

# House Dust Mites



**Peggy K. Powell, Ph.D.**  
Extension Specialist  
Entomology Identification & Training

They live in your carpets, your upholstered furniture, your mattress, and your kids' stuffed toys. They cause itching sneezing and wheezing but are so small they can't be seen. They are house dust mites and they are second only to pollen in stimulating allergic reactions in people.

## Identification, Biology, and Habits

House dust mites, *Dermatophagoides farinae* and *D. pteronyssinus*, are so tiny—only 0.01 inch long—that they are invisible to the naked eye. More than 3,000 of them are contained in 1 gram of house dust. It is estimated that more than half of all homes are infested with house dust mites. The mites feed on fungi that grow on the skin scales constantly shed by people and their pets.

*... second only to pollen in stimulating allergic reactions in people.*

House dust mites cannot survive at a relative humidity of less than 50 to 60 percent. Their populations reach a peak during the warm, humid conditions in July, August and September.

The allergen, or allergy-inducing substance, is found in the mites' droppings or fecal pellets, as well as in their shed skins. Symptoms of an allergy to house dust mites range from asthma, a runny nose, watery eyes, and sneezing to a skin rash. A physician who specializes in the treatment of allergies can

administer a skin test to determine if you are allergic to dust mites.

## Prevention Methods

To prevent the development of large numbers of house dust mites, concentrate on reducing the numbers of skin scales in your living environment. Begin with the bedroom. Bedrooms usually contain high numbers of dust mites since most people spend a considerable amount of time in bed. Mattresses are prime living areas for house dust mites, where body heat and perspiration can lead to temperature and humidity conditions very favorable to mites.

Other methods of preventing large infestations of house dust mites focus on changing the environment so that it is less favorable for them. Discourage mite population growth by reducing or eliminating dust-catching furnishings.

*Bedrooms usually contain high numbers of dust mites . . .*

Effective prevention tactics include (1) covering your mattress with a vinyl mattress cover—soft vinyl ones that don't make a crinkly noise are available; (2) replacing heavy draperies with washable curtains; (3) using wood or vinyl floor coverings and throw rugs that can be washed instead of wall-to-wall carpet; (4) choosing wooden

---

chairs instead of upholstered ones; (5) getting rid of knickknacks and other items that collect dust; and (6) periodically replacing pillows and quilts.

### **Control Strategies**

Although there may be no way to eliminate them entirely, there are some methods to reduce the numbers of dust mites in your house. Frequent thorough vacuuming of carpets and furniture will help to control them. Vacuuming aids in removing dead mite fragments and mite droppings, as well as the skin scales the mites feed on. Vacuuming thoroughly once a week is preferable to light vacuuming every day, since light vacuuming removes only larger dust particles. If you are allergic to dust mites, wear a dust mask while vacuuming. The type of vacuum cleaner that uses water to trap the dust is often more efficient at removing small dust particles than a bag-type vacuum.

Lowering the humidity with air-conditioning, fans, or a dehumidifier will

help to control dust mites, especially in sleeping rooms. Exposure to heat also will aid in control. All bedding should be washed in hot water every 7 to 10 days. An electric blanket can help to reduce the number of mites in your mattress.

### ***Lowering the humidity... will help to control dust mites...***

Insecticides usually are not necessary if these nonchemical control tips are followed. Until recently, no insecticides were commercially available for control of house dust mites. One new product that contains the active ingredient benzyl benzoate can be applied to carpet for control of mite infestations.

If you choose this chemical for control, be sure to follow label directions. Chemical control of house dust mites is most effective when combined with nonchemical methods.

---

Programs and activities offered by the West Virginia University Extension Service are available to all persons without regard to race, color, sex, disability, religion, age or national origin.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Charles G. Morris, Interim Director, Cooperative Extension Service, West Virginia University.

---