



# MCS America

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# MCSA NEWS

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## *MCS Afflicts Many*

Do you think chemical sensitivity is rare? Think again! A surprising number of people report sensitivity to ordinary everyday chemicals such as perfume, automobile exhaust, air freshener, cleaning products, and petroleum products. The figures range from an average of eleven to seventeen percent, with spikes as high as thirty-three percent of subjects who report reactions to multiple chemicals. The figures reveal that at least two percent, and as many as six percent, have been so bothered by chemical exposures that they sought medical care and received a doctor-diagnosis of multiple chemical sensitivity (MCS).



An early study by Bell et al (1993) investigated young adult college students in the prevalence of self-reported illness from the smell of the pesticide, automobile exhaust, paint, new carpet, and perfume. Sixty-six percent reported feeling ill from one or more of the five chemicals. Fifteen percent identified at least four chemicals as making them ill. Chemical sensitivity was more commonly reported by women than men.

In the same year, Bell surveyed an elderly population in the same manner and found that 57% reported that at least one chemical made them feel ill. And

17% reported that at least four of five chemicals made them ill. These findings were nearly identical to the study of teenagers, suggesting that chemical sensitivity is not age dependent.

At the Department of Emergency Medicine, East Carolina University School of Medicine, Greenville, North Carolina, Meggs et al (1996) conducted a general telephone survey. Chemical sensitivity was reported by 33% of the individuals surveyed with 3.9% reporting symptoms of chemical sensitivity that occurred daily.

In 1998, a memo from Deputy State Epidemiologist Voorhees to Joe Thompson, Special Counsel, Office of the Governor, New Mexico Department of Health reported a prevalence of 17% who experience chemical sensitivities and 1.9% who have been doctor diagnosed.

Also in 1998, Bell et al conducted a study of self-reported chemical sensitivity and wartime chemical exposures in Gulf War veterans and found that an average of 30% reported chemical sensitivity while 86% of those with poorer health reported chemical sensitivity. The striking similarities in prevalence findings are noteworthy.

**“Marital status, employment, education, geographic location, and income were not predictive of reported chemical sensitivities.”**

The Environmental Health Investigations Branch, Department of Health Services, in Emeryville, CA conducted a 1999 survey (Kreutzer et al) of 4046 subjects, which found that 15.9% reported being unusually sensitive to everyday chemicals. Additionally, 6.3% of those surveyed reported doctor-diagnosed "environmental illness" or "multiple chemical sensitivity" (MCS). The researchers found that hypersensitivity is more common in women, though it is experienced by both men and women of a variety of ages and educational levels. Marital status, employment, education, geographic location, and income were not predictive of reported chemical sensitivities or reported doctor diagnosis.

Caress & Steinemann (May 2004) back this data up in a State University of West Georgia sample of 1582 respondents from the Atlanta, Ga, standard metropolitan statistical area. They found that 12.6% of their

sample reported the hypersensitivity and that, while the hypersensitivity is more common in women, it is experienced by both men and women of a variety of ages and educational levels. The researchers determined that their finding is similar to that (15.9%) found by the California Department of Health Services and suggest that the national prevalence may be similar.

Caress & Steinemann (June 2004) later conducted a national telephone survey of randomly selected individuals, which was published a month after their last study. They found that 11.2% of Americans reported an unusual hypersensitivity to common chemical products, 31.1% reported adverse reactions to fragranced products, and 17.6% experienced breathing difficulties and other health problems when exposed to air fresheners. Again, all demographic groups were affected equally and chemical hypersensitivity was more common in women.

A year later Caress and Steinemann (2005) conducted another study in search of a linkage between asthma and chemical hypersensitivity. A random sample of 1057 geographically weighted individuals were surveyed. Findings showed that 11.2% reported a hypersensitivity to chemicals and 7.4% reported they were doctor-diagnosed with multiple chemical sensitivities (MCS). Of the doctor-diagnosed cases, 42% reported also being diagnosed with asthma, indicating a significant overlap between asthma and chemical hypersensitivity.



**“Would we be looking at an estimated average of 15-17% of the population who suffer from MCS?”**

Despite all the studies that are strikingly similar, the true prevalence of MCS remains a mystery due to the lack of biomarkers and clinical criteria for diagnosis. It is interesting to note that doctors are nonetheless using available materials, such as a case definition created in 1999, and making an MCS/EI diagnosis in as much as an estimated 7% of the population.

If the case definition were applied to all who report chemical sensitivities to multiple chemicals, would we be looking at an estimated average of 15-17% of the population who suffer from MCS? This would be a pandemic proportion when one considers that only 7% of the population suffer from diabetes according to the American Diabetes Association.

Clearly additional research is required and should be directed towards identifying clear biomarkers and clinical tests by which diagnostic criteria and definitions for MCS can be developed.

-LS



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