

# **Multiple Chemical Sensitivity (MCS):**

## **An Overview**

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**DRAFT 4**

**Compiled by: Chemical Sensitivities Manitoba (CSM)**

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## **MULTIPLE CHEMICAL SENSITIVITY (MCS): AN OVERVIEW**

### **A) INTRODUCTION**

This report is meant to give the reader an overview of multiple chemical sensitivities (MCS). Chemical Sensitivities Manitoba (CSM) has an extensive MCS reference library (computerized bibliography edition 1, supplements 2,3,4). Twenty of these references were used for this overview.

Multiple chemical sensitivities (MCS) is known by many other names including environmental sensitivities, environmental illness, chemical hypersensitivity, toxicant-induced loss of tolerance, and idiopathic environmental intolerance (1,2,3). It is an acquired syndrome which occurs in response to low levels of a substance or substances that do not seem to adversely affect most people (4). MCS lacks a standard case definition. The etiology and pathophysiology are unknown (2,3,5,6). There is no one diagnostic medical test to prove its existence and the syndrome remains controversial. Some believe that MCS has an organic cause and others view it as being psychogenic in nature (2,3,6).

The book 'Chemical Exposures: Low Levels and High Stakes', (2<sup>nd</sup> edition) by Nicholas A. Ashford and Claudia S. Miller was partially based on a 1990 public health report for the New Jersey Department of Health (USA). To quote from this book: "Based on increasing outbreaks of sick building syndrome, increased reporting of symptoms in contaminated communities to state health departments, increased recognition of problems in the industrial workplace, and the increasing number of physicians treating chemically related sensitivities, the existing evidence does suggest that chemical sensitivity is on the rise and could become a large problem with significant economic consequences related to the disablement of productive members of society" (4). Ashford is a scientist and a professor of Technology and Policy at the Massachusetts Institute of Technology, USA. Miller is a physician and an Assistant Professor in Environmental and Occupational Medicine, University of Texas Health Science Center, USA.

## **B) CONSENSUS CRITERIA FOR MCS**

In 1989, a multidisciplinary survey of 89 clinicians and researchers, with extensive experience in, but widely differing views of MCS, published the consensus criteria for the definition for MCS (7). They are criteria one to five, inclusive, listed below. Ten years later, in 1999, 34 clinicians and researchers from the USA and Canada, added the sixth criterion to the 1989 MCS consensus criteria (7). This revised MCS consensus definition was published in the Archives of Environmental Health 1999, volume 54, no.3 (7). This definition is widely used and referenced.

The 1999 six consensus criteria for MCS are:

- 1) The symptoms are reproducible with repeated chemical exposure.
- 2) The condition is chronic.
- 3) Low levels of exposure result in manifestations of the syndrome (levels lower than previously tolerated).
- 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.

**C) SPECTRUM OF CHEMICAL SENSITIVITY ILLNESSES**

MCS can be considered as part of the spectrum of chemical sensitivity illnesses (8). Other conditions such as sick building syndrome, chronic fatigue syndrome, and fibromyalgia, may share some common elements with MCS (3,5,9). It is estimated that approximately 15% of the population may be **sensitive** to chemicals in their environment, including at work and at home (8). From peer-reviewed medical literature, it appears that the percentage of the population suffering from MCS is smaller.

**TABLE 1: SPECTRUM OF CHEMICAL SENSITIVE ILLNESSES (8)**

<b>People with Irritant Problems</b>	<b>Sick or Tight Building Syndrome Problems</b>	<b>Multiple Chemical Sensitivities (MCS)</b>
Localized reactions / feeling sick from products such as - smoke pesticides, perfume, auto exhaust, cleaning products.	Acute localized reactions such as – headaches, fatigue, nausea, dizziness (symptoms common for MCS).	Severe systemic reactions from an increasing number of substances and products. Some disability is experienced.
Problems disappear when not exposed.	Symptoms subside over time when individuals leave location, the ventilation is improved, or the offending substances are removed or replaced.	Debilitating symptoms during and after low-level chemical exposures. Chronic illness. Reactivity to other substances.

**D) CHEMICALLY SENSITIVE GROUPS**

There are **four** main groups or clusters of people that show heightened sensitivity. The following table lists those groups, the nature of their exposures, and describes who they are.

**TABLE 2: CHEMICALLY SENSITIVE GROUPS (4)**

<b>GROUP</b>	<b>NATURE OF EXPOSURE</b>	<b>DEMOGRAPHICS</b>
Industrial workers	Exposure to industrial chemicals – acute / chronic	Primarily males; blue collar; 20-65 years old
Tight-building occupants	Inadequate ventilation; off-gassing of furniture, equipment or supplies, construction materials; tobacco smoke	Mainly females; white collar - office workers and professionals; 20-65 years old; school children
Contaminated communities	Toxic waste sites; industrial pollution; contaminated water; pesticide spraying	All ages, both sexes; children or infants can be affected most or first; pregnant women
Individuals	Home – indoor air; consumer products; drugs, pesticides	Women – 70-80%, 30 – 50 yrs old; white middle / upper class and professionals

**E) MCS TRIGGERS**

The following table lists some substances that can trigger symptoms in MCS individuals.

**TABLE 3A: COMMON MSC TRIGGERS (3,4,8,9)**

<b>COMMON MCS TRIGGERS</b>
Tobacco smoke
Solvents, paints, adhesives, petrochemical products
Gasoline, diesel fuel, utility gas, auto exhaust
Tar / asphalt
Industrial air pollutants
Pesticides, herbicides, insecticides
Household bleach (chlorine), some cleaning substances (including detergents)
Some building materials, home furnishings, synthetic fabrics
Formaldehyde containing products
Perfumes, scented products (personal and other)
Food additives, plastic containers, lined cans, chlorinated water
Medications, synthetic vitamins
Mould, fungi, pollen, dust, dust mites
Computers, cell phones, power lines, motors**

\*\* Some MCS people report reactions to electric and magnetic fields.

**E) MCS TRIGGERS cont'd**

Table 3B highlights some substances cited in the categories listed in table 3A. Substances can fall into four general categories.

**TABLE 3B: EXAMPLES OF COMMON MSC TRIGGERING SUBSTANCES LISTED BY CATEGORY (3,8,9)**

<b><u>Indoor Air Pollutants</u></b>	<b><u>Drug &amp; Consumer Products</u></b>
<p><b>Solvent vapours:</b> paints, paint reducers &amp; cleaners, adhesives, cleaning solutions, copiers, white-out, printing presses, newsprint, books, magazines, pesticides, air freshners, fabric treatments, hair spray, nail polish.</p> <p><b>Scented products:</b> perfumes, air freshners.</p> <p><b>Formaldehyde:</b> chipboard, plywood, permanent-press clothes..</p> <p><b>Building materials:</b> particle board, fiberglass, insulation products, plastics.</p> <p><b>Furnishings:</b> carpets, upholstery, mattresses (flame retardant).</p> <p><b>Tobacco smoke</b></p>	<p><b>Medications/supplements:</b> Aspirin, sulphonamides, barbiturates, non-active ingredients in drugs,</p> <p><b>Scented products:</b> perfume/cologne, hairspray, body lotions, shampoo, hair dyes, deodorants, bath salts and oils, soaps, candles.</p> <p><b>Cleaning substances:</b> detergents, oven cleaners.</p> <p><b>Electrical equipment:</b> includes cell phones, computers (electrical hypersensitivity).</p>
<b><u>Outdoor Pollutants</u></b>	<b><u>Food &amp; Water Contaminants</u></b>
<p><b>Tar/asphalt:</b> roofing and road building.</p> <p><b>Industrial air pollutants:</b> emissions from manufacturing and chemical plants.</p> <p><b>Pesticides</b></p>	<p><b>Insecticides / fumigant residues:</b> as contaminants in food.</p> <p><b>Food additives:</b> protective waxes, chemical preservatives, artificial flavourings and colourings, sweetening agents, ripening agents (ethylene gas).</p> <p><b>Lined cans:</b> can contain a phenolic resin.</p>

**F) MCS SYMPTOMS**

Symptoms are very individual and different people may react very differently to the same substance. Symptoms can result in varying degrees of disability. The intensity and duration of the symptoms vary considerably; all symptoms do not necessarily occur together. The table below lists some of the symptoms.

**TABLE 4: SOME MCS SYMPTOMS (3,5,6,8,9)**

<b>SOME MCS SYMPTOMS</b>
Respiratory problems – difficulty breathing, congestion
Flu-like symptoms
Ear, eye, nose and throat problems
Gastrointestinal – cramps, indigestion, bloating, diarrhea
Neurological – tingling, burning, twitching
Short-term memory loss, confusion, headaches, lack of concentration
Irritability and depression
Cardiovascular – cardiac irregularities, chest pain
Musculoskeletal - muscle spasms, pain, muscle weakness
Systemic – tiredness / fatigue
Skin – hives, rashes

## **G) PREVALENCE OF MCS**

### **PREVALENCE RATES FOR MCS**

#### **1) CANADA**

- In the 2000/2001 Canadian Community Health Survey, 2% of the Canadian population reported physician-diagnosed MCS (10).
- In the 1995 Nova Scotia (Canada) Health Survey, Canada, 3% of the population reported being environmentally sensitive (6).

#### **2) USA**

- In a recently published multiple center study (2002), MCS prevalence rates in a clinical setting were quoted at 23% using less rigorous MCS criteria, and 7% using more rigorous MCS criteria (5).
- In 2002, a 13% prevalence rate for MCS was reported in a southeastern United States region (3).
- California and New Mexico, USA, 1995 – in a telephone survey of randomly selected adults, 16% claimed that they were unusually sensitive to everyday chemicals, 6% reported physician-diagnosed MCS (11).
- A 1993 survey (interviews and questionnaires) of residents in rural North Carolina, USA, indicated that 33% reported sensitivity to chemicals. 4% of the respondents reported daily or almost daily frequency of their symptoms (12).

Some problems associated with the prevalence rates for MCS include:

- MCS has been studied mainly in clinical and occupational populations. Very few general population studies have been done (5,11,12,13).
- The lack of a universally accepted case definition (5, 13).
- Dependence or reliance on subjective reporting (5, 13).
- Study design and selection bias of the participants (2, 5,13).
- MCS prevalence in terms of self-reported adverse responses to varied chemicals, particularly odorous chemicals and not the syndrome itself (5, 11).

It is not always possible to compare MCS prevalence rates. Although an exact prevalence rate for MCS has not been determined, some form of chemical sensitivity has been observed from MCS prevalence data, suggesting that MCS cannot be considered uncommon.

## H) PHASES OF MCS

There appears to be **three** distinct phases of MCS (9). In MCS patients, the sensitivity to one exposure often spreads to a wider range of substances. It is often difficult for physicians to understand the wide variety of symptoms implicating many organs. Most diseases have a narrow spectrum of symptoms and signs, MCS does not fit into this pattern. The escalation of MCS symptoms could be avoided in many cases by awareness and appropriate action by the MCS individual, the physician, and, in some cases, the employer (9).

**TABLE 5: THREE DISTINCT PHASES OF MCS (9)**

<b>PHASE</b>	<b>DESCRIPTION</b>
1	Initial signs and symptoms to low level exposure to chemicals which recede with avoidance of exposure.
2	Reversible sensitivity, with intensifying signs and symptoms after continuing exposure, but partial or total reversal of symptoms after awareness of the condition and avoidance of exposure.
3	Permanent MCS, after substantial or intense exposure, escalation of symptoms (sometimes, but not always with clinical correlates) and spreading of effects to other chemical exposures.

**I) SOME MCS CAUSATION THEORIES**

To quote from a paper that was commissioned by, and presented to, Manitoba Health, Canada, by the author, Dr. Annalee Yassi: “The basis of MCS is still yet unidentified. It is clear that a combination of psychological, social, psychoneurological, and other yet not defined pathophysiological mechanisms are at play. It is also clear that we are far from understanding the relative importance of the various risk factors and mechanisms that contribute to the disability experienced by individuals that fit the case definition described above – page 3 “ (14).

Some causation studies have been cited for having serious methodological problems (13, 15). Some of the physical MCS mechanisms are listed in Table 5.

**TABLE 5: SOME PHYSICAL MCS CAUSATION THEORIES**  
(3, 4, 8, 9, 12,14 -17)

<b>SOME PHYSICAL MCS CAUSATION THEORIES</b>
Mechanisms involving the limbic system
Neurogenic inflammation
Neural sensitization
Neural sensitization and elevated nitric oxide/peroxynitrite
Overload of biotransformation pathways
Olfactory threshold sensitivity
Vascular
Immune system

## **J) TREATMENT PLAN**

As pointed out in H) 'Phases of MCS', when MCS symptoms are mild, avoidance of triggers, lifestyle and workplace changes, can be effective in reducing the intensity of the MCS symptoms. As the severity of the symptoms increases, more intervention may be necessary and treatment plans may require medical supervision.

According to Dr. A. Yassi's report (14), a controlled study of 85 environmentally sensitive patients in Nova Scotia, Canada, treated with avoidance, an organic food diet, immunotherapy, and dietary supplements, found a significant improvement in some aspects of their health. Some forms of complementary medicine have reduced the severity of the MCS symptoms, and the affected individuals have been able to improve their quality of life (personal communication with MCS sufferers).

### **TREATMENT/ MANAGEMENT: (4, 14, 15, 18, 19, 20)**

- Lifestyle modification – including avoidance of incitants / triggers, changes in the home environment and leisure activities
- Workplace changes – including accommodation if necessary
- Vitamin and dietary supplements
- Adequate proper sleep
- Proper nutrition and the use of organic foods
- Rotary or restricted diet
- Exercise
- Psychotherapy
- Supportive care
- Desensitization
- Sauna detoxification

## **K) OCCUPATIONAL EXPOSURE LEVELS**

Safe levels of exposure are issued by the government for toxic chemicals in the industrial workplace. The Occupational Exposure Limit (OEL) is a term used to indicate the concentration of a workplace health hazard that **MOST** workers can be exposed to without harmful health effects. OELs are based on the Threshold Limit Values (TLVs) established by the American Conference of Governmental Industrial Hygienists (ACGIH). The current OELs have been found to be inadequate for the chemically sensitive who experience symptoms from concentrations of contaminants that are way below the standards set for industry (8). As a result, accommodation in the workplace can be problematic for the chemically sensitive person.

## **L) COMMENTS**

- Manitobans with MCS type symptoms have no facility in the province for an assessment and follow-up by an appropriately trained medical doctor. MCS patients in the province continue to suffer. There is an imperative need for an environmental health clinic in the province. There is also an urgent need for education at all levels in the province regarding environmental illnesses.
- The provinces of Nova Scotia and Ontario, Canada, have university affiliated environmental health clinics that assess MCS patients. Only Nova Scotia offers a treatment plan. These clinics are not open to out-of-province patients.
- The medical community and other parties, should not ignore or downplay the health and well-being of MCS individuals because of the lack of a case definition, etiology and pathophysiology. Information for MCS management is readily available (6,14,20).
- Policy makers (government and private) should realize that MCS can be disabling and the socio-economic impact can be devastating for some MCS individuals. Sick leave benefits from private insurers, Canada Pension Disability, and the Workers Compensation Board can be quite a challenge and some individuals have to rely on Social Assistance. The socio-economic impact of MCS cannot be ignored.

## L) COMMENTS

- Quoted from Dr. Nicholas Ashford in his presentation at the Multiple Chemical Sensitivity Symposium, Aylmer, Quebec, Canada, May 2001, "The dose makes the poison, might be, the host *plus* the dose makes the poison. Humans in their developing state warrant special consideration, in their own right and as sentinel indicators". The host, and as well as the timing of the dosage, can be the forgotten variables.

To quote from Joffres MR, 2001: "This phenomenon is not new; it affects quality of life, disables, and creates major human and economic losses. Although many individuals return to a healthy and productive life, varying degrees of sensitivity remain. Strategies that look at multiple aspects of individuals' lives have been successful in reintegrating individuals into a fulfilling social and work environment. Attitudes of treating physicians must change to reflect and accept the reality of these experiences as multifactorial, where psychological and physical aspects are part of the problem and the solution" (6). Dr. M. Joffres is the Research Director at the Nova Scotia Environmental Health Centre, Nova Scotia, Canada.

## APPENDIX 1

### PARTIAL MCS WEBSITE LISTING

The following are websites for MCS information:

- **ABILITY MAINE MCS GUIDE**  
[www.abilitymaine.org/guides/mcs.html](http://www.abilitymaine.org/guides/mcs.html)  
A MCS guide published by Ability Maine, USA – an online news magazine and resource guide for people with disabilities.
- **AMERICAN ENVIRONMENTAL HEALTH FOUNDATION (AEHF)**  
[www.aehf.com](http://www.aehf.com) e-mail: [aehf@aehf.com](mailto:aehf@aehf.com)  
8345 Walnut Hill Lane, #225, Dallas, TX 75231, USA  
Placing orders – (800) 428 – 2343; fax: (214) 361 - 2534  
AEHF is a nonprofit organization founded to provide research and education into Chemical Sensitivity. The Foundation has funded medical research projects (many of the [research papers](#) are available on the internet site) and has sponsored an annual International Symposium for physicians and scientists from around the world. The AEHF also has a store with various products for the chemically sensitive.
- **CANADA MORTGAGE AND HOUSING CORPORATION - (CMHC)**  
[www.cmhc.schl.gc.ca](http://www.cmhc.schl.gc.ca)  
Phone: (800) 668 - 2367 or (613) 748 - 2367  
700 Montreal Road, Ottawa, ON, Canada K1P 0P7  
In Winnipeg: 10 Fort Street, 4<sup>th</sup> Floor, Winnipeg, MB, Canada R3C 1C4  
Phone: (204) 983 - 5600  
The CMHC provides research, information and resources on information about chemical hypersensitivity, indoor air quality, as well as electrical hypersensitivity.
- **CHEMICAL SENSITIVITY FOUNDATION**  
[www.chemicalsensitivityfoundation.org/index.html](http://www.chemicalsensitivityfoundation.org/index.html)  
The Chemical Sensitivity Foundation was incorporated as a non-profit corporation and its mission is to engage in scientific, charitable, and educational activities on behalf of people with multiple chemical sensitivity (MCS).

## APPENDIX 1 cont'd

- **CHEMICAL INJURY INFORMATION NETWORK (CIIN)**  
http://ciin.org  
P.O. Box 301, Sulphur Springs, Montana 59645-0301, USA  
Ph: (406) 547 - 2255: fax: (406) 547 - 2455  
Publishes "The Toxic Times" newsletter. Provides technical papers on MCS and related illnesses, information on chemicals, and legal briefs.
- **CHEMICAL SENSITIVITIES MANITOBA (CSM)**  
Marg Friesen: (204) 261- 8591  
Sandra Madray: (204) 256 - 9390: e-mail: [madray@mts.net](mailto:madray@mts.net)  
A network providing the exchange of information for those affected by chemical sensitivities.
- **CITIZENS FOR A SAFE LEARNING ENVIRONMENT (CASLE)**  
[www.chebucto.ns.ca/Education/CASLE](http://www.chebucto.ns.ca/Education/CASLE)  
287 Lacewood Drive Unit 103 Suite 178, Halifax, NS, Canada B3M 3Y7  
Phone: (902) 457 - 3002, 861 - 1851, 885 - 2395  
CASLE promotes environmentally healthy products, practices, and conditions in Nova Scotia's schools.  
Contact: Karen Robinson
- **ENVIRONMENTAL HEALTH ASSOCIATION OF NOVA SCOTIA (EHANS)**  
Formerly the Nova Scotia Allergy and Environmental Health Association – NSAEHA.  
[www.environmentalhealth.ca](http://www.environmentalhealth.ca)  
[www.environmentalhealth.ca/Ross2000.html](http://www.environmentalhealth.ca/Ross2000.html)  
The latter website is termed 'Response to errors prevalent in the understanding of environmental illness' by Dr. Gerald Ross.  
P.O. Box 31323, Halifax, Nova Scotia, Canada B3K 5Y5  
Phone: (800) 449 -1995  
An organization aimed at preventing allergies and environmental illness, relieving sickness and disability caused by these illnesses, through public education.

## **APPENDIX 1 cont'd**

- **ENVIRONMENTAL HEALTH CLINIC - DALLAS (EHC - D)**  
[www.ehcd.com](http://www.ehcd.com)  
8345 Walnut Hill Lane Suite 220, Dallas, TX 75231 - 4262, USA  
Phone: (214) 368 - 4132; fax (214) 691 - 8432  
Diagnostic and treatment centre mainly for environmentally triggered diseases.
- **ENVIRONMENTAL HEALTH COALITION (EHC)**  
[www.environmentalhealth.org/fs-envillness.html](http://www.environmentalhealth.org/fs-envillness.html)  
Environmental Health Coalition is a US grassroots organization using social change strategies to achieve environmental justice. The EHC organizes and advocates to protect public health and the environment threatened by toxic pollution.
- **ENVIRONMENTAL HEALTH NETWORK (EHN)**  
<http://users.lmi.net/~wilworks/ehindex.htm>  
P.O. Box 1155, Larkspur, California 94977-1155, USA  
Phone - support and information line: (415) 541 - 5075  
An advocacy organization with links to other sites. A MCS site is listed. The EHN publishes the newsletter "The New Reactor".
- **ENVIRONMENTAL ILLNESS SOCIETY OF CANADA (EISC)**  
[www.eisc.ca](http://www.eisc.ca)  
536 Dovercourt Avenue, Ottawa, ON, Canada K2A 0T9  
Phone: (613) 728 - 9493; fax: (613) 728 - 1757  
Provides information regarding MCS, FM, and CFS, and pertinent education programs.  
Contact: Judith Spence
- **ENVIRONMENTAL SENSITIVITIES RESEARCH INSTITUTE (ESRI)**  
[www.esri.org](http://www.esri.org)  
A strong lobbying organization against MCS; has links to useful sites.  
Contact: Ronald Gots

## **APPENDIX 1 cont'd**

- **HUMAN ECOLOGY ACTION LEAGUE (HEAL)**  
http://members.aol.com/HEALNatnl/index.html  
E-mail: HEALNatnl@aol.com  
P.O. Box 29029, Atlanta, GA 30359-0629, USA  
Phone: (404) 248 - 1898; fax: (404) 248 - 0162  
Provides information about chemical risk identification and reduction.  
Publisher of the Human Ecologist (US publication).
- **MCS RESOURCES & REFERRALS (MCS R & R)**  
[www.mcsrr.org](http://www.mcsrr.org)  
2326 Pickwick Road, Baltimore, MD 21207, USA  
Ph: (410) 448 - 3319; fax: (410) 448 - 3317  
Provides information on MCS, including technical papers and information on rights of those with MCS.  
Contact: Albert Donnay
- **NATIONAL CENTER FOR ENVIRONMENTAL HEALTH STRATEGIES**  
[www.ncehs.org](http://www.ncehs.org) (under development) e-mail: [info@ncehs.org](mailto:info@ncehs.org)  
1100 Rural Avenue, Voorhees, NJ 08043, USA  
Phone: (609) 429 – 5358  
Contact: Mary Lamielle
- **NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES (NIEHS)**  
[www.niehs.nih.gov/faq/alpha-m.htm](http://www.niehs.nih.gov/faq/alpha-m.htm)  
NIEHS – US Federal government – some information and links on MCS.
- **NATIONAL ME/FM ACTION NETWORK**  
[www.mefmaction.net](http://www.mefmaction.net)  
3826 Carling Avenue, Nepean, ON, Canada K2K 2Y6  
Phone:/fax: (613) 829 - 6667  
Myalgic Encephalomyelitis / Chronic Fatigue Syndrome organization providing support, advocacy, education, and research.  
Contact: Lydia Neilson
- **NORTH CAROLINA CHEMICAL INJURY NETWORK**  
[www.ncchem.com/](http://www.ncchem.com/)  
Informative website with many links.

## **APPENDIX 1 cont'd**

- **NOVA SCOTIA ENVIRONMENTAL HEALTH CENTRE, FALL RIVER, NS**  
[www.nsehc.com](http://www.nsehc.com)  
NS Environmental Health Centre, P.O. Box 2130, 3064 Hwy #2, Fall River,  
NS, Canada B2T 1K6  
Phone: (902) 860 - 0057; fax (902) 860 - 2046  
The Clinic accepts only Nova Scotia residents and it is a research and  
treatment centre for individuals with environmental sensitivities. The Clinic is  
affiliated to Dalhousie University.
- **SUNNYBROOK AND WOMEN'S COLLEGE HEALTH SCIENCES  
CENTRE - ENVIRONMENTAL HEALTH CLINIC**  
[www.swchsc.on.ca](http://www.swchsc.on.ca)  
Environmental Health Clinic, Room 508  
76 Grenville Street, Toronto, ON, Canada M5S 1B2  
Phone: (416) 351 - 3764; fax: (416) 323 - 6130  
The Clinic provides medical assessment and health care advice for people  
with environmental sensitivity disorders. Only Ontario residents are accepted  
at the Clinic. It is affiliated to the University of Toronto.
- **US NATIONAL LIBRARY OF MEDICINE - PubMed**  
[www.ncbi.nlm.nih.gov/PubMed/](http://www.ncbi.nlm.nih.gov/PubMed/)  
Search for citations of medical problems, journals, and authors

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