

Allergy Avoidance: Dust Mites

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The environmental precautions listed below are given as guidelines. Your doctor may recommend all or only some of these environmental controls depending upon your specific condition.

Avoidance of house dust is the least expensive and most effective method of treating allergies to house dust mites, although it may not be the easiest. When thinking about avoidance of house dust, it is best to focus on the patient's bedroom, since 30 to 50% of one's time is spent in the bedroom. Remember, dust is a problem of surfaces, and there is very little, if any, dust in the undisturbed air of indoor air.

1. Routine Cleaning: We recommend that someone other than the allergic patient dust and vacuum the house, and especially the bedroom, on a weekly basis. The allergic patient should be out of the room during and after cleaning for at least 30 minutes to allow the dust particles to settle to the ground. If no one else is available to perform these duties, facemasks may be purchased from a mail order supplier. Washable curtains are preferable to blinds, which are difficult to clean. In general the fewer items cluttering the room, the less places dust will have to collect.

2. Bedding: Synthetic, hypoallergenic, washable bedding and pillows are recommended. Old quilts, blankets and mattresses are primary sources of mites. All bedding, mattress pads and pillows should be washed in hot (130o F) every two to four weeks to kill the dust mite and denature the mite allergen. This is hotter than most water heaters are set, and hot enough to cause a serious scald injury. Alternatively, bedspreads may be dry cleaned frequently. If you elect to use a pillow that is not washable, it should be covered in a hypoallergenic encasing. Ideally, only one bed should be in each bedroom, however, all mattresses and box springs in the room should be covered with hypoallergenic covers. The zippers of the covers should be taped to make them as tight as possible. Many companies offer these covers at various prices. These are primarily available through direct mail order. Non-vinyl waterbeds need to be covered as well. Egg-Crate mattress pads are a major reservoir for dust mites; they also need to be covered, washed, or removed.

3. Flooring: The ideal floor covering for the bedroom of a person with dust and mold allergy would be either a hardwood or linoleum floor, with throw rugs that can be washed weekly. However, it is often impractical to remove carpeting. Several brands of moist powder can be used directly on the carpeting to kill the dust mites (it is available through direct mail). Tanic acid 3% solution may be used on the carpet to denature the dust mite allergen. Tanic acid may also be sprayed on overstuffed furniture and stuffed animals to denature the mite antigen that may be harbored there. Please be careful to ensure that staining will not occur any time products are placed on carpeting or furniture.

4. Stuffed Animals: Generally, it is best to keep children's stuffed animals on a shelf, since they are a major reservoir for dust mites. An alternative would be to wash stuffed animals in hot water on a monthly basis, as is recommended for the pillow and bedding. If an

overstuffed animal is too delicate to be washed, it may be placed in the freezer overnight. Put the stuffed animal in a tightly sealed plastic bag, and place in the freezer. Allow the stuffed animal to completely thaw before removing from the bag, since condensing moisture will cause the remaining dust mite eggs to hatch rapidly.

5 Furniture: It is best to keep furniture to a minimum in the bedroom of the dust allergic patient to limit the sources of mites. Overstuffed furniture and bookshelves should be removed from the bedroom. Overstuffed furniture in other parts of the house may be sprayed with Tanic acid, taking the same precautions as above to guard against staining.

6. Closet: Areas used for long-term storage tend to be fertile areas for growth of dust mites and mold spores. Generally, in the dust and mold allergic patient, closets should be kept free of clutter and not used for the long-term storage of items infrequently used. Any time these items are disturbed they may trigger an allergic reaction.

7. Vents and Ducts: Filters on central heating and cooling units should be replaced every four to six weeks. A high-efficiency filter, or an electrostatic filter, may help reduce dust in the home. Mite allergy patients particularly concerned about dust in the air ducts should consider covering the ducts in the bedroom with a filtration system. A gauze or cheesecloth filter can be easily made; alternatively, similar devices are available by mail order. These filters should be changed on a monthly basis when heating and air-conditioning is being used. Commercial cleaning of the vents and ducts is not recommended.

8. Dehumidifiers: Since mites require high humidity to live, a central dehumidifier may contribute to reducing to the overall dust mite load in your home. Certainly, additional humidity produced by the use of vaporizers is discouraged for the mite sensitive patient.

Methods of No Proven Value

With the recent advances showing that the house dust mite is the primary source of allergen in house dust, many of the products and services outlined above have become available. Unfortunately, many advertised products are of little value, and can be quite expensive.

1. Special Vacuum Cleaners: Since mites are relatively heavy creatures, the allergenic particles settle to the ground within about 30 minutes. A vacuum cleaner that trapped even 100% of the dust particles would give the allergy sufferer a benefit only in the first half hour after the vacuum was used. Research has shown that water trap vacuum cleaners, including the Rainbow and the Thermax, vented excessive amounts of dust compared to other models. Mite allergic owners of these two vacuum cleaners should consider replacing them. A high-efficiency vacuum cleaner may be of some benefit to cat allergic patients who own a cat.

2. Room Air Cleaners: Although the idea behind a room air filter seems to be valid, even the best devices currently on the market are not efficient enough to remove sufficient quantities of dust to make their purchase worthwhile. Remember, there is very little, if any, dust in undisturbed indoor air.

3. Cleaning Air Vents & Ducts: Services that offer to clean your heating ducts and remove the dust mites are of no proven value and are not recommended. Suspected contaminants in air ducts are not likely to come out ducts unless they are disturbed, including by someone trying to clean them. For the rare home that truly has contaminants in their duct system, generally the ductwork must be replaced and the heating and air-conditioning system redesigned.