

Knowing the Indoor Air We Breathe Is Clean And Healthy Undetected Pollutants Are Detrimental to Children

By LESLIE PERLMUTTER
Special to Health Quarterly

As temperatures plummet, people are choosing to spend more time at home. Whether enjoying a home-cooked meal, a fire in the hearth, or family game night, those of us in cold weather climes are discovering the pleasures of staying indoors. While padding around in pajamas, no one wants to feel cold air seeping in, so efforts are made to insulate homes, making them as air-tight as possible. This reduces the circulation of fresh air and can actually be detrimental to one's respiratory health.

Dr. Jeffrey Barasch, director of the Pulmonary Rehabilitation Program at The Valley Hospital in Ridge-wood, notes that "any problems with indoor air quality gets worse as home insulation gets better." Thus, as people spend more time in their better-insulated homes during cold weather months, they are more affected by issues with indoor air quality.

Indoor air quality can be affected by both pollutants and allergens. Dr. Barasch lists common pollutants to look out for such as carbon monoxide, second-hand smoke, radon and asbestos. Carbon monoxide detectors, cessation of smoking, and professional testing for and avoidance of radon and asbestos can greatly diminish these dangers. However, everyone must be vigilant.

Dr. Barasch notes that carbon monoxide is "odorless, invisible and deadly. Low chronic levels, which may not set off a detector, can affect muscles and cause headache, fever and malaise. Babies are most sensitive to carbon monoxide." He cautions, "Second-hand smoke can affect anyone in contact with it, but it is worse for infants and

young children; it can worsen asthma, reduce lung function, impair lung capacity and can even cause lung cancer in non-smokers." Gas stoves can emit nitrogen dioxide, which can affect airways and worsen asthma. All of these pollutants should be avoided and eliminated, if present.

What about allergies? Mold, dust mites, cockroaches, rodents and pet dander can all cause allergic reactions. Dr. John Oppenheimer, chief of Allergy at Morristown Medical Center/ Atlantic Health System, notes that "up to 30 percent of the population has allergic rhinitis and up to 10 percent of the population suffer from lung/asthmatic allergy symptoms. For some, the dangers are merely a nuisance. The allergens can cause stuffiness, a runny

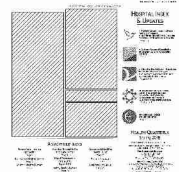
See **CLEAN AIR**, Page 8N

nose, and sneezing. The chance of a sinus infection is also increased. Sleep can be interrupted, which can affect school and work performance. For those with asthma, the allergens can present a more serious danger." Doctors see an escalation of these symptoms in winter months, when people spend more time indoors.

Dr. Oppenheimer emphasizes that "There is no reason to suffer. We have wonderful options available. If people are willing to work, we can make them feel better." There are environmental and therapeutic options. Both doctors interviewed agree that for dust mites and mold, it is important to keep humidity low. Impermeable covers for pillows and mattresses are recommended, and there should be little to no carpeting in the bedroom.

Dr. Oppenheimer notes that "remediation of homes is a multifaceted approach. It includes fixing water damage and keeping your house dry to protect from mold." Pets and bedding should be washed regularly and vacuum cleaners and air conditioners with high-efficiency particulate air (HEPA) filters should be used. Dr. Barasch also recommends wearing a mask while vacuuming and leaving the room for a while once you have finished. Increasing ventilation to let in some fresh air is also advisable. Furnaces, chimneys and air conditioning units should be inspected. Both doctors advise that any air quality testing should be done professionally; do-it-yourself kits are not accurate.

Beyond manipulating the environment, patients can turn to pharmacotherapy. Therapeutic help can involve medications such as antihistamines to treat rhinitis and bronchodilators and steroids to treat asthma symptoms. "Immunotherapy, such as allergy shots or tablets, known as sublingual immunotherapy, can be highly effective, but it requires a commitment; it can take months to see efficacy," says Dr. Oppenheimer.



Enjoy the time spent with family and friends during the cold-weather months, but be aware of pollutants and allergens that may lurk in your home. Avoid or remove as many of these as possible, and keep up with

maintenance to ensure that the air quality in your home is satisfactory. If you are suffering from allergy symptoms, see a doctor. There are many treatments available to keep you feeling well and able to enjoy your home.



PHOTO COURTESY OF SERENETHOS/THINKSTOCK

Regularly checking and cleaning air vents, duct work and filters can reduce the amount of dust, pollutants and allergens in the home. For mold issues, contact a professional.



PHOTO COURTESY OF VALLEY HEALTH SYSTEM

Better-insulated homes can keep the fresh air out and the bad air in. Dr. Jeffrey Barasch of Valley Hospital, Ridgewood, says common indoor air pollutants can be particularly detrimental to infants and young children.