

*Scientific Study****Building Renovations Cause Inflammation***

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Most people look upon renovating, cleaning, and scenting our living space as a positive. However, scientists say that these simple activities are increasingly linked to poor indoor air quality and health impairment.

Herberth and colleagues at the Helmholtz Centre for Environmental Research Leipzig in Germany say, “Exposure to indoor renovation activities has been shown to be associated with airway symptoms and allergic manifestations in children.”

Renovation activities studied included painting, flooring, and new furniture.

Most of us are aware of the toxic substances in paint, which may include fungicides, mildewicides, toxic chemicals, cancer causing agents, and even fragrances.

The more versed in green living are likely familiar with flooring concerns, which extend from glues used to tack the flooring down to petroleum based plastics and formaldehyde used in the manufacturing process.

New furniture, however, may not seem to be a concern until one investigates and discovers that it is frequently loaded with formaldehyde, mildewicides, flame retardants, and other chemical treatments. Even so-called organic furniture must be treated with flame retardants by law. Chemi-

cally untreated furniture, particularly beds, requires a prescription from a medical doctor.

Cytokine blood concentrations showed increased levels of IL-8 and Monocyte Chemoattractant Protein-1 (MCP-1) in children's blood. These increased levels were related to new flooring and carpeting and mark inflammatory reactions.

Inflammatory reactions may lead to upper airway disease, asthma, allergies, and other respiratory problems. Serious inflammatory reactions involving the brain could be life threatening.

The best way to prevent inflammatory reactions is to limit renovation activities, choose safer building materials, and ensure adequate ventilation. Keeping vents and windows open may not be the most economical way to keep the power bill down, however it dramatically increases air flow. Whole house and room air filters may also be useful.

Reference

Herberth G, Gubelt R, Röder S, Krämer U, Schins RP, Diez U, Borte M, Heinrich J, Wichmann HE, Herberth O, Lehmann I; for the LISApplus study group. Increase of inflammatory markers after indoor renovation activities: The LISA birth cohort study. *Pediatr Allergy Immunol.* 2009 May 31.

