

BOGUS IMMUNE DYSFUNCTION CLAIMS ALLEGEDLY DUE TO MOLD TOXINS

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It has been claimed by some physicians that mold toxins associated with indoor exposures cause “immune system injuries.” This is, to put it mildly, toxicological fantasy. At least a few of these physicians said the same thing about silicon breast implants, low-level chemical exposures and a series of other torts of the day. Where does this notion come from? First, some mycotoxins, in high doses (sufficient to make people extremely ill or even die), can have certain immunological effects, as well as many others. That occurred most notably in the 1940's, during the siege of Stalingrad, when Russians ate grain heavily contaminated with mold. This was clearly a very unique situation. Our theoretical mycotoxin exposures from molds in indoor facilities, honestly, are vastly lower and likely harmless. The only published modern paper purporting to show certain immune variations (they can hardly be called toxicity or dysfunction) was published by Johanning and others. (Johanning et al. 1993; Johanning et al. 1996; Johanning et al. 1999) They compared a cohort of allegedly mold-exposed people to a group of allegedly unexposed people. Controls in such a study are necessarily problematic, since there is no such thing as a mold unexposed or a mycotoxin unexposed person. In that paper, the authors found minute, clinically-irrelevant differences in certain specific immune parameters involving cells known as T-cells. Although statistically different, those changes were so small that they had no clinical or medical relevance whatsoever. It would be like saying, “My house is bigger than yours”—3255 square feet versus 3253 square feet. No one in the study group showed any evidence of susceptibility to infection or other characteristics of immune dysfunction.

To further elucidate this point, consider the occupational exposure levels of farmers, lumber workers, landscapers and even weekend gardeners when we work in our gardens. Those occupational exposures may readily reach 1,000,000-10,000,000 spores/m³ and many of those spores carry mycotoxins. Those occupations, however, are not associated with immune disorders, nor is gardening which may give us exposures to *Aspergillus* and *Penicillium* (both mycotoxin producers) of 100,000 spores/m³ or more. Thus far, indications are that indoor exposures to molds do not lead to and probably cannot produce immunological disorders. In fact, quite to the contrary, molds are best known for activating immunological activities, causing the formation of antibodies, rather than destroying immunological function.

So how do the physicians mentioned earlier support their theory? Very simply, they order dozens of immunological tests in people who have no medical evidence of immune disease. There are many dozens of such tests, highly specialized and almost always reserved for either research studies, for following HIV/AIDS patients, or for very

ill patients with chronic, severe, repetitive infections resistant to usual treatment. Since the immune system, by its very nature, is variable day-to-day and person-to-person, enough tests will inevitably uncover variations, not abnormalities, which these doctors call “abnormal” and use as evidence for immune dysfunction. The sleight of hand is nothing new. Toxic tort matters for years have been supported by such findings. Interestingly, the physicians in question don’t care what test variations they find. Most of the small variations are in different immunological test parameters, even within members of the same household. If these were true toxinogenic effects, one would expect some consistency. These patients are rarely, if ever, sent to an immunologist, even though these physicians themselves are not trained immunologists.

Thus, when someone tells you that an individual’s immune system was destroyed or damaged by mold in an indoor setting, a thorough review and serious challenge to that contention is the order of the day.

References

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