

# Multiple Chemical Sensitivity

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Also called Environmental Illness (EI), Ecologic Illness, Allergic Toxemia, Cerebral Allergy, Chemical Sensitivity, Immune System Dysregulation, Total Allergy Syndrome, Total Environmental Allergy, Total Immune Disorder Syndrome, Toxic Response Syndrome, Idiopathic Environmental Intolerance

## *Description of the Disability*

This is a very controversial disability. A number of medical organizations have criticized the use of MCS as a clinical diagnosis including the American Medical Association (AMA), the Center for Disease Control (CDC), the American College of Physicians (ACP), and the American College of Occupational and Environmental Medicine. In contrast, the American Academy of Environmental Medicine actively supports MCS as a clinical diagnosis and as a significant, unacknowledged disability in the US. (Recently the AMA and ACP have adjusted their positions to be more neutral on the issue.)

There is no consistent, official definition for MCS, mainly because the reported symptoms vary so widely from person to person. It is best defined as an extreme sensitivity to a variety of manmade substances, which can include solvents, preservatives, dyes, plastics, pesticides, fragrances, and tobacco smoke, among others (see below). Exposure to even low levels of these irritants causes a variety of symptoms, including headaches, rashes, asthma, depression, muscle and joint aches, fatigue, memory loss, and confusion. The symptoms may be instant or delayed by several hours. Although similar in some ways to allergies, MCS does not seem to involve the same antigen/antibody response mechanism associated with allergies and does not usually respond to allergy medications.

There are two primary models used to explain MCS:

- Toxic Overload - Most proponents of MCS assert that our bodies are awash in low levels of toxic chemicals all the time, but most people's bodies successfully cope with and remove the toxins. However, some individuals lose the ability to cope with the typical levels of toxic chemicals, either through prolonged exposure or through sudden, severe exposure such as a chemical spill. These individuals begin to react to very low levels of the various toxins in their environment. Because there are so many toxins present and because each work/home environment will have a different mix of toxins, each person's symptoms will be different. Using this model of MCS, the preferred treatment is removal of all sources of toxins, or at least of the toxins to which the person is sensitive, which may allow the body to gradually flush and cleanse itself again.
- Somatoform Disorder - Skeptics of MCS find no convincing experimental evidence for the toxic overload model and no medical etiology for the wide range of symptoms. Instead they assert that MCS may be a variation of the somatoform disorders defined by the DSM IV. These disorders involve physical symptoms that suggest a medical condition, but no medical condition adequately explains all the symptoms. The DSM is

very clear that these symptoms are not intentional, that the individual is NOT malingering, and that the symptoms cause significant distress. Some of the defined somatoform disorders have underlying psychological factors, but others do not. Using this model for MCS, counseling is the most appropriate treatment.

Both sides of this debate can point to anecdotal cases to support their position and each side questions the underlying motives of the other. The skeptics point to double-blind experiments in which subjects with MCS responded to placebos as often as they responded to expected irritants. They also point to mixed results, at best, from the proposed treatments (see below). Proponents point to the large number of people affected, how consistently those individuals identify manmade chemicals as triggers, how consistently they report relief when the chemicals are removed, and to methodological problems with the double-blind studies. It is beyond the scope of this text to resolve the debate. For the VR counselor, it is important to focus on the functional and vocational implications of MCS for the individual, not the specifics of etiology and treatment.

The following chemicals have been listed as possible irritants to individuals with MCS:

- Perfumes and fragrances
- Deodorants
- Dry cleaning solvents
- Detergents and other cleaners
- Prescribed medications
- Artificial colors, flavors, and preservatives in foods, drinks, and drugs
- Fabrics with synthetic fibers (clothes, furniture)
- Off-gassing from new carpets
- Fumes from gas stoves or heaters
- Cleaning supplies
- Pesticides and wood preservatives
- Vehicle exhaust fumes
- Gasoline
- New building materials and furnishings
- Formaldehyde in new clothes, books, and other products
- Carbonless paper
- Inks
- Copying machine and laser printer toner
- Toxic chemicals used in art, photography, printing etc.
- Second-hand tobacco smoke
- Urban air
- Diesel exhaust
- Tobacco smoke
- Fresh paint or tar
- Organic solvents
- Certain plastics
- Newsprint
- Certain medications
- Rubbing alcohol
- Felt-tip pens
- Municipal tap water
- Anesthesia
- Electromagnetic forces

The following symptoms have been reported as part of MCS:

- Headaches
- Rashes
- Depression
- Mood swings
- Muscle and joint aches
- Muscle weakness
- Chronic fatigue
- Confusion.
- Flu-like symptoms
- Asthma or other breathing problems
- Dizziness
- Increased sensitivity to odors
- Bloating or other intestinal problems
- Short- and long-term memory loss

Many individuals with MCS come to view their home as a "safe haven" - the one place they can be certain is free from irritants. They may spend a lot of time, effort, and money furnishing their home, cleaning the air, and removing any sources of toxins in their home. This offers options for home-based employment or self-employment, but it also can lead to social isolation and depression. (See the entry on loneliness)

Although many physicians diagnose and treat MCS, many others are unfamiliar with MCS and others are skeptical of its validity. Clinical Ecologists and Environmental Specialists are the professionals most likely to accept MCS as a legitimate diagnosis, but many of them are not MDs. Most clinical ecologists are members of the American Academy of Environmental Medicine.

### ***Incidence Statistics***

There are no widely accepted statistics about the incidence of MCS, largely because of the debates over the condition and its definition. One group has estimated that as much as 15% of the population may become at least temporarily sensitized to a common household or commercial product at some point in their life.

The following groups appear to be at increased risk for MCS:

- Industrial workers
- Hairdressers, janitors, and others working with harsh chemicals
- Chemical accident victims
- People living near toxic waste sites
- Teachers, students, office and health care workers in highly insulated, air-tight buildings
- People in areas with high pollution levels of air or water
- Veterans, especially Gulf War veterans
- The elderly

- Individuals with a prior history of allergies or chronic illness
- Pregnant women

There also appear to be connections between MCS, Gulf War Syndrome and Sick Building Syndrome.

### ***Common Treatments, Medications, and Side Effects***

In large part because of the controversial nature of MCS, there is no approved medical treatment. The treatment of choice among people with MCS is avoidance of the triggering irritants through the use of organic, all natural, unprocessed foods, clothes, household products, cleaning supplies, and building materials. Other treatments tend to be "alternative medicine" and are generally considered unproven. Given the wide variety of symptoms attributed to MCS, the most common approach is to try things until something seems to help.

Common, if unproven, treatments (besides avoidance of irritants) include:

- Breathing masks with activated charcoal
- Nutritional programs
- The use of porcelain fixtures and countertops
- Portable oxygen
- Immune therapy (treatments designed to boost the immune system)
- Food-allergy testing
- Detoxification regimens through exercise and sweating
- Chelation to remove heavy metals

[Chelation involves the injection into the blood of a chemical that binds with and removes metal ions such as iron, mercury, lead, copper, zinc, and others. Some of these metals are nutritionally necessary in low amounts. There are many undocumented claims and counterclaims around the health benefits of chelation therapy. Reported possible side effects include cardiac arrhythmias, kidney damage, abnormal bleeding, blood clots, hypoglycemia and insulin shock, among others, but these are undocumented as well.]

Skeptics of MCS advocate psychological counseling and psychoactive medication to treat the problems. See the Drugs section of this handbook for side effects of psychoactive drugs.

### ***Possible Functional Issues***

Functional issues can vary tremendously because of the wide variety of potential symptoms.

Some of the more common ones include:

- Difficulty concentrating ("brain fog")
- Fatigue
- Limb weakness, stiffness
- Dizziness
- Rashes and irritation from objects in workplace
- Social Isolation (see entry on Social Isolation)
- Breathing problems
- Memory problems

## ***Initial Interview Considerations***

### Initial Questions

- What are their symptoms?
- What are the primary chemicals/irritants they have to avoid?
- What steps do they take to avoid the chemicals? How does it limit where they go or what they do?
- What do they do to help relieve the symptoms during an attack?
- What medications are they taking? What treatments are there? What, if any significant side effects are there?
- What if any other treatments or medications are they thinking about trying in the future?
- How often do they usually go out in public?
- What problems do they encounter when they are out in public? At a restaurant or store, for instance?
- How well are they able to work outside?
- Do they feel, overall, that their symptoms are getting better, getting worse, or staying the same?
- How long to the symptoms last after exposure to irritants?
- How do they feel when they are away from any irritants? Are there residual, chronic symptoms or are the symptoms only linked to recent exposure?
- What kinds of accommodations would they like in a workplace?
- How well do they sleep?
- How energetic do they feel on most days?

- How often do they get depressed? How serious do they think their depression is?
- What if any mobility problems do they have? If they have any pain or weakness in their joints, where and how severe?
- What hobbies do they have? (Gets at other interests in their lives that may help with employment options)

### Initial Observations

- Does the person appear nervous and anxious in public, as if they are hypervigilant for sources of toxins? Or are they just pragmatic about the environment?
- Does the person appear significantly depressed?
- Does the person appear tired, or energetic and well rested?

### Interview Accommodations (if any)

- Ask ahead of time if there are specific irritants you should remove from your office
- Do not wear any perfume or cologne the day of the interview
- Do not wear scented deodorants the day of the interview
- Do not use shampoo, hair spray, or skin lotion the day of the interview
- Do not wear newly dry-cleaned clothes the day of the interview
- Open the windows if possible and appropriate
- See if you can find a chair upholstered with leather or natural fiber

## ***Possible Accommodations and Assistive Technology***

Possible accommodations for individuals with MCS include:

- Windows that open
- Well-ventilated working space, or a workspace with a ventilation system that is separate from that of problem areas so fumes are not introduced through the vents.
- A "fragrance free" working space, free of things like tobacco smoke, pesticides, fragrant-laden cleaning products, deodorizers, and exhaust fumes
- Offices with least toxic/allergenic furnishings and supplies
- Offices with "least toxic" integrated pest management (IPM) using no sprayed or volatile pesticides in and around buildings

- Prior notification of any painting, pesticide applications, and renovations in the workplace, with provisions for alternative work arrangements
- Education of co-workers, management, and employers as to the nature of the disability to avert stigma and harassment
- Flexible work schedules to allow work when fewer co-workers are present, when ventilation is working at its peak, or where the surroundings are least problematic
- Flexible deadlines to allow for sudden flare-ups
- Self employment
- Home-based employment
- Portable air filtration devices

### ***Career Planning Issues***

- Work environment will be the most significant issue
- Outdoor jobs and home-based jobs may be options
- Minimizing fragrances (perfumes, hair spray, cologne, etc.) may be more difficult in offices with large numbers of employees or where the public regularly enters
- Advanced planning of options for handling sudden flare-ups could be important
- The person will probably have work experience to draw upon
- Learning abilities should be unaffected, so education is an option, although the same environmental issues will apply to the classroom as to the work place. Distance learning may be an option.
- Social skills are probably not affected
- Coordination is probably not affected
- Strength is probably not affected
- General mobility is probably not affected

### ***Emerging Issues***

- Recognition as a legitimate clinical diagnosis by the medical profession
- Awareness among physicians
- Effective treatments
- Reduction in the use of manmade chemicals in society

### ***Additional Information Resources***

- MCS Survivors - [www.MCSurvivors.com](http://www.MCSurvivors.com)
- American Academy of Environmental Medicine:  
[www.healthy.net/pan/pa/NaturalTherapies/aaem/index.html](http://www.healthy.net/pan/pa/NaturalTherapies/aaem/index.html)
- Quackwatch.com (for a skeptical point of view): [www.quackwatch.com](http://www.quackwatch.com)
- MCS Referral & Resources: [www.mcsrr.org](http://www.mcsrr.org)
- Chemical Injury Information Network (CIIN): [www.ciin.org](http://www.ciin.org)
- Diseaseworld's links for MCS: [www.diseaseworld.com/mcs.htm](http://www.diseaseworld.com/mcs.htm)