



Research Summary: Mold #1

As featured in Dr. Kenny Mittelstadt's video:
The Missing Pattern Behind Mold Illness
Date of Publication: 07/09/2026

Research Context:

If you've removed the mold, run the binders, and dialed in your sleep and food but still aren't recovering, that isn't a sign you did something wrong. A growing body of research suggests mold illness isn't only about the toxin itself. It's also about how your unique body, meaning your genetics, immune history, and nervous system, responded to the exposure, and whether it can find its way back to baseline once the mold is gone. This reframe matters, because it shifts the question from "how do I clear more toxin?" to "why hasn't my system reset?" Below are three studies that help connect those dots and reveal the bigger pattern that so many conventional and even holistic approaches often miss.

Key Findings from the Research:

Study 1 (PMID 38198040):

Researchers followed four people who had lived in mold-damaged homes and carried specific variations in a set of immune genes called HLA-DR/DQ. Think of these genes as the ID scanners your immune system uses to recognize and clear certain toxins. People with these variations are naturally poor eliminators of mycotoxins, the toxic byproducts some molds release. In one person, urine tested about 18 months apart, long after leaving the moldy environment, still showed the body clearing two mycotoxins at a crawl. One cleared 10 times slower than expected, and the other far slower still. This is a small case series, not proof for everyone, but it helps explain why two people with the same exposure can recover so differently. Your genetic makeup helps set the pace your body can actually keep.

Study 2 (PMID 38301823):

In a laboratory cell study, mycotoxins from common molds like *Aspergillus* and *Penicillium* switched on microglia, the immune first responders that live inside your brain. When microglia stay activated, the result is neuroinflammation, which can show up as the brain fog, word-finding trouble, and mental fatigue so many people describe. Because this was done in cultured cells rather than living people, it can't capture the whole human picture. Still, the study points to a real, physical mechanism behind cognitive symptoms, meaning they aren't all in your head in the dismissive sense that patients are often told. Findings like this one help validate that the mental fog you feel has a biological basis, one worth taking seriously, investigating carefully, and supporting alongside the rest of the work you are doing to recover.

Study 3 (PMID 37987446):

Among 544 patients with mast cell activation syndrome, or MCAS, a state where immune alarm cells over-react and release inflammatory signals, nearly 6 in 10 also screened as very likely to have chemical intolerance. That means everyday smells, foods, and household products had started triggering symptoms. Just as telling, the more active a person's mast cells were, the more likely they were to be chemically reactive, so the two patterns rose together. Mold is one of the recognized triggers that can set this loss of tolerance in motion. In plain terms, when the immune system's threshold drops, things it used to shrug off now register as threats. This study is observational, so it shows a strong connection rather than proving one causes the other, but the pattern is a meaningful clue.



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Functional Medicine Connections:

Here's how the pieces fit together. Your immune system and nervous system share one continuous communication network, and mold can leave a lasting imprint on it. Genetics, as seen in Study 1, can slow how quickly your body clears the toxins in the first place, which means the load hangs around far longer for some people than for others. That lingering toxic load can then keep the brain's immune cells switched on, which is the neuroinflammation pattern Study 2 points to, and it helps explain the fog and fatigue that don't lift on their own.

And over time, as Study 3 suggests, the whole system's tolerance threshold can drop, so it starts reacting to foods, scents, and inputs that were never a problem before.

This is also why the same exposure can look so different from one person to the next. The mold may be identical, but the terrain it lands on is not. Your stress history, sleep, hormones, gut health, and nutrient reserves all shape how loudly your body responds and how easily it can settle back down. When several of those systems are already carrying a load, mold becomes the tipping point rather than the whole story. This is why "just remove the mold" sometimes isn't enough on its own. The original trigger may be gone, but the terrain it left behind hasn't reset yet.

Practical Reflections & Takeaways:

Think about your own timeline. Was there a season of high stress, poor sleep, or illness before mold ever entered the picture? That backdrop may have shaped how your body responded and how quickly it could recover.

And notice your sensitivities. If scents, foods, or products that never used to bother you now do, that isn't evidence you're just being sensitive. It's meaningful information about where your tolerance threshold sits, and where your body may be asking for support.

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