

Allergy and Immunology

HOUSE DUST MITES AND ALLERGIC DISEASE

1. What are House Dust Mites?

House dust mites are [minute animals related](#) to [spiders](#). They are ubiquitous in our environment and invisible to the naked eye. Mites are found in bedding, carpets, soft furnishings and clothing. Mites feed off skin flakes that we all shed continuously. The allergen that may cause problems for allergic people is present in the mite faeces. Sensitisation to dust mites is one of the most common allergies in children and adults.

2. How can we avoid house dust mites?

House dust mites cannot be totally eliminated from our surroundings. A major site of exposure to house dust mite allergen is the bed however it is important to remember that dust mite allergen is found in all rooms of the house, on the floor and in soft furnishings. While it is possible that if house dust mite allergen could be totally removed from the environment this would improve allergic symptoms it has not been possible to do this in Australian homes. However, we can reduce the number of mites and the amount of allergen in our surroundings by modifying our environment. Some doctors and allergy specialists will recommend a trial of house dust mite avoidance in severe cases of asthma, eczema or allergic rhinitis. Some measures can be expensive and there is little evidence to support their claim of effectiveness. It is therefore important to discuss the value of house dust mite avoidance with reference to your child's allergies with your doctor.

3. What measures can reduce house dust mite levels?

Experts who have studied dust mites in the Australian environment have concluded that it is almost impossible to completely avoid some exposure in the home. There a number of steps which can reduce the levels of house dust mite in the home to some degree.

Since children spend up to 10 hours each day sleeping, it is best to focus dust mite avoidance measures on the bed. Mattress, doona and pillow covers may reduce allergen exposure in the bed. Make sure they are removable and machine washable. The protector should entirely encase the mattress. Commonly available brands of covers are Allergend® and Mite Guard®. Mattress protectors which do not completely encase the mattress are not effective and should not be used.

Washing of bedding, soft toys and soft furnishings at usual washing temperatures removes more than 95% of allergens but does not kill dust mites, thus washing should be repeated about every 8 weeks.

Regular vacuuming may help reduce mite allergens in carpets or rugs but this is not very efficient. Vacuuming alone without undertaking other measures will not reduce levels significantly.

Having non-carpeted flooring and removing soft furnishings such as curtains, soft toys and sheepskins reduces the amount of house dust mite allergen.

Methods that do not help include chemical sprays, air filtration, negative ion generators and "allergen-free" products. Attempts to kill dust mites with acaricides are not very successful and are currently not recommended.

Even though these measures may reduce the amount of house dust mite in the home environment it is not clear that this reduction will improve the symptoms of allergic disease.

4. Should we remove our carpets?

The effects of removing carpets are controversial and this is not generally recommended in the first instance. Removing carpets is expensive and a major imposition to most families.

5. What about Air filters and Acaricide sprays?

These are not recommended. Air filters do not alter dust mite levels in the environment as dust mite allergen does not remain airborne for any length of time.

Acaricide sprays are chemicals that are toxic to dust mites. They only reduce dust mite numbers for short periods of time and must be applied frequently. They do NOT reduce levels of the dust mite allergen already present in the bedding.

6. What do trials of house dust mite avoidance show?

There have been a number of trials of house dust mite avoidance measures which in some but not all cases have suggested that symptoms of asthma, eczema and rhinitis can be improved. The usefulness of these house dust mite elimination measures should be discussed with your doctor.