

TOXIC MOLD & MULTIPLE CHEMICAL SENSITIVITY

What is Multiple Chemical Sensitivity?

- Multiple Chemical Sensitivity (MCS) is an adverse physical reaction to low levels of exposure to many common chemicals producing many symptoms.
- This condition can develop from substances in the home and the environment.
- It is not a classic allergic immune response involving immune cells and mediators.
- It directly affects certain areas of the central nervous system and autonomic nervous system, especially the hard-wired part of the limbic system, producing many neurological and non-neurological symptoms..

What Causes MCS?

Irritants can include:

- Household products: laundry detergent, fabric softeners, air fresheners, and etc.
- Personal care products: deodorants, perfumes, lotions, many different cosmetics, and etc.
- Petroleum, gasoline, fumes, paint, toluene, teflon, BPA, and etc.
- Cigarettes, cigars, toxic fumes from trash burning, and industrial smoke.
- Pesticides, herbicides, and fungicides.
- Mold: spores and mycotoxins.

Toxic mold is a fungus that can grow indoors and outdoors, wherever there is moisture. It can enter a building through heating and air conditioning systems, doorways and windows, shoes and clothing, and even pets!

In small quantities, most molds are not a threat to healthy people. So, why do some molds and other substances make some people sick and others, not at all? Some people are more sensitive or have more of a genetic predisposition to developing MCS than other people.

It is also important to note that a number of foods contain molds and eating them could make your condition worse. If you have a high mold sensitivity, you should avoid wheat and rice, dried fruit, nuts, processed and smoked meats, and alcoholic beverages, as they may be contaminated with mycotoxins. Mold spores use sugar and starch as fuel, limiting foods that contain them will help you feel better.

Pathophysiology of MCS

- The limbic system is under the control of hormones and biochemical compounds, and responds electrically to stimulate different centers of the cerebral cortex. Over time, these responses can become somewhat hard-wired, in that they happen very quickly with less and less stimulation.
- The mechanisms that control the release of certain brain chemicals can become erratic, allowing sudden and large outpourings of neurotransmitters such as dopamine, norepinephrine, and serotonin, followed by sudden cessations or withdrawals of these compounds.
- Odors and chemicals rapidly set off an imbalance within the autonomic nervous system as they hit the olfactory bulb, an area responsible for perception of smell. Rather than responding "normally" to outside stimuli, the limbic system's response becomes magnified. Some MCS sufferers experience instant skin flushing and prickly sensations and/or nausea when they smell certain scents—magnified physical reactions that do not even require contact with the substance. Without proper intervention, a vicious, cycle can then evolve, often manifesting clinically with an anxious, depressed, or seemingly obsessive patient.

What Are the Signs and Symptoms of MCS?

MCS affects whole body systems, including neurological system, especially the limbic system. This area of the brain is under the influence and control of hormones and biochemical compounds, and responds electrically to stimulate different centers of the cerebral cortex. It is responsible for memory, learning, decision making, behavior, emotions, emotional control, hormonal balance, and more.

The many system-related symptoms that MCS presents:

- Brain/Limbic system symptoms:
 - Psychological disorders such as ADHD, anxiety, or depression.
 - Memory associated problems and confusion.
 - Imbalance of hormones such as dopamine, serotonin and norepinephrine, mood swings, cravings, eating disorders, and addiction.
 - Chronic fatigue syndrome
 - Fibromyalgia
 - Headache, migraine, and dizziness.
 - Insomnia
 - Fainting
 - Epilepsy
- Respiratory symptoms:
 - Sinusitis, rhinitis, chills, sore throat, sneezing, etc.
- Cardiovascular symptoms:
 - Changes in breathing and heart rate and dyspnea (shortness of breath).
- GI symptoms
 - Bloating, gas, indigestion, constipation, diarrhea, nausea and vomiting.
- Adverse physical reactions such as skin rash, instant skin flushing, and prickly or tingling sensations.

Diagnoses

MCS is often overlooked and dismissed as "it's all in your head". With symptoms such as anxiety and depression, this condition is often deemed as a psychological disorder. It is important to understand that this is not "all in your head" and a proper diagnosis is crucial in restoring the health and well-being of the patient.

The home and environment of the patient, and the patient themselves, should be assessed for any potential intoxicants, mold and fungus; this could help in determining the root cause of the condition. Collect samples and culture them on a petri dish to identify the mold species and mycotoxins.

Conduct a thorough investigation by carefully interviewing the patient and assessing all the possible symptoms, then dive into each symptom. Also make a timeline of the most important events.

Ask what exacerbates their condition, are there any specific substances that irritate them upon contact. Ask them how they react to certain substances, such as smoke, perfume, seafood, etc. Make the questions diverse, ask different questions for the same substances and reactions.

The patients should be tested for allergies to different foods and substances to rule out allergies. This helps in making a differential diagnosis.

The following tests and procedures are helpful for diagnosis:

- 1) Environmental Investigation: identify mold species and mycotoxins.
- 2) Patient assessment:
 - Urine Organic Acids Test (OAT): can find toxins and toxic metabolites
 - Urine GPL Mycotox- find Mycotoxins
 - Urine tests for Hormones and Metabolites, Neurotransmitters and metabolites.
 - GI map and DDI Stool microbiology- find all microorganism in stool, pancreatic enzymes, sIgA, gluten allergy,
 - Blood tests: CBC, full range of biochemistry, serology, immunology, hormones,
 - Saliva tests for stress active hormone, sex active hormones
 - Brain MRI- if applicable
 - LRA test: find late response allergy to 519 items, including foods, medications, chemicals, additives, medicinal herbs, animal danders, etc.

Misdiagnose

People suffering from chemical sensitivity often are undiagnosed or misdiagnosed. Some of these diagnoses can range from fibromyalgia to cancer. A related health concern to MCS is Chronic Inflammatory Response Syndrome (CIRS). CIRS is a progressive, multi-system illness that can result from exposure to mold and other biotoxins.

CIRS symptoms include: chronic fatigue syndrome, depression and anxiety, irritable bowel syndrome, neuro-immune illnesses, auto-immune disorders, especially thyroid disease, and post-traumatic stress disorder (PTSD).

It is important to distinguish and understand the differences between MCS, CIRS, and Mast Cells Activation Syndrome.

Treatment & Prevention

Treatment should follow a clear diagnosis. Obtain results from the testing (in diagnosis section) and address the abnormalities. Manage according to the test results. Treating the root cause is of utmost importance. If the root cause is not addressed, there will be no improvement. The steps to take in treating MCS:

- Begin with cleaning up the air, food, water, essentially the environment around you.
- Address any chronic infections and inflammations, and any dysfunction in detoxification systems.
- Retrain the limbic system.

Steps to take to decrease exposure in your own home:

- Maintain a clean home with wet mopping and dusting and avoiding unhealthy cleaning products in the home.
- Invest in a high-quality indoor air filter.
- Keep the humidity level of your home below 50%, using a dehumidifier as needed.
- Test and remediate for home mold if you suspect a mold issue.

If possible, temporarily relocate to a new environment to allow your body to heal and retrain your limbic system.

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Modalities and procedures to help with detoxification:

- Sauna - detoxify by allowing the body to sweat out toxins.
- Detoxification - Glutathion, NAC, and AA.
- Moderate Exercise
- Choose appropriate diet: low carb, high fat, high protein and plenty of vegetable and fruits.