

# Allergy & Asthma Center

of Southern Oregon, PC

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## ENVIRONMENTAL CONTROL INFORMATION

### GENERAL INFORMATION *(These are the key to good allergy & asthma control)*

These recommendations can be **easy** to carry out. Scientific tests have shown that **carefully following these suggestions will markedly decrease your symptoms**. The discussion will be divided into allergic factors and non-specific irritants. Avoiding substances to which you are allergic (“allergens”) will decrease your symptoms and make you less sensitive to non-specific irritants such as smoke, strong odors, cold air, etc.

Inhaled **allergens** are divided into four categories: house dust mite, mold spores, plant pollen, and animal danders. In addition, symptoms can be provoked by **non-specific irritants**, such as temperature and humidity extremes, smoke, pollution, strong odors, etc. These factors are called non-specific irritants because if symptoms are severe enough, they will develop in anybody. Due to the hypersensitivity of your airways, odors and irritants that would be insignificant to others may aggravate your symptoms. For this reason, you should avoid these non-specific irritants as well as the allergens identified by skin testing. Each of these factors will be reviewed separately below.

### HOUSE DUST MITE CONTROL

1. House dust contains numerous tiny particles which originate from various objects in your house and from out of doors: protein dusts from dust mites, dander from pets, mold spores from damp areas, pollens, wool fibers from rugs, scales of dead skin (dander) from your own body, etc. Dust mites are small organisms which can be seen only under the microscope. They are (along with mold spores & animal danders) the most important allergens in dust. Dust mites live on human dander. Therefore, they are most concentrated where the members of your household spend most of your time. This means that beds, favorite chairs, as well as carpeting can be the worst areas for dust mite exposure.
2. Pollens blow into homes through windows and doors. These build up as dusts in pillows and bedding, and like other dusts can cause year round allergies.
3. Scientific studies conclusively show that dust control measures markedly decrease the concentration of dusts breathed in, leading to a substandard reduction in airway hyper-reactivity and symptoms.
4. You spend an average of eight hours/day or one third of your life in bed. This makes using simple, comfortable “stretch knit” dust covers containing polyurethane linings for pillows and mattress (and perhaps box springs and comforters) absolutely essential to improve allergies. For many patients, no amount of medicine will overcome breathing in dust all night, **so it is critical to utilize dust covers** which consistently eliminate 98-99% of night time dusts. These special allergy proof bedding covers comfortably fit underneath pillow slips and fitted sheets.
5. Substitute easily washable synthetic materials such as Velox for woolen blankets or feather quilts. Washable blankets can be washed **in hot water** frequently to rid them of dust mites and built-up dusts, danders, pollens, mold spores etc. Feathers and wool accumulate dusts in huge quantities – causing very heavy dust exposures.
6. Always at least once monthly wash all uncovered bedding (including blankets, comforters, mattress pads, etc.) in hot water. **Only HOT WATER** kills dust mites effectively. Dust covers themselves rarely need to be washed.

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Generally leave pillow and mattress covers in place to contain dusts and wash the pillow slips, fitted sheets, etc.

7. Remove as much carpeting as possible, especially from the bedroom. Dust mites cannot live on hard floors (tile, wood, linoleum), and dust can easily be damp mopped from such floors.
8. Upholstered furniture may be reduced (at least from the bedroom), as upholstery soaks up dusts. If feasible, leather is a good alternative.
9. Keep the relative humidity low, between 35-50%. This is comfortable for the airways, but helps eliminate dust mites which die when the humidity is less than 50%. Buy a humidity gauge at the hardware store to measure the relative humidity. Consider keeping the humidity low with a dehumidifier or air conditioner. In the winter, the humidity inside a heated house can drop to 10%. Low humidity is great! It eliminates dust mites & molds. Use skin moisturizers to relieve dry skin, **NOT** humidifiers.
10. If you have a forced air furnace, buy disposable electrostatic (pleated sheet) air furnace filters such as Dirt Devil Ultra or 3M brands to effectively filter out most dusts. These are disposable and should be replaced every two to three months. Covering vents in the bedroom and using HEPA air filters may also be helpful. Washable electrostatic filters can also help. These must be washed off (with hose etc.) at least monthly and are less effective than disposable electrostatic filters.
11. Use double layer vacuum bags on your vacuum cleaner. Dust with a damp cloth, or use a cloth treated with a solution which attracts dust. If you are very dust sensitive, wear a mask while dusting or vacuuming.
12. Store clothes, books, stuffed animals etc. in closets or glassed cases and keep the doors closed when possible.
13. Air cleaners are relatively ineffective unless they contain a HEPA (high energy particulate accumulator) filter. These HEPA units can be somewhat expensive (at least \$150 for a unit to clean a 16' X 20' room). HEPA filters do add extra benefit particularly in dusty houses or homes with pets (cats, dogs, birds). Set up HEPA filter in the bedroom (and a second unit in the TV room if feasible) upon a dresser, **not directly on carpeting**, to prevent stirring up dust.

## MOLD CONTROL

1. Mold spores are a key component of dust. **Do dust measures 1-12 as listed above, which reduce mold spore exposure as well as dust.**
2. Wash with a 90% water 10% bleach solution or else with X-14<sup>R</sup> etc. to kill mold. Spray with a mold retardant spray (Mildew Stop<sup>R</sup>) to prevent mold growth and re-spray often, as instructed by the manufacturer.
3. Watch out for keeping a large number of house plants indoors. Watering soil causes high mold production in indoor plant soils.
4. Keep humidity below 35-50% as discussed above. High humidity promotes mold growth. **AVOID HUMIDIFIERS.** If you must use one, change water daily and clean humidifier regularly per manufacturer's instructions.
5. Use exhaust fans in the kitchen and bathroom to remove the humidity from cooking and showering.
6. Wash water pans at the bottom and rubber gaskets around the doors of refrigerators. Discard spoiling foods.

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