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## The Mysteries of Multiple Chemical Sensitivity and Fibromyalgia Syndrome

Many people may not associate chronic pain conditions with MCS—but there is a connection, and gut health could be a culprit.

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### For Starters, What Is Multiple Chemical Sensitivity?

People with multiple chemical sensitivity (MCS) have allergy-like reactions to low doses of common substances, such as chemicals found in carpeting, perfumes, and plastics.<sup>1</sup> Symptoms may include skin, hearing, and breathing issues; pain in the head, muscles, or joints; nausea, fatigue, or immune challenges.<sup>2</sup>

Close to 13% of adults in the US have been diagnosed with MCS, which may sometimes be called multiple environmental chemical sensitivities, polyallergy, or environmental illness. Nearly 26% of the population reports chemical sensitivity. And when it comes to pain conditions, people with fibromyalgia syndrome (also known as chronic widespread pain syndrome) and chronic fatigue appear to be more likely to experience MCS.<sup>3,4</sup>

In fact, “Between 33 and 55% of fibromyalgia patients meet the criteria for MCS,” says Gordon Ko, MD, PhD. A specialist in physical medicine and rehabilitation with a sub-specialization in pain medicine, Dr. Ko is the medical director of the fibromyalgia clinics at the Sunnybrook Health Sciences Centre and Canadian Centre for Integrative Medicine in Markham, Ontario. “So all such patients should be screened accordingly.<sup>5</sup>

### An Expert’s Approach

Dr. Ko regularly treats patients with fibromyalgia syndrome, many of whom also live with chronic fatigue syndrome and MCS. In a lot of these cases, he says, “traditional approaches—pills and surgeries—don’t work.”

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Dr. Ko explains, “When you see patients with fibromyalgia/multiple chemical sensitivity, you have to go beyond FDA-approved analgesics [eg, pain relievers, specifically pregabalin, duloxetine, and milnacipran] and find underlying root causes” before forming a treatment plan. “For MCS alone, the root cause should be biochemical,” says Dr. Ko. Biochemical causes can include food intolerances, nutritional deficiencies, stealth infections, and toxins like heavy metals, pesticides, solvents, and mold.

However, Dr. Ko also has to determine what may have caused his patients’ fibromyalgia. Possible origins include:

*structural causes*, such as ligament laxity (looseness) sometimes caused by Ehlers-Danlos syndrome

(<https://www.practicalpainmanagement.com/patient/conditions/ehlers-danlos-syndrome>)

*neurological causes*, namely post-concussion syndrome from traumatic brain injury

*psychological causes*, stemming from complex post-traumatic stress disorder (PTSD).

### Diagnostic Detection



To find  
out  
what  
may be

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With chronic fatigue syndrome and MCS, traditional approaches don't always work. (Image: iStock)

causing a patient's symptoms, and possibly MCS, Dr. Ko starts patients off with his Food-Infection-Toxin (FIT) lab regimen, which includes blood tests and other diagnostic tools (such as MRIs), when indicated. For instance, a patient in need of a food-gut intervention may present as overweight/obese, and lab tests might show a high or high normal average blood sugar level over the past three months; high c-reactive protein (an indicator of inflammation); and/or suboptimal levels of vitamins like B12, D3, or minerals such as iron, Dr. Ko explains. He notes that more than 90% of his patients benefit from such an intervention.<sup>6,7</sup>

The reason is, he explains, "A poor diet contributes to an unhealthy microbiome (ie, bad bacteria in the gut), where 75% of the immune system is housed.<sup>8</sup> Bad gut bacteria interfere with the body's innate healing mechanisms."

To help identify foods that may be triggering chronic pain or allergy-like symptoms, he often recommends to patients the Clean Gut Program crafted by Alejandro Junger, MD. "This is a 21-day elimination diet (gluten, dairy, processed sugar), combined with the use of probiotics and other supplements to repair the gut." Dr. Ko has also seen positive effects in patients doing the *Medical Medium Liver Rescue* by Anthony William: "This is a simpler plant-based diet," which cuts all fat intake for 9 days.

For Multiple Chemical  
Sensitivity, try the  
**TENSQ** method:

- **Toxin** elimination, with normal daily bowel movements
- **Exercise weekly**, including 150 mins cardio and strength training
- **Nutrition** with emphasis on a plant-based diet
- **Sleep** 7 to 8 hours a night, and maintain
- **Quality** relationships with others

(<https://www.practicalpainmanagement.com/sites/default/files/imagecache/lightbox-large/images/2020/05/05/MCS.jpg>)

Dr. Ko also encourages patients to strive for the following optimal lifestyle habits, which he calls “**TENSQ**”:

**Toxin** elimination, with normal daily bowel movements

**Exercise**, including 150 minutes cardio a week and strength training

**Nutrition**, with emphasis on a plant-based diet

**Sleep** for 7 to 8 hours a night, and maintain

**Quality** relationships with others (see also our guide to patient-caregiver communication

(<https://www.practicalpainmanagement.com/patient/resources/pain-self-management/chronic-pain-caregiving-how-stay-connected>)).

If an individual maintains a good diet, healthy lifestyle habits, and shows optimal bloodwork but still struggles with symptoms of fibromyalgia, MCS, or chronic fatigue syndrome, then it’s “almost invariably a stealth infection,”—meaning a bacterial or viral infection—that’s causing pain, fatigue, or allergy-like reactions, Dr. Ko explains.

**Hidden Illnesses**

Stealth infections that can cause MCS-like reactions and fibromyalgia-like pain include Lyme

(<https://www.practicalpainmanagement.com/patient/conditions/lyme-disease/lyme-disease-overview>) disease and other tick-borne illnesses, as well as herpes DNA viruses (including herpes (type 3) zoster, which causes shingles; Epstein-Barr (type 4), cytomegalovirus (type 5), and others.<sup>9-11</sup> Lyme disease can often be successfully treated with combination antibiotics, and antivirals can help make some infections, including shingles (<https://www.practicalpainmanagement.com/patient/conditions/postherpetic-neuralgia/postherpetic-neuralgia>) and cytomegalovirus, shorter and less severe.<sup>12-14</sup>

### **Toxins**

If Dr. Ko suspects exposure to toxins such as pesticides, heavy metals, or solvents are causing MCS symptoms, he often lets his colleague, Leigh Arseneau, HBS, ND, FMP, guide the patient's treatment. In addition to his work as the chief naturopathic physician at the Canadian Centre for Integrative Medicine, Dr. Arseneau is the medical director at the Centre for Advanced Medicine and a medical advisor at the Centre for Restorative Medicine. (Pain clinics often have doctors of differing specialties – read more about pain clinics

(<https://www.practicalpainmanagement.com/patient/resource-centers/chronic-pain-management-guide/your-first-visit-pain-clinic> .)

Eliminating harmful toxins from the body requires a personalized approach, Dr. Arseneau explains. “We want to know a lot about patients’ personal and family medical history,” as well as information about symptoms and exposures. This information allows Dr. Arseneau to conduct the right diagnostic test(s), which generally require blood, urine, and/or saliva samples.

Dr. Arseneau shares that she sometimes also does DNA testing in patients, which can seek out genetic variations that may be contributing to detoxification problems. For instance, a *glutathione synthetase deficiency* prevents the production of glutathione, which is crucial for healthy liver function, including the elimination of toxins.<sup>15,16</sup> People whose detoxification processes are slower or less efficient tend to accumulate higher levels of toxins in their bodies, and are more likely to develop MCS, she adds.

Many of Dr. Arseneau's patients take glutathione (often given via infusion) and supplements that boost glutathione activity, such as include N-acetyl cysteine, alpha lipoic acid, broccoli sprout seed extract (sulforaphane), dandelion root, curcumin, watercress, and EGCG, which is derived from green tea.<sup>17-19</sup>

In addition, B vitamins (especially folate, B6, and B12) and magnesium may be recommended, because, as Dr. Arseneau notes, “If you have really low levels of certain nutrients, you're not going to detoxify properly. A protein deficiency will also impair detoxification abilities, so the amino acids methionine, glycine, and taurine” may also be recommended.

Finally, Dr. Arseneau may prescribe cholestyramine, a cholesterol-lowering medication that binds to toxins in the body. Cholestyramine is not absorbed, so the toxins can be excreted more easily.<sup>20</sup>

Cholestyramine, along with “antifungal medications (including nasal sprays) such as amphotericin and iconatrazole,” can also be used to treat mold toxicity, adds Dr. Ko.

### **The Final Piece of the Puzzle: Healthy Habits**

In addition to the optimal lifestyle habits mentioned above, Dr. Ko recommends that patients with MCS limit their exposure to symptom triggers such as pet dander, cigarette smoke, perfumes, chemicals, solvents, dust, mold, and pesticides. He also encourages getting support from counselors, spiritual advisors, or loved ones, advice he attributes to the Environmental Health Clinic at Women's College Hospital in Toronto, and the Blue Zones “Power of Nine (<https://www.bluezones.com/dan-buettner/>)” approach developed by Dan Buettner.<sup>21-23</sup>

If you live with fibromyalgia and MCS, it may be worth asking your doctor about whether your diet may be having an impact on symptoms.

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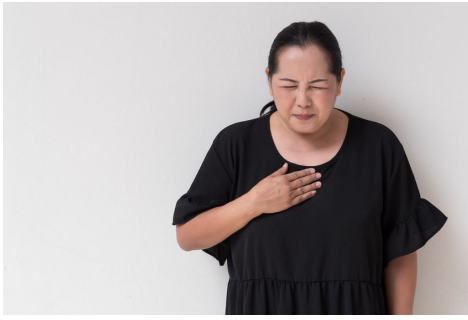


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