some action steps that you can take to control HDM.

- 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
- ©4 Consider removing carpet
- Seep rooms clutter-free. Keep stuffed toys off the beds.
 Close closet doors.
- ©3 Vacuum regularly. A better option is a vacuum with a HEPA filter

make it hard for house dust mites to find a home:

what are the treatment options available __?

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.

eed eugs vs house oust miltes



HOUSE DUST MITES

- Are the most common indoor allergen
- · Look like tiny spiders
- Live inside your mattress, carpets, rugs, pillows and uffy toys
- · Eat shed dead skin
- · Are almost invisible to the naked eye
- Don't bite but cause allergic reactions



BED BUGS

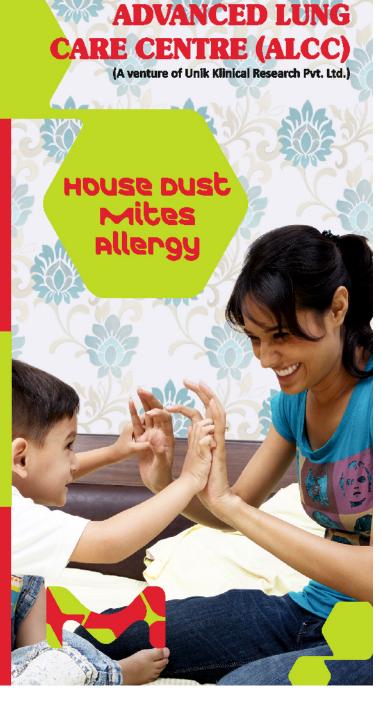
- · Are parasitic insects that feed on blood
- Live in crevices and cracks of your bed
- Are visible to the naked eye
- . Bite and you will notice it



ALLERGY & IMMUNO THERAPY CLINIC ADVANCED LUNG CARE CENTRE (ALCC)

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ALLERGY & IMMUNO THERAP

° могы иоу Ыа

- මු House dust mites contribute to many medical conditions including asthma, allergic rhinitis
- ⊚2 Adult house dust mites are up to 0.5 mm in length
- **⊚** House dust mites can live up to 3 months
- Their survival is dependent on humidity
- The main house dust mite allergens are found in their bodies and faeces

what is an allengy "?

An allergy refers to an exaggerated reaction by our immune system in response to exposure to certain foreign substances. It is exaggerated because these foreign substances are usually seen by the body as harmless and no response occurs in non allergic people. In allergic individuals, the body recognizes the foreign substance as harmful and one arm of the immune system generates a response.

what causes an allergy "?

Allergy-producing substances are called "allergens." Examples of allergens include house dust mites, pollens, moulds, animal proteins, foods, and even medications.

To understand the language of allergy, it is important to remember that allergens are substances that are foreign to the body and can cause an allergic reaction in certain people. When an allergic individual comes in contact with an allergen, the immune system mounts a response through the IgE antibody. Therefore, people who are prone to allergies are said to be allergic or "atopic."

ная allergy testing revealed that you react to house dust mites июмо, ?

If you have allergic symptoms like a runny nose, itchy eyes or cough, they 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 HDM7

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 (2,3).

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 $_{\rm 60}$.

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. Further more, 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 (5).

what ls HD⊷ 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 continue to cause allergic symptoms even after the mite has died $_{(2,3)}$.

what are the signs and symptoms of HDM allergy $_{\infty}$?

Mild cases

- ⊚n Sneezing
- © Runny nose
- ©♥ Nasal congestion
- © Itchy nose, roof of mouth or throat
- ©® Postnasal drip
- ®7 Cough
- ©® Facial pressure and pain
- Swollen, blue-colored skin under your eyes
- 10 Frequent upward rubbing of the nose in children

Severe cases

- Difficulty breathing
- © Chest tightness or pain
- $\fill eta$ An audible whistling or wheezing sound when exhaling
- ©₩ Trouble sleeping caused by shortness of breath, coughing or wheezing
- or wneezing

 GG 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.

Your doctor may suspect HDM allergy based on symptoms, an ex-

what are the various tests that can be done?

amination 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

Your doctor may suggest an allergy skin test to determine what you are allergic to.

Skin prick test

The skin prick test involves:

the lining of your nose.

- 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
 ∴
- The healthcare provider closely watches the skin for swelling and redness or other signs of a reaction. Results are usually seen within 15 to 20 minutes.

They 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 $_{\infty}$.

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 $_{(2)}$.