to be seen with the naked eye, a dust mite measures only about one-quarter to one-third of a millimeter. Under a microscope, they can be seen as whitish bugs. Having eight rather than six legs, mites are technically not insects but arthropods, like spiders.

Mites are primitive creatures that have no developed respiratory system and no eyes. They spend their lives moving about, eating, reproducing and eliminating waste products. A mite's life cycle consists of several stages, from egg to adult. A female may lay as many as 100 eggs in her lifetime. Depending on the species, it takes anywhere from 2 to 5 weeks for an adult mite to develop from an egg. Adults may live for 2 to 4 months.

Dust mites thrive in temperatures of 68 to 77 degrees F and relative humidity levels of 70 percent to 80 percent. There are at least 13 species of mites, all of which are well adapted to the environment inside your home. They feed chiefly on the tiny flakes of human skin that people normally shed each day. These flakes work their way deep into the inner layers of furniture, carpets, bedding and even stuffed toys. These are the places where mites thrive. An average adult person may shed up to 1.5 grams of skin in a day, this is enough to feed 1 million dust mites!

What Is Dust Mite Allergy?

Household dust is not a single substance but rather a mixture of many materials. Dust may contain tiny fibers shed from different kinds of fabric, as well as tiny particles of feathers, dander from pet dogs or cats, bacteria, food, plant and insect parts, and mold and fungus spores. It also contains many microscopic mites and their waste products.

These waste products, not the mites themselves, are what cause allergic reactions. Dust mite waste contains a protein that is an allergen—a substance that provokes an allergic immune reaction—for many people. Throughout its life a single dust mite may produce as much as 200 times its body weight in waste.

Most dust mites die when exposed to low humidity levels or extreme temperatures. But they leave their waste behind, which continues to cause allergic reactions. In a warm, humid house, dust mites can easily survive year round.

What Can I Do?

Unless you live in Antarctica or in an extremely dry climate, there is probably no practical way to completely rid your home of dust mites. But you can take action to lessen their effects.

Having dust mites doesn't mean that your house isn't clean. In most areas of the world, these creatures are in every house, no matter how immaculate. But it is true that keeping your home as free of dust as possible can lessen dust mite allergy.

Studies show that more dust mites live in the bedroom than anywhere else in the home. So to attack the problem of dust mite allergy, the bedroom is the best place to start.

Unfortunately, vacuuming is not enough to remove mites and mite waste. Up to 95 percent of mites may remain after vacuuming, because they live deep inside the stuffing of sofas, chairs, mattresses, pillows and carpeting.

*Purahome customers experience tremendous success relieving their allergy symptoms to dust mites with **HEPA** air purification, even more so when combined with **plasma** technology. Plasma is a truly brilliant technology that has enhanced how Purahome makes recommendations to help people. Plasma uniquely seeks out and inactivates dust mite allergens in the air! This means that plasma is working to clean your air throughout your bedroom or home, even right at the tip of your nose when you are asleep!*

The first and most important step to reduce dust mites is to cover mattresses and pillows in zippered dust-proof covers. These covers are made of a material with pores too small to let dust mites and their waste product through and are called allergen-impermeable. Plastic or vinyl covers are the least expensive but some people find them uncomfortable. Other fabric allergen

impermeable covers can be purchased from allergy supply companies as well as many regular bedding stores.

The next most important step is to wash the sheets and blankets weekly in hot water. Temperatures of at least 130 degrees F are needed to kill dust mite.

Other desirable, but not as critical, steps are to rid the bedroom of all types of materials that mites love. Avoid having wall-to-wall carpeting, blinds, wool blankets, upholstered furniture, and down-filled covers and pillows in the bedroom. Keep pets out of this room as well. Windows should have roll-type shades for the windows instead of curtains; if you do have curtains, be sure to wash them often.

It is ideal for someone without dust mite allergy to do the cleaning of the bedroom. If this is not possible, wear a filtering mask when dusting or vacuuming. Many drug stores carry these items. Because dusting and vacuuming stir up dust, try to do these chores at a time of day when you can stay out of the bedroom for a while afterward.

Special filters for vacuum cleaners can help to keep mites and mite waste from circulating back into the air. Some vacuums have true HEPA performance as tested by Purahome.

Other rooms in your house can be treated similarly to the bedroom. Avoid having wall-to-wall carpeting, if possible. If you do use carpeting, the type with a short, tight pile is less hospitable to mites than the loose-pile or shag type. Better still are washable throw rugs over regularly damp-mopped wood, linoleum or tiled floors.

Wash rugs in hot water whenever possible. Cold water leaves up to 10 percent of mites behind. Dry cleaning kills all mites and is also good for removing dust from fabrics.

Reduce the humidity in your home to less than 50 percent by using a dehumidifier and/or air conditioner. If you have taken as many of these actions as practically possible and are still having allergic reactions to house dust mites, allergy shots may help. A dust mite extract can be formulated to boost your immune system's response specifically to dust mite allergen. Shots for this purpose have been shown to be very effective.

*For effective moisture control in the home, Purahome may recommend **ventilation**. Ventilation also provides your family a great service by reducing their exposure to indoor air contaminants, such as, harmful VOCs and other gases. Purahome solely recommends **Greentek** ventilators that are **Made In Canada** with exclusive features.*

Dust mites are probably impossible to avoid completely. Still, they don't have to make your life miserable. There are many ways you can change the environment inside your home to reduce the numbers of these unwanted "guests."

Your doctor is an important resource in helping you to keep dust mite allergies under control. Talk to him or her about measures you can take, sources of more information and of allergy products, and whether immunizing shots may be right for you. Together you can prevail against the effects of house dust mites.

SOURCE: Some of this information is from © Asthma and Allergy Foundation of America (AAFA). This information should not substitute for seeking responsible, professional medical care. First created 1995; fully updated 1998; most recently updated 2005.

Asthma and Allergy Foundation of America (2005). Allergies: Dust mites. Retrieved from <https://www.aaafa.org/display.cfm?id=9&sub=18&cont=228>

For more information regarding dust mite allergies visit the links below:

American College of Allergy, Asthma & Immunology (2014). Types of allergies: Dust allergy. Retrieved from <http://acaai.org/allergies/types/dust-allergy>

Allergic Living (2015). Healthy home: Saying good night to the dust mite. Retrieved from <http://allergicliving.com/2010/11/22/dust-mite-allergy-uncovered/>

Asthma Society of Canada (2015). Dust mite control in the home. Retrieved from http://asthma.ca/corp/services/pdf/asthma_dust_mite_eng.pdf