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From: AIRWAYSENV@cs.com
Sent: Wednesday, June 01, 2011 7:48 PM
To: NIOSH Docket Office (CDC)
Subject: 238 - NIOSH Indoor Environmental Quality (IEQ) Alert

Just wanted to comment as an indoor air quality professional who has been performing investigations of building-related health effects for 20 years. People become sensitized due to exposure to immunoactive substances.

In my experience, most serious health complaints in institutional and office buildings ("non-industrial" exposures) come from individuals with pre-existing hypersensitivities, or, many times, from individuals who have become newly sensitized to the specific contaminants in their environments. The term "sensitization" is used differently in different medical circles. What I mean is that, when the innate immune system is potentiated (upregulated), the adaptive immune system creates a receptor mechanism specific for a non-self environmental chemical substance in the body (often a VOC). It is analogous to developing an IgE-mediated allergy and a true allergic inflammatory response but the receptor mechanism involves nerve cells rather than mast cells. This is also what is happening in cases of reactive airways disease (RADS). A neuro-immune receptor initiates the inflammatory response. The inflammation is neurogenic. The triggering substance is referred to as an irritant chemical. The term "irritant" refers to the fact that there is a neural receptor mechanism.

I have met numerous people who suffer a multitude of multi-system symptoms as a result of low-level chemical exposures. The symptoms include headache, fatigue, burning sensation in upper respiratory mucous membranes, irritable bowel symptoms, fibromyalgia, rheumatoid symptoms, ...and others. The triggers are from products like air fresheners, perfumes, pesticides, cleaning/disinfecting solutions – nothing that would be considered harmful in a dose-response toxicologic context.

I have interviewed thousands of building occupants in my 20 years of IAQ consulting with respect to building-related health effects. These are real people in real buildings. I have a degree in biological sciences. I have a perspective on these issues that few others can claim. Please do not hesitate to contact me with any questions you may have about building-related health effects.

Sincerely,
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