

WHAT ARE YOU BREATHING?

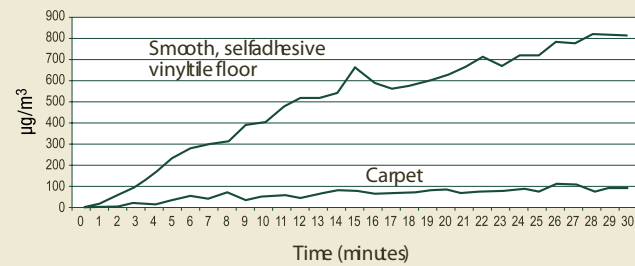
The Canadian carpet industry has been saying it all along: carpet fibres trap dust, pollen and other particles until the carpet is cleaned properly with a performance vacuum.

A high percentage of the particles held by a carpet's fibres never reaches the breathing zone (which, by the way, is closer to the floor in schools), as evidenced by these two graphs.

The first compares the amount of particles in the air after walking on a carpet and on a "hard" surface, the second after vacuuming those same dusty surfaces. These tests were supervised by the Professional Testing Laboratory in Dalton, USA.

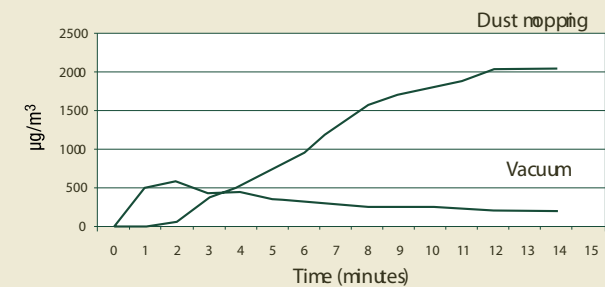
The conclusion, as they say, is clear!

Airborne particles resulting from walking on dusty floors



Source: Professional test laboratory
Walking speed = 3.8 ft. / second.
Dust load = 1 g / 400 sq. in. ISO fine dust 12103-1, A2.

Airborne particles generated during cleaning of dusty floors



Source: Professional test laboratory
Vacuum passes = 188 in 10 minutes.
Dust load = 5 grams ISO fine dust 12103-1, A2.

THE PROTECTIVE INFLUENCE OF CARPET

Carpet the bedroom and don't miss school!

In a **study** of over **4,600 school children** in the **New Jersey** area, it was found that when **a child's bedroom was carpeted, there were lower rates of asthma medication being used and lower school absenteeism.**

The study

In the region of Passaic, New Jersey, *The Passaic Asthma Reduction Effort (PARE)* was a 4-year screening program developed by Passaic Beth Israel Hospital in co-ordination with public, private, and parochial schools. The area is predominantly Hispanic and asthma prevalence is significantly higher in African- and Hispanic-American communities than in other populations. Asthma has been getting steadily worse amongst the population, including an increase in mortality rates. In addition, asthma is also the major cause of school absenteeism in the US.

The survey was designed to help physicians identify environmental triggers for children to enable them to design individualized asthma treatment plans. Three Hispanic groups predominate in this community: Dominicans, Mexicans and Puerto Ricans. Most of the analysis were conducted on these three groups only. Of the potential 6,480 elementary children to be screened, parental questionnaires were returned for 4,634 children. The overall questionnaire responses identified 75% of children as Hispanic, with 10% and 5% as black and Asian children, respectively.

The study showed that feather pillows and carpeting in the child's room had no statistical association with asthma diagnosis.

The questionnaire

The two points of interest in the study are asthma diagnosis and school absenteeism. Each child was asked five questions about whether anyone smoked at home and, if so, who; whether they had pets and, if so, what they were; and whether they had a rug or carpet in their bedroom.

Parents were also requested to complete a questionnaire about their child's respiratory health, family history of asthma, school absenteeism, potential environmental exposures in the home, insurance status and race/ethnicity.

Environmental factors in the questionnaire included exposure to tobacco smoke; mildew/mold in various areas of the home; carpeting in the child's bedroom; the presence of furry pets; pet access to the child's bedroom; use of feather pillows; presence of roaches; and the use of pesticides in the home.

The results

Among children diagnosed with asthma, medication use was low.

It was found that across all 4 years, **the two major factors associated with asthma diagnosis were exposure to tobacco smoke in the home and dampness/mold in the bathroom.**

The study showed that feather pillows and carpeting in the child's room had no statistical association with asthma diagnosis for the children in this study.

For preschool children, damp bathrooms and mold were the only household factors associated with asthma diagnosis in the children studied.

The study also showed that where there was carpeting in the child's bedroom, there were corresponding lower rates of asthma medication use and lower school absenteeism.

This latest study further endorses a previous study conducted by the European Community Respiratory Health Service, where more than 19,000 people were studied in 18 countries. That study also showed that when carpet or rugs were being used, especially in the bedroom, there was a lower incidence of asthma (see SURFACE August-September-October 2003, vol. 19, no. 4, and the reaction of Canadian Carpet Institute about this study in number 5).



DISPROVED: CARPETS AND ALLERGIES IN SWEDEN

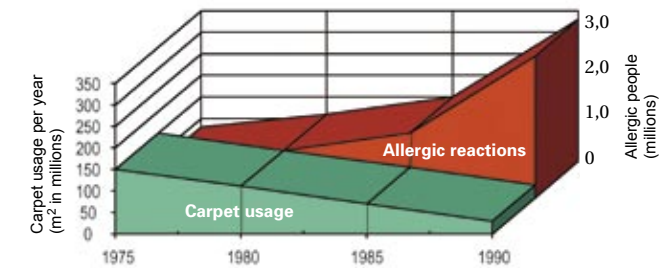
Claims in Sweden that textile floorcoverings cause allergic reactions in some people have not been adequately proved, according to two Swedish scientists.

There were intensive discussions and reports in Sweden in the seventies claiming that carpet was the source of harmful contaminants resulting in allergic reactions. As a result, Swedish consumers and public building officials severely reduced their use of carpet.

Professors Roshan L. Shishoo and Alf Börjesson, of the Swedish Institute for Fibre Polymer Research, have pointed out in several publications that the occurrence of allergic reactions and other environmental sensitivity in the general population has increased. They report that carpets constitute only a small proportion of the total floorcovering market in Sweden, having fallen from a market share of 40 percent in the mid-seventies to only 2 percent in 1992.

Professors Shishoo and Börjesson argue that the removal and decline of carpet usage did not mean improved conditions for allergic patients. On the contrary, they missed the advantages of carpet such as comfort, insulation, and noise reduction.

Carpet usage & allergic reactions in Sweden



Source: Swedish Statistical Central Bureau

« Thanks to carpet, she is breathing easier. »



www.venturecarpets.com

BREATHE EASIER WITH CARPET...

Major **international survey** of nearly **20,000 people in 18 countries** shows categorically, that **people who have carpet in their home, especially in the bedroom, have less incidence of asthma.**

The European Community Respiratory Health Service (ECRHS), an international multicentre epidemiological organisation, has finished a study on the prevalence of asthma and it's known or suspected risk factors. The study was designed to investigate the association between asthma and housing dampness, mold exposure and house dust mite levels.

Questionnaire data was examined from **19,218** subjects from **28 centres in 18 countries** including Europe (Belgium, Denmark, Estonia, France, Sweden, Switzerland, and the United Kingdom) as well as Australia, India, New Zealand and the **United States**. The questionnaire was led by an interviewer who collected information on respiratory symptoms, environmental and lifestyle factors. The questionnaire also asked for information on housing characteristics including home type and age, type of heating and ventilation systems, presence of double glazing, type of floorcovering in the bedroom and living room, any water damage in the last 12 months, basement water in the last 12 months and whether there was any mold or mildew on any surface inside the home in the last 12 months. The association of these factors and asthma (based on symptoms in the past 12 months) and

bronchial responsiveness (by methacholine challenge) were evaluated. Odds ratios were obtained and adjusted within study centres for sex, age, and smoking status.

Results of the study

The results of the study showed that in homes that had fitted (wall-to-wall) carpets and rugs in the bedroom, **there were fewer asthma symptoms and less bronchial responsiveness (odds ratio range 0.69 – 9.91). This effect was consistent across study centres.** It was more pronounced among dust mite antigen sensitized individuals. Reported mold exposure was associated with asthma symptoms and bronchial responsiveness (odds ratio range 1.13 – 1.33).

In centres with a higher prevalence of asthma, the prevalence of reported indoor mold exposure was also high for both asthmatic subjects and nonasthmatic subjects. The study showed that whereas indoor mold growth has an adverse effect on adult asthma, **the use of carpets and/or rugs, especially in the bedroom, had a positive affect on people. In addition, those who were known to be sensitive to dust mites had an even better response when carpets were used.**

The authors of the study investigated the affect of fitted carpets and rugs in the bedroom on asthma detail. They found a consistent negative association between the presence of carpets, rugs, or both in the bedroom and current asthma.

There was no evidence of different associations in centres where bedroom carpeting is more or less common.

Analysis were done after separating specially for dust mite sensitization to evaluate the possible modifying effect of house dust mite allergy on the relationship between bedroom carpeting and asthma. Odd ratios for all health outcomes measured where lower among individuals who were sensitive to house dust mites.

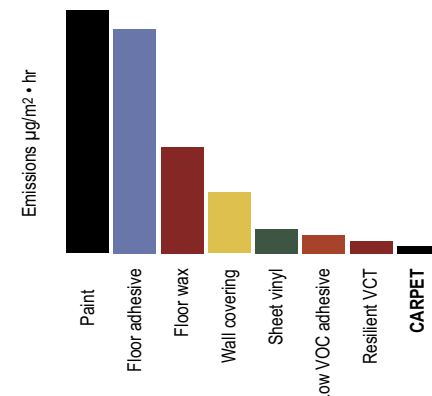
The difference was statistically significant for bronchial responsiveness, with the protective effect of having any textile floor cover being stronger among mite-sensitized subjects than among non-sensitized individuals.

Conclusive evidence for the use of carpet to reduce incidence of asthma.

The negative association between textile flooring and asthma was more pronounced for the bedroom than the living room. This negative relationship between bedroom carpets and asthma appeared in almost all study centres, including those countries where fitted carpets are uncommon and countries with a low prevalence of house dust mite sensitization.

Steven J. Philips, Ph.D.

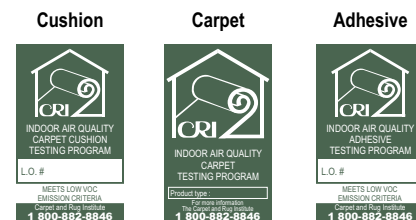
Level comparison of chemical volatile organisms



Source: Air Quality Sciences

CRI "Green label" programs

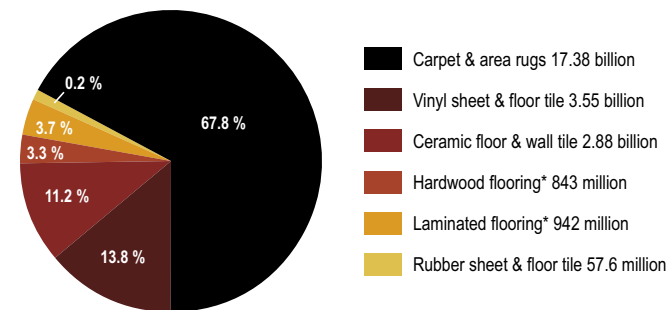
CANMET Energy Technology Centre Home R2000



The Canadian Government recommends carpet installation without any restrictions

More than 2/3 of all surface flooring installed in America are carpets and rugs.

2003 U.S. floor covering sales by volume
Total: 25.65 billion square feet

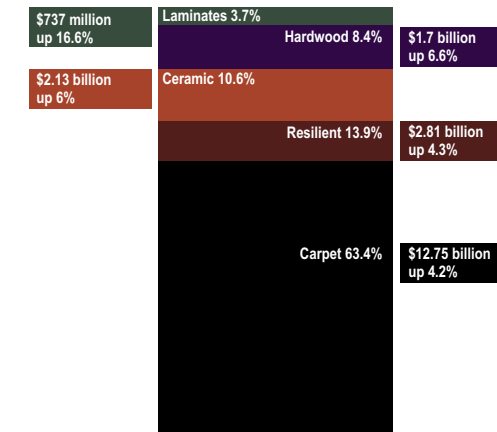


*Estimated Source: Catalina Research

Carpet is here to stay

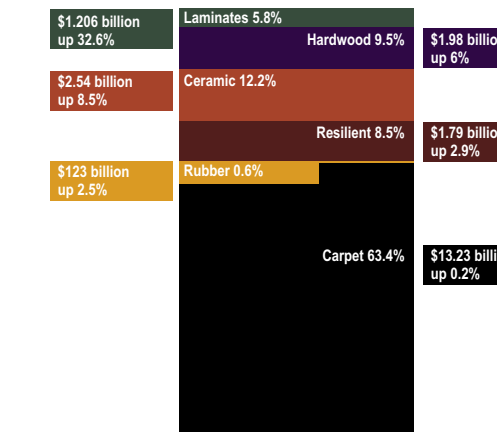
2000: U.S. \$20.1 billion (in wholesale dollars)

Floor covering sales
(augmentation since 1999)



2003: U.S. \$20.9 billion (in wholesale dollars)

Floor covering sales
(augmentation since 2002)



* 1 billion: 1 000 000 000

Source: Catalina Research and FCW research



« Thanks to carpet, she is breathing easier. »

