

Dust Mites

Dust mites are found in almost every high humidity environment that is capable of supporting plant life. In a survey of homes with dust mites, 60% of the dust mite population is found in the bed, mattresses and pillows, 30% in upholstery, and 10% in carpet.

There are two species of house dust mites, belonging to the genus *Dermatophagoides*, that are found in North America. Both species feed on shed skin scales from humans, animals, lepidoptera (moths and butterflies), birds, pollen, fungi and bacteria which explains their high concentration in mattresses, pillows and upholstered furniture where skin scales provide a food source.

Because they have no ability to bite and their food must be moistened so the protein can be absorbed, dust mites require moist conditions to survive. Ideal incubators for dust mites are areas with high humidity (above 55% relative humidity) and an ambient room temperature of 72°-79° Fahrenheit. The life expectancy of a dust mite is 2 to 2½ months, but mites cannot survive more than 7 to 10 days in areas with a humidity of less than 50%.

Efficient operation of a residential or commercial heating, ventilation and air conditioning (HVAC) system that maintains a humidity below 55% relative humidity can effectively reduce the number of dust mites in a particular environment.

Exposure to dust mite allergen material is minimized by keeping all indoor surfaces as clean as possible. The most important tool for managing house dust and dust mite allergens is the vacuum cleaner. Regular, thorough vacuuming of carpets, furniture, and textiles will remove food sources and dust mite excrement and will help keep the dust mite population low. Avoid wet mopping which increases moisture in the air. Where wet mopping is necessary, such as kitchens and bathrooms, vacuum thoroughly prior to mopping.

It is important to use a vacuum cleaner that cleans effectively and minimizes distribution of dust and allergen materials into the air from the vacuum filter and from around the machine housing.

Vacuum cleaner models that have been tested by The Carpet and Rug Institute and meet the Performance Standard set by the carpet industry for dust removal and dust containment are identified in the marketplace by a Seal of Approval/Green Label Vacuum Cleaner label (Bronze, Silver or Gold) and/or logo.

Figure 1: Label



Figure 2: Logo



In addition to impromptu and regularly scheduled vacuuming, shampoo or steam clean carpet and washable rugs at least once a year to remove embedded dirt particles. Small rugs may be removed and lightly beaten to remove any adhered particles not removed by vacuuming.

Washing sheets in soapy water at 140° every week is also effective in minimizing dust mites. Dry clean blankets or wash them frequently, and air them outside at least once a year if possible. Heating blankets in a clothes dryer for several hours will eliminate mites, and using an electric blanket for eight hours each day can reduce mites in mattresses by 50% in one month.

