

MCS Issues and Pre-Existing Dwellings

The most current version of this document be found at:
<http://www.mcscanadian.org/preexistingdwellings.html>

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If you have additions or edits or comments, please contact:
MCS-CanadianSources-owner@yahoogroups.com

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Every individual with MCS needs housing that is “safe” or tolerable for that individual in order to heal and avoid becoming even more sensitive, but housing is one of the most difficult challenges faced.

The vast majority of conventional housing is not “safe” or tolerable for the chemically sensitive due to:

1. conventional building practices;
2. the toxicity of general building materials such as vinyl siding, carpeting, paints and finishes, vinyl sheet flooring, formaldehyde-laden particle board cabinetry, PVC plumbing, etc.;
3. the use of pesticides by previous occupants or neighbours;
4. use of lawn care products and other chemicals by previous occupants or neighbours;
5. fumes/exhausts from industry and/or highways;
6. the occurrence of mold or allergens such as pollen from landscaping is something else to consider for those allergic to same.

Because of this and the often highly individualized needs of the chemically sensitive person, finding suitable pre-built housing can be very difficult. A free-standing structure, such as a house, is typically best, but finding a house that is tolerable in a good location can be problematic. While the most recommended solution is to build a house designed specifically to accommodate the sensitivities of the person with MCS, doing so is often unaffordable or unattainable for other reasons and many are limited to existing housing. Many also attempt to remodel existing housing. Both building and remodelling can be an expensive, time-consuming process and is often out of the reach of those who are chemically sensitive for various reasons.

Any housing built with common walls, floors, or ceilings with other residences (such as apartments and condominiums) can be an impossible situation for persons with significant chemical sensitivities. Such housing is often exceedingly difficult to make ‘safe enough’.

There are many places in the construction of conventionally built structures for air to travel from one apartment into wall cavities and into an adjoining apartment. Examples are the gaps behind baseboards and ceiling molding of drywall, open spaces around electrical receptacle boxes and wall switches, plumbing and electrical chases that share common walls with other units. Air also moves through the wall cavities and spaces between floor joists and ceiling members.

Unless the units are built with brick fire walls between them or an absolutely airtight VOC (volatile organic contaminant/compound) barrier between common walls (such as builders foil), there is the possibility of infiltration of your neighbour's air into your living space. This, of course, means that their use of household and personal care products can affect your space and your health.

Particulate pollutants, such as pollens and dusts also infiltrate homes easily from out-of-doors even with doors and windows closed. These relatively large pollutants can enter the interior or living space of a home through cracks in the building envelope of the structure as can the significantly smaller molecules such as the VOCs in laundry product pollution (dryer sheets), perfumes, and VOCs (gases) from other sources. Traffic exhausts and pesticides are made up of both particulate matter and VOCs and both can infiltrate the living space.

What this means, ultimately, is that the person with chemical sensitivities must be very careful in choosing a place to live and must often make choices that are less than ideal. What follows are general pointers that those in the MCS community have found to be helpful in seeking an apartment/condo type of home and some of the things to be aware of. This list is far from conclusive as individual tolerances to materials vary greatly among those with MCS.

Always remember that what works for one, doesn't necessarily work for another, and might not work specifically for you.

APARTMENTS AND CONDOMINIUMS:

Neighbourhood:

- Be aware of air and noise pollution from traffic and industry. Remember that prevailing winds can carry pollution for many miles.
- Avoid close proximity to airports and industrial areas.
- Is there pesticide use in neighbourhood (golf courses, mosquito abatement, roadsides, neighbours)?
- Watch for proximity to high power lines, radio, TV and microwave towers, and high-voltage boxes. Avoid if possible, and particularly so, if electrically sensitive.
- Check Pollution Watch for polluters in the area by postal code at: <http://www.pollutionwatch.org/home.jsp> . In Canada, Pollution Watch is a good source for information about the chemicals that manufacturing facilities release in your community. Simply type in your postal code or click on the map of Canada to get the facts on pollution in your community, in your province and across the country. Another great resource that can be used to check specific health effects of pollution is Scorecard, though it is US-based: <http://www.scorecard.org/>

Building:

- Choose a small building, on a quiet street away from main streets and/or intersections
- Avoid areas with gas stations, large shopping centres, dry cleaners, laundromats and golf courses nearby.
- Neither a brand new building nor recently renovated apartment.
- Generally speaking, buildings older than 4-5 years are best since much offgassing of VOCs will have occurred in that time period. Many with MCS feel that 15 years or older is better, although this is not a hard and fast rule. The condition of the building and personal criteria such as concerns re mold need to be factored in so don't necessarily dismiss a building that is 5-15 years old out of hand.
- Make sure the basement or storage area is not moldy or damp.
- Heating: Electric or hot water heating is generally better tolerated over forced air systems. Radiant heating is also something tolerated by many, but isn't often available in rental units. (Most with chemical sensitivities cannot tolerate natural gas or propane, heating oil, wood-burning stoves or fireplaces of any sort, though some do.)
- Watch out for flat asphalt roofing. It is very toxic to repair and can heat up in sunlight and gas off. If this type of roofing is on the main level (for example over a garage) and your unit is on the second or third, the VOCs may rise, affecting your air quality.
- Ask the landlord if it is possible to stay in the unit for a few days – at least for one night, but 3 - 7 would be ideal and preferably during a time period when other tenants are expected to be in the building, such as evenings and weekends. This will give a more accurate reflection of potential issues regarding use of chemical/products by other tenants and how it will affect your unit. For example, when laundry is done, does it permeate into your area? Do other tenants burn scented candles or incense? Does a neighbour work on their car close to your unit?

Apartment/Condo Unit:

- Not on ground floor if at all possible.
- Away from garbage room and not overlooking the garbage area (exposures to chemical products used to disinfect these).
- Not over a garage (gas and exhaust fumes); no attached garage if on main level
- Not immediately beside parking lot; as far away from it as possible, preferably not on the same side.
- Not recently renovated: i.e., no new carpet, linoleum or paint; no new kitchen counter tops or cabinets.
- Steel cabinets are best, but aren't commonly found. Solid wood cabinets are preferred over conventional pressboard as they emit fewer VOCs but, again, are not easily found.
- Good ventilation. Preferably cross-ventilation, i.e., windows on 2 or 3 sides or an in-house ventilation system. Windows that slide up or down or sideways, rather than sash-hung are easier to place room air conditioners and fans in, if the need arises.
- Does the unit get enough (or too much) sunlight? With too little sunlight, there can be mold issues, and with too much, of course, it can be difficult to cool. This is especially so if air-conditioners aren't tolerated.

- Avoid unvented appliances (for example: stove, range hood, space heater, fireplace, dryer).
- Laundry area: Avoid common laundries with other tenants if at all possible. If not, ensure your unit is distant from it and any emissions from same.
- Check for any evidence of rodents, cockroaches, ants and/or insects, including baits and traps in out-of-the-way areas such as under sinks or in closets.
- Pesticide use: If previous pesticide use is suspected, or if the use of such products is of particular concern to you, you may want to consider having the unit tested by professionals for evidence of use.
- No hobbies conducted indoors by previous tenants such as woodworking, jewellery making, pottery or model building because of toxicity issues related to chemicals used in same.
- Try to determine if room style air-fresheners were used. Even residues of chemicals from these can be problematic and difficult to isolate.
- **NOTE:** Many environmentally sensitive people cannot tolerate carpets, even if they are older. If building has parquet or wood floors, keep in mind that these will be redone at times in different units and may affect you. Try to get the landlord to have floor refinished with low or no-VOC water-based products.

Kitchen

- An electric stove/range/oven is best.
- Gas stoves/ranges should be avoided, but ones with electronic ignitions are better than older pilot light systems. If everything else is ideal, and this is the only issue, some have been successful in having the stove/range disconnected and the gas turned off at the source. The pipes may also need to be sealed off. (Have a professional do this!) Electric hot plates are an option for cooking, if tolerated.
- Ranges or vent hoods must be vented to the exterior. Double-check they are as sometimes they are vented into cabinets or areas other than the exterior.
- A window that opens would be good, but might not be essential.
- Cabinets of solid wood or metal are best, though rare to find.
- Cabinets made of pressboard should be avoided. They may be tolerable if 12 to 15 years old and/or sealed with no-VOC sealant or covered with a vapour barrier such as aluminium foil.
- Check for moisture damage or leaking at sink area, and make sure there is no moldy smell under sink. Check also for cracked backsplash tiles which could harbour mold growth in the wall behind tiles.

Bedroom

- It is best to place your bed away from large electrical appliances. For example, the bed in your bedroom should not be placed on a common wall with the kitchen where the stove/fridge sits, or a laundry area where washers/dryers sit. Be aware of adjoining units in terms of placement of bed as well. Try not to have your bed against a common wall that may have large appliances or televisions and stereos on the other side.
- Remember that your bedroom should be a “safe room”. Keep only what needs to be there, in it. Don’t store boxes or clothing or other such items in this most-important room.

Bathroom

- Mechanical ventilation fan.
- A window that opens would be good, but might not be essential.
- Cabinetry – same criteria as kitchen. Check for signs of water damage, mold, or mildew.
- Check for missing or cracked grout and for loose tile in shower/bathtub which could harbour mold growth in the wall behind tiles.
- Check caulking to see if it needs to be replaced.

Garage

- A detached garage is best.
- If attached, a well-sealed door is essential between the garage and living space.
- Avoid apartments that are built directly over a garage.

Decks and Patios

- Avoid pressure-treated wood decks.

Smoke and Carbon Monoxide Detectors

- Ensure that smoke detectors and carbon monoxide detectors are properly placed and functioning.

Water Supply

- Will the water be safe enough for drinking? For bathing? Most city/town water supplies are chlorinated and this can be a problem. Also, most plumbing is PVC plastic which can leach chemicals into your water. Use a charcoal or carbon filtration unit on showers and kitchen taps to help mitigate this. These can be purchased at natural and health food stores.
- Many sensitive to chlorine and other chemicals such as fluorides added to water supplies, drink spring or bottled water, or invest in other means of cleaning their drinking/bathing water via distillation or other means.
- If the unit has well water, arrange to have it tested (this will be an uncommon occurrence in larger buildings that house apartments and condos but is added here as something to be aware of).

ONCE YOU'VE FOUND A PLACE:

Once housing is found, ensure that the landlord and/or cleaning staff know NOT to clean, paint, renovate it or freshen it whatsoever in any way.

Cleaning

- If the landlord insists that cleaning must be done prior to moving in, make certain only products tolerated by you are used. Ensure they know precisely what you do and do not tolerate. Be **very** specific. If you say, for example, “I am allergic to regular cleaning products”, chances are very good they will err and use a product that will render the unit toxic for you (i.e., use bleach or oven cleaner or something that they consider to be outside the realm of “regular cleaning products”). Give a short

list of things that you know you tolerate and insist on the use of those items only. The Guide to Less Toxic Products put out by the Environmental Health Association of Nova Scotia is a great place for ideas: <http://www.lesstoxicguide.ca> .

- Do not clean fridge, stove, kitchen or bathroom except with your own tolerated products.
- Ensure the landlord knows not to use carpet fresheners or plug-in air fresheners or things of this nature, no matter in what form. These items are very toxic and can render a habitable place inhabitable.

Flooring

- Ceramic tile or marble are typically best, but rare to find. Generally, hardwood or old-style hard vinyl tiles is tolerated. Sheet vinyl flooring or soft vinyl tiles are rarely acceptable. Other flooring options might be bamboo or cork, but many don't tolerate cork at all, so, as always, be sure it's tolerable for you.
- If you tolerate carpets and they must be cleaned because they are dirty, simply substitute a well-tolerated laundry or other soap in place of carpet-specific cleaners. Steam cleaning is also generally well tolerated. Note that many rental cleaners are contaminated with previous users' cleaning products and may present a problem during and after use by leaving trace residues.
- If floors need to be refinished, consider very carefully the risk to you before you commit. If you go ahead, ensure all products used are zero-VOC or low-VOC and that you tolerate them once they are cured.
- If/when other units in a complex must be refinished, the landlord could also be asked to use no-VOC products. This would apply to repainting anywhere in the building (common areas and units) as well. The landlord could also be asked to switch to environmentally friendly cleaning products.
- If everything is tolerated in a unit except the carpet, one possibility is to seal it with AFM Safecoat Safe Seal for carpets. Ensure that the landlord approves the use of this type of product as it is not removable once applied. Mixed results have been had with this product: some tolerate it and others **never** do. Always test product for personal tolerance.

Caulking

- Will caulking need to be replaced? If so, some brands tolerated are:
 - * Adheasal adhesive caulking from AFM. This product seems to be the safest; after research on these kinds of products, it was recommended by the administrator of the Barrhaven Non Profit Housing Co-op (Ottawa), which houses an environmentally safe building.
 - * GE012 Clear Silicone sealant available from Canadian Tire, Home Depot and other general building supplies centres.
 - * Caulking other than kitchen and bathroom: Silicone 2 from General Electric (water-based silicone).
 - * All must be tested for compatibility and reactions before using.

Paints and Sealants

- If there is outgassing from paint in the apartment, it may be possible to seal the unit so that it is tolerable by applying AFM Safecoat Hard Seal. Mixed results have been had with this product: some tolerate it and others never do. Always test product for

- personal tolerance. Please see How To Conduct A Personal Test (or the Jar Test) for information on personal tolerance testing:
<http://www.mcscanadian.org/jartest.html>
- Paints: Use only no-VOC or low-VOC rated paints. Tinting paint increases the VOCs and may render it toxic for you. As always, test product for personal tolerance.
 - * Farrow & Ball traditional paint is clay-based, and considered by many as the best tolerated paint. See the company's website for more information and outlets: <http://www.farrow-ball.com>
 - * Glidden Lifemaster 2000 is generally well tolerated and can be purchased through ICI outlets. (For an article on this paint by Cyndi Norman, who is chemically sensitive, please see: <http://www.immuneweb.org/articles/icipaint.html> .
 - * Paints by AFM are also generally well tolerated.
 - Sealants: Products from AFM are generally well tolerated. Fabulon 2 (available at Randall's Paints); Fabulon has an odour before it dries, but within 2 or 3 days of drying, is odourless (may be longer, depending on level of sensitivity); it can also be sprayed.

Adhesives or Glues

- Adhesives: If using glue, use non-toxic carpenter's glue such as Elmer's. It is readily available at most home building centres.

BOOKS AND READING MATERIALS

Building Materials for the Environmentally Hypersensitive

by CMHC.

www.cmhc-schl.gc.ca

This practical sourcebook is for people with environmental hypersensitivities, serious asthma or allergies, and for those who build housing for them. It contains the best-available information on many common materials and their potential effects on indoor air quality by combining published material and the experiences of the hypersensitive. It also includes a comprehensive index and a list of suppliers of speciality products.

Canada Mortgage and Housing Corporation (CMHC)

Has many good resources, including information specific to those with MCS.

Main site: <http://www.cmhc-schl.gc.ca/>

See in particular: http://www.cmhc-schl.gc.ca/en/search/search_001.cfm

Also, search by key words (environmental allergies, mold, indoor air quality, environmentally safe housing, etc.).

The Healthy House Institute

Articles by John Bower to help you improve your home's interior environment, especially its indoor air quality.

<http://www.hhinst.com/index.html>

The Healthy House Institute Archives

This is where you can find selected healthy-house articles that have been published in a variety of places.

<http://www.hhinst.com/archives.html>

RRAP (Residential Rehabilitation Assistance Program) – CMHC

The Residential Rehabilitation Assistance Program (RRAP) for Persons with Disabilities offers financial assistance to homeowners and landlords to undertake accessibility work to modify dwellings occupied or intended for occupancy by low-income persons with disabilities.

http://www.cmhc-schl.gc.ca/en/prfias/rerepr/readaspr_005.cfm

Two types of partly or fully forgivable loans are offered:

- RRAP for people with disabilities: Provides loans to renovate homes or apartments in order to make them accessible to a person with a disability. Multiple chemical sensitivity is considered a disability under this program, and therefore renovations such as changing the heating system, installing an HRV, or doing mold cleanup are eligible. If you are renting and have a good relationship with your landlord, he or she can apply for a loan to do renovations to your apartment to make it more "accessible" for you.
- The Homeowner's RRAP is for low-income people who own houses but can't afford necessary repairs (such as a new roof, repair of water damage, etc.). The program won't cover aesthetic or general maintenance work (painting, etc.), but CMHC is very open to the use of tolerable materials, even if they are more expensive.