



THE CANADIAN INITIATIVE TO STOP WIRELESS, ELECTRIC, AND ELECTROMAGNETIC POLLUTION

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## LIVING WITH ELECTROHYPERSENSITIVITY A Survival Guide

by: *Susan Parsons*

Human beings are bioelectrical systems. Our hearts and brains are regulated by internal bioelectrical signals. Environmental exposures to artificial EMFs can interact with fundamental biological processes in the human body.

*(Sage, 2007)*

We are living in an increasingly complex electrical environment and are inundated daily with electromagnetic frequencies ranging from less than 20 Hz (electric trains) to greater than 1 billion Hz (wireless telecommunication). Most of these frequencies are man-made and were not present until the invention and subsequent commercialization of electricity (early 1900s), radio (1920s), radar (1940s), television (1950s), computers (1970s), and cell phones (1980s). Whether, and at what intensities, these frequencies have biological effects has been a subject of scientific debate for decades.

*(Havas & Stetzer, 2004)*

Early recognition, avoidance of symptom-triggering agents, environmental control, treatments that may reduce residual toxins and recovery of normal biological processes are key to regaining health for people with sensitivities. Without mitigation of the incitant, people with environmental sensitivities may become severely debilitated.

*(Sears, 2007)*

### **In today's world, everyone is exposed to two types of EMFs:**

1. Extremely low frequency electromagnetic fields (ELF) from electrical and electronic appliances and power lines
2. Radiofrequency radiation (RF) from wireless devices such as cell phones and cordless phones, cellular antennas and towers, and broadcast transmission towers. *(Sage, 2007)*

**Dirty/Stray Electricity** refers to high frequency transients, harmonics, and other noise on electrical wiring. It can be generated inside buildings by electronic equipment and it can enter the home through wiring from nearby sources including wireless telecommunication antennas connected to the power grid. When the capacity of the primary neutral on distribution lines is exceeded, current runs along the ground and enters homes via grounded water pipes. *(Havas & Stetzer, 2004)*

## What is Electrohypersensitivity or EHS?

In addition to numerous other health problems, electromagnetic pollution has been associated with an increase in the number of individuals suffering from a condition known as electrohypersensitivity (EHS). EHS is defined by the World Health Organization as: "...a phenomenon where individuals experience adverse health effects while in the vicinity of devices emanating electric, magnetic, or electromagnetic fields."

In Sweden, it is classified as a disability and health care facilities with low levels of exposure to electromagnetic fields and radiofrequency radiation are available. The Canadian Human Rights Commission report also acknowledges environmental sensitivity attributed to electromagnetic exposure. (28) Researchers estimate that approximately 3% of the population has severe symptoms of EHS, and another 35% of the population has moderate symptoms such as an impaired immune system and chronic illness (Havas, 2007).

### SYMPTOMS OF EHS

The biological effects from exposure to EMF/EMR include both adverse health effects and loss of homeostasis and well-being. Symptoms vary from patient to patient depending on their physical biology and exposure intensity and duration. Symptoms quickly improve when away from EMF/EMR sources, particularly when the patient moves away from computers, fluorescent lighting, transformers, wireless antenna, cell and cordless phones, appliances and out of proximity to cell phone towers, electrical substations and power lines. All these are potential sources of higher than normal EMF/EMR exposure. Symptoms recur on returning to the irradiated environment. Over time, sensitivity is increased to smaller and smaller EMF/EMR exposures. (Sage, 2001)

SYMPTOMS OF ELECTRO HYPERSENSITIVITY					
	Neurological	Cardiac	Respiratory	Dermatological	Ophthalmologic
headaches	depression	palpitations	sinusitis	skin rash	deteriorating vision
difficulty concentrating	anxiety	pain or pressure in the chest	asthma	facial flushing	pain or burning in the eyes
muscle and joint pain	confusion and spatial disorientation	low or high blood pressure	bronchitis	itching	pressure in/behind the eyes
memory loss	fatigue	shortness of breath	pneumonia	burning	floaters
dizziness	weakness	arrhythmias			cataracts
nausea	tremors	slow or fast heart rate		swelling of face and neck	
irritability	muscle spasms				
numbness	leg/foot pain				
tingling	"Flu-like" symptoms				
hyperactivity	fever				
altered reflexes	insomnia				
OTHER					
digestive problems	abdominal pain	testicular/ovarian pain/swelling	enlarged thyroid	great thirst	dehydration
nosebleeds	internal bleeding	hair loss	pain in the teeth	deteriorating fillings	Light sensitivity
swollen lymph nodes	loss of appetite	hypoxia	allergies	frequent urination and incontinence	night sweats
immune abnormalities	redistribution of metals within the body	ringing in the ears (tinnitus or similar chronic ear-noise)	impaired sense of smell	altered sugar metabolism	dryness of lips, tongue, mouth, eyes
<b>Severe reactions can include seizures, paralysis, psychosis, and stroke</b>					

## **SO, YOU HAVE EHS. NOW WHAT? HOW DO YOU LIVE WITH IT?**

I won't lie and tell you it's easy. It's not. Not in the world we live in today. Most importantly, you need to reduce your exposure to EMFs and get your body as healthy as possible. If you follow the methods outlined below, you will experience much less pain and discomfort, and fewer symptoms. Your body will also be able to recuperate from exposure to EMFs more easily. Believe me, I have been there. I am there. However, by doing many of the things I mention below, life has improved immensely over the last year.

*Put a frog in a pot of boiling water and it will jump out. Put it in a pot of cold water that is slowly heated, and it won't notice a thing and stay in the pot.*

When I first found out I had EHS and was told the things I should do to get better, it just seemed so overwhelming. But once I took action, I started feeling much better. I was quite shocked when I realized how much subliminal pain and discomfort I had been living with. This was pain and discomfort other than the acute pains I was experiencing, and I didn't even know it was there until after it was gone! My head actually felt ten times lighter and cooler. I was ecstatic from the physical relief I felt. I think my family thought I had gone mad. Here I was with a terrible diagnosis and I was dancing around the house singing.

Very quickly, all my symptoms started to abate. I could walk, think, and speak without difficulty; the ringing in my ears decreased; there were no daily headaches and no more seizures! I also had a nice surprise when other things improved too. Things I hadn't associated with EHS; Chronic sinus and ear pain and pressure that the doctors couldn't explain, Fibromyalgia symptoms, sensitivity to perfumes, nosebleeds, vision, and bladder problems (that had gotten very bad). All the symptoms improved or went away within weeks of staying home from work, eliminating wireless technologies and reducing the sources of EMFs in my home. The symptoms do return, when I'm exposed, but not as badly as before. And it will take a while for my body to heal enough that I don't have any symptoms from short term exposure. I will never be able to tolerate exposure to wireless and cell towers.

After all I've been through, I'm just thankful that I'm not a frog or I'd still be boiling away in that pot of water.

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## EMF Mitigation and Avoidance

*Top performance of body and mind as well as optimal regeneration and relaxation require a healthy building that is largely free from undesirable environmental stressors.*

The first and most important thing you can do for yourself, is to avoid exposure to EMFs. This is next to impossible in today's world, but you can greatly reduce your exposure by knowing what and where the sources are in your environment, and then taking action to eliminate or minimize your exposure to them.

### First and foremost

**GET RID OF YOUR WIRELESS PARAPHERNALIA.** (All wireless technology emits RF)

Yes, you can live without it. In fact, you can't live with it and withdrawal from these conveniences/pleasures is necessary to avoid eventual withdrawal from society.

**CORDLESS PHONES** - Use corded phones... you'll get used to it again. A speaker phone will reduce your exposure even more.

**WIRELESS INTERNET AND BLUETOOTH SYSTEMS** - hard wire it.

(Bluetooth applications include all close range wireless communication devices such as wireless keyboards, mouse, printers, hands-free headsets, gaming consoles, bar code scanners.)

**WIRELESS BABY MONITORS** - use corded, plug in, sound activated type and keep it well away from your baby.

**CELL PHONES AND BLACKBERRIES** - Use a land line. Some people keep one in their glove compartment in case of emergencies. Not using a cell phone regularly not only protects you and those near you but it also reduces the number of signals transmitting from cell phone towers and improves the environment for everyone.

**REPLACE FLOURESCENT LIGHTS AND BULBS** with incandescent bulbs. Although the government is encouraging everyone to use fluorescent bulbs, they only have power savings in mind. They are toxic in more ways than one: they emit strong EMFs and contain mercury. Research is being conducted on a certain type of LED lighting which may be safer to use.

The following is excerpted from Environment Canada's website: *"Because mercury is toxic and has significant impacts on human and environmental health, even small mercury spills should be considered hazardous and should be cleaned up with caution. Liquid mercury, commonly found in household thermometers, thermostats and barometers, volatilizes easily to form a poisonous, colourless and odourless vapor when spilled. If inhaled, this vapor is rapidly absorbed through the lungs of an exposed individual. Children are especially at risk of exposure because mercury vapors, which are heavier than air, often linger near the floor where children crawl and play."*

read the protocol for cleaning up a 'small' mercury spill

(<http://www.ec.gc.ca/MERCURY/EN/cu.cfm?>)

Your body heals and regenerates while you sleep. If you are being bombarded with EMFs during this time, not only will you be causing more damage but your body will not get the chance to heal itself.

**REMOVE ALL ELECTRICAL EQUIPMENT FROM THE BEDROOM.** Clock radios, T.V.s, phones, electric blankets. If you must have them in the bedroom, place them as far away from the head of the bed as possible. It would be best to use a wind up or battery operated alarm clock.

- If you sleep in a water bed, unplug it (only switching off is not sufficient) before getting in at night.
- Do not use electric blankets. Use a hot water bottle or preheat bed with electric blanket, but unplug during sleep (only switching off is not sufficient).
- Sleep with your head away from power outlets.

**SLEEP/REST AWAY FROM HIGH FIELD AREAS** like the house power main and operational refrigerators and appliances. Remember, fields extend some distance, even through walls.

- Place kitchen and laundry appliances on outside walls.
- It is highly beneficial to turn the power to the bedroom off at night. Remember there may also be lighting fixtures in ceilings below your bedroom and these should be turned off at the main also.

**IN YOUR VEHICLE:** There are high levels of EMFs in the engine compartment of a vehicle. The alternator and ignition being the main culprits. If you are in the market for a new car, it would be best to choose one that allows you to sit further back from the engine. Although fuel efficiency is a concern, for the health purposes of someone with EHS it would be better to choose a larger car. If you are to measure for the EMFs in a car, you should be driving at the time. measure all areas of the car including the footwell. Measure with the heater and A/C on and off. Generally, standard transmission and deisel powered vehicles emit fewer EMFs. Deisel being the best. Some vehicles have high electrical fields and low electromagnetic fields and some the opposite.

- Do not use GPS
- Limit the use of the heater and air conditioner
- Disconnect onboard DVD players etc. Not only are they usually placed very close to the heads of those in the front seats, the EMFs they emit are being bounced around inside the vehicle striking everyone multiple times.
- The stereo system can also be a bad source of EMFs, from the digital display, even when turned off. You can 'disconnect' it by pulling the fuse.
- There is a transparent window shielding that can be installed on you vehicle's windows but you may need special permission to do this. It will protect against RF from the plethora of cell towers along the highways. All windows will need to be coated so RF signals don't get in and ricochet around inside the vehicle. See: Protective fabrics
- While driving on the highway try to stay away from commercial vehicles. They usually have high powered transmitters for communications

**LIVE AS FAR AS POSSIBLE FROM** power lines, distribution lines, electrical substations, electrical bus cables and cell phone towers.

**ONLY SUBMIT YOURSELF TO X-RAYS, MRI's OR CT SCANS** in emergency situations. Although exceptional diagnostic tools, these procedures are extremely dangerous and will only make your symptoms worse. Unless your situation is dire, it would be unwise to submit to them. (Updated information Mar 25, 2008)

For information on the technology of MRIs please see:

Whole Body Screening using MRI or CT Technology (*Health Canada*) ([http://www.hc-sc.gc.ca/iyh-vsv/med/mri-irm\\_e.html#he](http://www.hc-sc.gc.ca/iyh-vsv/med/mri-irm_e.html#he));

Magnetic Resonance Imaging (MRI) and Electromagnetic Fields (EMF) (*Georg Frese, Hans Engels*) ([http://weepinitiative.org/LINKEDDOCS/health/MRI-Frese\\_text.pdf](http://weepinitiative.org/LINKEDDOCS/health/MRI-Frese_text.pdf));

Euro Work Safe ([http://weepinitiative.org/LINKEDDOCS/health/MRI\\_euroworksafe.pdf](http://weepinitiative.org/LINKEDDOCS/health/MRI_euroworksafe.pdf));

and Guidelines for Ethics Approval of Research Protocols Involving Human Exposure to Magnetic Resonance Imaging (*HSREB, 2005*) (<http://weepinitiative.org/LINKEDDOCS/health/2g004-guideline-use-of-mri-mar-2005.pdf>)

**LIMIT EXPOSURE AND STAY A SAFE DISTANCE FROM ALL ELECTRICAL EQUIPMENT**

- TV's, computers and monitors. Use a flat screen monitor. If you use long extensions on your mouse keyboard and monitor, you can have your computer further away from your desk and body. You can also sit further back from the monitor. Do not use a wireless keyboard and mouse. Be aware: the mouse and keyboard also have EMFs.

- If you have a laptop, do not sit with it on your body. Use an external keyboard, mouse, and possibly monitor. Using it on battery power will also reduce EMF exposure. Recharge the battery away from high use areas of your home.
- Refrigerators can be put on timers so they run periodically to maintain their temperature but don't have current running to them constantly.
- Do not sit between two sources of EMFs. Electromagnetic fields attract one another, which expands the field from one source towards the other. Sitting between two sources puts you in this expanded field and increases your exposure. An example would be an attraction between your computer and TV. This can even have an effect if the TV is in an adjacent room.
- Unplug all electrical equipment when not in use. Even when something is turned off it will still conduct 'dirty electricity' from power surges and bring that into the room and closer to you.
- Remove or unplug lamps and other electrical equipment from occasional and end tables, if they are near to where you will be sitting. This includes telephones. Use overhead lighting or place lamps at a distance from where you will be sitting.
- Do not use a microwave oven. These not only emit high levels of EMF's but they also irradiate your food, causing it to be less nutritious.
- Some people turn the power off in their homes for short periods to give their body a break.
- Other common high EMF/EMR sources are: furnace, water heater and pump, air conditioning unit, induction stoves, hair dryers, heating pads, tanning beds, sewing machines, printers, copiers, fax machines and radiant heating systems. See **Building Biology Indoor Environment Checklist** ©  
([http://www.baubiologie.net/docs/elektrosmog\\_bb\\_indoor\\_environment\\_checklist.pdf](http://www.baubiologie.net/docs/elektrosmog_bb_indoor_environment_checklist.pdf))

**INSTALL EMF/EMR FILTERS AND CAPACITORS** on electrical circuitry in your home.

Electromagnetic fields are constantly riding on the wiring and electrical devices in your home. These filters harmonize the electromagnetic fields (EMF) and electromagnetic interference (EMI) on the wiring and reduce your exposure. WEEP does not sell or promote any particular brand of filter but you can find plenty of information on the internet. You will need filters that work in the 4kHz to 100kHz range.

**CHECK THE WIRING IN YOUR HOME** to make sure all connections are secure and there is no breakage anywhere.

**CHECK ALL ELECTRICAL APPLIANCES** to ensure they are in perfect working order. Do not break off the ground prong on the plugs.

**CHECK THE OUTSIDE CONNECTION TO THE MAIN POWER LINES** Call your electric utility provider and have them check to make sure they are all secure and there is no breakage anywhere. Also have them trim tree branches around the supply cable so they don't touch and create surges on your line.

**ANOTHER MAJOR SOURCE OF EMFs IS GROUND CURRENT ENTERING YOUR HOME ON WATER AND GAS PIPES.** Install a dielectric coupling (electrically insulating piece) after having it checked by a licensed electrician. Replacing copper pipe with PVC can also reduce the transmission of EMFs around the home.

#### **OTHER CONSIDERATIONS**

Because metal is an ideal transmitter and reflector of electricity and electromagnetic radiation, it is wise to keep your distance from and reduce the number of metallic objects in your environment.

- Consider replacing your spring bed with a natural material mattress. This is especially important because your body heals and regenerates while at rest.

- When purchasing new furniture take into consideration the amount of steel or metal it contains.
- Because of stray current on water pipes, a steel bathtub can be a high source of EMFs.
- Metallic jewellery can also attract EMFs. You may have already noticed aching in your hands, wrists, and neck from this.
- DO NOT WEAR HATS WITH METAL STUDS and BUCKLES. Check the little button on top of baseball caps. This can cause major injury, especially near cell phone towers or in wireless internet environments.
- Wear eyeglasses with as little metal as possible. Even those plastic frames have metal posts in the arms.
- At work, take frequent outside breaks to give your body a rest. See section on accommodation below.

**GET OUTSIDE AS MUCH AS POSSIBLE.** While indoors not only are you surrounded by sources of EMF but it also reflects and ricochets off walls and objects in the room, creating even denser electrical pollution. So getting outside, more often, will help you immensely. But be mindful of high EMF/EMR areas outside too.

- As with inside the house, it is always a good idea to measure EMF/EMR in your outside environment, so you know the best place to sit and relax.
- Stay away from overhead or underground high power lines, electrical transformers, substations, cell phone towers etc.

In your own back yard, some areas that may have a detrimental effect on your health are:

- Near the power supply and supply cable
- Underground water, gas pipes, TV cable, TV antennae, phone lines, and metal fences. Sitting in steel frame lawn chairs is also not a good idea. Sitting away from the house will reduce your proximity to steel veranda supports and rails, aluminum soffits, fascia, and eaves troughs.

## PROTECTIVE FABRICS

There are a lot of EMF protective devices and materials on the market and they do work but only under certain conditions. For instance there are protective fabrics that will deflect or absorb EMFs. So you may think it a good idea to line your bedroom with some of the more reflective fabric. This will only work if you have no sources of EMF inside the shielded area because they would bounce around inside the room, increasing your exposure. (If you were to do this you would have to make sure that the floor and ceiling are also lined.)

### **Fabric for protective clothing.**

At first, I thought that the more protective the fabric the better. However, this isn't the case. It can actually attract and retain EMFs instead of repel them.

Some fabrics need to be grounded. I have seen on the news, a woman in England who wears mesh over her head. This mesh needs to be grounded to dissipate the EMFs. I'm not sure about the ground current situation in England but in N. America, we have a terrible ground current problem so this is not a good idea. The current from stray electricity in the earth will run up the ground wire as well as down so you are at risk of shock and further injury. One person has complained of having terrible pains in her head when she goes to bed. She wore a foil hat to protect against cell tower emissions. This isn't a very good idea. If you are being exposed to EMFs from any direction other than from the side or top, of your head, the EMFs will travel through your body and brain, out the top of your head; reflect off the shield and then travel back down through your brain and body, increasing your exposure.

I wear a hat made from NaturaShield fabric. I have lined a hat with it that I wear to go out and I also have a couple made only of this fabric for in the house and to sleep in. I wear a hat 24/7. When I first started wearing it I couldn't believe the relief I got. My head instantly felt ten times cooler and most of the pressure was gone within days. This is the pain I mentioned earlier that I didn't know was there.

This fabric is strong enough to reflect most of the ambient EMFs from the electrical paraphernalia around me but only partially blocks out the direct RF signals from cell towers and wifi. It also isn't

strong enough to attract EMFs to my head. In blocking the ambient EMFs it actually reduces my exposure which in turn helps my body deal with the stronger RF signals. It also lets the stronger exposures I may experience from an upward angle to my body, pass right through. Once in a while, when I start feeling pain on the top of my head, I take the hat off because it is usually something affecting me from below. This may happen more if you are on an upper floor of a building and there are EMF sources on the floor(s) below.

As with everything that can be used for protection against EMFs, some things work for some but not for others. I know people who have tried wearing 'the hat' and find it doesn't help at all or gives them a headache. This may be due to the direction and type of the exposure in their environment and/or their particular biology. It is all trial and error and you will need to be patient to find what works for you.

Although WEEP does not usually promote specific devices or commercial companies, I feel that in this instance if you don't use the right fabric, you may injure yourself further. The NaturaShield fabric can be ordered on line at <http://www.lessemf.com/fabric.html>

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## The Medical Aspects of Regaining Your Health

*"Diseases are crises of purification, of toxic elimination." Hypocrites, 500 BC*

### GETTING THE RIGHT MEDICAL HELP

Equally important to mitigation and avoidance of EMFs, is healing and strengthening your body. Since most family doctors only treat the symptoms of illness, seeing a registered complimentary and alternative medical practitioner is necessary to receive the right care. You have become electrohypersensitive because EMFs have affected your body on a broad spectrum and at a cellular level, so it is important to treat the root cause and not just the symptoms. For a list of Registered Naturopathic Doctors, by province see: Canadian Association of Naturopathic Doctors (<http://www.cand.ca/index.php?id=professional&L=0>)

It is also important to contact the **Environmental Health Clinic at The New Women's College Hospital** in Toronto, and ask them for a referral package. There is a waiting list to get into the clinic, so the sooner this is done, the better. The Doctors at The Environmental Health Clinic will help you better understand EHS and what you need to do to regain your health. They will also help your family doctor understand EHS and what he or she can do to help you. Because the body of evidence is only now being taken seriously, most family practitioners are still unaware of EHS or anything that is involved in treating it. To help you talk to your doctor about EHS, we have prepared a document for you to take with you when you visit him/her. A printable version is available here. [Talking to Your Doctor](#)



Having a diagnosis from the Environmental Health Clinic will also help when you talk to your employer and insurance providers.

**THE ENVIRONMENTAL HEALTH CLINIC AT THE NEW WOMEN'S COLLEGE HOSPITAL,**  
<http://www.womenscollegehospital.ca/programs/program76.html>

The Environmental Health Clinic is a unique multidisciplinary clinic, and the only one of its kind in Ontario. It was established in 1996 by the Ministry of Health and Long Term Care to be a provincial resource in promoting environmental health, and to improve health care for people with environment-linked conditions such as Chronic Fatigue Syndrome, Fibromyalgia and Multiple Chemical Sensitivities.

The Environmental Health Clinic is the clinical part of a joint clinical and research program of Women's College Hospital and the University of Toronto.

The purpose of the Clinic is to:

- Educate our clients, the public and health-care professionals about environmental health issues
- Provide a comprehensive multidisciplinary assessment for clients with Environmental Sensitivities/Intolerances (and related conditions), Chronic Fatigue Syndrome and Fibromyalgia, and to make recommendations to their treating physicians regarding the management of their ongoing health care needs
- Gain a better understanding of the health-care needs of those with Environmental Sensitivities/Intolerances, Chronic Fatigue Syndrome and Fibromyalgia through participation in clinical research a better understanding of the health-care needs of those with Environmental Sensitivities/Intolerances, Chronic Fatigue Syndrome and Fibromyalgia through participation in clinical research

**A physician referral is required. To have a referral package mailed to you, call toll free 1-800-417-7092.**

#### **Other environmental health care facilities in Canada:**

In Nova Scotia, the Environmental Health Centre (<http://www.cdha.nshealth.ca/facilities/nsehc/index.html>) was established at a permanent site in 1997. This facility is associated with Dalhousie University and includes Canada's only environmental control unit for treatment and research.

The provinces and territories, rather than the Government of Canada, are primarily responsible for the administration and delivery of health care services. It is therefore, recommended that you contact provincial/territorial Ministries of Health to find out what is available to you. The following Health Canada website provides links to provincial and territorial health ministries: [http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/ptrole/ptmin/index\\_e.html#1](http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/ptrole/ptmin/index_e.html#1)

#### **MEDICAL ISSUES OF EHS**

I strongly recommend that you read the The Canadian Human Rights Commission Research Project, The Medical Perspective on Environmental Sensitivities. (Sears, 2007) Link. It will help you better understand the issues surrounding your health care and recovery.

The following are excerpts from this report.

#### **ORIGINS OF ENVIRONMENTAL SENSITIVITIES**

[http://www.chrc-ccdp.ca/research\\_program\\_recherche/esensitivities\\_hypersensibilitee/page5-en.asp](http://www.chrc-ccdp.ca/research_program_recherche/esensitivities_hypersensibilitee/page5-en.asp)

Overload the "General Adaptation Syndrome" model underpins modern medicine, describing how the body responds to "stressors" (e.g. chemical agents, vigorous exercise, emotional

loss). If the stress does not kill, initially there is a "flight/fight" response, then a period of adaptation and then resistance to the stressor. Eventually, if the stress continues for long enough, or there is a sudden surge of stress, adaptive mechanisms are exhausted. This brings generalized breakdown of body systems and non-specific illness. Recognition of these universal bodily reactions to stressors of all types, which are mediated via the pituitary/hypothalamus/adrenal axis, spawned the science of psychoneuroendocrine immunology.

Ashford and Miller described this scenario as "Toxicant-Induced Loss of Tolerance" (TILT), a disease paradigm affecting a broad cross-section of society, including veterans of war, workers in many professions and trades, and children in poorly ventilated or maintained schools. **This toxic overload is treated by reducing the number of stressors, including chemicals and allergens in the body, the surroundings, food and water, as well as electromagnetic fields, currents and radiation. Reduction of emotional stressors may also help.**

### Summary

The balance of scientific evidence and experience indicates that environmental sensitivities generally arise from physiological causes, although there are many neurological and psychological consequences. Physiological responses to environmental factors vary greatly among individuals, and individuals' experiences must play an important role in determining treatments. Once environmental factors initiating and triggering environmental sensitivities are addressed with safe housing, workplaces, food and water, then psychosocial interventions may assist people. The comprehensive biopsychosocial model of medicine, treating the body, mind and environment, is therefore the most appropriate and effective framework for treating environmental sensitivities.

## ENVIRONMENTAL SENSITIVITIES - MEDICAL ISSUES

[http://www.chrc-ccdp.ca/research\\_program\\_recherche/esensitivities\\_hypersensibilitee/page6-en.asp](http://www.chrc-ccdp.ca/research_program_recherche/esensitivities_hypersensibilitee/page6-en.asp)

Early recognition, avoidance of symptom-triggering agents, environmental control, treatments that may reduce residual toxins and recovery of normal biological processes are key to regaining health for people with sensitivities. Without mitigation of the incitant, people with environmental sensitivities may become severely debilitated. Once exposure to incitants is eliminated, helpful interventions include: treating gastrointestinal infections which, if untreated, can lead to absorption of internal toxins and large-molecule food antigens, or conversely, may lead to poor absorption of nutrients;

- regimens to enhance detoxification and elimination such as sauna and exercise therapy;
- reduction of heavy metal contamination using oral and intravenous chelation for toxic metals (shown to be safe to treat lead in children; it is currently in clinical trials for children with autism);
- oral and intravenous vitamins;
- securing hormonal homeostasis, given that many of the toxins observed are endocrine disruptors;
- correcting biochemical irregularities;
- psychological, social and spiritual support;
- occupational accommodation.

### **SO WHAT DOES ALL THIS MEAN?**

I am not a health care practitioner and I don't claim to know anything about human biological systems, so I asked my Naturopathic Doctor, Edie Pett (D.C., D.T.) to help me with this section.

To regain your good health you must repair and strengthen your body as much as possible before embarking on other more intensive treatments to rid your body of heavy metals.

### **NUTRITIONAL SUGGESTIONS FOR MAXIMIZING OUR HEALTH:**

Your food should be **organic, non GMO** (genetically modified) and as **local and seasonal** as possible for optimal nutrient value.

It is recommended to eat: **8 to 10 servings of vegetables**. Eat a variety of colours, red peppers, green kale, white cauliflower, orange carrots and squash. Use a variety of cooking methods from steaming, sautéing, baking, and some raw. Vegetable juice is especially useful if digestion is poor as it is high in enzymes and absorbable nutrients. Some suggestions would be to use a combination of carrot, celery, beet, ginger and cabbage.

**1 to 3 servings of Fruit**, but only if local and seasonal. Fruit must be picked ripe to have any significant nutritional value. Freezing or canning local fruit in the summer is a way to provide great fruit in the winter.

**Whole Grains:** Brown rice (all kinds), millet, quinoa, buckwheat, oatmeal, rye, amaranth, kamut, spelt

**Legumes:** chick peas, lentils, black beans, aduki, lima, split peas, navy, kidney beans, soybeans and tofu. These provide great fibre for assisting in the elimination of wastes and toxins from the body, as well as plentiful nutrients and protein. Eat some of each of them on a daily basis. Great in soups, as side dishes, dips, salads.

**Protein:** When eating any animal protein choose only that which is hormone and antibiotic free and as organically raised as possible. Fish should be wild when possible. Larger fish such as tuna should be eaten less frequently due to their higher mercury content. Smaller fish such as anchovies and sardines provide high quality omega 3 essential fatty acids as well as being good protein sources. Complete vegetable protein is derived from combining legumes and whole grains together as well as the addition of nuts and seeds. Almonds, sesame seeds, sunflower seeds, pumpkin seeds, pecans and walnuts are good sources of oil and protein. Of course eggs are also a good protein source.

Extra virgin olive oil, coconut oil, sesame oil and sunflower oil are great oils to use in cooking and salads.

Herbs and spices add flavour and medicinal value: use garlic, onions, leeks, shallots often. Curries, cilantro, basil, oregano, turmeric etc.

**Water** in sufficient amounts is required to keep the body detoxifying well. Usually it is recommended to drink half your body weight in ounces. It should be purified, a Brita filter, reverse osmosis filter etc. Avoid buying water in plastic bottles or using plastic bottles to drink from. There are harmful chemicals that leach out of the plastic into our water.

**AVOID** all foods that contain **sugar, high fructose corn syrup or artificial sweeteners**. Better choices would be honey, maple syrup or stevia. A basic rule of thumb, if there are more than 5 ingredients listed on a product it's best to avoid it!

Most people do better if they minimize their consumption of cow's milk dairy products and wheat products.

If you do use them choose organic ones, or as an alternative try goat or sheep milk products. Many alternative choices to wheat are available: brown rice pasta, rye or spelt breads and crackers, brown rice cakes and crackers, granolas and mueslis. Corn and corn products are also not tolerated well by many individuals. If you do eat it, make sure it is organic as there is a lot of modified, gmo corn on the market.

REALLY, THE WAY TO GO IS TO DO YOUR OWN COOKING FROM SCRATCH SO THAT YOU KNOW ALL OF THE INGREDIENTS IN YOUR FOOD. Get to know local farmers, go to farmers' markets, many are growing organically now. Read labels, ask questions, know what you're eating!

### **BASIC HEALTHY LIFESTYLE SUGGESTIONS:**

Sleep: Get 7 to 8 hours of sleep every night. You may need to darken your room to help with this.

Dry brush your skin daily with a natural bristle brush or loofa. Eliminates wastes and acids from the skin as well as assisting in lymphatic drainage.

Get outside daily for at least ½ hour.

Movements...do something! Walk, swim, dance, run, and jump.....every day.

### **DRY BRUSHING**

Excerpted from Natural Health Techniques

[http://www.naturalhealthtechniques.com/HealingTechniques/Dry\\_Brushing\\_Technique.htm](http://www.naturalhealthtechniques.com/HealingTechniques/Dry_Brushing_Technique.htm) (See this site for details on dry brushing.)

- The skin is the largest most important eliminative organ in the body and is responsible for one quarter of the body's detoxification each day
- The skin eliminates over one pound of waste acids each day in the average adult, most of it through the sweat glands
- That the skin is known also as our third kidney
- That the skin receives one third of all the blood circulated in the body
- That the skin is the last to receive nutrients in the body, yet the first to show signs of imbalance or deficiency

Detoxification is performed by a number of organs, glands, and transportation systems, including the skin, gut, kidneys, liver, lungs, lymphatic system, and mucous membranes. The dry brushing technique deals with detoxification of the skin.

Dry brushing is a way to stimulate all the above organs of detoxification because it provides a gentle internal massage.

Dry Brushing was recommended by the Finnish Dr., Paavo Airola for his patients 30 years ago and is still popular in European spas and many cancer treatment centers today. The Russians, Turks and Scandinavians have used this treatment for centuries. Dry brushing is promoted as a preventative for dry skin and a way to exfoliate the skin, thus stimulating skin renewal that is super soft to the touch, but there are many other benefits as well:

### **Health Benefits of Dry Skin Brushing:**

1. Cleanses the lymphatic system
2. Strengthens the immune system
3. Stimulates the hormone and oil-producing glands
4. Stimulates circulation
5. Improves the function of the nervous system
6. Helps digestion

## SUPPLEMENTAL CONSIDERATIONS IN HEALING YOUR BODY

### THE BLOOD BRAIN BARRIER (BBB)

Because the BBB is compromised with EHS, **Methylcobalamin B12** injection protocol is essential for patients with environmental sensitivities. (This is different to Cyanocobalamin B12 that is commonly available) For those who cannot stomach injections, a sublingual form is available at health food stores but will not be as effective.

The blood-brain barrier is created by the cells which line the small blood vessels (capillaries) of the brain, called endothelial cells. These cells form tight junctions between each other, which are not generally present in most organs, and stop a free exchange of substances occurring between the blood and the brain. This barrier protects the brain and creates its unique environment. (Begley, 2005) (6)

Methylcobalamin is the active form of vitamin B12 and triggers regeneration of the nerves **without adverse side effects**. It facilitates methylation, the process that creates and maintains nerves and brain chemicals.

"..... Ultra-high doses of methylcobalamin even promote nerve regeneration in experiments." (*The Journal of Neurological Science, April 1994*)

*(Recommended by the doctors at the Environmental Health Clinic at The New Women's College Hospital)*

### The Methylcobalamin Protocol for patients with environmental illness is:

- Methylcobalamin injection 25,000 IU/cc (preservative free)
- 5cc vial X6R
- 0.1cc subcutaneously daily or 2-3x per week or as directed.
- It is best to use an Insulin syringe 3/10cc (painless)(#30)
- Keep refrigerated and discard after expiry date

(Kathleen Kerr MD, 2005)

You must purchase Methylcobalamin at a Compounding Pharmacy. Your regular pharmacist can help you find one near you. Although this is most likely not covered by your insurance company, (it is not very expensive) ask your doctor for a prescription so you can claim the expense on your taxes.

### ADDITIONAL SUPPLEMENTATION

Because of the potential for side effects and interactions with medications, dietary supplements should be taken only under the supervision of a knowledgeable health care provider.

It is recommended that you use only high quality supplements

- **Omega 3-6-9 fatty acids** ~ reduce inflammation and help prevent risk factors associated with chronic diseases such as heart disease, cancer, and arthritis. These essential fatty acids are highly concentrated in the brain and appear to be particularly important for cognitive (brain memory and performance) and behavioral function.
- **Anti-oxidants** ~ prevent and repair damage done by free radicals. Antioxidants may also enhance immune defense and therefore lower the risk of cancer and infection.
- **Melatonin** ~ helps regulate other hormones and maintains the body's circadian rhythm. In addition to its hormonal actions, melatonin has strong antioxidant effects. Preliminary evidence suggests that it may help strengthen the immune system. It is recommended that you speak with your health care practitioner before taking melatonin.
- **Calcium** ~ the most abundant mineral in the human body, has several important functions. More than 99% of total body calcium is stored in the bones and teeth where it functions to support their structure [1]. The remaining 1% is found throughout the body in blood,

muscle, and the fluid between cells. Calcium is needed for muscle contraction, blood vessel contraction and expansion, the secretion of hormones and enzymes, and sending messages through the nervous system. A constant level of calcium is maintained in body fluid and tissues so that these vital body processes function efficiently. B-Complex ~ B vitamins are an important part of the diet and are needed to help avoid many health conditions. The body does not produce B vitamins naturally. Their influence is felt in many parts of the body. They function as coenzymes that help the body obtain energy from food. They also are important for normal appetite, good vision, healthy skin, healthy nervous system and red blood cell formation

- **Milk Thistle** has a protective effect on the liver and improves its function. The liver plays a major part in ridding your body of toxins and so needs to be kept as healthy as possible.
- Vitamin D (up to 4000mcg a day) ~ In addition to calcium metabolism, accumulating evidence indicates other roles in human health, including immune function, reduction of inflammation, and effects on cell proliferation, differentiation, and programmed cell death.
- **Digestive enzymes** ~ assist your body in absorbing essential nutrients.
- **Probiotics** ~ re-establish and maintain a normal intestinal microflora.
- For additional information on supplements to protect your body and assist with moving mercury out of your system, please see:

[http://mercurytalk.com/wiki/index.php/Detoxing:Getting\\_Started\\_With\\_A\\_Detox\\_Plan](http://mercurytalk.com/wiki/index.php/Detoxing:Getting_Started_With_A_Detox_Plan)

## REPLACEMENT OF AMALGAM DENTAL FILLINGS

Not only do amalgam dental fillings attract EMF and electricity to your body, they create electrical current, and they contain mercury. Mercury is very toxic and is difficult for the human body to process and get rid of. Heavy metals in your body may have contributed to your getting sick in the first place. There are many ways in which you could have acquired heavy metal toxicity but dental amalgam fillings are a major source of contamination. It is not a single incident contamination but an ongoing leaching into the body. see: Environment Canada's Mercury and the Environment, Health Concerns <http://www.ec.gc.ca/MERCURY/EH/EN/eh-hc.cfm?SELECT=EH>

Dental Mercury is the Source of Two-Thirds of Mercury in the Population

Amalgam restorations consist of mercury, silver, tin, copper, and a trace amount of zinc. The dental amalgam has two fundamental flaws that adversely affect a patient's health. The first fundamental flaw is that all amalgam metals are cations(a). The net result of the tendency for covalent(b), ionic and metallic bonding and van der Waals forces(c) between amalgam cations is a weak repulsion. So there is a sustained release of mercury and other metals from the amalgam into the body. Researchers have measured a daily release of

mercury on the order of 10 micrograms from the amalgam into the body. Mercury is a toxic metal; the most minute amount damages cells.

The second fundamental flaw is that there are five dissimilar metals in the amalgam. Galvanic(d) action between these metals is inevitable (the dissimilar metals form a battery). Galvanism produces electricity that flows through the body. The electric currents produced by the amalgam typically are between 0.1 and 10 microamps, compared to the body's natural electric current of 3 microamps.

The mercury challenges systemic functions of every individual and of developing fetuses, so it can lead to health problems and fetal malformations. Mercury leakage and its

subsequent pathophysiologic effects are most often slow, insidious processes. So health problems caused by dental mercury poisoning are perceived many years after the amalgams are placed. (DAMS Inc. 1997 & 2005)

- (a) An ion or group of ions having a positive charge and characteristically moving toward the negative electrode in electrolysis
- (b) Of or relating to a chemical bond characterized by one or more pairs of shared electrons
- (c) The relatively weak attractive forces that are operative between neutral atoms and molecules and that arise because of the electric polarization induced in each of the particles by the presence of other particles
- (d) Of, relating to, involving, or producing a direct current of electricity

Removal and replacement of amalgam fillings with non-metallic fillings is not straight forward. A specific protocol needs to be followed to ensure that you don't absorb any more mercury during the procedure, and to bolster your immune and nervous systems. Having amalgam dental fillings replaced without following this protocol can cause severe health reactions. Working in unison with your natural health care practitioner and your dentist, while you are having you fillings replaced, is strongly recommended.

Even though it is scientific fact that mercury is released from amalgam fillings, most dentists are misguided and are still using it. (See: <http://amalgamillness.com/Mercury.html>) In my search for a dentist, to replace my amalgam fillings, I have spoken to several who seem to be under the impression that mercury is not dangerous. One dentist told me there is less mercury in one filling than in a can of tuna. But what if you have more than one filling? And aren't they warning against eating tuna?

*Environment Canada also has strong concerns regarding mercury fillings. See Canadian Dental Association - Environment Canada Best Management Practices for Amalgam Waste in Canada - 2002 , Appendix D for the protocol for handling dental mercury.*  
<http://www.ec.gc.ca/MERCURY/DA/EN/da-damou.cfm#AnnexD>

Another dentist, aware of the mercury issue, wanted to replace my amalgam fillings with gold because it doesn't have the same chemical interactions as amalgam. Maybe not, but it is still metal and conducts electricity. They all try to talk me into having x-rays, which of course, I decline. I am only telling you this to stress the point that you need to find a dentist who understands the issues you are dealing with, or will at least listen when you explain and put your health at risk.

For the **dental protocol to safely remove amalgam fillings** see: International Academy of Oral Medicine and Toxicology (IAOMT)  
<http://www.iaomt.org/articles/files/files288/Safe%20Removal%20of%20Amalgam%20Fillings.pdf>

For **mercury free and mercury safe dentists in North America** see: IAOMT-Find a Dentist/Physician <http://www.iaomt.org/patients/results.aspx?stateProv=Ontario>  
This page also contains a link to international chapters.

## REMOVAL OF MERCURY AND HEAVY METALS FROM YOUR BODY

Heavy metals in the body are dangerous on three levels. They are toxic; they can move in the body, when you are near electromagnetic radiation and fields, causing damage to the surrounding tissue; and they can attract and conduct electricity.

If not done correctly, removal (via chelation) of heavy metals from the body can be dangerous. It is recommended that you find a health care practitioner with a lot of experience and recommendations from previous patients. It is also recommended that you read the book Amalgam Illness Diagnosis and Treatment by Dr. Andrew Hall Cutler PhD., PE. <http://www.noamalgam.com/>

Testing for mercury in the body is difficult because mercury remains in the blood for a very short period before being excreted or settling in the organs and brain.

There are several methods of testing but because the DMPS Challenge involves moving large amounts of mercury in your body at one time, it can be very dangerous and is not recommended. Please see: Testing for Mercury Toxicity for more options and information.

[http://mercurytalk.com/wiki/index.php/Testing\\_for\\_Mercury\\_Toxicity](http://mercurytalk.com/wiki/index.php/Testing_for_Mercury_Toxicity)

*Detoxing is a long-term plan that you have to faithfully follow if it is going to work. Here are specific ideas to help you create a good detox plan.*

*Mercury detox is a two-tier project:*

- Protection
- Mobilization (via Chelation)

*First, you have to protect your body from the effects of mercury, then you want to "mobilize" the mercury, that is, you want to pull it from body tissue and get it out. Providing a balance between protection and mobilization will allow you to feel reasonably well while assisting the body in eliminating mercury at a faster rate than it normally would. This balancing act is important because mobilizing too much mercury too fast can redistribute the mercury causing it to end up back in your body tissue causing more damage as it travels. If you mobilize too slowly, then mercury remains in your body longer than necessary.*

*A good plan will involve starting gently and becoming more aggressive as you become stronger and healthier.*

*Read more... Detoxing: Getting Started With A Detox Plan*

[http://mercurytalk.com/wiki/index.php/Detoxing:Getting\\_Started\\_With\\_A\\_Detox\\_Plan](http://mercurytalk.com/wiki/index.php/Detoxing:Getting_Started_With_A_Detox_Plan)

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## **Psychological and Social Aspects of EHS**

As I mentioned earlier, I am not a health care practitioner so, once again, I am turning to the experts for this section. I would also suggest that you read the advice on the The Environmental Health Clinic at The New Women's College Hospital's website. It is about living with other environmental sensitivities, but the advice given is practical for all sensitivities. The information I supply here on coping and social/spiritual aspects of environmental sensitivities is excerpted from their web site.

<http://www.womenshealthmatters.ca/centres/environmental/sensitivities/index.html>

### **COPING**

It is common to feel "out of control," particularly in the beginning of this illness. It is helpful to keep a diary of activities and then note your symptoms in relation to exposure. This is a useful tool



for making changes in your environment and helps one to regain some control. If there are a number of things that need to be changed it can appear overwhelming. It is important to set priorities and realistic time frames to make changes.

It often helps to view symptoms as early warning signs. If you can remove yourself from triggering agents, when the earliest symptoms start, you may be able to avoid developing further symptoms. Relaxation exercises are helpful to decrease stress. Below is an example of an easy exercise to promote relaxation:

*Choose a place in your house as your "relaxation space," preferably a place that you can close the door and be alone and uninterrupted for at least 10 minutes at a time. Sit in a comfortable chair and close your eyes. Take a few breaths to settle in – it may help to say nurturing phrases to yourself such as, "this is my time" or "as I breathe, I heal." When you feel settled, as you breathe in through your nose, say silently to yourself "re" and "lax" as you exhale. Do this for 10 minutes twice a day at times when you know that you will not be interrupted. You may need to discuss this with your family to let them know that this is a time when you are to be left alone.*

This exercise can also be done at any time of day for a few minutes whenever you first recognize your particular symptoms of stress.

Coping strategies are critical for people with environmental sensitivities/intolerances, as they may experience the feeling that their lives are being "turned upside down." They may have lost their ability to work. They may be unable to socialize outside their homes - or even perform routine tasks such as grocery shopping, due to triggering of symptoms by everyday environmental exposures.

In a US-based survey of people with chronic fatigue syndrome, the most helpful coping skill was "attitudinal adjustment." This refers to basically acceptance of the illness and taking care of themselves. In this study, people said, "I stopped comparing myself to others," or "I don't waste time worrying about what might have been" and "I remind myself to be in the moment - that's all there is."

## **SOCIAL/SPIRITUAL**

Anyone experiencing a debilitating chronic illness needs time to grieve over the loss of his or her former life.

Isolation is often one of the most difficult aspects of having environmental sensitivities/intolerances. Family and friends may not understand the patient's many sensitivities and symptoms and may go through many of the same emotional stages that the sick person does - denial, anger, bargaining, depression and acceptance. This lack of understanding may be compounded if health professionals and insurance companies do not validate the illness as "real." The first step in helping others to understand your condition is to educate yourself, and then others. You may wish to have family and friends come to your own home when socializing, rather than going to their homes, as it is easier to control your own environment.

Sadly, in some cases, in spite of education about ES/MCS, family and friends may not be supportive. It is probably wise to minimize or eliminate contact with these people as much as possible, as they can be very "energy draining." On the other hand, building a group or community of people who understand and care can be energy well spent. It may be helpful to connect with others who have the illness, through a support group. If you cannot leave your home or find a tolerable space to meet, it is usually still possible to network with supportive others through telephone calls, the Internet and/or email.

## **TAKING ACTION**

Some people find that when they start to feel better they want to become active in making environmental changes in their community to prevent others becoming ill or to help others who have environmental sensitivities. This is a great way to “make a difference.” Find out what groups are working in your community to create safe and healthy environments through your local politicians or support groups for people with environmental sensitivities/intolerances

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## **Employment and Accommodation**

As stated earlier, avoiding EMFs is very important in regaining your health. This can be difficult to do when at work. You may need to take some sick time at first, to start the healing process, but you still have bills to pay and a life to live.

The nature of your work may make it possible for you to work from home. You will have to determine, for yourself, what is best for your situation.

The Canadian Human Rights Commission approved a Policy on Environmental Sensitivities on June 15th, 2007. This policy has weight of law for federal employers, and sets a precedent for others. In this policy, EHS is classified as an environmental sensitivity and therefore a disability. There are two reports dealing with the medical perspective and the legal perspective. To help your employers better understand EHS, you may want to refer them to this site.

**The Medical Perspective on Environmental Sensitivities** By: Margaret E. Sears (M.Eng., Ph.D.) [http://www.chrc-ccdp.ca/research\\_program\\_recherche/esensitivities\\_hypersensibilitee/toc\\_tdm-en.asp](http://www.chrc-ccdp.ca/research_program_recherche/esensitivities_hypersensibilitee/toc_tdm-en.asp) and

**Accommodation for Environmental Sensitivities: Legal Perspective** By: Cara Wilkie and David Baker  
[http://www.chrc-ccdp.ca/research\\_program\\_recherche/esensitivities\\_legal\\_hypersensibilitee/toc\\_tdm-en.asp](http://www.chrc-ccdp.ca/research_program_recherche/esensitivities_legal_hypersensibilitee/toc_tdm-en.asp)

Here are some pertinent excerpts from these reports and from the Discrimination Prevention section of their web site.

### **ENVIRONMENTAL SENSITIVITIES, DISABILITY AND MEDICAL EVIDENCE**

[http://www.chrc-ccdp.ca/research\\_program\\_recherche/esensitivities\\_legal\\_hypersensibilitee/page3-en.asp](http://www.chrc-ccdp.ca/research_program_recherche/esensitivities_legal_hypersensibilitee/page3-en.asp)

#### **a. Definitions of Disability**

International approaches to definitions of disability in human rights protection vary in their reliance on medical diagnoses and symptoms. At one end of this spectrum are the Canadian and Australian approaches, in which a very broad definition of disability is adopted.<sup>3</sup> As a result of this, complainants are required to provide minimal medical evidence to establish that they qualify as persons with a disability, and individuals with environmental sensitivities do not need to prove the veracity of their condition. In fact, the courts have specifically held that the inability of the medical community to diagnose a condition or identify its cause does not affect whether an individual has a disability, so long as its triggers can be identified.

#### **b. Evidentiary Difficulties**

The general lack of knowledge on sensitivities within the medical community and the unavailability of tests to identify particular triggers may act as an obstacle to the treatment of sensitivities and to a complainant's ability to identify appropriate experts to testify before a tribunal or provide evidence to an employer about accommodation needs.

**Recommendation 1:** Where an individual with a poorly understood disability is unable to provide expert medical evidence, the employer, service provider or other decision maker should seek an informed expert opinion on the effects of the condition and the resulting accommodation needs.

**Recommendation 2:** Employers, service providers and other decision makers should ensure that, if accommodation requests are rejected, it is not because the medical evidence provided is not as unequivocal as it may be with other disabilities: knowledge and understanding of the condition is still developing, and the expectations regarding medical evidence should reflect this. 3. Disability is defined in section 25 of the Act as "any previous or existing mental or physical disability and includes disfigurement and previous or existing dependence on alcohol or a drug."

### **ACCOMMODATION ENVIRONMENTAL SENSITIVITIES: BEST PRACTICES**

[http://www.chrc-ccdp.ca/research\\_program\\_recherche/esensitivities\\_legal\\_hypersensibilitee/page6-en.asp](http://www.chrc-ccdp.ca/research_program_recherche/esensitivities_legal_hypersensibilitee/page6-en.asp)

#### **a. Accommodation Principles and Practices**

As for any other disability, the accommodation process for persons with environmental sensitivities must be conducted in an individualized, respectful and inclusive manner. Employers and service providers are well-advised to accommodate in a respectful manner that protects the individual's self-respect, privacy, comfort and autonomy. Accommodations should be individual in nature and not "one size fits all." Finally, the goal of accommodations is independence and full participation of the individual. When evaluating potential accommodations, this is the standard that they ought to be measured against.

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### **UNDUE HARDSHIP**

[http://www.chrc-ccdp.ca/preventing\\_discrimination/duty\\_obligation-en.asp](http://www.chrc-ccdp.ca/preventing_discrimination/duty_obligation-en.asp)

#### **What is undue hardship?**

The employer's or service provider's duty to accommodate is limited only by "undue hardship" i.e. the employer or service provider need not accommodate an employee or client if it can show that the accommodation would cause the employer or service provider to suffer undue hardship. Section 15(2) of the Canadian Human Rights Act states that "it must be established that accommodation of the needs of an individual or a class of individuals affected would impose undue hardship on the person who would have to accommodate those needs, considering health, safety and cost" in order for the accommodation to be considered too much of a burden.

#### **Undue Hardship - Health and Safety**

If accommodating a person's age, physical or mental disability, family or marital status, or religious practice would pose an undue risk to the health and safety of that person, or others, then an employer or service provider may be able to establish undue hardship. For example, an airline may require its pilots to have a certain level of uncorrected vision, hearing and manual dexterity in order to land a plane with all its passengers, safely, without instruments in an emergency. This requirement could prevent persons with certain disabilities from being a pilot.

#### **Undue Hardship - Cost**

The cost of a proposed accommodation would be considered "undue" if it is so high that it affects the very survival of the organization or business, or it threatens to change its essential nature. The mere fact that some cost, financial or otherwise, will be incurred is insufficient to establish undue hardship. Some factors that can be considered in appraising undue hardship are the size and financial resources of the employer, and external financing, and details of any additional risks or detriments.

## Recommended Reading

The BioInitiative Report. [www.bioinitiative.com](http://www.bioinitiative.com)

The Canadian Human Rights Commission Report - Policy on Environmental Sensitivities  
[http://www.chrc-ccdp.ca/legislation\\_policies/policy\\_envirou\\_politique-en.asp?lang\\_update=1](http://www.chrc-ccdp.ca/legislation_policies/policy_envirou_politique-en.asp?lang_update=1)

Electromagnetic Hypersensitivity: Biological Effects of Dirty Electricity with Emphasis on Diabetes and Multiple Sclerosis. Magda Havas <http://weepinitiative.org/scientific.html>

Dirty Electricity and Electrical Hypersensitivity: Five Case Studies. Magda Havas & David Stetzer  
[http://weepinitiative.org/linked\\_docs/scientific/Dirty\\_Electricity\\_and\\_Electrical\\_Hypersensitivity\\_Five\\_Case\\_Studies.pdf](http://weepinitiative.org/linked_docs/scientific/Dirty_Electricity_and_Electrical_Hypersensitivity_Five_Case_Studies.pdf)

Evidence That Electromagnetic Radiation Is Genotoxic: The Implications For The Epidemiology Of Cancer And Cardiac, Neurological And Reproductive Effects. Dr. Neil Cherry  
<http://weepinitiative.org/scientific.html>

Building Biology Indoor Environment Checklist©  
[http://www.baubiologie.net/docs/elektrosmog\\_bb\\_indoor\\_environment\\_checklist.pdf](http://www.baubiologie.net/docs/elektrosmog_bb_indoor_environment_checklist.pdf)

The Blood Brain Barrier. Dr. David Begley <http://www.gaucher.org.uk/bloodbrainmay2005.htm>

Methyl B-12 in Combating Degenerative Diseases and Mental Illness  
[http://www.vistamagonline.com/articles/print.php?s=methyl\\_b-2\\_in\\_combating\\_degenerative\\_diseases\\_and\\_mental\\_illness](http://www.vistamagonline.com/articles/print.php?s=methyl_b-2_in_combating_degenerative_diseases_and_mental_illness)

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[http://www.chrc-ccdp.ca/preventing\\_discrimination/duty\\_obligation-en.aspx](http://www.chrc-ccdp.ca/preventing_discrimination/duty_obligation-en.aspx)