

Dust Mites

The inventor of the microscope, Anton van Leeuwenhoek, reported in 1694 that mites live in dust. Now, more than 300 years later, it is an established fact that dust mites can be found in house dust all over the world. Dust mites are not insects but are more closely related to spiders and ticks. There are two common dust mites, the American house dust mite (*Dermatophagoides farinae*) and the European house dust mite (*D. pteronyssinus*). Due to their very small size, these dust mites are not visible to the naked eye. They live in bedding, couches, carpet, stuffed toys and old clothing. Dust mites feed on the dead skin that falls off the bodies of humans and animals and on other organic material found where they live.

Though these mites live in many homes, only people who are allergic to them know they are there. Dust mites are second only to pollen in causing allergic reactions. When dust mites grow, they shed their skin. The shed skin and feces are what cause allergic reactions in people. Allergic reactions range from itchy noses and eyes to severe asthma attacks.

HABITS AND HABITATS

Dust mites do not live in air ducts in homes. Many people spend much time and money cleaning the air ducts to reduce dust mites. This is not necessary because dust mites need about 70 percent relative humidity or higher to live, and they need food. Areas where people spend much time, like a bed or a favorite plush chair, are prime sites for dust mites. The top part of mattresses containing fibrous material is a favorite place for dust mites during warm and humid times. The deeper parts of mattresses may provide protected areas for the dust mites during unfavorable conditions. Clothing is used by dust mites as a means of transportation from room to room or even from house to house.

CONTROL

Control of dust mites can be difficult, time-consuming and expensive. For people who are extremely sensitive, the following measures should be taken:

- Enclose mattresses, box springs and pillows in zippered allergen- and dust-proof covers.

- Wash bedding materials, including pillow cases, sheets, blankets and mattress pads every other week in hot water (130 °F).
- Eliminate or reduce fabric wall hangings such as tapestries or pennants.
- Purchase stuffed toys that are machine washable.
- Avoid using curtains, drapes or blinds on windows. Use plastic shades instead.
- Remove carpeting from the bedroom of the allergic person and replace it with tile or wooden floors.
- Replace upholstered furniture with wooden or plastic furniture.
- Vacuum often with a vacuum cleaner provided with a high efficiency purifying air (HEPA) filtration system. Throw away vacuum bags after use because dust mites can leave the bag.

Installing HEPA filters on air conditioner or heater vents is not practical or necessary, and may actually increase mite problems. Remember, dust mites cannot survive on the dust in the ducts, and the small holes of the filters will force air out of vents at a higher velocity, stirring up more dust than without filters.

Complete elimination of dust mites is unlikely. Reducing populations is the only likely way to reduce allergens in the air. Reducing humidity in the home by using a dehumidifier may help reduce populations, but reducing humidity levels in microclimates, such as in bed fibers or carpet fibers, is impossible. Chemical control is not necessary, nor will it have a lasting effect on dust mite populations. Regular cleaning and vacuuming will have a greater impact.

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