



## *X-Plain* *Dust Mite Allergy* **Reference Summary**

### **Introduction**

Of the many components in house dust to which people may be allergic, the most important is the house dust mite.

House dust mites are microscopic, insect-like creatures related to the tick and spider family. They feed primarily on scales from human skin and are found in most areas commonly inhabited by people.

This reference summary will give you an overview of allergy and allergic reactions to house dust mites. It will also review the various ways you can significantly reduce exposure to house dust mites.

### **Allergies**

The body's immune system is equipped to fight substances that can harm the body, such as viruses or bacteria.

Some substances that enter the body are harmless, so the body ignores them.

Allergens are harmless substances, but they can cause allergic reactions in some people.

Pollen, house dust mites, mold, and animal dander are examples of allergens.

In an allergic person, the body mistakes the allergen for a harmful substance. This causes the cells to release substances, such as histamine. The release of histamine and other chemicals causes the body to experience an allergic reaction.

An allergic reaction may cause a runny nose, sneezing, itching, swelling, or asthma.

The reason that some people have allergies is not entirely clear. The potential to develop allergies is thought to be hereditary.



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## Allergies to House Dust Mites

Both decomposing animal parts and the protein that surrounds mite fecal pellets causes mite allergy.

In homes, high levels of mites can be found in mattresses, pillows, bed linens, carpets, draperies, upholstered furniture, and stuffed toys.

Mites reproduce very rapidly. A new generation is produced about every 3 weeks. Therefore, it is easy to see why dust mites may cause a significant problem for the allergic person.

Walking, vacuuming, cleaning, or changing bed linens easily stirs up dust mite allergens.

These particles may remain suspended in the air for about 20 to 30 minutes after being disturbed.

When these allergens are inhaled, sensitized patients may develop allergic symptoms such as nasal congestion or asthma.

Mites depend on atmospheric moisture and human dander for survival.

Locations that are both dry and cool have very few house dust mites.

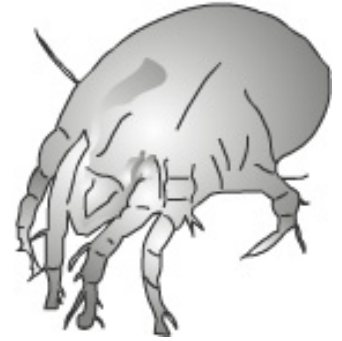
## Recommended Steps to Control House Dust Mites

Taking steps to control your indoor environment will help reduce allergen exposure and may help reduce allergy symptoms.

The highest levels of mite allergen in the home are found in the bedroom and especially in the bed.

Therefore, reducing allergen exposure in the bedroom is an important first step.

- Encase the mattress and box springs in an allergen-impermeable cover.
- Allergen-impermeable materials are made of plastic or specialized materials that are tightly woven and prevent allergens from being inhaled.
- They can also be used to cover wool blankets and down comforters.
- Encase pillows in allergen-impermeable covers or replace with washable synthetic pillows.



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- Wash the bed sheets, mattress pad, blankets, and bedspread **WEEKLY** in hot water. Water at a temperature of 130 degrees or higher is required for killing house dust mites. Dry cleaning is an alternative method that may help control house dust mites.

Although washing in hot water kills house dust mites, the bedding will soon become re-infested with mites. Therefore, regular washing is necessary. If you cannot wash everything in hot water, weekly washing in warm water will temporarily wash out the allergen.

- Replace bulky, upholstered furniture in the bedroom and other rooms in the house. If possible, convert to vinyl, leather, or wooden furnishings.
- Keep easily cleaned surfaces uncluttered in the bedroom. Small objects should be placed in drawers or closed cabinets to avoid dust collection.
- Eliminate draperies and other dust collecting material, such as books, from the bedroom. Clothes should be kept in drawers or in the closet with the doors shut.
- Cover hot air vents with filters to help clean the air at its point of entry or close off registers in the bedroom and use an electric radiator.
- Limit the number of stuffed toys in the bedroom, and wash them weekly in hot water.
- Remove thick carpeting from the bedroom and other rooms in the house. Carpeting placed over concrete floors, such as in basements, is not recommended because it traps moisture and promotes mite and mold growth. Hardwood or linoleum floors are preferable for patients with allergies.
- Another way to decrease the population of house dust mites is to reduce indoor humidity to less than 50 percent and to maintain room temperature at 70 degrees or less.
- Avoid sleeping or lying on upholstered furniture.
- Carpets should be vacuumed regularly. Using double thickness vacuum cleaner bags or small-pore vacuum filters can significantly reduce the amount of airborne dust mite allergen. Sensitive patients may find it helpful to wear a mask while vacuuming to reduce the amount of allergen inhaled.
- Vacuuming removes mite allergen from carpets but removes few live mites. Chemical agents are available for killing mites and denaturing the antigen. However, the effects are not dramatic and are not maintained for long periods.




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Therefore, use of these agents in the homes of house dust mite-sensitive people is not recommended routinely.

## Medication

A variety of medications are available to treat allergy symptoms caused by house dust mites.

The most effective treatment for house dust mite allergy is **AVOIDANCE** through modification of the home environment.

If mite modification of the home environment does not completely control your symptoms, your physician can discuss the possibility of changing medical therapy or starting immunotherapy (allergy shots).

## Summary

Dust mites are found in homes, especially in areas that are warm and humid. For people with dust mite allergy, the best treatment is modification of the home environment and especially in the bedroom. By developing a better understanding of house dust mite allergy and how to control it, you will be better able to manage your allergies and will benefit by needing less medication.



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