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# MCSA NEWS

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## Lawsuit Results in Fragrance Ban

**FRAGRANCE**

**for  
Detroit City  
Employees**

*Legal*

# ***Lawsuit Results in Fragrance Ban for Detroit City Employees***

Warning placards will be placed in three city buildings in Detroit, Michigan to remind workers that the use of scented products has been banned.

This change is the result of a recent federal lawsuit in which a city employee, Susan McBride, was awarded \$100,000 by the United States District Court under the Americans with Disabilities Act (ADA) when a co-worker's perfume created a breathing problem.

The settlement names the City of Detroit, all employees, and agents of the City as those who must abide by the new fragrance free policy.

Notices about the new scent free policy will also appear in the city's employee handbook and will be discussed during routine ADA training. The text of the notices will read:

*“Our goal is to be sensitive to employees with perfume and chemical sensitivities. In order to accommodate employees who are medically sensitive to the chemicals in scented product, the City of Detroit requests that you refrain from wearing scented products, including but not limited to colognes, after-shave lotions, perfumes, deodorants, body/face lotions, hair sprays or similar products. the City of Detroit also asks you to refrain the use of scented candles, perfume samples from magazines, spray or solid air fresheners, room deodorizers, plug-in wall air fresheners, cleaning compounds or similar products. Our employees with medical chemical sensitivities thank you for your cooperation.”*

Becoming scent free is not as easy as it sounds. People who do not apply perfume or cologne are frequently unaware that they still wear fragrance in the form of hidden scents they carry on their body. Fragrance is added to the vast majority of lotions, soaps, hair care products, after shave, laundry products, and other personal care items.

Some employees have misunderstood the policy to mean that they are no longer allowed to practice good hygiene. This has caused comments such as, “I'd rather smell perfume than body odor.” However, adding perfume to body odor does nothing more than add to odor. Sometimes the combination can be downright nauseating.

Strong perfume is usually a sign that someone does not practice good hygiene and is trying to cover up an odor, rather than bathing regularly. Perfume was used centuries ago when running water was not available for bathing. Thus, in our modern civilization where running water is readily available, perfume is nothing more than a mark that people wear for varying reasons, including status. Many have been brainwashed into thinking that perfume makes them smell good or sexy.



Quite to the contrary, the City's new policy encourages good hygiene practice. There are many quality unscented soaps, lotions, deodorants, and hair care products on the market. There are also many natural solutions which do the job just as well for pennies on the dollar. Avoiding fragrance actually encourages routine bathing, which is a benefit to the health of staff and visitors.

Scent is not added to products to make them clean better or work better and has nothing to do with how well a product works. From a profit perspective, manufacturers generally add scent to products for branding reasons to encourage people to become addicted to the scent, therefore become brand loyal.

Many people with allergies, asthma, fatigue, and other common health problems don't realize that the fragrances that they are always surrounded with may be the cause of their health issues. Because someone who is allergic to the scent in their laundry soap is surrounded by it every moment (clothing, bedding, towels), there is rarely an opportunity to be in a non-exposure situation where the link to improved health can be made.

Scented laundry products are among the most difficult to remove from fabrics because manufacturers add a chemical plasticizer to laundry detergents and fabric softeners to hold in that "long lasting freshness". Ten to twenty washes may not be enough to remove this scent because it is chemically bound to the fabric. For people who are allergic or sensitive to the chemicals used in these scents, a garment can rarely be decontaminated.

### Facts About Fragrances

- There are 3,000 – 5,000 chemicals used in fragrance.
- 95% of these chemicals are derived from petroleum.
- Over 80% of the chemicals in fragrance have not been tested for human toxicity.
- Some of the chemicals found in fragranced products are on the EPA hazardous waste list.
- The perfume industry is not regulated by any government agency and is not required to disclose the ingredients in "fragrance".



### **Personal Care Products to Avoid**

- Perfume and Cologne
- All Scented Products - including soaps, shampoo, conditioner, and bath products
- Scented Lotions
- Scented Shaving Cream
- Scented Aftershave
- Scented Deodorants and Anti-Perspirants
- Scented Hair Spray
- Scented Hair Gel and Mousse
- Scented Hair Color
- Scented Shampoo and Conditioner
- Scented Nail Polish and Remover
- Scented Make-up
- Scented Anti-Bacterial Hand Wipes or Hand Sanitizer
- Other Scented Toiletries

### **Personal Care Products to Use Instead**

- Scent - use essential oils if tolerated or eliminate perfume
- Fragrance Free Products - soaps, shampoo, conditioner, and bath products
- Lotion - use unscented versions or natural oils such as jojoba, coconut, and olive oil
- Shaving Cream - soap
- Aftershave - witch hazel or hydrogen peroxide
- Deodorant - peroxide, natural salt crystal, baking soda, unscented deodorants
- Hair Styling - aloe vera gel, lemon juice
- Hair Color - natural variations, peroxide to bleach, all natural henna for color
- Shampoo / Conditioner - unscented variations, baking soda, vinegar, citric acid, oils
- Nail Polish and Remover - safer variations from a health food store or go au natural
- Make-up - unscented, natural variations or go au natural

A copy of the McBride v. the City of Detroit settlement agreement may be downloaded from [http://www.onpointnews.com/docs/mcbride\\_settlement.pdf](http://www.onpointnews.com/docs/mcbride_settlement.pdf).

A fragrance fact sheet may be downloaded from <http://mcs-america.org/fragrancefactsheet.pdf>

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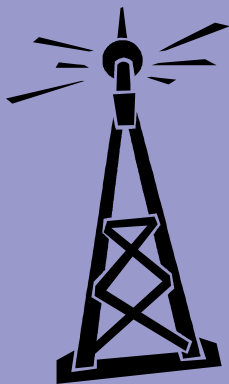
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## Commentary

# ***Why Vodaphone Should Not Increase the Power of Its Base Stations***

**“There is compelling evidence for a mechanism by which the continuous radiation from mobile phone base stations can weaken the immune systems.”**



MCSA NEWS

*This is an emailed response to Cliff Mason of OFCOM following a proposal by Vodafone that it should be allowed to increase the power of its base stations by a factor of four. The email explains the mechanism by which base station radiation may be responsible for the increased incidence of cancer around them, the decline of the bees, and the loss of many trees within range to pathogens. It also explains how a simple modification to the signal could put it right.*

*It remains to be seen whether they are prepared to do anything about it.*

**Editor's Note:** *Vodafone has a 45 percent stake in Verizon Wireless, who may seek the same increase in power in the USA.*

Dear Cliff Mason,

As an ex-amateur radio enthusiast, I am a great believer in the value of mobile communications, but things are not yet right. There is compelling evidence for a mechanism by which the continuous radiation from mobile phone base stations can weaken the immune systems, not only in humans, but also in animals

and plants. In addition, the same mechanism is probably responsible for colony collapse disorder in honey bees and their increased susceptibility to various pathogens.

It is based on a family of pigments called *cryptochromes*, which occur in virtually all animals and plants and some micro-organisms. They have a number of functions, including navigation in the Earth's magnetic field and the regulation of the "body clock", which is needed for solar navigation and also for the regulation of the immune system. This pigment is very badly affected by a wide range of radio frequencies, so that all of these processes can be disrupted by the modulated radiation from mobile phone base stations. This can explain the clusters of cancer cases believed by many people to have formed around mobile phone base stations as well as the decline and incipient loss of the honey bee population, which will have far more serious consequences for mankind. Insofar as the mobile phone operators say that there is no known mechanism by which their radiation can have these effects, we can only assume that they are unaware of its effects on crypto-

**“Mobile  
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I am attaching a document entitled “Making Mobile Phones Safer”, which sets this out in more detail and makes some simple suggestions to mitigate these effects. I am also attaching the original “Nature” paper by Ritz *et al.* in which they first discovered the effects of radio-frequency radiation on cryptochrome and animal navigation.

I am quite happy for you to forward this email, with attachments, to Vodafone, but I would suggest that they postpone any increase in power until this has been sorted out. It may not be that difficult.

#### **Making Mobile Phones Safer**

#### **Mobile phone radiation can be linked to colony collapse disorder and immune dysfunction**

Bee colonies are dying mysteriously all over the developed world. Often their navigation systems fail and they do not return to the hive after collecting pollen and nectar, which can cause colony collapse disorder. Their immune systems also fail and they become unusually susceptible to pathogens to which they might otherwise be resistant. Both of these effects can now be linked by plausible mechanisms to the electromagnetic radiation from mobile telecommunications.

#### **Why the bees are important.**

If the decline of the bees continues, the effects on agriculture will be devastating and even the continued existence of the human race will be called into question. Many of our crops depend

on bee pollination, and the remainder cannot provide a balanced diet. While the bulk of our staple foods come from wind-pollinated cereals that do not rely directly on the bees, these do not support the nitrogen-fixing bacteria needed for sustainable agriculture. Without bee pollinated crops (e.g. legumes) that host these bacteria, we will have to rely on artificial nitrogen fertilisers, which are either mined from limited natural sources or manufactured from the nitrogen of the air. Both are heavily dependent on fossil fuels and are not sustainable. Without them even our wind-pollinated crops will be decimated, which will lead to famine and mass starvation.

In addition, cereals do not provide an adequate balanced diet. In particular, they are almost totally lacking in vitamin C, which is essential to prevent scurvy. Scurvy is a fatal disease in which the body is unable to make the collagen needed for the connective tissue that binds our tissues and organs together. Without it, we literally begin to fall apart. The teeth fall out, the joints deteriorate and it leads to a slow and very painful death. Bee-pollinated crops are the main natural sources of vitamin C. Although some vitamin C producing species can self-pollinate or be propagated vegetatively, these are of necessity inbred and lack genetic diversity. Consequently, they will be less able to adapt to changing environmental conditions, including climate change and newly-evolved pathogens. They cannot be expected to last us for long.

### **Electromagnetic radiation is the most likely cause of bee loss**

Whatever is causing the decline in the bee population in developed countries, it is likely to be man-made. Various possibilities have been mooted, including the varroa mite, pesticides and other agrichemicals, but the front runner, for which there is the most convincing evidence, is the radio-frequency radiation from mobile telecommunications. For example, German scientists placed cordless phone base stations (which emit modulated microwave radiation 24/7 just like mobile phone masts) next to some of their hives, but left others unexposed to the radiation. They then marked the bees as they left the hives and counted the proportion of the marked bees that returned. They found that a significantly larger proportion did not return in the hives that had been irradiated. More details at:

<http://www.tinyurl.com/rans84>. But what could be the mechanism of this odd behaviour? It looks very much as if it is due to the effects on their *cryptochrome* pigments, which they use for both solar and magnetic navigation, and is highly sensitive to radio frequency radiation.

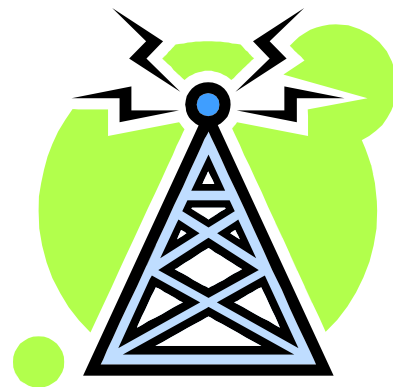
### **The Cryptochromes**

The cryptochromes are a family of pigments found in virtually all animals and plants. The earliest forms (which we now call photolyase) absorb light and use its energy to repair damaged DNA. More recently evolved cryptochromes actually measure light and tell the organism whether it is night or day so that it can adapt its metabolism accordingly. Still later versions became an integral part of the “body clock”, now present in virtually all animal and plant cells, which regulates the timing of their natural *circadian rhythms*. These rhythms regulate, amongst other things, our sleep-wake cycle and our resistance to disease. Normally, they are synchronised with day and night by environmental cues such as changes in light and temperature, but they can also run in-

definitely under constant conditions (although they may not then be exactly 24 hours). They affect many aspects of metabolism and allow cells and organisms to *anticipate* the coming of dawn and dusk so that they can prepare themselves in advance for the new conditions. They are extremely important for all of us; if they get out of kilter with the natural day-night sequence, such as when flying to a different time zone, we get jet lag and feel distinctly out of sorts until the rhythm become synchronised again.

### **Cryptochromes are used for animal navigation**

Animals that use the sun for navigation have extremely accurate cryptochrome-based body clocks that enable them to compensate for its changing position throughout the day. Animals that navigate using the earth’s magnetic field also use cryptochromes to sense the direction of the field. Cryptochrome can detect the direction of the field because it uses the energy of light to flip an electron between two parts of the molecule to generate a pair of unstable magnetic *free radicals*. The electron tries to return to its original position, but the rate at which it does so depends on the direction of the earth’s field relative to the molecule, and gives an indication of the direction of the field. This sort of cryptochrome occurs in the eye and enables the animal to superimpose the direction of the magnetic field on its visual field as a “heads-up” display, which is ideal for navigation.



### Electromagnetic fields disrupt cryptochrome-based magnetic navigation.

Thorsten Ritz and his co-workers (Nature, Vol. 429, pp177-180, 13<sup>th</sup> May 2004) showed that even weak electromagnetic radiation over a wide range of radio frequencies completely prevented robins orienting for navigation in a steady magnetic field simulating that of the Earth; the same is probably true for bees. The mechanism has since been confirmed and further elucidated by other workers. Although the active frequencies are lower than the nominal carrier frequencies used by mobile phones, they can be generated when they are modulated to carry information such as speech. Very little radio-frequency energy is needed since the energy to drive the process comes in this case from a high energy photon of light, which is stored in the free radical form of the molecule. The RF simply just modulates the thermodynamically downhill reaction that restores the *status quo* with a net **release** of energy. This allows non-ionizing radio frequency radiation, with photon energies far below that necessary to break chemical bonds, to give biological effects, which in this case disrupts magnetic navigation.

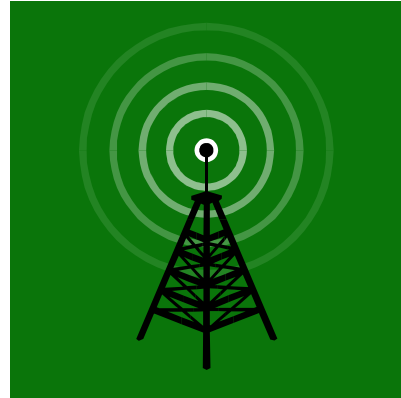
### Solar navigation can also be affected.

The cryptochrome-based body clock in insects is also affected by magnetic fields, as was shown by Yoshii and coworkers in 2009 (more details at <http://www.tinyurl.com/y9vkzfi>; it is therefore likely that the bee's ability to navigate by the sun is also compromised.

*The radiation from mobile phone masts and similar wireless devices can therefore disrupt bee navigation, both by the sun and by the earth's magnetic field. This can reduce the number of foraging bees returning to the hive and result in colony collapse disorder.*

### Effects on the immune system

Virtually all animal immune systems are under the control of their circadian rhythms. This is to make



the best use of limited bodily resources, which are diverted from physical activity during the day to the immune system and the repair of damage at night. If these rhythms are disrupted, or their amplitude reduced by electromagnetic radiation, nothing they control can ever function at full power. Consequently, bees affected in this way may die, seemingly of other causes, including attack by pathogens to which they might otherwise be resistant. More information on circadian rhythms and their close links to the immune system can be found in Willard L. Koukkari and Robert B. Sothorn. "Introducing Biological Rhythms", pp 426 – 525. Springer 2006. ISBN 13: 078-1-4020-3691-0.

### Effects on plants

The cryptochromes are one of several families of light-sensing pigments used by plants to control their patterns of growth and physiology so that they can make the best use of light for photosynthesis. For example, cryptochrome brings about the night time closure of stomata. Stomata are microscopic pores in the surface of leaves and stems used for photosynthetic gas exchange. They open during the day to absorb carbon dioxide for photosynthesis and close at night to prevent the unnecessary loss of water vapour. Cryptochrome is also one of the pigments used to measure the length of the day to control photoperiodic responses; e.g. the "deliberate" shedding of leaves by deciduous trees in autumn is a response to short days.

There is mounting anecdotal evidence that radiation from mobile phone base stations disturbs these functions. I would like to invite you to see this for yourself. There is a very powerful Vodafone mast just outside the northeast corner of Hanger Hill Park, London W5, which appears to have damaged many of the nearby trees inside the park. Those in the main beam within a radius of about 400metres often show growth abnormalities with the younger shoots dieing. Many trees have actually died completely in the ten years or so that the mast has been operational. Most of them have now been removed, but there is still evidence of damage in those that remain. The cause of death also seems to be related to cryptochrome. Many of the mortalities occurred in dry conditions, possibly because the radiation kept the stomata open at night when they should have been closed. Another abnormality still visible in several trees is their partial or complete failure to shed their leaves and seeds in autumn; they remain dead on the tree but still firmly attached. It is as if the radiation absorbed by cryptochrome is perceived as light so that the tree behaves as if it was in continuous light and cannot respond to short days. This type of behaviour appears to have increased considerably since the power of the mast was increased to accommodate 3G.

A further effect of the radiation seems to be on the functioning of the plant equivalent of the immune system, which leads to attack by pathogens to which they would normally be resistant. This may explain the mysterious increase in general tree mortality from disease, especially bacterial diseases, in recent years. As in animals, cryptochrome plays a vital role in the regulation of the plant immune system. For example; recent work by Wu and Yang (Molecular Plant Advance Access Jan 6 2010, doi:10.1093/mp/ssp107) showed that *Arabidopsis* mutants lacking a functional cryptochrome I had a lowered resistance to the bacterial pathogen *Pseudomonas syringae*, whereas similar plants in which the gene was over-expressed had enhanced resistance. If radio-frequency electromagnetic radiation were to compromise the

normal functioning of cryptochrome, we might expect that this would reduce the plant's resistance to disease.

### Effects on humans

Although humans have no natural ability for magnetic or solar navigation, we still use cryptochromes to control our circadian rhythms and immune systems. There are now increasing reports of cancer clusters around mobile phone masts that can be attributed to a failure of the immune system to dispose of incipient cancer cells. This is the most likely explanation since other factors that disturb our circadian rhythms, such as shift-working and exposure to continuous illumination, have similar effects on health. These include significant increases in the incidence of breast cancer, colorectal cancer and heart disorders (<http://www.tinyurl.com/afgLjr>). Similar increases are to be expected in people living close to mobile phone masts. Many of them already report poor sleep at night and tiredness during the day, which suggests that their natural circadian rhythms have been disturbed. Present evidence suggests that the radiation is perceived as light, which disrupts the dark phase of the cycle, during which the immune system should be most active. If so, humans who might normally tolerate the radiation during the day will be less able to do so at night. Every effort should therefore be made to avoid night time or continuous exposure to the radiation from base stations.



**“When  
you are  
in a  
hole,  
stop  
digging!”**

### **What can be done about it?**

#### **1. Postpone any increase in power.**

When you are in a hole, stop digging. The first thing to do is to suspend any increase in the power of mobile phone base stations until this problem has been solved.

**2. Use Femtocells.** This technology uses low power domestic base stations connected to the broadband network by a wired or optical links. It is already the preferred option for the mobile phone operators since it is cheaper, more reliable, and the consumer bears most of the cost. See <http://www.tinyurl.com/yj3grm3>.

It also reduces the need for investment in high power base stations and reduces the traffic through each. If Femtocells lead to the bulk of the traffic being routed through these very low power base stations, which are partially shielded by the walls of the house, less will be routed through the major base stations and the effects on the bees and other wildlife should be minimised.

However, there are some very important provisos. The Femtocells should be no more powerful than is necessary to cover a single household and should automatically cease transmission when not in use (rather like an Orchid Low Radiation DECT Phone Base Station). This is not just to save electricity but also to mini-

mise disruption of the circadian rhythms and immune systems of the users, their neighbours and wildlife. The fact that most of the Femtocells would then be inactive at night when the immune system would otherwise be most active is particularly important.

#### **3. Restrict the bandwidth of the signal**

A problem with digital signals is that their rapid rise and fall times generate a very large number of harmonics (multiples of the basic frequency). When these are used to modulate carrier waves, they generate very wide sidebands on either side of the carrier frequency, which actually carry the information. The width of each sideband corresponds to the frequency of the highest harmonic of the signal to be transmitted and is likely to overlap with the frequencies to which cryptochrome is sensitive. This “out-of-band” radiation does not normally interfere with other radio transmissions because it is relatively weak at any given frequency. However, cryptochrome is sensitive over a very wide range of frequencies and the signal is integrated over this range so that interference may be severe. A simple solution that should be investigated is to suppress the part of the lower sideband, which overlaps with the cryptochrome range. (This is already done with analogue television, which uses vestigial sideband transmissions). The upper base station sideband, and what remains of the lower one, will still contain all the digital information but should be relatively safe.



### Other Modifications

While interference with cryptochrome is probably not the only way in which modulated radio waves from base stations give rise to biological effects, it is likely to be the one that has the most effect on the bees and also the immune systems and consequent risk of cancer in human beings. Other non-thermal biological effects of mobile phone radiation, such as DNA damage, have a different aetiology, but provided the immune system is fully functional, most of the damaged cells may be eradicated before they become cancerous.

Nevertheless, it may be possible to do something about this too. DNA damage is most likely due to the release of structurally-important calcium ions from cell membranes by modulated radio waves, first noted by Bawin *et al.* in 1975 (Effects of modulated VHF fields on the central nervous system. *Ann NY Acad Sci* 247: 74-81). There is strong evidence that this weakens the membranes and makes them more inclined to leak (A Goldsworthy in "Plant Electrophysiology: Theory and Methods" Ed AG Volkov. Springer 2006: ISBN-10 3-540-32717-7). When lysosomes leak, they release digestive enzymes, including DNase, into the main part of the cell to cause DNA fragmentation. Damage to the membranes of mitochondria will release free radicals that are normally used in the controlled oxidation of food products, but are kept locked up safely within the structure of the membrane. These free radicals can also damage DNA. However, it should be possible to modify the transmitted signal to avoid these effects on membranes too. This too may be easier than you think.

Andrew Goldsworthy BSc PhD  
Lecturer in Biology (retired)  
Imperial College London

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Andrew Goldsworthy was born in 1939. After a conventional Grammar School education he obtained a First Class Honors Degree in Botany followed by a PhD for research into plant physiology and biochemistry at the University of Wales. He went on to lecture at Imperial College London, where he spent the rest of his career. He has had many teaching and research interests, ranging from the biochemistry of photorespiration to the biology of space flight. He retired in 2004 but remains as an honorary lecturer. He was also a scientific advisor to the European Space Agency and is currently a scientific advisor to several European charities concerned with the environment and electromagnetic fields, including the Bio Electromagnetic Research Initiative, the Radiation Research Trust, and Electrosensitivity-UK. He has always had a strong interest in how living organisms use internally-generated electric currents to control their growth and metabolism, and in their disruption by externally-applied currents and fields. In his retirement, he pieced together nuggets of information from a wide range of scientific journals and created simple layperson's explanations of how weak electromagnetic fields affect us all. The first of these can be found at <http://tinyurl.com/2nfujj> which corresponds to [www.hese-project.org/hese-uk/en/papers/goldsworthy\\_bio\\_weak\\_em\\_07.pdf](http://www.hese-project.org/hese-uk/en/papers/goldsworthy_bio_weak_em_07.pdf).



*Stephen's Healthy Housing Column*

## **Building Biology An Introduction**

*Stephen Collette, BBEC, LEED AP*

Stephen Collette is a Certified Building Biology Environmental Consultant (BBEC). This lengthy certification analyses the built environment and how it impacts people's health. Stephen was a natural builder for 5 years specializing in straw bale construction. Stephen has an engineering background and training which enables him to understand the various processes occurring within the home and how they can interact. Applying these skills and knowledge to the standard home and small office enables Your Healthy House to find the reasons for poor indoor air quality and to create solutions to help create your healthy house.

Stephen Collette is a Leadership in Energy and Environmental Design - Accredited Professional (LEED AP), which allows Stephen to use the Canada Green Building Council's guidelines and method to ensure a quantitative approach to building

*Stephen's Healthy Housing Column*

# **Building Biology: An Introduction**

*Stephen Collette, BBEC, LEED AP*

**“The  
underlying  
principle  
is one  
of  
balance.”**

For many people whom I have the opportunity to talk with, teach and work with, the first question that comes into their minds is, “What is Building Biology?” I thought I would take the time in this article to actually explain what Building Biology is, what it is about, and how it makes a lot of sense for those who are struggling to find safe, healthy environments in which to live.

The phrase “Bau-Biologie and Ecology” specifically refers to the study of:

- *The impact of the built environment on human health, and the application of this knowledge to the construction of natural homes and workplaces; and*
- *The holistic interaction of human involvement with the environment and the regenerative sustainability of the environment.*

The underlying principle is one of “balance.” Materials that come from the natural environment make up the “living structure” and will promote health. When these materials are returned to the natural environment they will cause no harm. Problems occur for people and the environment when

synthetic materials and man-made pollutants are introduced and the essential balance is lost.

Bau-Biologie® is a multidisciplinary and international movement of concerned individuals who have quantified the environmental factors of the built environment that affect human health. This group of professionals is involved with delivering current information regarding environmentally friendly building systems and materials and improving the indoor environmental quality of homes.

Bau-Biologie was founded in Germany by a group of professionals from a variety of disciplines concerned about the inability of post-war housing to support health and ecology. Their research, work and efforts in the “Work Group Healthy Building & Living” led to the formation of the original institute which is now called The Institute of Building Biology & Ecology Neubeuern (IBN) or Institut für Baubiologie + Ökologie Neubeuern.

Helmut Ziehe brought this study to North America and started the International Institute for Building Bau-Biologie & Ecology in 1987, with a mission to raise awareness that building can abide by the laws of nature. This is where I took my training.



**“Heating  
system  
based on  
radiant  
Heat...”**

There are 25 Principles, which help define and explain Building Biology and they are as follows:

### **The 25 Principles of "Baubiologie" (Building Biology)**

1. Building site without natural and human-made disturbances
2. Residential homes away from sources of emissions and noise
3. Low-density housing with sufficient green space
4. Personalized, natural, human- and family-oriented housing and settlements
5. Building without causing social burdens
6. Natural and unadulterated building materials
7. Natural regulation of indoor air humidity through humidity-buffering materials
8. Low total moisture content of a new building that dries out quickly
9. Well-balanced ratio between thermal insulation and heat retention
10. Optimal air and surface temperatures
11. Good indoor air quality through natural ventilation
12. Heating system based on radiant heat
13. Natural conditions of light, lighting and color
14. Changing the natural balance of background radiation as little as possible
15. Without human-made electromagnetic and radiofrequency radiation exposure
16. Building materials with low radioactivity levels
17. Human-oriented noise and vibration protection
18. With a pleasant or neutral smell and without out-gassing toxins
19. Reduction of fungi, bacteria, dust and allergens as low as possible
20. Best possible drinking water quality
21. Causing no environmental problems
22. Minimizing energy consumption and utilizing as much renewable energy as possible
23. Building materials preferably from the local region without promoting exploitation of scarce and hazardous resources
24. Application of physiological and ergonomic findings to interior and furniture design
25. Consideration of harmonic measures, proportions and shapes



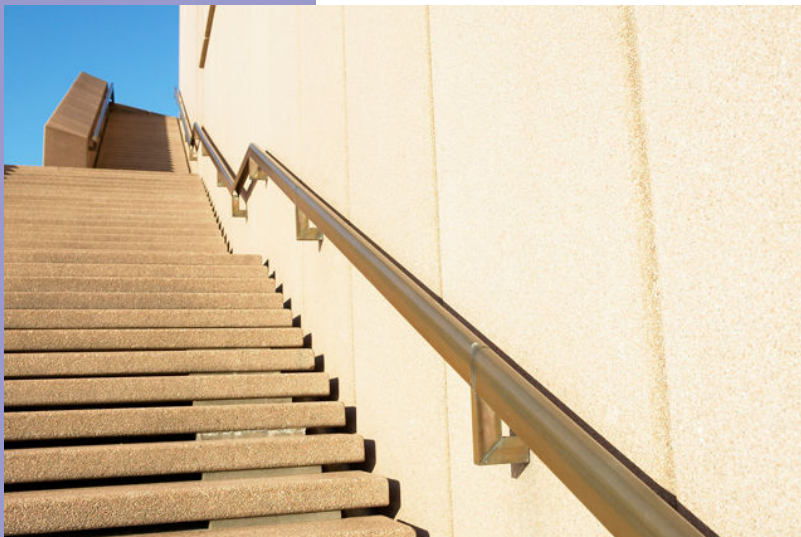
**“Building  
Biology  
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my own  
environmental  
exposures...”**

As you can see by this list, it goes a bit beyond the average “Green guidelines.” It takes in quite a bit of items that most people are completely unaware of. All of these points however have an impact upon us, and the environment around us. For most with MCS and other environmental sensitivities, the principles that focus on the indoor environment ring true as a means to creating safe spaces for living within. Building Biologists all over the world work hard to look at buildings using the principles, whether they are looking at new construction and design, trying to determine what is impacting people in their existing homes, or be they doctors, engineers, architects, building managers, real estate agents, running healthy building supply stores, Feng Shui consultants, or are people with MCS or environmental sensitivities and just simply want to know why, and how to move forward.

For me, personally, Building Biology has helped me with my own environmental exposures, and those of my family. We were exposed to mould in a 100 year old rental home and my wife and our first daughter became very ill. We didn’t realize until we went away for 10 days and they both got better. When we came home, their symptoms reappeared. I was building straw bale homes and thought I knew everything there was to know. Then a colleague led me to Building Biology. My life and that of my family has never been the same. We are now in a healthier home, another century home, but a much healthier home. There are still things to do around here, lots as my wife will tell anyone, but we are getting at it bit by bit and each step is chosen for the protection of my family. I am grateful for the knowledge it has given me, and my ability to share it with others and for me to make a business out of creating “Your Healthy House”.

To learn more about Building Biology, please have a look at the International Institute of Building Biology and Ecology’s website at:

<http://www.buildingbiology.net>



*Scientific Study****Parents' Environmental Exposures Lead to Fetal Developmental Problems***

Fetal health problems may be due to parents' environmental exposures.

Preterm birth, death, structural and functional abnormalities, and poor growth have been linked to parents' environmental exposures to chemical, biological, and physical agents before a child is born.

D.R. Mattison recently published a scientific review on gene-environment interactions. Mattison works as a researcher at the Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, Maryland, USA.

Mattison says, "Exposures associated with adverse developmental outcomes include air and water pollution, chemicals in foods, occupational exposures, agricultural chemicals, metals, persistent and volatile organics."

Volatile organics (VOCs) are compounds that have a high vapor pressure and low water solubility. Most VOCs are man made chemicals. VOCs can be found in petroleum products, solvents, paints, pharmaceuticals, and as a bi-product of chlorination.

Seemingly easy to avoid, VOCs are actually present in a surprising number of everyday products people are exposed to, including household cleaning products and fragrances contained in everything from perfume to soap, shampoo, hand sanitizer, cleaners, and laundry products.

Exposure causes developmental problems included stunted growth, functional deficits, deformities, early birth, and death.

It's not just the mother's environmental exposure that causes these problems. The environmental ex-

posure of the father, placenta, and fetus are also culprits.

Though these products have been around for many years, their use is becoming more commonplace. In addition, more products are being used than ever before.

As children, most adults over 40 remember mom using glass cleaner, scouring powder, furniture polish, and an all purpose cleaner. Since then, advertisers have convinced people that to be truly clean we also need fabric fresheners, air fresheners, and special cleaners for tile, toilets, and every other conceivable item in the home.

Bathing used to involve soap. Now a shower involves soap, shampoo, conditioner, lotion, gel, sprays, deodorants, powders, and a host of other things... all loaded with fragrances and VOC's which have been linked to health problems in both children and adults. Without realizing it, the average woman applies over 500 chemicals to their body each day. Most of these chemicals have not been tested for human safety and many are hidden in the ingredient "fragrance".

Organizations such as the Campaign for Safer Cosmetics have formed to "protect the health of consumers and workers by securing the corporate, regulatory and legislative reforms necessary to eliminate dangerous chemicals from cosmetics and personal care products." For more information about the Campaign for Safer Cosmetics, see <http://www.safecosmetics.org/>.

**Reference**

Mattison DR. Environmental exposures and development. *Curr Opin Pediatr*. 2010 Mar 5. [Epub ahead of print]

*Scientific Study****Odors in the Workplace***

**“The presence of airborne chemicals that produce odor and irritation can be a significant impediment to a productive and healthy workforce.”**

Researchers Dalton and Jaén of the Monell Chemical Senses Center in Philadelphia, Pennsylvania say, “There is mounting evidence that the presence of airborne chemicals that produce odor and irritation can be a significant impediment to a productive and healthy workforce, even among individuals without chemical sensitivity.”

Environmental chemicals affect all of us in one way or another. Some are more profoundly affected than others. Asthma, allergies, cancer, chemical sensitivity, and migraines have all been linked to chemical exposure.

Most of us don’t realize we are being bombarded by chemicals every day. Some often overlooked examples include perfumes and fragranced products, air fresheners, newly and previously applied pesticides, wood smoke, and petroleum based products.

“Studies investigating odor and irritant-induced symptoms in occupational environments suggest that poor indoor air quality, coupled with psychosocial factors such as the work environment, personality and stress, can lead to the development of building-related complaints and exacerbate chemical intolerance and symptoms,” say Dalton and Jaén.

Even chemicals which generate the pleasant odors we enjoy may cause health problems. Recently, scent makers have made a push for introducing scent through the HVAC systems in stores and buildings. They claim these signature scents keep customers in stores longer and increase productivity and improve mood in the workplace.

However, Dalton and Jaén assert that, “the practice of introducing pleasant odors in the workplace to improve productivity and mood is not well supported by current research.” And, “Managing the response to odors and irritants in the workplace is critical to maintaining the health and well being of workers.”

As more and more workers request workplace accommodations to reduce exposure to chemical laden perfumes and fragrances used by co-workers, lawsuits are beginning to pop up. One recent lawsuit involved a \$100,000 settlement and new scent free workplace policy for City of Detroit employees when a worker, Susan McBride, filed a lawsuit after the City failed to remedy a problem with a co-workers strong scent that was causing breathing problems.



**“Scents  
are health  
hazards.  
The  
United States  
District Court  
agreed in  
McBride  
v the  
City of  
Detroit..”**

“There is a critical need for regulatory organizations in the United States and elsewhere to harmonize guidelines for occupational exposure limits, say Dalton and Jaén. Management must educate workers and engage in solutions when these situations arise, not only for the health of the complainant, but also for the health and productivity of the entire workforce.

Because the vast majority of people misperceive scents and odors as harmless, Dalton and Jaén assert that, “management must engage in risk communication and education of workers in order to ensure that misperception of risk from odors does not lead to illness and loss of well being.”

More importantly, each of us must educate ourselves regarding the health dangers of these common, everyday products. The assumption that such products have been safety tested is disproved by the fact that over 80% of the chemicals on the market used to make these products have not been tested for human safety. We must learn to sift through the propaganda industry presents to generate sales and work to uncover the truth.

Before you decide you’d rather smell of perfume than body odor, consider that there are many natural and scent free soaps and deodorants which control body odor. Perfume was used to cover up body odor many years ago before societies had running water to take daily bathes. Many people still consider the use of heavy fragrance to mean that someone is too lazy to bathe.

Scents are health hazards. The United States District Court agreed in McBride v the City of Detroit.

**Reference**

Authors: Dalton PH, Jaén C. Responses to odors in occupational environments. *Curr Opin Allergy Clin Immunol*. 2010 Feb 12;



*Inside MCS America****Inside MCS America***

MCS America is going through upgrades to make access to the information we have available on multiple chemical sensitivity (MCS) and related illnesses easier.

**Website**

The website at [www.mcs-america.org](http://www.mcs-america.org) is currently going through its 4th major revision. This revision brings a new look with a more professional appearance. The background of the site will be in white and the menu bar at the left will be expanded to include new pages for the following toxic substances:

- Fragrance
- Cleaning & Laundry
- Pesticide
- Wood Smoke
- Building Materials
- Petroleum Products
- Material Safety Data

The site will be rolled out while these pages are still under construction.

The menu bar at the left will also include a links index with the following categories, each on a separate page to reduce the amount of scrolling it currently takes to locate a link:

- Air Quality Ratings
- Fragrance Free Places
- Hospital Access
- Movies, Books, & Writings
- Organizations & Support
- Physician Websites
- Safer Travel Lodging
- Schools
- Vaccinations

Pages have also been added for MCS Awareness Month and EMR Awareness Month.

A new page called “News Flash” will be added. This page will contain the important news from around the world that is currently on the home page.

There will be a search box on the homepage which will search the site for key words. If, for example, you want to find information on pesticides, you can simply type “pesticide” into the search box and Google will provide results specific to the MCS America website.

The new site will be rolled out in April.

**Preferred News Delivery**

Daily news subscriptions are available via:

E-mail,  
[mcsafeeds-subscribe@yahoogroups.com](mailto:mcsafeeds-subscribe@yahoogroups.com)

Facebook,  
<http://www.facebook.com/pages/MCS-America/95671789291>

Twitter  
[http://twitter.com/MCS\\_America](http://twitter.com/MCS_America)

Yahoo Groups  
<http://groups.yahoo.com/group/mcsafeeds>

RSS Feed  
<http://thetruthaboutmcs.blogspot.com/feeds/posts/default>



*Scientific Study****Brain Scans Reveal Physical Brain Damage in Gulf War Veterans***

**“Toxic exposures during deployment have been linked to Gulf War Syndrome.”**

After nearly 20 years of having their poor health dismissed as “post traumatic stress”, Gulf War Veterans finally have a way to show the legitimacy of their illness, Gulf War Syndrome.

Gulf War Syndrome is a complex bunch of symptoms that are seemingly unrelated. Pain, numbness, tingling, fatigue, brain fog, chemical sensitivity, emotional changes, and other subjective symptoms make up the syndrome.

In recent years, toxic exposures during deployment have been linked to Gulf War Syndrome.

At the annual Society of Toxicology meeting, functional MRI brain scans were presented which clearly identify physical differences in the brains of Gulf War Syndrome victims when compared to healthy counterparts. Further, they can identify three dis-

tinct forms of Gulf War Syndrome.

Each form of Gulf War Syndrome is linked to a different toxic agent. The agents are Sarin nerve gas, pyridostigmine bromide (a nerve gas antidote), and pesticides. Each of these agents produces a consistent physical change in basal ganglia of the brain that is believed to lead to neuron die off.

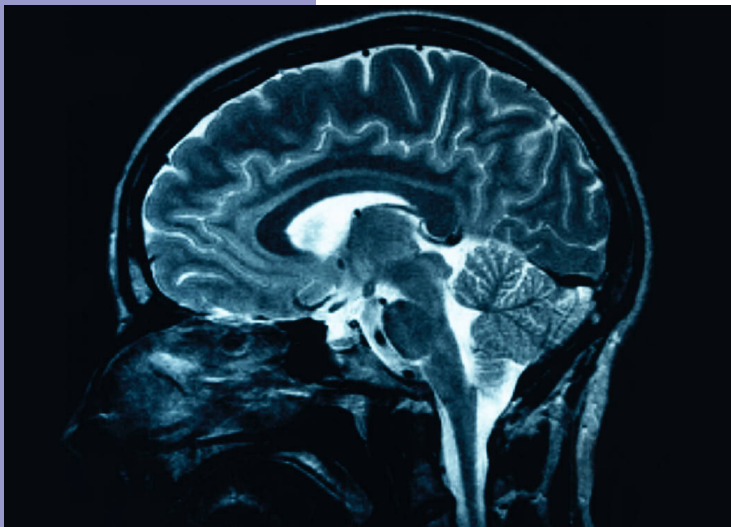
The brain must find alternate routes around the damage, leading to decreased brain function and symptoms related to the loss of function in the damaged part of the brain.

The basal ganglia controls cognition and coordination. Damage to the basal ganglia may lead to problems with speech, motor control, and memory. Symptoms may include difficulty walking, poor memory, tremor, tics, and repetitive movements.

Other conditions related to the basal ganglia include Huntington disease, Tourettes syndrome, and Wilson diseases

Other findings include altered blood flow to the brain and damage to the myelin sheath similar to that seen in multiple sclerosis.

While this information will likely lead to diagnostic tests to enable doctors to definitively diagnose Gulf War Syndrome, an appropriate treatment or cure has yet to be discovered.



## Resources

# Patient Support & Resources

## MCS America Forums

### MCSA Public

<http://health.groups.yahoo.com/group/mcsa-public/>

Open to the general public open to discuss MCS, support, ideas, information, announcements, news and activism.

### MCS America Members Activist/Support

<http://health.groups.yahoo.com/group/mcs-america-members-support>

This group also fulfills the function of discuss support, ideas, information, announcements, and/or share personal activism like the MCSA-Public group, only with a closed membership that requires a membership application. This group also has the added benefit of being a place where individuals and other organizations and activists can engage in collaborative efforts with MCS America and being recipient to all the news feeds (see MCSA Feeds below). Members of this group are considered associate members of MCS America. Members do not operate MCS America in any way, but rather collaborate with the organization and are privy to some internal operations, activities, and events.

### MCSA Feeds

<http://health.groups.yahoo.com/group/mcsafeeds>

The purpose of this public access group is to receive daily distribution of news and research studies on multiple chemical sensitivity, chemical injury, environmental concerns, and other related environmental illnesses and disorders. Anyone can join without an application. Only the moderator posts to this group. This is not a discussion group. This group distributes about 15 articles on average each day.

### MCS Salvage and Share

<http://health.groups.yahoo.com/group/MCSA-safer-salvage-and-share>

A public access group similar to Freecycle, except it's a free recycling program for safer reusable's geared towards individuals with MCS, CFS, FM, and other related disabilities correlated with the environment. The purpose of this program is to find, give, and recycle needed "safe" or "safer" items. All items are exchanged for free. Shipping cost are arranged between donor and recipient. Anyone can join without an application.

### Multiple Chemical Sensitivities and Toxic Injury

<http://groups.google.com/group/mcs-ti>

This is a small non-Yahoo based group open to the general public to discuss MCS, support, ideas, information, announcements, news and activism.

### MCS Hawaii

<http://health.groups.yahoo.com/group/mcs-hawaii>

Open to the general public residing in Hawaii to discuss support, ideas, information, announcements, and/or share personal activism. No application is required. This group is currently recipient to all the news feeds (see MCSA Feeds above). This list is operated in part by a state subsidiary volunteer who resides in the state.

### MCS Nebraska

<http://health.groups.yahoo.com/group/MCS-Nebraska>

Open to the general public residing in Nebraska to discuss support, ideas, information, announcements, and/or share personal activism. No application is required. This list is operated in part by a state subsidiary volunteer who resides in the state. or subscribe at:

### MCS Michigan

<http://health.groups.yahoo.com/group/mcs-michigan>

Open to the general public residing in Michigan to discuss support, ideas, information, announcements, and/or share personal activism. No application is required. This list is operated in part by a state subsidiary volunteer who resides in the state.

## Support Forums Outside the MCS America Network

### 4Mom

<http://groups.yahoo.com/group/4MOM/>

According to Mt. Sinai Medical School, there are many illness' caused by toxic substances such as pesticides. They are studying the role other toxins play on the new childhood diseases triggered by environmental factors. They call this the new epidemic. Mothers of Many is for all parents with children who are ill and are affected by toxic chemicals such as Attention Deficit Disorder, Asthma, Cancer, Autism, Tourettes Syndrome, Multiple Chemicals Sensitivities (MCS), Parkinson's, and any other condition affected.

### Bay Area MCS

<http://health.groups.yahoo.com/group/bayareamcslist/>

Classified ads and notices for people with MCS (Multiple Chemical Sensitivity) in the San Francisco Bay Area.

### CFS CFIDS ME

[http://health.groups.yahoo.com/group/CFS\\_CFIDS\\_ME/](http://health.groups.yahoo.com/group/CFS_CFIDS_ME/)

This Group is to promote friendly discussion about places where people have gone and feel more or less recovered from CFS/ME/CFIDS.

### Chemical Disability Australasian NETWORK

<http://groups.yahoo.com/group/CDANET/>

A Discussion/Chat/Mutual help list run by and for the chemically disabled.

### CMCS-EI Christian MCS, CFS, FM, and EI Group

<http://health.groups.yahoo.com/group/CMCS-EI/>

We are a Christian group who have invisible illnesses.

### Creative Canaries Community

<http://health.groups.yahoo.com/group/CreativeCanariesCommunity>

This group is an online meeting place for creative artists with Chemical Sensitivities.

**Detox**

<http://health.groups.yahoo.com/group/mcs-america-members-support>

"Detox" is a group to serve chemically injured, environmentally ill, multiple chemical sensitivity, and related illness such as chronic fatigue, candidiasis, hypoglycemia, lupus, and others.

**Disinissues**

<http://groups.yahoo.com/group/Disinissues/>

The purpose of Disinissues is to share experience and advice about the processes of obtaining and maintaining Social Security Disability Insurance (SSDI), Supplemental Security Income (SSI), and long-term disability insurance. The group is targeted mainly towards those with invisible disabilities, such as CFIDS and other conditions not on Social Security's Listing of Impairments.

**EMF Refugee**

<http://health.groups.yahoo.com/group/emfrefugee/>

This ML has been created with the intent of bringing refugees together in countries around the world to form their own EMF-free communities in natural environments where they can heal and create healing environments for the Earth and others.

**Environmental Illness 001**

[http://health.groups.yahoo.com/group/environmental\\_illness001/](http://health.groups.yahoo.com/group/environmental_illness001/)

This group is dedicated to curing / resolving all issues related to Environmental Illness, including but not limited to: Multiple Chemical Sensitivity (MCS), Multiple Food Allergy, Leaky Gut Syndrome, Candida, Epstein Barr Virus, Chronic Fatigue, Fibromyalgia, Heavy Metal Poisoning, Porphyria, endocrine system dysregulation, etc.

**eSens - Electrical Sensitivity**

<http://health.groups.yahoo.com/group/eSens/>

Do you feel ill when you're near computers, cell phones, fluorescent lights, or wireless internet? If so, you may have "electrical sensitivity".

**Gasslist-L (Glutaraldehyde, Aldehyde, and Solvent Sensitivity)**

<http://www.ncchem.com/snftaas/gasslist.htm>

This list has been established to serve persons interested in Glutaraldehyde, Aldehyde, and Solvent Sensitivity, especially darkroom personnel, radiographers, and diagnostic medical sonographers. The purpose of the list is to promote internet-wide exchange of research and information.

**Green Canary**

<http://groups.yahoo.com/group/GreenCanary>

This list is dedicated to a life free from toxic chemicals, and the health problems that they can cause.

**Immune**

<http://immuneweb.org/lists/immune.html>

This is the list for support and information about multiple chemical sensitivities, chronic fatigue syndrome, fibromyalgia, lupus, multiple sclerosis, porphyria, allergies, asthma, and other immune-related ailments.

**Immune Parenting**

<http://groups.yahoo.com/group/immune-parenting/>

This list is for both men and women who have Multiple Chemical Sensitivity, Chronic Fatigue Syndrome, Fibromyalgia, autoimmune disorders, or other immune system medical issues--or their partners--who are parents, pregnant, trying to conceive, or who are thinking about parenthood.

**Live Chat at the Health and Environment Resource Center**

<http://www.herc.org/chat>

This chat room is not associated with any group. It is unmoderated and no password is required. Chat Times: Saturday - 7 pm ET, 6 pm CT, 5 pm Mtn, 4 pm Pac; Monday - 9 pm ET, 8 pm CT, 7 pm Mtn, 6 pm Pac; Wednesday - 8 pm ET, 7 pm CT, 6 pm Mtn, 5 pm Pac.

**MCS Canada**

<http://health.groups.yahoo.com/group/MCS-Canada/>

This group was formed to assist patients and concerned parties from all nationalities learn to cope with environmental injury, including disorders such as MCS, ME, CFS, FM, Lyme, Lupus, GWS, PPS, as well as related and associated illnesses.

**MCS Canadian Sources**

<http://groups.yahoo.com/group/MCS-CanadianSources>

MCS Canadian Sources is a support, information and resource exchange for those living and coping with Multiple Chemical Sensitivity (MCS), Environmental Illness (EI), or Chemical Injury (CI).

**MCS Photography**

<http://health.groups.yahoo.com/group/MCSphotography/>

MCS Photography is for those with multiple chemical sensitivity who capture and share the world and their life through photography.

**MCS Recycle**

<http://groups.yahoo.com/group/MCSRecycle/>

The objective of this group is to be able to share with each other items that are chemical free and have been used in a non-toxic environment. This group is planet-wide.

**MCS Safe Shelter USA**

<http://health.groups.yahoo.com/group/mcssafeshelterusa/>

Short-term and long-term housing for people with MCS (Multiple Chemical Sensitivity). Check our database for listings by state. Find rentals, hotels, and housing to purchase.

**MCS Singles**

<http://groups.yahoo.com/group/mcs-singles>

Addresses the unique challenges of living alone without help as a single with MCS. Examines solutions, provides a place for general discussion, and is a resource for peer support.

**MCS Survivors**

<http://communityzero.com/mcsurvivors>

For those who experience environmental illness or multiple chemical sensitivities (MCS), here is a place to gather, exchange ideas, links to helpful websites, even have live chats. Enjoy!

**MCS Toxic Injuries**

<http://health.groups.yahoo.com/group/MCS-Toxic-Injuries/>

MCS-Toxic-Injuries is a self-moderated, secular, apolitical newsgroup for toxically-injured environmentally sensitive people to support one another and exchange coping methods, treatments and experiences.

**MCS Village**

<http://health.groups.yahoo.com/group/MCSVillage/>

The purpose of this group is to discuss the feasibility of building a village(s) or community in which MCS/EI patients can live safely, and to provide a forum to discuss the legal, medical, geographic, architectural, social and funding issues.

**MCS Writers Group**

<http://health.groups.yahoo.com/group/mcswritersgroup/>

A place for writers who have chemical sensitivities (or chemical injury) to share their stories and articles, work on and develop public writing skills, exchange editing skills and perspective, and develop ideas in order to bring awareness and education to the published world about what it is like to live with MCS/ES/CI/EI.

**Midwest Oasis MCS E-mail Support**

<http://health.groups.yahoo.com/group/MO-MCS/>

Midwest Oasis MCS E-mail Support is the e-mail arm of the Midwest Oasis MCS Support Group. Although people from all geographical areas are welcome to join, a partial focus of this list will be discussion of regional issues affecting MCS (Multiple Chemical Sensitivity) in Missouri and other Midwestern states.

**Multiple Chemical Sensitivity (Chemical Sensitivity, Porphyrin & CO)**

<http://health.groups.yahoo.com/group/MultipleChemicalSensitivity/>

Discussion group where people afflicted with Chemical Sensitivity, Chronic Carbon Monoxide Poisoning &/or Disorders of Porphyrin Metabolism can talk about their illness, inquire with others on avoidance, methods of cleaning & products one can use for necessary hygiene.

**Old Dominion MCS-FMS\_CFIDS Support Group · A Virginia Fibro MCS CFIDS Group**

[http://health.groups.yahoo.com/group/OldDominionMCS-FMS\\_CFIDSsupportgroup/](http://health.groups.yahoo.com/group/OldDominionMCS-FMS_CFIDSsupportgroup/)

Too many people in Va. have Fibromyalgia, Myofascial Pain Syndrome, CFIDS, Gulf War Syndrome (GWS), ES, and Multiple Chemical Sensitivity. The group owner wanted to create an informative, supportive group for Virginians, and others.

**Planet Thrive**

<http://www.planetthrive.com/>

A dynamic online community for those activity seeking answers and support for a variety of health concerns. A place where people around the world help each other get well and stay well.

**Sick Buildings**

<http://health.groups.yahoo.com/group/sickbuildings/>

Toxic molds are running rampant in our homes, offices and schools. Exposure to mycotoxins has been linked to the death of infants, as well as immune-compromised adults. Despite increasing reports of mold-induced illness and health problems associated with mold exposure, our public health agencies offer little, if any support or funding for research into this growing problem.

**Sprayno**

<http://groups.yahoo.com/group/sprayno/>

This is a list to exchange information regarding environmental issues in the northern suburbs and NY metro area focusing especially on encouraging activism in this area and educating the public about toxic effects of pesticide/herbicide usage.

**Tenth Paradigm Society**

<http://health.groups.yahoo.com/group/TenthParadigmSociety/>

The Tenth Paradigm Society mailing list is for the dissemination and discussion of information concerning the NO/ONOO- cycle mechanism, a new paradigm of human disease, proposed by Martin L. Pall, Ph.D. Dr. Pall adopted the term "Multisystem Illness" to describe

those diseases that fall under the tenth paradigm. They include: Chronic Fatigue Syndrome (CFS/CFIDS/M.E.), Multiple Chemical Sensitivity (MCS), Fibromyalgia (FM/FMS), Post-Traumatic Stress Disorder (PTSD), and Gulf War Syndrome (GWS).

**The Sanctuary**

<http://www.mcs-international.org/phpBB3/>

MCS-International.Org's Holistic Support Forums For sufferers of Multiple Chemical Sensitivity and all other forms of Chemical Injury and Environmental Illness.

**Toxics Discussion**

<http://groups.yahoo.com/group/ToxicsDiscussion/>

If you're keen on a toxics-safe future for the planet, then this is the discussion group for you. Toxics are defined here as naturally occurring or man-made chemicals (elements/compounds/mixtures) that have a toxic effect.

**WSMCSN (Washington State MCS Network)**

<http://groups.yahoo.com/group/WSMCSN>

WSMCSN is a decentralized network of groups and individuals in Washington State who share information about the issues of Multiple Chemical Sensitivity.

**Additional Forum Listing Webpage**

<http://www.mcs-america.org/forums>

## Physician & Dentist Referral Lists

**Physician Referral List by State**

<http://mcs-america.org/doctorlist.pdf>

Some of the physicians on this list specialize in MCS, others in FM and CFS. It is recommended that patients and doctors consult with one another prior to beginning any treatment to ensure understanding of the patient's needs and compatibility of patient and physician.

**Dentist Referral List by State**

<http://mcs-america.org/dentistlist.pdf>

Some of the dentists on this list are specifically familiar with MCS, others are not. It is recommended that patients and dentists consult with one another prior to beginning any treatment to ensure understanding of the patient's needs and compatibility of patient and dentist.

## Air Quality Reports

**Air Now Air Quality Reports**

<http://www.airnow.gov/>

**EPA State and Regional Indoor Environments Contact Information**

<http://www.epa.gov/iaq/wherelive.html>

**The National Association of Clean Air Agencies 4 Cleaner Air**

<http://www.4cleanair.org/>

**American Lung Association: State of the Air**

<http://lungaction.org/reports/stateoftheair2007.htm>

**Current Local & National Allergy Levels**

<http://pollen.com/Pollen.com.asp>

**Scorecard: Pollution Index by Area**

<http://www.scorecard.org/>

**Toxmap Hazardous Waste Site Locations**

<http://toxmap.nlm.nih.gov/toxmap/main/index.jsp>

**USA Smoke/Fire Pollution Map**

<http://www.firedetect.noaa.gov/viewer.htm>

**Antenna Search (USA)**

[http://mcs-america.org/index\\_files/www.AntennaSearch.com](http://mcs-america.org/index_files/www.AntennaSearch.com)

**EPA Safe Drinking Water Information by State**

<http://www.epa.gov/safewater/dwinfo/>

**EPA Radon Zone Map**

<http://www.epa.gov/radon/zonemap.html>

## Brochures

**Air Fresheners & Plug-Ins**

<http://mcs-america.org/airfresh.pdf>

**Chemical in Air Fresheners Reduces Lung Function**

<http://mcs-america.org/lung.pdf>

**Consequences of Childhood Chemical Injury Poster By Margaret S. O’Nan**

<http://mcs-america.org/onan.pdf>

**Electrosensitivity Brochure by Kato Yasuko**

<http://mcs-america.org/KatoYasukoElectrosensitivityBrochure.doc>

**Fabric Softener**

<http://mcs-america.org/fabricsoftener.pdf>

**Fragrances**

<http://mcs-america.org/fragrances.pdf>

**Grandma’s Cupboard: General Cleaning Solutions**

<http://www.mcs-america.org/general.pdf>

**Grandma’s Cupboard: Kitchen Cleaning**

<http://www.mcs-america.org/kitchen.pdf>

**Grandma’s Cupboard: Personal Care**

<http://www.mcs-america.org/personal.pdf>

**Grandma’s Cupboard: Laundry**

<http://www.mcs-america.org/laundry.pdf>

**Household Mold brochure from Quebec government**

<http://publications.msss.gouv.qc.ca/acrobat/fl/documentation/2002/02-214-01A.pdf>

**ILRU: Understanding & Accommodating People with MCS in Everyday Living**

<http://mcs-america.org/ilru.pdf>

**Indoor Air Chemistry**

<http://mcs-america.org/indoorair.pdf>

**Interior Design and MCS**

<http://mcs-america.org/interior.pdf>

**Jill Mellum: Breathe Easier, Hold the Fragrances Brochure**

<http://mcs-america.org/fragrancefacts.pdf>

**MCS Homebuyer’s Questionnaire**

<http://mcs-america.org/Homebuyer'sQuestionnaire.pdf>

**MCS Task Force of New Mexico Brochure**

<http://mcs-america.org/newmexico.pdf>

**MCS Public Accommodations**

<http://www.nettally.com/prusty/PUBLIC%20ACCOMMODATIONS.pdf>

**MCS Statistics**

<http://www.mcs-america.org/MCSStatistics.pdf>

**No Scents Makes Sense Brochure**

<http://www.nb.lung.ca/pdf/NoScentsMakeSense.pdf>

**Theory on the Cause of MCS: Peroxynitrite and Nitric Oxide**

<http://www.mcs-america.org/cause.pdf>

**Understanding Multiple Chemical Sensitivity**

<http://www.mcs-america.org/understanding.pdf>

**Use of Baking Soda as a Fungicide**

<http://mcs-america.org/fungicide.pdf>

**Vaccine Poster - Are We Poisoning Our Children?**

<http://www.generationrescue.org/pdf/080212.pdf>

**Visiting a Person with MCS**

<http://mcs-america.org/visiting.pdf>

**What you should know before visiting a person who has NRLA and/or MCS**

<http://mcs-america.org/VisitingNRLA-MCS.pdf>

## Signs

**Acute Toxic Effects of Fragrances Business Card**

<http://mcs-america.org/acutetoxiceffectsoffragrancescard.pdf>

**Chemical Awareness Ribbon**

<http://mcs-america.org/ribbon.gif>

**Electrosensitivity Sign - Please Turn Off Your Cell Phone**

<http://mcs-america.org/KatoYasukoElectrosensitivitySignTurnOffYourCellPhone.pdf>

**Facemask on Tweety**

<http://mcs-america.org/tweety.jpg>

**Fragrance Free Sign: Brooks University**

[http://www.brocku.ca/oehs/graphics/Fragrance\\_Free\\_Sign.pdf](http://www.brocku.ca/oehs/graphics/Fragrance_Free_Sign.pdf)

**No Scents Makes Sense Sign**

<http://mcs-america.org/scentsign.pdf>

**No Latex Sign by Jane Sagmoe**

<http://mcs-america.org/nolatemask.JPG>

**You Could Be Next Sign**

<http://mcs-america.org/nextsign.pdf>

**Want to Put Your Friends and Family in Jail?**

<http://mcs-america.org/jail.pdf>

**Wood Smoke Trespass Flyer 8 1/2 x 11**

<http://mcs-america.org/woodsmokeflyer.pdf>

## Activist Materials

**Fragrances on Mail and/or Catalogs**

<http://mcs-america.org/FragrancedMailCatalogBillsLetterforActivists.doc>

**Air Freshener Use**

<http://www.mcs-america.org/customairfreshenerletter.doc>

**Use of Fragrance, Cologne, and Perfume**

<http://mcs-america.org/UseofFragranceLetterforActivists.doc>

**Fabric Softener Emissions**

<http://www.mcs-america.org/LetterAboutFabricSoftener.doc>

**Letter to State Representatives to Ban Woodsmoke**

<http://mcs-america.org/woodsmoke.doc>

**Letter to Doctors and Medical Boards Supporting MCS as a biological Illness (fully cited and scientifically supported)**

Website: <http://mcs-america.org/MCSPositionStatement.htm>

PDF: <http://mcs-america.org/MCSPositionStatement.pdf>

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**Request for Accommodations Under the Americans with Disabilities Act**

<http://www.mcs-america.org/RequestforAccommodation.doc>

## Public Service Announcements

**Public Service Announcement #1**

**Air fresheners have been pulled off thousands of shelves nation-wide!**

<http://www.mcs-america.org/AirFreshenerPSA1.pdf>

**Public Service Announcement #2**

**When you use fragranced products, did you know you are wearing toxic chemicals!?**

<http://www.mcs-america.org/WhenYouUseFragrancedProductsPSA2.pdf>

**Public Service Announcement #3**

**Secondhand Fragrances are Like Secondhand Smoke!**

<http://www.mcs-america.org/SecondHandFragrancesPSA3.pdf>

**Public Service Announcement #4**

**Scented laundry detergents and fabric softeners pollute indoor and outdoor air!**

<http://www.mcs-america.org/ScentedLaundryDetergentsPSA4.pdf>

**Public Service Announcement #4 (SPANISH)**

**Scented laundry detergents and fabric softeners pollute indoor and outdoor air!**

<http://mcs-america.org/mcsamerica/ScentedLaundryDetergentsPSA4Spanish.pdf>

**Public Service Announcement #5**

**Wood Smoke... The Other Secondhand Smoke!**

<http://www.mcs-america.org/WoodSmokePSA5BurningIssues.pdf>

**Public Service Announcement #6**

**Fragrances undermine public health!**

<http://www.mcs-america.org/FragrancesPSA6.pdf>

**Public Service Announcement #7**

**Fragranced Laundry Products Pollute Our Air**

<http://mcs-america.org/PSA7FragrancedLaundry.pdf>

## Clothing & Novelties for Activism

**MCS America Store for the Environment**

<http://www.mcs-america.org/MCSstore..htm>

**Zona's T-Shirts and Stuff Zone**

<http://members.shaw.ca/zonazone/shop/tshirts.html>

## Virtual & Work-at-Home Jobs

**Agent, Staffing at Home**

<http://www.staffingathome.com/>

**Agent, West at Home**

<http://www.westathome.com/>

**Agent, Working Solutions**

<http://www.workingsol.com/home.htm>

**Bolger, PayPerPost.com**

[http://payperpost.com/blogger\\_signup.html](http://payperpost.com/blogger_signup.html)

**Call Center Representative, Accolade Support**

<http://www.accoladesupport.com/>

**Call Center Representative, Overflow USA**

<http://www.overflowusa.com/>

**Call Center Representative, Overflow USA**

<http://www.overflowusa.com/>

**Caller Employee, Customer Loyalty Concepts**

<http://www.customloyal.com/Employment.aspx>

**Chef Instructor, Chefs Line**

<http://www.chefsline.com/>

**Customer Care, VIP Desk**

<http://www.vipdesk.com/info/default.asp>

**Customer Service, Alpine Access**

<http://www.alpineaccess.com/external/index.html>

**Editor, EditFast.com**

<http://www.editfast.com/>

**Expert, JustAnswer Corp**

<http://www.justanswer.com/>

**Freelancer, Team Double-Click**

<http://www.teamdoubleclick.com/freelance.html>

**Guide, About .com**

<http://beaguide.about.com/>

**Guide, ChaCha**

<http://www.chacha.com/>

**Home Agent, Convergys**

<http://www.convergysworkathome.com/>

**Independent Call Center Agent, LiveOps**

<http://tinyurl.com/5xfv7n>

**Telemarketing, Intrep Sales Partners**

<http://www.intrep.com/>

**Online Juror, eJury.com**

<http://www.ejury.com/>

**Online Juror, OnlineVerdict.com**

<http://onlineverdict.com/>

**Online Juror, Trial Practice Inc.**

<http://trialpractice.com/>

**Third Party Verifier, BSG Payments LLC**

<http://tinyurl.com/4vcldx>

**Virtual Assistant, Virtual Office Temps**

<http://virtualassistantjobs.com/>

**Virtual Services, Arise Virtual Solutions**

<http://www.arise.com/Content/default.asp>

**Writer, Associated Content**

<http://www.associatedcontent.com/>

**Writer, CyberEdit Inc.**

<http://www.cyberedit.com/>

**Writer, MyEssays.com**

<http://www.myessays.com/sell.php>

**National Telecommuting Institute, Inc.**

<http://www.nticentral.org/>



## Environmentally Safer Housing

**Allergy And Environmental Health Association Of Quebec (AEHAQ) Environmentally Adapted, Social Housing Project For People Suffering From Environmental Sensitivities**  
[http://www.aeha-quebec.ca/bb\\_housingproject.htm](http://www.aeha-quebec.ca/bb_housingproject.htm)

**Barrhaven Non-Profit Housing Inc. Environmental Sensitivity Units**  
 Steepleview Crossing,  
 3001 Jockvale Road, Nepean, Ontario, K2J 4E4  
 (613) 823-6230 Fax: (613) 825-7724  
<http://ehaontario.ca/barrhaven-housing.htm>  
<http://www.bnphi.org/es.htm>

**Canada-wide Housing Connection**  
 1-613-278-0463  
<http://ehaontario.ca/interview.htm>

**Ecology House, San Rafael, California (built in 1994)**  
 375 Catalina Blvd  
 San Rafael, CA 94901  
 (415) 456-4453  
<http://www.tikvah.com/cc/eh>  
[eh@ecologyhouse.net](mailto:eh@ecologyhouse.net)

**Escalante House**  
 P.O. Box 652  
 Escalante UT 84726  
 Phone/Fax: (435) 826-4778  
[toripat@color-country.net](mailto:toripat@color-country.net)

**Environmentally Friendly Housing Partnership**  
 Pride and Joy Condos -- North  
 5685 South AIA Highway  
 Melbourne Beach, FL 32951  
 (321) 409-8233 - Phone  
 (321) 725 4883 -- FAX  
<http://www.prideandjoycondos.com/>  
[damianorob@aol.com](mailto:damianorob@aol.com)

**Green Homes for Sale**  
<http://greenhomesforsale.com/>

**Safe Haven Community Housing**  
 P.O. Box 25281  
 Portland, Oregon 97298  
[judiths@teleport.com](mailto:judiths@teleport.com)  
<http://www.geocities.com/safehavencommunity/#ntact>

**The Pandora Initiative (Canada)**  
<http://tier10.com/>

**Quail Haven - MCS Housing**  
 Just North of Tucson, AZ  
 Call Diane Ensign for details:  
 May through January call: (406) 586-3658 (Montana).  
 January through May call: (520) 825-7276 (Tucson).  
<http://madelinx.tripod.com/>

**Seagoville Ecology Housing**  
 15126 Beckett Road  
 Seagoville, Texas 75159  
 (972) 287-2059 Fax: (972) 287-7682  
<http://www.ehcd.com/resources/ecologyhousing.html>

**The Natural Place Environmental Residence and Hotel**  
 1962 NE 5th St.  
 Deerfield Beach, FL 33441  
 954-428-5438  
<http://www.thenaturalplace.com/default.htm>

## Safer Building & Regulations

**Alliance for Healthy Homes**  
<http://www.afhh.org/>

**American Lung Association: Resources & Referrals for and from the Master Home Environmentalist program.**  
<http://tinyurl.com/5vvk9e>

**Architectural House Plans Healthy Homes Construction Guidelines**  
 Information: <http://tinyurl.com/6dteuz>  
 Booklet: <http://www.architecturalhouseplans.com/products/>

**Assessment of the Indoor Air Quality of a Suite for an Environmentally Hypersensitive Occupant**  
<http://mcs-america.org/IAQforanEIOccupant.pdf>

**Considerations For Safer Construction And Renovation By Preston Sturgis**  
<http://www.environmentalhealth.ca/w9394safer.html>

**Dr. Grace Ziem's Environmental Control Plan for MCS Patients**  
<http://www.mcsrr.org/resources/articles/S3.html>

**The Eco Building Guild**  
<http://www.ecobuilding.org/>

**The Effect of Housing on Individuals with Multiple Chemical Sensitivities**  
<http://tinyurl.com/6gor7u>

**Building for Health Materials Center**  
<http://www.buildingforhealth.com/>

**Ecohaus**  
<http://www.ecohaus.com>



**Heal Your Home Center**

<http://tinyurl.com/6dteuz>

**The Healthy Housing Coalition: Basic Needs for Rental Housing for Chemically Sensitive Persons**

<http://www.herc.org/hhc/Basicrentalneeds.html>

**Healthy Housing Practical Tips**

<http://tinyurl.com/5bfgzd>

**IEQ Indoor Environmental Quality**

[http://ieq.nibs.org/ieq\\_project.pdf](http://ieq.nibs.org/ieq_project.pdf)

**International Institute for Building Biology and Ecology**

<http://www.buildingbiology.net/>

**LEED® Canada Green Building Rating System**

<http://www.cagbc.org/leed/systems/index.htm>

**The Medical Perspective on Environmental Sensitivities: Building codes, regulations and guidelines**

<http://tinyurl.com/6zmqh>

**Moving House - Things To Look For If You Suffer From MCS**

<http://www.drmyhill.co.uk/article.cfm?id=147>

**Multiple Chemical Sensitivity (MCS): The Controversy and Relation to Interior Design**

<http://www.idec.org/publication/IIArticleMCS.pdf>

**Optimum Environments for Optimum Health & Creativity: Designing and Building a Healthy Home or Office, William J. Rea, M.D.**

[http://www.ehcd.com/books/home\\_building\\_designing.html](http://www.ehcd.com/books/home_building_designing.html)

**Recommended Architectural Features for Multi-Family Housing to Better Accommodate Chemical and Electrical Sensitivities, Susan Molloy, M.A.**

<http://www.ctaz.com/~bhima/recommcshous.htm>

**Research House for the Environmentally Hypersensitive**

<http://tinyurl.com/5prv3>

**Safer Construction Tips for the Environmentally Sensitive**

<http://tinyurl.com/5tgx7l>

**Understanding & Accommodating People with Multiple Chemical Sensitivity in Independent Living, Chapter 4, The Housing Challenge in MCS**

<http://www.ilru.org/html/publications/bookshelf/MCS.html#chapter4>

**Disclaimer**

*This data is for informational purposes and is not intended to replace the examination, diagnosis and treatment of a licensed physician and no such claims are inferred. MCS America will not be responsible for misuse of this information or the misuse of any information provided by its member organizations. Articles, citations, links and information are not necessarily the opinion of MCS America and printing does not constitute MCS America's endorsement.*

**U.S. Department of Housing and Urban Development National Healthy Homes Conference**

<http://www.hud.gov/offices/lead/2008NHHC.cfm>

**U.S. Department of Housing and Urban Development Healthy Housing Reference Manual**

<http://tinyurl.com/5apna5>

**Builders and Building Material Suppliers**

**Green Building Store**

<http://www.greenbuildingstore.co.uk/naturalpaints.php>

**Healthy Buildings, Inc (Air Quality Testing)**

[http://www.healthybuilding.com/html/about\\_us.html](http://www.healthybuilding.com/html/about_us.html)

**Heating and Cooling Options for the Environmentally Sensitive**

<http://eiwellspring.org/HeatingAndCooling.htm>

**Resources for the Chemically Injured: Building Materials**

<http://www.lassentech.com/eibuld.html>

**Tad Taylor's Healthy Homes, LLC**

<http://www.healthy-homes.com/>

**Other Housing Resources**

**Extreme Home Makeover**

<http://abc.go.com/primetime/xtremehome/index?pn=apply>

**Ontario Human Rights Code: Policy and Guidelines on Disability and the Duty to Accommodate Non-Evident Disabilities**

<http://tinyurl.com/6ejep8>

**Residential Rehabilitation Assistance Program for Persons with Disabilities (Canada).**

[http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas\\_003.cfm](http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_003.cfm)



# Community News

## Subscribe to News & Media Articles

To receive free daily news and research feeds about MCS & the environment as they happen, send an e-mail to:

[mcsafeeds-subscribe@yahooogroups.com](mailto:mcsafeeds-subscribe@yahooogroups.com)

Beachwood neighborhood health problems: Lawsuit targets Merck

<http://www.mercedsunstar.com/2010/03/25/1361870/beachwood-neighborhood-health.html>

Taking Showers Could Contaminate Drinking Water

<http://news.discovery.com/earth/showers-pollution-drinking-water.html?print=true>

Gender-bender chemicals 'putting everyone at risk'

<http://www.dailymail.co.uk/health/article-1260479/Gender-bender-chemicals-putting-risk.html#>

March is National Chronic Fatigue Syndrome Awareness Month

<http://www.emaxhealth.com/1506/39/36177/march-national-chronic-fatigue-syndrome-awareness-month.html>

What's Cookin'? It Could Be Air Pollution

[http://www.nlm.nih.gov/medlineplus/news/fullstory\\_96791.html](http://www.nlm.nih.gov/medlineplus/news/fullstory_96791.html)

Porter: How a family reduced its toxic footprint

<http://www.healthzone.ca/health/newsfeatures/article/784935--how-a-family-reduced-their-toxic-footprint-at-home>

Social Networks a Lifeline for the Chronically Ill

<http://www.nytimes.com/2010/03/25/technology/25disable.html?pagewanted=print>

NU study: Dirt's good for kids

<http://www.chicagotribune.com/health/ct-x-n-health-dirt-20100324,0,6756958.story>

Health Tip: Reduce Baby's Exposure to BPA

[http://www.nlm.nih.gov/medlineplus/news/fullstory\\_96679.html](http://www.nlm.nih.gov/medlineplus/news/fullstory_96679.html)

Pesticide Labels Too Vague

[http://www.nlm.nih.gov/medlineplus/news/fullstory\\_96693.html](http://www.nlm.nih.gov/medlineplus/news/fullstory_96693.html)

Call to tackle pollution 'role in 50,000 early deaths'

[http://news.bbc.co.uk/2/hi/uk\\_news/8578952.stm](http://news.bbc.co.uk/2/hi/uk_news/8578952.stm)

Babies dead after anti-measles shots in MP

[http://www.telegraphindia.com/1100315/jsp/nation/story\\_12217661.jsp](http://www.telegraphindia.com/1100315/jsp/nation/story_12217661.jsp)

# Featured Research Studies

## Symptoms after mould exposure including *Stachybotrys chartarum*, and comparison with darkroom disease.

Al-Ahmad M, Manno M, Ng V, Ribeiro M, Liss GM, Tarlo SM.  
Allergy. 2010 Feb;65(2):245-55. Epub 2009 Oct 1.  
University of Toronto, Department of Medicine, ON, Canada.

**BACKGROUND:** Mould-attributed symptoms have included features which overlap with unexplained syndromes such as sick building syndrome.

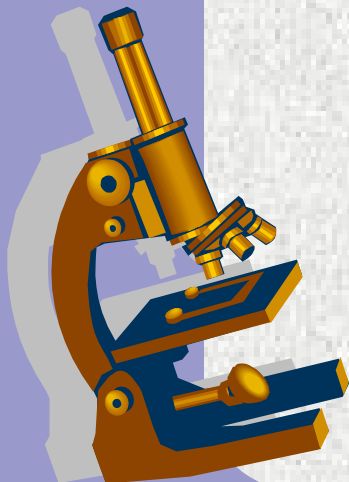
**OBJECTIVES:** We describe questionnaire and chart review findings in patients following exposure to moulds which include *Stachybotrys* and compare responses with two control groups.

**METHODS:** Thirty-two patients presented with symptoms attributed to mould exposures. Exposure identification for 25 patients had reported *S tachybotrys chartarum* as well as other mould (*Aspergillus*, *Penicillium*), 88% at work. The remaining seven had professionally visualized or self-reported/photographic exposure evidence only. A chart review was performed and a follow-up with a questionnaire, including questions on current health status, and nonspecific symptoms.

**RESULTS:** Cough, shortness of breath and chest tightness (at presentation) were reported in 79%, 70% and 64%, respectively, and persisted >6 weeks in 91%. Skin test(s) were positive to fungal extract(s) in 30%. Seventeen returned questionnaires were obtained 3.1 (SD 0.5) years after the initial clinic assessment. Among this subgroup, persisting asthma-like symptoms and symptoms suggestive of sick building syndrome were frequent, and similar to a group previously assessed for darkroom disease among medical radiation technologists. The mould-exposed group more commonly reported they were bothered when walking in a room with carpets, complained of a chemical or metallic taste in their mouth, and had problems in concentration when compared with a control physiotherapist group ( $P < 0.005$ ).

**CONCLUSIONS:** Although only a minority with health concerns from indoor mould exposure had demonstrable mould-allergy, a significant proportion had asthma-like symptoms. Other symptoms were also common and persistent after the initial implicated exposure.

PMID: 19796210 [PubMed - indexed for MEDLINE]



**Functional impairment in chronic fatigue syndrome, fibromyalgia, and multiple chemical sensitivity.**

Lavergne MR, Cole DC, Kerr K, Marshall LM.  
Can Fam Physician. 2010 Feb;56(2):e57-65.

Women's College Hospital, Family and Community Medicine, 76 Grenville St, Toronto, ON M5S 1B2. [k.kerr@utoronto.ca](mailto:k.kerr@utoronto.ca).

**OBJECTIVE:** To characterize patients diagnosed with multiple chemical sensitivity (MCS), chronic fatigue syndrome (CFS), or fibromyalgia (FM), to compare their level of function with Canadian population average values, and to assess factors associated with function. **DESIGN:** Chart review and abstraction of clinical information.

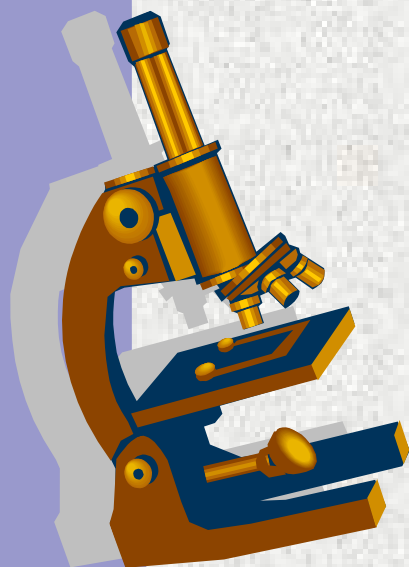
**SETTING:** The Environmental Health Clinic (EHC) at Women's College Hospital in Toronto, Ont, which is a provincial referral centre for patients with illnesses with suspected environmental links, especially MCS, CFS, and FM. **PARTICIPANTS:** A total of 128 consecutive patients diagnosed with 1 or more of MCS, CFS, or FM, seen between January 2005 and March 2006 at the EHC.

**MAIN OUTCOME MEASURES:** Demographic and socioeconomic characteristics, comorbid diagnoses, duration of illness, health services usage, life stresses, helpful therapeutic strategies, and functional impairment measured by the Short Form-36, compared with Canadian population average values. Factors significantly associated with function in bivariate analyses were included in multiple linear and logistic regression models.

**RESULTS:** The patient population was predominantly female (86.7%), with a mean age of 44.6 years. Seventy-eight patients had discrete diagnoses of 1 of MCS, CFS, or FM, while the remainder had 2 or 3 overlapping diagnoses. Most (68.8%) had stopped work, and on average this had occurred 3 years after symptom onset. On every Short Form-36 subscale, patients had markedly lower functional scores than population average values, more so when they had 2 or 3 of these diagnoses. Having FM, younger age at onset, and lower socioeconomic status were most consistently associated with poor function.

**CONCLUSION:** Patients seen at the EHC demonstrated marked functional impairment, consistent with their reported difficulties working and caring for their homes and families during what should be their peak productive years. Early comprehensive assessment, medical management, and social and financial support might avoid the deterioration of function associated with prolonged illness. Education and information resources are required for health care professionals and the public, along with further etiologic and prognostic research.

PMID: 20154232 [PubMed - in process]

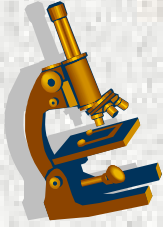


## Secondhand smoke exposure and depressive symptoms.

Psychosom Med. 2010 Jan;72(1):68-72. Epub 2009 Nov 30.

Bandiera FC, Arheart KL, Caban-Martinez AJ, Fleming LE, McCollister K, Dietz NA, Leblanc WG, Davila EP, Lewis JE, Serdar B, Lee DJ.

Department of Epidemiology and Public Health, University of Miami Miller School of Medicine, Miami, FL 33101, USA.



**OBJECTIVE:** To evaluate the association between secondhand smoke (SHS) exposure and depression. Tobacco smoking and depression are strongly associated, but the possible effects of SHS have not been evaluated.

**METHODS:** The 2005 to 2006 National Health and Nutrition Examination Survey (NHANES) is a cross-sectional sample of the noninstitutionalized civilian U.S. population. SHS exposure was measured in adults aged  $\geq 20$  years by serum cotinine and depressive symptoms by the Patient Health Questionnaire. Zero-inflated Poisson regression analyses were completed with adjustment for survey design and potential confounders.

**RESULTS:** Serum cotinine-documented SHS exposure was positively associated with depressive symptoms in never-smokers, even after adjustment for age, race/ethnicity, gender, education, alcohol consumption, and medical comorbidities. The association between SHS exposure and depressive symptoms did not vary by gender, nor was there any association between SHS smoke exposure and depressive symptoms in former smokers.

**CONCLUSIONS:** Findings from the present study suggest that SHS exposure is positively associated with depressive symptoms in never-smokers and highlight the need for further research to establish the mechanisms of association.

PMCID: PMC2804907 [Available on 2011/1/1]

PMID: 19949159 [PubMed - indexed for MEDLINE]

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