

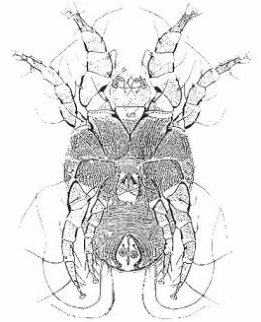
DUST MITE FACT SHEET

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LIFECYCLE & ENVIRONMENT

Dust mites inhabit fine layers of dust, especially those occurring around households, giving the dust mite access to its food source. They occur world wide but proliferate in areas of high humidity and constant warm temperatures. The dust mite feeds on shed skin, secretions, common house dust, spores, pollen and plant fibres. Avoiding strong light, the dust mite prefers fibrous areas such as mattresses, hanging clothes, upholstered furniture, curtains and carpets to proliferate.

There are five stages in the life cycle of the dust mite starting with the egg, the larvae, two nymphal stages and adulthood. The oval shaped body of the adult dust mite is approximately 0.5mm long, white to light tan in colour and light enough to become airborne when disturbed. The full cycle from egg to adult takes about one month with adult females laying one to two eggs per day. The adult lifespan is approximately two months depending on conditions.



MEDICAL CONDITIONS AND RESEARCHED DANGERS OF DUST MITES

“The inhalation of house dust, laden with mites, mite faeces and other debris and fungi associated with them produces allergic reactions in many people, such as asthma and inflammation of the nasal mucous membrane.”(World Health Org. Europe)

Dust mites are known to contribute to many medical conditions including asthma, allergic rhinitis, childhood eczema and other allergic conditions.

Exposure to high levels of dust mite allergens has been shown to contribute to the incidence of asthma in children. R. Sporik and T A E Platts-Mills, of the Asthma and Allergen Centre, Dept of Medicine, University of Virginia, Charlottesville, Virginia USA., in an article **Allergen exposure and the development of asthma**, concluded “The results confirm, in a prospective fashion, the very strong association of asthma with allergen sensitisation, and the clear link between early allergen exposure and allergen sensitisation.”

It has also been shown that exposure to significantly lower levels of allergens does not increase the incidence of asthma and the practice of reducing allergen levels is an important method of control of attacks and reactions.

CONTROL OF DUST MITE POPULATIONS

Dust mites occur throughout the world, though less prevalent at high altitude and in very dry conditions. The eradication of dust mites is probably not a realistic goal but there are methods to control the severity of the infestation. While a reduction in humidity and an increase in exposure to light does play a role in deterring dust mite build up, more dramatic reductions are necessary to achieve a positive result in reducing allergen sensitivity.

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M.J. Colloff, C Taylor and T.G. Merret, Dept. of Immunology, University of Glasgow, UK. Report in their paper **The use of domestic steam cleaning for the control of house dust mites**, “CONCLUSION: These data indicate that steam cleaning has considerable potential as an highly effective and efficient method of killing dust mites and reducing concentrations of Der p 1 in domestic premises.” Their trial results showed “No live mites were found at any time in the treated carpet squares.”

The high temperatures used by steam cleaners are fatal to the house dust mite at all stages of growth including the egg stage. Regular cleaning of the domestic environment with an efficient steam cleaner will dramatically reduce and control dust mite infestations. The addition of a vacuum with very high filtration levels, enables the user to also remove any mite faeces, debris and fungi, further reducing the presence of allergens in the environment.

The use of steam to control dust mite infestations negates any secondary contaminations, as is the case with pesticides, and can be used on any infested surface in the home.

