House Dust Mites Allergy
Has allergy testing revealed that you react to house dust mites (HDM)?

If you have allergic symptoms like a runny nose, itchy eyes or cough, tiny creatures living in your home might be the reason for your problems. Although you can not see them, you may be feeling their effects only too well. They are HDM, and they live in many homes throughout the world.

What is a HDM?

Too small to be seen with the naked eye, a HDM measures only about one-quarter to one-third of a millimeter. HDM are close relatives of ticks and spiders. HDM do not bite people. They represent no danger to people who are not allergic to them.

Where are they found?

HDM trapped in the fibers of bed linens, furniture cushions and carpets. These materials also hold moisture well. Consequently, bedrooms are ideal habitats for HDM.

HDM are attracted to your bed because they live off the skin cells that we all shed each night. They also live in upholstered furniture.

Here is the problem: As you sleep, your skin sloughs off and works its way down into your bedding. An average adult person may shed up to 1.5 grams of skin in a day, this is enough to feed 1 million HDM. If the air in your room is humid, HDM get into your bed and pillow and happily grow into large colonies. Furthermore, your own body creates humidity as you breathe and perspire. Trying to kill the HDM will only have a limited effect, because the HDM faeces and the dead mite bodies remain and will still cause problems.

What is HDM allergy?

HDM allergy is an allergic reaction to tiny bugs that commonly live in house dust. HDM may be the most common cause of year-round allergy and allergic asthma.

In people allergic to HDM, it is often not only the mite itself but also proteins in their droppings which cause the allergy. Each mite produces about 20 of these...
waste droppings every day and the droppings con-
tinue to cause allergic symptoms even after the mite
has died (2,3).

What are the signs and symptoms of
HDM allergy (4)?

Mild cases
• Sneezing
• Runny nose
• Itchy, red or watery eyes
• Nasal congestion
• Itchy nose, roof of mouth or throat
• Postnasal drip
• Cough
• Facial pressure and pain
• Swollen, blue-colored skin under your eyes
• Frequent upward rubbing of the nose in children

Severe cases
• Difficulty breathing
• Chest tightness or pain
• An audible whistling or wheezing sound when
  exhaling
• Trouble sleeping caused by shortness of breath,
  coughing or wheezing
• Bouts of coughing or wheezing that are
  worsened by a respiratory virus such as a cold
  or the flu

What are the risk factors?
The following factors increase your risk of developing
a HDM allergy (4):

Having a family history of allergies
You are more likely to develop a sensitivity to HDM if
allergies are more common in your family.

Exposure to dust mites
Being exposed to high levels of HDM, especially early
in life, increases your risk.

Being a child or a young adult
You are more likely to develop HDM allergy during
childhood or early adulthood.

What are the various tests that can be done?
Your doctor may suspect HDM allergy based on
symptoms, an examination of your nose, and your
answers to his or her questions.

He or she may use a lighted instrument to look at the
condition of the lining of your nose.

Your doctor may suggest an allergy skin test to deter-
mine what you are allergic to.

Skin prick test
The skin prick test involves:
• Placing a small amount of substances that may
  be causing your symptoms on the skin, most
  often on the forearm, only in exceptional cases,
  the skin of the prostrate back can be used as an
  alternative,
• The skin is then pricked so the allergen goes
  under the skin's surface.
• The health care provider closely watches the
  skin for swelling and redness or other signs of a
  reaction. Results are usually seen within 15 to
  20 minutes.

Tiny amounts of purified allergen extracts —
including an extract for HDM — will be pricked onto
your skin's surface. If you are allergic to dust mites,
you will develop a red, itchy bump where the HDM
extract was pricked onto your skin.

As an alternative, your doctor may order a blood test
that screens your blood for specific allergy-causing
antibodies to various common allergens, including
HDM (4).

What preventive measures can
you take?
There is probably no practical way to completely rid
your home of HDM. But you can take action to lessen
their effects.

Having HDM does not mean that your house is not
clean. In most areas of the world, these creatures are
in every house, no matter how clean. But it is true
that keeping your home as free of dust as possible
can lessen HDM allergy (2).
What are the treatment options available (4)?

The first treatment for controlling HDM allergy is avoiding HDM as much as possible. When you minimize your exposure to HDM, you should expect fewer allergic reactions or the reactions should be less severe. However, it is impossible to eliminate HDM from your environment. You may also need medications like antihistamines, corticosteroids etc to control symptoms.

The only causative therapy for HDM allergy is the allergen immunotherapy. You can “train” your immune system not to react exaggerated to an allergen anymore. This is done through a series of allergy shots called immunotherapy. One to two weekly shots expose you to very small doses of the allergen, in this case, the mite proteins that causes an allergic reaction. The dose is gradually increased, usually during a three-to six-months period. Maintenance shots are needed every four weeks for three to five years. Immunotherapy is usually used when other treatments like antisymptomatic medication are not satisfactory.

Some action steps that you can take to control HDM (5)

- Use allergen-proof bed covers
  These should be breathable and should completely enclose the item. Buy products that have been tested to make sure that they prevent the escape of HDM allergen.

- Wash linens in hot water every week
  Washing at 60 degrees centigrade or above will kill mites. HDM allergens dissolves in water so washing at lower temperatures will wash the allergen away temporarily, but the mites will survive and produce more allergens after a while.

- Keep humidity low

- Consider removing carpet

- Keep rooms clutter-free. Keep stuffed toys off the beds. Close closet doors.

- Vacuum regularly. A better option is a vacuum with a HEPA filter.

Make it hard for house dust mites to find a home!

References:

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