



## DUST MITES – Fact Sheet

House dust mites are found in most homes. They are microscopic, eight-legged creatures closely associated with us, but they are not parasitic and do not bite. They don't burrow under the skin, like scabies mites or live in skin follicles, like skin follicle mites.

The concern about dust mites is people are allergic to them. Symptoms associated with dust mite allergies include sneezing, itchy, watery eyes, nasal stuffiness, runny nose, stuffy ears, respiratory problems, eczema and (in severe cases) asthma. Many people notice these symptoms when they stir dust during cleaning activities. But, dust also contains other allergens, including cat and dog dander, cigarette ash, cockroach droppings, mold spores and pollen.



How can you find out if you're allergic to dust mites? An allergist, a medical doctor specially trained to treat allergies, should be consulted for proper diagnosis.

The dust mite allergen is their tiny feces and body fragments which are components of dust. These particles are so small they can become airborne and inhaled when dust is disturbed.

### Biology

These mites are so small they are virtually invisible without magnification. Female mites lay cream-colored eggs coated with a sticky substance so eggs will cling to the substrate. These mites have two distinct immature stages. Under optimal conditions, the entire life cycle from egg to adult takes three-four weeks.

House dust mites feed on human skin scales, pollen, fungi, bacteria and animal dander. Dust mites do not drink free water, but absorb water from the air and the environment.

To thrive, dust mites need very warm temperatures (75-80 degrees F) and high humidity levels -- 70-80 percent relative humidity. One study showed when humidity is 60 percent or lower, the mite population stops growing and dies out.

Humans continually shed skin and lose about 1/5 ounce of dead skin each week. We also spend about one-third of our lives sleeping so high levels of dust mites are often associated with the bedroom, especially bedding and the mattress. Dust mites also eat animal dander so allergens will be plentiful in areas where family pets sleep.

## Dust Mite Management:

To eliminate dust mite allergens, first, take actions to reduce dust mite populations and second, reduce exposure to dust. No one method has been found for reducing mites and relieving allergy suffering.

**LOWER HUMIDITY** -- Reduce humidity levels to less than 50 percent inside your home, especially in the bedroom. This isn't hard to do in the winter, but can be a challenge in Nebraska during summer months, especially in homes without air conditioning. Studies have shown air-conditioned homes have ten times fewer dust mite allergens than non-air-conditioned homes. In addition to cooling the house, air conditioning reduces the humidity dust mites need to thrive. A study has shown using an electric blanket for eight hours each day reduced dust mites by 50 percent in one month.

**AVOID FURRY OR FEATHERED PETS** -- Pets with fur or feathers contribute to the dander in the dust and increase food source for mites. If you are a pet lover, locate their sleeping quarters as far from yours as possible and furnish their sleeping area so it can be cleaned easily. Hardwood or vinyl floors with washable area rugs are ideal.

**REDUCING AIR INFILTRATION** -- Airing out the house with open windows allows entry of pollen, which is another allergen as well as food for dust mites. In some climates, incoming air may be humid, which promotes dust mites.

**CLEANING/HEAT TREATMENTS** -- Wash all bedding weekly. Research has shown laundering with any detergent in warm water (77 degrees F) removes nearly all dust mite and cat allergen from bedding. If you cannot launder blankets, dry clean them once a year. Shampoo, steam clean or beat non-washable carpets once a year.

**SELECT APPROPRIATE FURNISHINGS** -- Avoid overstuffed furniture because it collects dust. Also avoid wool fabrics/rugs because wool sheds particles and is eaten by other insects. Use washable curtains and rugs instead of wall-to-wall carpeting. If you cannot replace carpeting, have it steam cleaned at least once a year, springtime is best. This will prevent a build up of dust mites feeding on skin cells in the carpet during the summertime. Enclose mattresses and pillows in plastic to decrease mite populations in the bed. Replace feather pillows with synthetic ones.

## Preventive Strategies for Dust Mites

- Use a dehumidifier or air conditioner to maintain relative humidity at about 50% or below.
- Encase your mattress and pillows in dust-proof or allergen impermeable covers (available from specialty supply mail order companies, bedding and some department stores).
- Wash all bedding and blankets once a week in hot water (at least 130 - 140°F) to kill dust mites. Non-washable bedding can be frozen overnight to kill dust mites.
- Replace wool or feathered bedding with synthetic materials and traditional stuffed animals with washable ones.
- If possible, replace wall-to-wall carpets in bedrooms with bare floors (linoleum, tile or wood) and remove fabric curtains and upholstered furniture.
- Use a damp mop or rag to remove dust. Never use a dry cloth since this just stirs up mite allergens.
- Use a vacuum cleaner with either a double-layered microfilter bag or a HEPA filter to trap allergens that pass through a vacuum's exhaust.
- Wear a mask while vacuuming to avoid [inhaling allergens](#), and stay out of the vacuumed area for 20 minutes to allow any dust and allergens to settle after vacuuming.

## Chemicals:

No pesticides are registered for dust mite control and Exopest do not recommend treatment for this,

Cleaning and non-toxic approaches listed above should give adequate control, except in humid, tropical regions of the world.