

# **MULTIPLE CHEMICAL SENSITIVITY**

Chemical sensitivity is causing significant suffering, disability and costs within Australian communities. Clinical observations of chemical sensitivity and multiple chemical sensitivity have existed in the medical literature since Theron Randolph first published his series of six abstracts on the subject in 1954 (1). In 1997 Ziem and McTamney provided a concise clinical description of MCS, together with an inventory of chemical agents whose exposures are associated with the initiation of chemical sensitivity and chronic illness. The authors state that “patients with chemical sensitivity have organ abnormalities involving the liver, nervous system (brain, including limbic, peripheral, autonomic), immune system, and porphyrin metabolism, probably reflecting chemical injury to these systems. Laboratory results are not consistent with a psychologic origin of chemical sensitivity.” (2)

MCS has now been the subject of clinical observation and medical debate for almost half a century. International developments in the identification and recognition of this disease warrant its inclusion by the National Centre for Classification in Health within the Australian modification of the World Health Organisation’s International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, ICD-10-AM, as a newly identified disease.

## **INTERNATIONAL RECOGNITION OF MCS**

Germany has become the first country to formally recognise MCS by its inclusion within the German version of the International Statistical Classification of Diseases and Related Health Problems, ICD-10-SGB-V, published in November, 2000, by the German Institute of Medical Documentation and Information, DIMDI, by order of the Federal Ministry for Health. (3)

Additional international recognition of MCS includes:

- International Labor Organisation (Geneva)
- American Academy of Environmental Medicine (Denver, Co)
- Association of Occupational and Environmental Clinics (Washington, DC)
- Association of Trial Lawyers of America
- Consumer & Victims Coalition Committee
- Environmental Employees Collectively Organised (EPA Headquarters Professionals Union, formerly the National Federation of Federal Employees)
- The Labor Institute (New York City)
- National Academy of Sciences/National Research Council (Washington, DC)
- National Association of Social Workers (Washington, DC)

- American Thoracic Society
- American Public Health Association
- American Society of Heating, Refrigerating, and Air Conditioning Engineers
- American Conference of Governmental Industrial Hygienists
- The American Medical Association
- The American College of Physicians
- The California Medical Association
- 22 US Federal Government Agencies, commissions, Institutes and Departments
- 23 State Government Agencies, Commissions, Legislatures and Departments
- 13 Local Government Agencies, Commissions, Councils and Departments
- 8 Federal Court decisions
- 20 State Court decisions
- 14 State Workers Compensation Board decisions
- 4 Canadian Federal Agencies
- 6 Canadian Provincial Agencies. (4)

In 1996 the Legislature of the US State of New Mexico directed the Governor's Committee on Concerns of the Handicapped to study issues related to MCS. (5) New Mexico subsequently adopted MCS specific legislation in the public health interest.

In Canada in 2000, historical environmental illness legislation (Bill C-416) to protect the needs of people with MCS, chronic fatigue syndrome and fibromyalgia, passed its first reading in the Canadian Parliament. This bill would amend the Department of Health Act to provide that the Minister of Health be responsible for conducting medical and scientific research to establish the existence of environmental illnesses, to study the causes and effects of environmental illnesses and designated illnesses, and to prevent, diagnose and adequately treat environmental illnesses and designated illnesses. (6)

The Australian Worksafe Standard recognises that some chemical exposures, for example formaldehyde, cause a specific response known as sensitisation. Following sensitisation an affected individual may react to minute levels of that substance. Worksafe recognises that the low values assigned to the exposure standard may not be adequate to protect a hypersensitive individual and persons who are sensitised to a particular substance should not further be exposed to that substance. (7)

## **MCS AND CHRONIC FATIGUE SYNDROME**

MCS is recognised within the Centre for Disease Control preferred Fukuda definition of CFS. (8) Studies show between one third and two thirds of people living with CFS also qualify for a diagnosis of MCS and that substantial overlap exists between MCS, CFS and fibromyalgia. (9)

## **CONSENSUS DIAGNOSTIC CRITERIA FOR MCS**

There is consensus on diagnostic criteria amongst MCS experienced clinicians and researchers. In 1999 Bartha, together with thirty-three other signatories, identified six research based diagnostic criteria for MCS, the first five of which were first identified in 1989.

1. The symptoms are reproducible with repeated chemical exposure.
2. The condition is chronic.
3. Low levels of exposure lower than previously or commonly tolerated result in manifestations of the syndrome.
4. The symptoms improve or resolve when the incitants are removed.
5. Responses occur to multiple chemically unrelated substances.
6. Symptoms involve multiple organ systems.

The authors recommend a diagnosis of MCS whenever these six criteria are present and state: “The millions of civilians and tens of thousands of Gulf War veterans who suffer from chemical sensitivity should not be kept waiting any longer for a standardized diagnosis while medical research continues to investigate the etiology of their signs and symptoms.” (10)

## **INITIATORS OF MCS**

International research has identified pesticides and solvents, amongst several other chemical classes including pharmaceuticals, as being initiators of MCS. (11)

## **EPIDEMIC INCIDENCE OF MCS**

In the United States MCS is one of the most frequently diagnosed chronic disorders. Prevalence studies conducted by the Californian state health department in 1995 and 1996 found that 6% of adults had been medically diagnosed with MCS or environmental illness. (12) A study in 1997 by the New Mexico state health department found that 2% of New Mexicans had been medically diagnosed with MCS. (13) A further study in Atlanta identified 3.1% of respondents as having been medically diagnosed with MCS. (14) Studies in Arizona and North Carolina have produced similar results showing around 4% of people suffer with severe chemical intolerances. (15,16) An independent study commissioned by the Environmental Illness Society of Canada, which represents sufferers of MCS, CFS, Fibromyalgia and Gulf War Syndrome, found that 2% of adult Canadians were no longer able to work due to environmental illness and that 1 in every 8 adult Canadians suffer significantly from exposure to “normally safe”

chemicals in the workplace or home. The total financial cost of environmental illness to Canada is estimated at \$13 billion. (17)

### **AUSTRALIAN MCS PREVALENCE**

No prevalence data on MCS are available for Australia. Based on North American prevalence figures, it is reasonable to suggest that large numbers of Australians qualify for a clinical diagnosis of MCS.

### **PARLIAMENTARY MENTION**

In New South Wales on November 29, 2000, the Hon A. G. Corbett asked the Treasurer, representing the Minister for Health, a question without notice relating to chemical free hospital facilities. The Minister for Health provided the following response: “Present facilities are adequate to cater for people who react adversely to most forms of chemical exposure. The condition referred to as multiple chemical sensitivity has been debated in professional circles for many years, without consensus. Given the lack of consensus, the New South Wales Department of Health considers providing special facilities to be inappropriate at this time.” (18)

In South Australia’s House of Assembly on November 29, 2001, Mr Murray DeLaine, Member for Price, moved: That a Select Committee of this House be established to inquire into a report on Multiple Chemical Sensitivity and the contributing role of toxic chemical exposures, including exposures at levels generally assessed to be safe by international convention, to levels of illness and disability in the South Australian Population, under the following terms of reference-

- a) recognition of MCS in Australia and Commonwealth agencies, health care and human services providers and the chemical, pharmaceutical and pesticide industries, compared to international recognition of MCS in industrialised nations such as the USA, Canada and Germany;
- b) the prevalence of chemical sensitivity and MCS and the extent of related disability in South Australia with reference to prevalence studies conducted by US State Health Departments in California and New Mexico;
- c) the extent of problems experienced by people with MCS including discrimination in the areas of health care, housing, education, employment, insurance, disability benefits, legal services, child care and access to public spaces due to chemical barriers and ignorance;
- d) the availability of effective treatments for MCS with reference to the denial of evidence for the existence or the significance of MCS by government agencies, public health services, the medical establishment and health care insurers and the alleged persecution of medical practitioners involved in the care and support of people with MCS;
- e) Attention Deficit Hyperactivity Disorder as a symptom of MCS in children;
- f) alleged false accusations of Munchausen’s By Proxy against parents of children with MCS;

- g) improving the quality of life and opportunities of people with MCS through access to public services and participation in social, economic and civil affairs;
- h) public health strategies aimed at minimising toxic chemical exposures thought to initiate or exacerbate MCS with particular reference to pesticides, solvents and consumer products and the chemical contaminants in air, water and food, in the indoor and outdoor environments, and in the workplace;
- i) the need for public education programs on MCS and the risks of both high dose and long term low dose toxic chemical exposures, including chemical hazards in the workplace, and;
- j) any other related matter (19).

In a review of MCS prepared for the Hon A Corbett, MLC, by the NSW Parliamentary Library Research Service, the author concluded by noting comments from the 1998 United States Interagency Workgroup on MCS: “It is appropriate for public health leadership to work to mitigate illness in persons with disorders that are not yet fully explainable. In so doing, it must be recognized that chemical agents found to be noxious by a significant portion of the population may, and often do, present public health hazards that lead to concerns such as MCS.” (20)

### **CORPORATE OPPOSITION TO MCS RECOGNITION**

In her published article “MCS Under Siege,” Ann McCampbell, MD, Chair of the MCS Task Force of New Mexico, has provided evidence of a well funded corporate campaign by the chemical and pharmaceutical industries to prevent the recognition of MCS. Dr McCampbell writes: “These industries feel threatened by this illness, but rather than heed the message that their products may be harmful, they have chosen to go after the messenger instead. While corporations are only beholden to their stockholders, medicine and government need to be responsive to the needs of their patients and citizens. Unfortunately, industry has convinced many in the medical and legal professions, the government, the general public, and even loved ones of people with MCS, that this illness doesn’t exist or is only a psychological problem. As a result, people whose lives have already been devastated by the illness itself frequently are denied appropriate health care, housing, employment opportunities, and disability benefits. On top of this, people with MCS often have to endure hostility and disrespect from the very agencies, professionals, and people who are supposed to help them.” (21)

### **AUSTRALIAN RESPONSE TO MCS**

Despite significant international progress in the recognition of MCS, Australian authorities have little or no pro-active policy on this growing public health concern. The Commonwealth Department of Health and Ageing, in its position statement on MCS, considers that “there is insufficient evidence upon which to base a strategy for MCS that would be cost and resource effective, acceptable to the Australian

community, and unlikely to cause unintended consequences.” (22) Australian regulators such as the National Registration Authority, the Therapeutic Goods Administration, the Australian and New Zealand Food Authority and the National Industrial Chemicals Notification and Assessment Scheme are presently not required to undertake precautionary public health measures on MCS.

## **CALL TO CHANGE**

30 years ago people would not have believed public buildings would be required to be built with wheelchair access. Even 10 years ago we would have laughed if we thought cigarette smoking would be banned from public buildings in South Australia. Yet these changes have occurred; we have been able to adapt our lifestyles to accommodate each of these situations. We must now face the issue of chemical sensitivities, and make reasonable accommodations to our fellow Australians who are unfortunate enough to suffer from this condition.

## **CONCLUSION**

Australian Governments and their agencies have been captured by commercial interests and are devoid of public health leadership in relation to MCS. This failure to address the problem of MCS in Australia is resulting in significant human suffering and human rights abuse. Let's work together to tackle this important public health issue.

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