

Living with Dust

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(This entry was originally submitted as an article to Chatelaine Magazine. The heavily edited version which appeared in September 2008 was a fine little article, but missed some critical points like exhausting central vacs outdoors, not making the critical distinction between the bad ozone air cleaners and the good negative ion generators as well as totally setting aside the research on the value of rugs in controlling dust. The Lung Association is against rugs -- I don't think they have done their homework. Unfortunately the editors decided that they would not continue with a column about the house, at least not with me, because it didn't "fit their audience". Someday they may figure out that everyone, no matter how stylish they might be, needs to keep their house functioning.)

WHAT IS DUST - AND WHERE DOES IT COME FROM? The non-scientific definition of dust is little particles of anything light enough to float in air, at least for a while. Some is so light it always floats and rarely settles, like the stuff you can see floating in the air when a ray of morning sunshine comes brightly through the window. Some is heavier and settles to the floor or picks up an electro-static charge and clings to the walls. So where does it come from? Some just comes off of the things in our house and clothes as they wear, just like the lint that collects in the clothes dryer. Most dust floats in through the window, as anyone with allergies knows when things bloom in the spring. The funniest part of the dust story is that most of that dust is the same dust we have had for years -- it just keeps coming back. You dust the shelf and it falls on the floor. You walk on the floor and it stirs up. Walk across a dusty hardwood floor while watching the dust in that ray of sunshine and you will discover that it rises off the floor right up to the height of a child's lungs. In fact the Canadian Carpet association has shown that modern eco carpets (no volatile solvents in the manufacture) can actually be healthier than hard surfaced floors -- if you use them right. Their very solid argument is that the rug will trap dust and not let it stir up as you walk by, holding it until you do that weekly vacuuming. Now you need a strong vacuum cleaner that either has a hepa filter or the best is a central vac with an outdoor exhaust where nothing comes back into the house allowing you to grab that trapped dust and throw it outside. This argument was strong enough to finally allow comfortable rugs in a children's cancer family visiting centre in Montreal.

FILTERS THAT WORK -- AND WHY NONE OF THEM WORK AS WELL AS WE WOULD LIKE. We do all kinds of things to filter the air and dust the house, but do they work? Most of us have figured out that simply wiping the dust to let it fall to the floor is not very productive, so "dusting" needs to be done with either an electro-static wand or a damp cloth that will trap the dust allowing us to take it outdoors or rinse it down the sink. Room by room filter systems can help to trap dust -- the most effective being those which generate "negative-ions". They actually give an electrostatic charge to the dust particles, which makes them stick to filters, collection plates or even the wall. That's right, walls get dirty faster with negative-ion generators, but your lungs stay cleaner! Ordinary furnace filters have nothing to do with allergies; they are only designed to protect the furnace fan from cat hairs. An electronic filter is the most effective, on the condition that you keep it spotlessly clean. A 4" thick pleated furnace filter is a popular replacement to that continual cleaning, and can trap a lot of those finer allergy aggravating particles. The best of the low cost 1" filters that rate extremely high in all testing are the 3M Filtrete "Allergen" series. The problem here is that actually very little of the dust in the house ever gets to the furnace filter. Although filters in the house help to trap some of the dust, they can't compete with dust and pollen coming in from open windows.

DUST CONTROL SHOULD START AT THE BORDER. Full house ventilation systems, called "Air Change Ventilators" are dual fan units that blow air into the house and blow air out of the house in a balanced way that gives you control over the air. The in-out balance means that it will not bother any fuel burning appliance; no pollution from backdrafting. You can use dedicated ductwork or run the input through your furnace system while taking the exhaust from the bathrooms and kitchen. For the question of dust and allergies, it means that "all" the air coming into the house can be filtered

while you have fresh air flowing through your house 24 hours a day although the windows are closed. If you step up to an HRV (Heat Recovery Ventilator) you can use this all winter with the outgoing hot stale air warming up the incoming cold fresh air -- saving you a fortune in heating while keeping the house fresh all winter long. If you have air conditioning it reduces air conditioning costs while having fresh dust free air all summer as well. With the outdoor dust source cut off, your indoor dust trapping efforts can actually make progress.

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