

# breathe easier

HOME

tips for creating a healthier home



3M is proud to be  
an educational  
partner with the  
American Lung  
Association Health  
House® program



# care about air

This booklet is a publication of 3M



3M and the American Lung Association Health House® program are partnering to educate consumers about ways they can improve home air quality. 3M is a founding partner of the American Lung Association Health House program.

The goal of the American Lung Association Health House program is to raise the standard for healthier home environments. This is accomplished through national demonstration homes; consumer, builder, and site inspector training programs; and educational partnerships and alliances. Health House demonstration homes are designed with an emphasis on improving air quality and are built with special considerations for the indoor and outdoor environment. Filtrete™ Filters from 3M are used in Health House national demonstration sites.

3M and the American Lung Association Health House program do not intend any of the tips in this booklet to be construed as medical advice or serve as a substitute for medical treatment or consultation. The American Lung Association Health House program does not endorse products.



— and the American Lung Association Health House® program.

According to the U.S. Environmental Protection Agency (EPA), many people spend as much as 90 percent of their time indoors. An EPA study indicates that indoor air pollution levels may be two to five times higher—and occasionally more than 100 times higher—than outdoor levels. As a result, the EPA has identified indoor air pollution as one of the top five urgent environmental risks to public health.

Exposure to indoor air pollutants—smoke, dust, pet dander, mold, and other pollutants—can pose serious health risks and can contribute to respiratory disease, asthma and even lung cancer. The good news is that you can significantly reduce, and even eliminate, many causes of indoor air pollution. By following the tips outlined in this booklet, you'll improve the air quality inside your home and breathe easier.

*These tips are also available on the  
Filtrete Web site at [www.Filtrete.com](http://www.Filtrete.com)*

# improve indoor air

## DID YOU KNOW?

The EPA has identified indoor air pollution as one of the top five urgent environmental risks to public health.

## Know What You're Breathing

The air in your home can contain a variety of allergens, particles and chemicals that, if inhaled, can cause discomfort or illness. Preventing the conditions that contribute to these pollutants is the first step to reducing their presence. Regular and thorough cleaning of places where allergy-causing substances are likely to accumulate will keep them at a minimum. And a well-maintained air filtration system can help reduce remaining indoor air pollutants.

## Reduce the Effects of Mold

Mold is a fungus that grows in damp or very humid areas and generates spores that can produce allergic reactions. Because the spores are common in the air around us, the best way to reduce mold is to prevent the moist environment in which it grows. Damp basements are a frequent problem, so take steps to keep them dry. Another problem area is the soil of houseplants; avoid over-watering and watch for mold. If mold appears, re-pot the plants in clean soil or move them outdoors.



### A Word to Pet Lovers

Pet dander (skin flakes, similar to human dandruff) can trigger allergies, so bathe and groom pets and their bedding often to remove dander. Minimize your pet's access to carpeted areas where dander can hide. Also, keep pets away from the bedrooms of anyone with asthma or allergies.

#### DID YOU KNOW?

Cat dander may remain on walls and ceilings months, or even years, after the animal has left the house.



# clear the air

## Keep Dust Down

If someone in your household has allergies or asthma, be especially wary of dust. Dry mopping or dusting merely scatters dust into the air. A damp cloth or mop works better. Because window coverings can be dust magnets, choose shades or blinds made of plastic or other washable materials, allowing easy cleaning.

## No Place to Hide

Choose smooth flooring materials like tile, vinyl or wood, which are easy to keep clean. If you do use carpeting, select a product with shorter nap, which will hold fewer particles, or rugs that can be removed for cleaning.





### Big Problems from Tiny Mites

Dust mites can create severe allergic reactions. The mites, which are too small to see with the naked eye, thrive on dust and in bedding. Avoid feather pillows and down comforters for individuals with asthma or allergies. Wash bedding weekly at a hot setting (at least 130 degrees Fahrenheit). Use allergen-resistant covers on items that cannot be washed, such as pillows and mattresses.

#### DID YOU KNOW?

The average double mattress can host up to 2 million dust mites.

# control humidity

## DID YOU KNOW?

Condensation on the insides of windows can be an indication of high indoor humidity.

## Avoid Extremes

As mentioned earlier, a damp environment can promote the growth of mold. Conversely, air that is too dry allows the spread of viruses and bacteria that cause respiratory infections. The ideal range for indoor humidity is 30 to 60 percent, depending on location, season and your physician's recommendation.

## Stamp Out Damp

Moisture can be generated by everyday activities like washing and showering. These activities—typically in the kitchen, bathroom, or laundry room—can create large amounts of water vapor. Install exhaust fans over your kitchen range and in your bathrooms. If your basement is damp, consider using a dehumidifier.







### Effective Venting

Install vents where they can capture the most moisture. Bathroom exhaust fans in particular should vent air outdoors. If possible, put your bathroom fan on its own timer switch so it can keep removing moisture after you have turned out the light.

#### DID YOU KNOW?

The moisture in home humidifiers and dehumidifiers can support the growth of mold and bacteria. Keep them clean and well maintained.

# keep informed

## DID YOU KNOW?

Because tree roots can channel surface water toward your basement, you should keep trees and shrubs at least three feet from the perimeter of your home.

## Plug Exterior Leaks

Both the interior and the exterior of your home should be well caulked to prevent water from entering, especially around windows and vents. If you are building a new home, insist on a proven waterproofing system, drain tile and vapor retarder for the foundation.

## Keep Rain Water Out

Direct runoff from your roof and yard away from your foundation. Downspouts should be angled at a five percent slope and should empty well away from your foundation. Keep gutters and drains in good repair.

## Prevent Condensation

Insulation in wall cavities requires a properly installed vapor barrier. This keeps moist interior air away from cold surfaces where it could condense and cause damage.



### Safe Surfaces

Water-damaged carpeting makes an ideal breeding ground for mold and should be removed. Consider replacing it with smooth surfaced flooring, such as tile, wood or vinyl.

### DID YOU KNOW?

In addition to health problems, excess moisture can encourage mold growth and cause structural damage to your home's walls, foundation and exterior.



# breathe freely

## Dangerous Gases

Boilers, furnaces, stoves and fireplaces—anything that burns wood, charcoal, fuel oil, or natural gas—produce combustion pollutants. If not properly vented, the gases produced can lead to health problems, from headaches to breathing difficulties to death. Carbon monoxide is the most dangerous, it is invisible, odorless and potentially fatal, and may do harm before symptoms are noticed.

### DID YOU KNOW?

Orange or sputtering flames in a gas furnace or stove can indicate carbon monoxide production. If cleaning the device does not eliminate the problem, contact a qualified service technician.

## Heaters Need Air

Kerosene space heaters and unvented gas heaters are possible health hazards and should never be used as a primary source of heat. Instead, install sealed-combustion or power-vented heating appliances. Because they exhaust directly to the home's exterior and have their own outside air supply, there is no negative pressure drawing combustion gases back into the house.

## In Good Working Order

Keep furnaces, water heaters and gas ranges in good working order with annual professional checkups. Checks should include air intake and exhaust system operation.



## Fireplaces

Fireplaces should draw outside air into the combustion chamber and have sealed glass doors; wood-stove doors should close tightly. Check flues and chimneys for blockage and cracks.

## No Smoking

We all know that smoking is dangerous to the smoker, but secondhand smoke is unhealthy for anyone in the same indoor area. The best way to avoid the effects of cigarette smoke is to prohibit indoor smoking.

## Watch for CO

Dangerous levels of carbon monoxide (CO) can originate from gas furnaces, space heaters, clogged vents or chimneys, or a car running in a closed garage. Protect yourself by installing a carbon monoxide detector with a digital display and checking it regularly. Never leave a car, lawnmower or snowblower running in a closed garage.

## DID YOU KNOW?

When burning wood in a fireplace or wood stove, you should keep a room window cracked open, especially in a tightly sealed, energy-efficient house.

This is only necessary if your fireplace does not have an outside air intake.

# be safe

## Chemical Risks

Cleaning agents, paints, solvents and pesticides can give off hazardous vapors, causing dizziness, irritation, allergic reactions and severe health problems. Even perfume, room deodorizer or talcum powder can trigger respiratory reactions.

## Check Your Furnishings

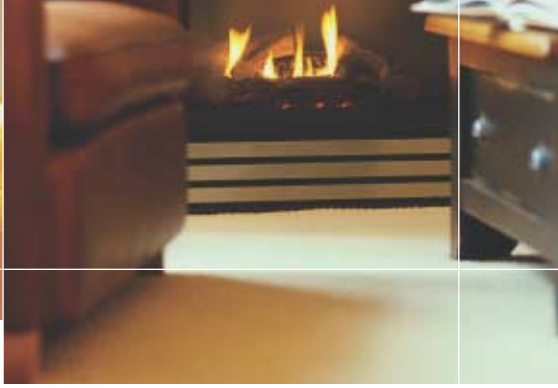
Sensitive individuals can be affected by the volatile organic compounds (VOCs)—formaldehyde for example - used in furniture manufacturing. Choose furniture made of solid hardwood, rather than veneered particleboard. Or seal particleboard furniture with a no- or low-VOC finish. Gypsum board, plaster or real wood are all safer choices than plastic or wood-fiber wall paneling for remodeling projects.

### DID YOU KNOW?

Many paints release trace amounts of gases for months after application.

## Control Lead

Woodwork in older homes is often coated with dangerous lead-based paint. Wipe away peeling paint chips with a damp rag to prevent ingestion by children. Be aware that stripping or sanding may release lead particles into the air. Consult an expert regarding any large-scale removal project.



### Choose Carefully

Do not assume that household products have been tested for health effects. Use low-toxic cleaning products whenever available, or consider natural cleaners like lemon juice, boric acid, baking soda and vinegar. Substitute pump products for aerosols, which can contain chemicals that can be inhaled. If possible, use no- or low-emission paints in living areas and non-toxic adhesives or mechanical fasteners for floor coverings.

### Simple Precautions

Ventilation can reduce the impact of potentially harmful chemicals. Dry-cleaned items may retain solvent vapors, so air them out on an outdoor clothesline before bringing them inside. Use volatile materials such as wood glue or metal cleaner outdoors or in a well-ventilated garage. When stripping furniture indoors, look for products that do not contain methylene chloride. Always follow the manufacturer's instructions before use.

### DID YOU KNOW?

Mixing chlorine and ammonia can produce toxic fumes. Check labels of cleaning products carefully.

# filter it out

## DID YOU KNOW?

Recyclables—  
newspapers, plastics,  
cans and bottles—can  
be a source of vapors,  
odors and bacteria.  
Store them in a covered  
area outdoors and  
recycle frequently.

## Clear the Air

Because so many pollutants and allergens are airborne, mechanical ventilation is a key component in creating and maintaining a healthier home. Ventilation provides a fresh source of outdoor air for the home, creates positive indoor pressure for combustion and dilutes indoor pollutants. Use your air conditioner and keep windows and doors closed to help prevent the entry of pollens and other outdoor allergens into the home.





### Effective Vacuuming

Without proper filtration, vacuum cleaners can lift dust and put it right back into the air. If your home has dust problems, consider installing a central vacuum system with the central receptacle outside or in the garage. Vacuum cleaners with a Filtrete™ Filtration System are over 95% efficient at capturing microparticles and help maximize the cleaner's suction, even as the bag fills.



# breathe easier

## DID YOU KNOW?

99 percent of the particles in your indoor air are smaller than one micron, which is 70 times smaller than the diameter of a human hair.

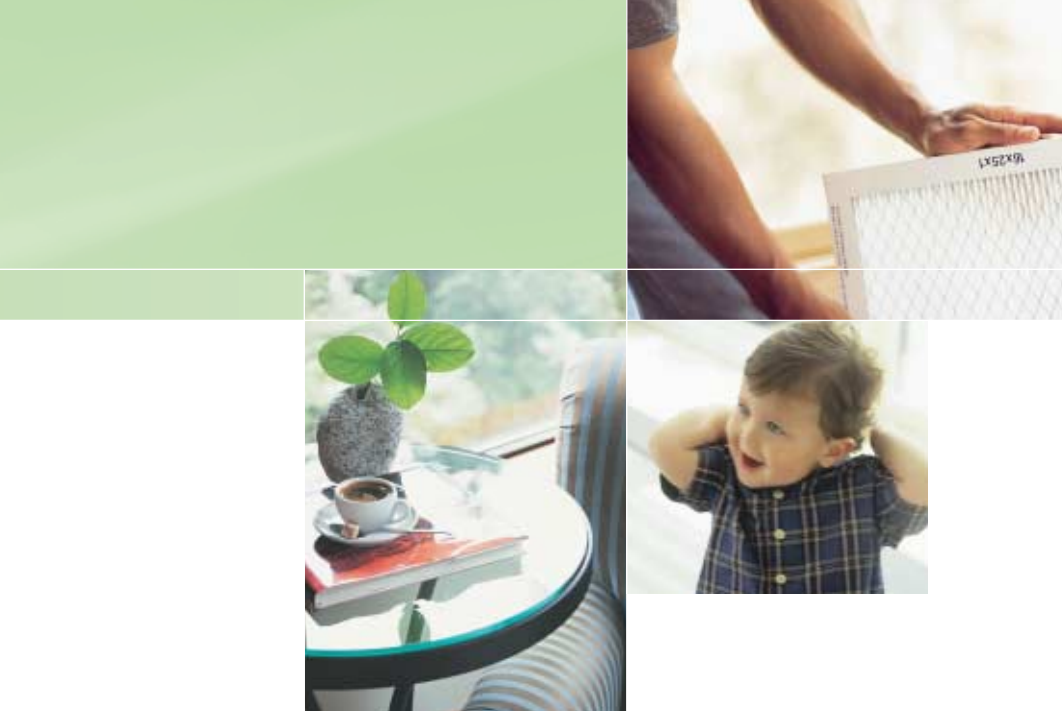
## For Cleaner Indoor Air

The typical 1-inch fiberglass furnace filter can capture large particles from the air, but its primary function is to protect the equipment and minimize the amount of dust on the air conditioning coil.

To capture airborne contaminants and keep your indoor air cleaner, use a high-efficiency pleated furnace filter. Filtrete™ Air Cleaning Filters from 3M have electrostatically charged fibers that act like tiny magnets to attract and capture up to 30 times more airborne contaminants than a typical fiberglass filter.

Change your filter on a regular basis as recommended by the manufacturer.





## The Right Choice

The Filtrete™ family of filtration products includes Filtrete™ Ultra Allergen Reduction Filters, Filtrete™ Micro Allergen Reduction Filters and Filtrete™ Dust and Pollen Reduction Filters. Knowing which filter to use and changing it regularly can go a long way toward improving your indoor air quality.

Go to [Filtrete.com](http://Filtrete.com), click on Filtrete advisor and fill out the survey to help select the best filter for you and your family.

## DID YOU KNOW?

Filtrete™ Filters are up to 30 times more efficient than standard 1-inch fiberglass filters in capturing microscopic particles.



# more helpful tips

FOR ADDITIONAL  
INFORMATION  
ON AIR QUALITY  
AND RELATED  
ISSUES, VISIT:

[www.lungusa.org](http://www.lungusa.org)  
[www.healthhouse.org](http://www.healthhouse.org)  
[www.filtrete.com](http://www.filtrete.com)

For more helpful tips on improving the air quality in your home, the American Lung Association Health House® program and 3M offer two additional booklets: *Tips for Healthier Home Remodeling* and *Tips for Creating a Healthier Home for Kids*.

All three booklets can be obtained free-of-charge by:

Sending an e-mail with your name and address to:  
[3mfiltrete@3mservice.montagenet.com](mailto:3mfiltrete@3mservice.montagenet.com)

Or calling 1-800-388-3458.

**3M**

**Construction and  
Home Improvement  
Markets Division**

3M Center,  
Building 223-4S-02  
St. Paul, MN 55144-1000  
1 800 388-3458  
[www.Filtrete.com](http://www.Filtrete.com)



*Minimum 10%  
Post-Consumer Fiber*

Filtrete, 3M, and the plaid design are trademarks of 3M. American Lung Association Health House is a registered trademark of the American Lung Association.

Printed in U.S.A.  
© 3M 2003  
70-0710-7496-0