



February 2012

# technical EDGE

Information from the Carpet Foundation  
giving our Members the Technical Edge

## Scientific Review—Conclusions :-

- ❖ **Carpets are not the main site in the home for dust mites to thrive.** They require narrow limits of temperature and humidity (around 25°C and 70% r.h.) to live, conditions that do not normally exist in UK homes. These conditions of temperature and humidity are found in beds and bedding with which we are in close contact for about ½ of our lives.
- ❖ **Dust mites migrate from bedding into other areas** such as upholstery, drapes, apparel and floors but do not thrive as well as they do in bedding.
- ❖ Dust mites produce microscopic particles of allergen which is a major cause of asthma. The allergen particles need to be inhaled to create a health-hazard. **Carpet traps most of the allergen particles within the pile structure until removed by routine vacuum cleaning.**
- ❖ **Carpet prevents allergen particles from being stirred up into the indoor atmosphere** where they would be available for inhalation. (Smooth floor covering allows the particles to move around freely in the atmosphere.)
- ❖ The German allergy and asthma association (Deutsches Allergie und Asthmabund e.V.) have stated on their website ([www.daab.de](http://www.daab.de)) that *“The main reservoir of mites is in the mattresses of beds. Further habitats are textile upholstered furniture and carpet. In the case of house dust mite sensitisation, it was formerly always recommended to remove the carpet. The current state of research can no longer uphold this as a general recommendation.”*
- ❖ Whilst no study has been reported that supports the theory that carpet removal will be of benefit to asthma sufferers, separate scientific studies conducted in the USA and Europe have reported that **children with carpeted bedrooms show reduced use of medication and less absenteeism.**
- ❖ Research conducted in Germany showed that the average level of fine particles, including allergens, in the indoor atmosphere above **carpeted floors was 30.4µg/m<sup>3</sup>** whilst above **smooth floors the average level was 62.9µg/m<sup>3</sup>** (more than twice as much). The European recommended upper limit for indoor air is 50µg/m<sup>3</sup>
- ❖ Where a significant **decrease in carpet usage** has taken place asthma cases have risen dramatically. In Sweden, between 1975 and 1990, carpet use decreased by 77% whilst the incidence of **asthma increased by more than 300%**

Professor Seaton of Aberdeen University observed the example of Saudi Arabia where the climate is very dry, a condition which prevents dust mite survival. Its move towards a more westernised diet of convenience foods in the cities has led to more than three times the level of asthma compared to rural areas with their traditional diet including fresh fruit and vegetables.

A final comment from Professor Seaton, *“It has been said that for every problem there is a simple answer - that is wrong. No-where has this been better demonstrated than in the case of explaining the rise in asthma and allergies. Two superficially attractive ideas (they were never more than speculations), that the answer lay in increased air pollution and/or dust mite populations in houses, attracted the attention of the media and are now widely believed to be the truth. Those who promote such speculations as truth may not always consider the consequences, the major one of which is a potential waste of resources in tackling the wrong problem”.*

