

Air Purifiers – Dust Mites Allergy

A dust mite is a microscopic insect that lives alongside human beings and inhabits our homes. They are called cosmopolitan because they have adapted so well to human abodes. The mites, typically 250 microns in size, happily live their entire lives hidden in carpets and bedding. Unseen residents of our homes, they wouldn't be an issue, except, for many people, they cause allergies and trigger asthma attacks.

The mites are extremely numerous. Estimates put them at about 200 per gram of dust. Almost any fibrous surface will give them a place to cling. Stuffed animals, pillows and bedding provide enough protection for them to survive and reproduce.

The allergen isn't actually the mites themselves, but rather, the proteins that survive their digestive tract and are excreted in their feces. A large portion of the dust in our homes consists of dust mite feces, along with the human skin cells the mites eat. If that weren't disgusting enough, the allergic symptoms caused by dust mites come from ultra-fine dust, some of which is the dried feces of the mites.

How an air purifier helps

The symptoms of a dust mite allergy come from a reaction when we breathe the almost invisible particles containing the dust mite proteins. These are too small for a furnace filter to catch. They are even too small for the paper filters in a regular vacuum bag to get. They are so small; they simply float around in the air. What's needed is a cHEPA/HEPA style filter, one that traps particles as small as 0.3 microns.

The Mayo Clinic recommends air purification to combat a dust mite allergy, along with vacuuming with a HEPA grade bag and removal of carpeting in bedrooms. There is also special, allergen proof bedding that will help with dust mites.

The dust mites themselves can become airborne, but they are too heavy to travel far. The real culprit is the microscopic dust and feces.

Are dust mites the problem?

Because allergy symptoms can have many or multiple causes, it may not be readily apparent that dust mites are the problem. Dust mite allergy symptoms will appear much like other allergies: runny nose, sneezing, clogged sinuses and watery eyes. If asthma is in the mix, the allergy can trigger wheezing, shortness of breath and tightness in the chest.

An allergist can test for the proteins specific to dust mites to find out if an allergy is present. Because this allergy is quite common, this test is part of a standard allergy screening. They can also prescribe medications that may help an outbreak. An alternative to the skin test is a blood test for antibodies to dust mite proteins.

If you suspect a dust mite allergy, there are other measures to take. Typically, dust mites thrive in hidden, damp locations. For example, they do well in carpeting that touches concrete and traps moisture. Removing carpeting, especially in bedrooms, is often recommended. They also like mattresses and bedding – our shed skin cells feed them and our perspiration keeps humidity in a comfortable range for the bugs. Along with air purification, lowering humidity is often helpful.

One way to discriminate between a dust mite allergy and other types of airborne allergies is to see if there is a pattern. A dust mite allergy will be more or less continuous, whereas allergies to pollen will change with the seasons. Allergies to mite proteins will also become worse when spending more time indoors and resolve while away from the house for an extended period.