

# HOUSE DUST MITE ALLERGY



- Allergies occur in people who are more sensitive than “normal” people to innocent substances in their environment.
- The substances in the environment that cause the symptoms are allergens.
- Allergens are substances to which you are allergic. Many things in the environment can be allergens; some indoors, some outdoors and some taken in as foods or medicines.
- Allergens differ from patient to patient. There is no “one size fits all” list of allergens! Your symptoms may be caused by your specific allergy triggers. To find out what triggers your symptoms, your doctor needs to find out where and when the symptoms are worst, and then do skin or blood tests to look for “the allergy antibody”, called IgE. (See what is an allergy)
- House dust mite allergy occurs when someone who is prone to developing allergy has a hypersensitivity reaction to allergens from the house dust mite.

## WHAT IS THE HOUSE DUST MITE (HDM)?

- House Dust Mite is a minute 8-legged creature that lives in warm, humid home environments, such as bedding, carpeting and fabric furniture.
- They are too small to see with the naked eye, being only one third of a millimetre in length.
- House dust mites feed on the dead skin scales of humans. Mites like warm temperatures and humidity, so are more common in homes near the sea, but are also found inland.
- There are roughly 1,000 mites in the average bed! The female mite lays about 50 eggs in her 6-week lifespan.
- The main cause of allergy symptoms is a protein found in the mite faeces.
- Allergy to HDM is common; between 5-30% of the general population will react if tested for HDM.
- About 30% of all allergic patients react to HDM, making it the single most common allergen in South Africa. It can make asthma, hay fever or eczema worse or difficult to control.
- When a patient presents to a doctor with symptoms of asthma or rhinitis, the doctor should consider the mite as being a possible cause of those symptoms.

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## DIAGNOSIS

- To find out what triggers your symptoms, your doctor needs to find out where and when the symptoms are worst. HDM allergy symptoms occur throughout the year.
- The doctor will do skin prick or blood tests to look for “the allergy antibody”, called IgE, and the reaction to the HDM.

## MANAGEMENT

- Avoiding HDM or reducing exposure is the first step to reducing symptoms from HDM.
- The symptoms of the specific problem can be treated with medication.
- Immunotherapy is available against HDM using both injection and swallowed vaccines. (See brochure on immunotherapy)

## ALLERGEN AVOIDANCE

- This is the ideal therapy, which will reduce the need for long-term medication.
- The following tips can reduce the levels of the mite and its excretion products in the home, especially the bedroom.
- Doing one of these on their own is unlikely to reduce the number of mites to help with the symptoms; ... they work best if all the tips are used together.
- The bedroom is the most important room to focus on because people spend an average of one third of their lives there with their faces in direct contact with the mites living in the bed.

## PILLOWS AND DUVETS

- Mites can live in both foam and feather pillows and duvets.
- Special dust mite covers must be used. These special fabrics prevent mites from getting through into the bedding, while still allowing air to pass through.
- These occlusive air-permeable fabric protectors are available in South Africa.
- Bedding may be placed in direct sunlight for several hours every week if covers are not available.
- Bedding may also be washed at a high temperature (60°C) once a week to kill the mites.



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## MATTRESSES

- The mattress should be completely covered with a special mite-proof fabric. Plastic will work but it is impermeable to air and makes the bed very hot and uncomfortable. A mattress cover must cover the entire mattress and zip up along the back, not just cover the top of the mattress like a sheet.
- HDM allergic persons should use the top bunk.

## CARPETS

- Fitted carpets should be replaced with vinyl, wood laminate or tiles.
- A wooden floor should be sealed by waxing regularly.

## SOFT TOYS

- Dust-collecting soft toys, books, dried flowers, thick heavy curtains, Venetian blinds, upholstered furniture, and clutter should be removed from the room.
- Use closed bookcases and cabinets instead of those with open shelves.
- Window shades or washable curtains are easy to keep dust free. The room should have a minimum of furniture, preferably made of wood or plastic.
- "Special" soft toys may be washed weekly, wrapped in a plastic bag, and placed in the freezer overnight to kill any mites.

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## VACUUMING/DUSTING

- Mites have claws that cling to fabric, so a powerful vacuum cleaner is required.
- The most effective vacuum cleaners are installed with high-efficiency particulate air (HEPA) filters or electrostatic filters at the air outlets.
- HEPA filters catch 99,9% of particles the size of HDM allergens.
- HEPA filters also catch cigarette smoke particles which are irritant for allergy sufferers with asthma and rhinitis.
- The room should be vacuumed daily if possible, or at least twice a week, by someone other than the patient.
- If the patient has to vacuum or dust, a special dust mask should be worn.
- Twice weekly damp-dusting should be carried out on all surfaces.
- Having a water trap will not stop house dust mites coming out the vacuum exhaust.
- Change the bag on the vacuum cleaner regularly.
- It is possible to kill HDM by treatment with a group of chemicals called acaricides. These are not of proven benefit alone and cannot reduce mite levels to a sufficient degree to cause a reduction in symptoms, but may be useful along with the other HDM reduction measures.
- Mites that have been killed by sunlight or an acaricide are still allergenic, and so they must be vacuumed up efficiently. Fortunately, dead mites do not cling to fabric and so are more easily vacuumed up.

A medical specialist with a special interest and skill in allergy might be able to help. See the list of health professionals with skills in allergy on the AFSA website.