

## How Can I Help Someone Who is having an MCS Reaction?

1. Do not approach if you are wearing fragranced personal care items such as lotion, aftershave, laundry soap, perfume, or cologne.
2. Remove the person to fresh air and/or assist the person in putting on a respirator.
3. LISTEN to what the person is saying. Temporary cognitive impairment may be frustrating for you both but the individual will know what is triggering them and what needs to be done so listening and following through is extremely important.

## How Can I Help Accommodate Someone with MCS?

1. Avoid the use of fragranced personal care products such as laundry soap, fabric softener, lotion, after-shave, perfume, and cologne. Ask for unscented products.
2. Avoid the use of pesticides, cleaning chemicals, and paint around the person and provide adequate notice if these products are used.
3. Provide adequate fresh air and locate the person near a window that can be opened.
4. Ask for natural alternatives to traditional chemical products.
5. Do not attempt to enter the individual's home or vehicle.

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# Understanding Multiple Chemical Sensitivity



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## What is Multiple Chemical Sensitivity?

Multiple Chemical Sensitivities (MCS) is also known as Environmental Illness (EI), Toxic Injury (TI), and Toxicant Induced Loss of Tolerance (TILT). Originally identified in a 1989 multidisciplinary survey of 89 clinicians and researchers (and modified in 1999) top consensus criteria (Nethercott et al, 1993) for MCS define the condition as:

1. A chronic condition
2. Symptoms recur reproducibly
3. Symptoms recur in response to low levels of chemical exposure.
4. Symptoms occur when exposed to multiple unrelated chemicals
5. Symptoms improve or resolve when trigger chemicals are removed
6. Multiple organ systems are affected.

Products that MCS victims react to include ANY quantity of exposures to pesticides, secondhand smoke, alcohol, fresh paint, scented products and perfumes, candles, fragrances, food preservatives, flavor enhancers, aerosols, tap water, cosmetics, personal care products, new carpets, petroleum products, formaldehyde, outdoor pollutants, newspaper ink, cleaning compounds, printing and office products, and other synthetically derived chemicals. Some also react to natural products that are highly concentrated such as natural orange cleaners due to high pesticide concentration. Symptoms can range from minor annoyances to life-threatening reactions.

## Who Gets MCS?

A 1996 household study by Meggs showed that 30% of the population experiences some level of chemical sensitivity (Gibson, 2005).

### Age of Onset (Caress et al, 2003)

< 20	32.4%
21 – 35	35.2%
36 – 50	14.8%
> 50	7.9%
Don't Know	9.7%

### Gender (Caress et al, 2003)

Males	40%
Females	60%

### Education Level (Caress et al, 2003)

Did not Complete High School	10.1%
High School Graduate	24.7%
Some College	25.7%
College Graduate	31.5%
Professional/Graduate School	7.9%

## What is the Treatment for MCS?

Most doctors recommend two primary treatments for MCS:

1. Strict avoidance of contact with all chemicals, even those one is not sensitized to, as sensitization is more likely to occur with repeated exposure.
2. Proper nutrition to increase nutrients needed for normal detoxification when exposures do occur.

## What Causes MCS?

“Many MCS sufferers can trace the start of their illness to an acute exposure to highly toxic chemicals (Gulf War veterans for example). For other sufferers the illness develops over a long period of time most likely involving chronic low-level exposure to chemical substances. Although MCS can occur on its own, a large number of sufferers also suffer from CFS, Fibromyalgia and other related disorders”(Davidoff, 1989).

“Harvard University’s environmental medicine publication, *Environmental Health Perspectives*, published a survey in September of 2003 showing that about one third of MCS patients became ill from pesticides, another third from solvent exposure”(Ferrie, 2003).

MCS is not an allergy caused by a histamine reaction that can be treated with antihistamines. Recent study by Dr. Martin Pall (2001) indicates MCS may be caused by elevated nitric oxide and peroxytrite. “Peroxytrite acts to break down the blood brain barrier, thus allowing greater chemical access to the brain. Nitric oxide inhibits cytochrome P-450 activity, thus slowing degradation of hydrophobic organic chemicals”(Pall, 2001).

Other theories include limbic kindling, neural sensitization, neurogenic inflammation, one large or several minute exposures to various pesticides, solvents, volatile organic compounds, and other toxic compounds (Gibson, 2005).