



A cure for asthma caused by an allergy to dust mites is under development by researchers at Monash University in Australia. Their goal is to create a vaccine that can completely cure asthma caused by dust mite allergy.

Dust mites are the leading cause of allergies to dust and may be the most common cause of allergies or asthma that occurs year 'round (as opposed to allergies during certain seasons). Approximately 20 million people in the United States are allergic to dust mites.

Dust mites are tiny bugs that are too small to be seen by the naked eye. Viewed through a microscope, dust mites appear as tiny white bugs with eight legs, which means they are arachnids and are related to spiders, chiggers, and ticks. Dust mites are primitive creatures that exist to eat and reproduce. A female dust mite can lay up to 100 eggs resulting in 25 to 30 live mites in her two to four month lifespan. Dust mites feed on tiny flakes of human skin that fall off our bodies every day. These flakes are commonly found in upholstery, carpets, bedding and even stuffed animals, which means all of these areas can be breeding grounds for dust mites.

Dust mites prefer locations that are warm and humid. They can be found on every continent except Antarctica, but are less common in very dry locations. A gram of dust can contain up to 19,000 dust mites, although 100 to 500 mites is a more common number. A gram of dust is approximately the same weight as a paperclip.

People with dust mite allergy react to proteins that are found in dust mite feces, not to the dust

mites themselves. For people who are allergic, this protein is an allergen that triggers the immune system to defend the body from an apparently harmful substance. The immune system creates antibodies to fight off the allergen which can also cause typical allergy symptoms including runny nose, itchy or watery eyes, and sneezing. A severe allergic reaction known as anaphylaxis can cause difficulty breathing that can result in death.

Most current strategies for dealing with dust mite allergy involve frequent deep cleaning to reduce the dust mite population.

Some doctors may also recommend immunotherapy consisting of weekly shots containing tiny amounts of the allergen protein in order to help the body get used to the allergen so the immune system will stop reacting to it. Some people who are allergic to dust mites may develop on-going inflammation in the lungs that can lead to asthma.

The research team in Australia is working to develop a new vaccine to treat dust mite allergy that would only require two to three treatments rather than many months or years of shots every week. Their goal is to improve the health of patients and to provide financial relief to patients as well as government agencies that must fund ongoing medical treatments to deal with recurring dust mite allergies. The researchers hope their work will also lead to the development of a similar vaccine to treat patients who are allergic to peanuts.

Source:

<http://www.empowher.com/allergies/content/possible-dust-mite-allergy-vaccine-could-cure-related-asthma?page=0,1>