

*Stephen's Healthy Housing Column****Welcome to MCS: Time to Look at Your Kitchen in a Different Light****- 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 green.

Intro

For many people who have had MCS for some time, they have slowly made their living space their sanctuary. For those who are newly diagnosed, things are going to be different, and need to be for you to stay as well as possible. That means looking at your home in a different light. This series of articles will walk through the kinds of elements that I look for in a healthy house and where the potential problems lie within a home. We will focus on the sneaky things that you may have missed in your own process as well.

Kitchen

This is the first area that I look at in a house, as it's oftentimes the simplest place to find some problems.

Open up your cupboard doors underneath your kitchen sink. Pull all of the junk that resides in there out, as we'll cover that later. Next with a good flashlight stick your head in and look up. Check for water leaks around your sink and for mould growth from never inspected potentially wet spaces. For most people the rim of the sink and an improperly secured tap set can lead to a lot of undiscovered water in this area as

most homes have laminate counters, which are particle board materials glued together with a formaldehyde based binder. So without knowing you can have mould growing in your kitchen and releasing formaldehyde at the same time. So it's important to have a look.

Now lets look at the stuff you have on the floor beside you... cleaners typically, and lots of them. Let's group them all together. Maybe you haven't seen some of these cleaners in the last couple of years as they've been buried in the back behind the pipes and piles of plastic bags.

Many of them are older and inexpensive are made from petroleum based products. Do you notice those skull and crossbones, those toxic symbols, or the corrosive image? Well funny enough, those mean that they can hurt you. Have you actually ever thought about that?

It's amazing that we simply take them for granted, but these chemicals are very, very bad for us to be using and exposed to. The cheap containers are not airtight either. So they are, in fact, off gassing under the sink as well, which means that the chemical exposures are multiplied as the synergistic combinations are occurring here.

Cleaning products have one of the largest impacts on air quality within a home. Chemicals are typically petroleum-based and are highly volatile, meaning they are unstable and disperse through the air quickly. These toxic ingredients are known carcinogens (cancer causing chemicals), reproductive disruptors, neurological agents (impacting brain functions), endocrine disruptors (the endocrine system regulates hormone production), and hormone mimickers (petroleum based estrogen mimickers are common ingredients in many cleaners and plastics).

These cleaning products are oftentimes not even making spaces cleaner, but in fact more toxic for you and your family. These harsh chemicals are not necessary to create a safe and clean home. Natural based cleaners available at health food stores are great alternatives that will meet all of your cleaning needs and you can simply replace existing products with these. Alternatively, you can clean your home with homemade recipes that use time tested ingredients like baking soda and vinegar. I have dozens of recipes on my website if you wish to pursue this. www.yourhealthyhouse.ca

The chemical cleaning products should be collected and taken to hazardous waste so that they can be properly disposed of in a safe manner.

Once the cleaners are out of the way, then you can look at the rest of the space. How about where your plumbing goes? Does it go down (we're looking at the copper pipes bringing water in, and the plastic waste pipe as well) or through the wall? If it goes out the wall, and it's an exterior wall, then that's a point of air and moisture vapor leaking. It's also a fabulous pest intrusion point as you still have the compost and garbage under the sink, which they can now smell better, since you've removed the chemicals. Seal up that wall opening with spray foam, or caulking or dry-wall compound or something that will act as both an air barrier, and ideally some insulation behind it to act as a thermal barrier too. Do you have the old 1980's grey plastic pipes as well? Those were pretty common as they were cheap to install. The

problem with some of those older plastic pipes is they work harden over time, which means wherever there were strains on the pipe, like at a bend, then that would be the first point of failure, and failure means water in a place you've already admitted you don't look at. So have a good look and consider replacing this stuff with flexible stainless when you can afford it.

Do you have a microwave? Can you wiggle the front door of it? Is it really old, or did you spend less than \$40 on it? Then it's most likely leaking microwave frequencies. Remember microwaves are really good at cooking meat fast. Is yours at head or heart height? Right. Do the little ones watch the popcorn cooking? So what do we do? Well I recommend that you stop using it and send it to the metal scrap. If you are not willing to make that change, then get it up high and out of the way. Don't stand around when you are using it, and definitely don't put plastic containers ever in it. Remember the plastic you have that is stained with spaghetti? Well the molecules move both ways, so you are eating plastic, and we all know plastic isn't good for you. (If you don't know, keep reading.) Finally, replace it with a convection toaster oven and you can carry on most tasks with the same energy efficiency and with a safer technology.

Consider plastics as solidified gasoline, because chemically they are pretty close to that. Now consider how you use plastics in your life, such as summer cutlery, storage containers, heating up in the microwave, baby and pet chew toys, baby bottles and sippies, etc. The softer the plastic, the closer it is to gasoline. Add in things like BPA (Bisphenol-A) and we now have an estrogen mimicker in the mix. So, consider BPA free as a minimum and switch to stainless, glass, wood, ceramic or anything else that is more inert, stable, and safer than plastic for all of your uses both in and beyond the kitchen.

Leaded crystal contains lead. Sounds funny, but we don't really think about that very much and it's true. The quickest way to pull lead out of crystal is in an alcohol solution.

So if you have some of grandma's family crystal in the house, consider how you use it. Don't use it every day. And more importantly, don't use leaded crystal decanters because you are soaking in it, and it creates the hangover that might not ever go away. If you do have leaded crystal, use it for those really special occasions and enjoy their handcrafted beautiful workmanship just for the special toast and then switch back to the regular newer lead free crystal.

If you were to light a wood fire right on your kitchen counter (hypothetically please) what would be the second thing (first being to put it out of course) you would do? You would open a window wouldn't you? Vent it out right? So how about your gas stove? Natural gas stoves are a standard item in many higher end kitchens as they offer infinite cooking temperatures. Professionals and homeowners love the dynamic they can create when working with gas. Having an exhaust fan that actually exhausts outside and not just back inside (or not having one at all) is really important. These combustion products must leave the house as they do with all other gas appliances used in a home. We even have the audacity to stand directly over the stove to inhale all of these fumes. Most people with MCS cannot tolerate a gas appliance, and certainly cannot without a good quality exhaust fan. Consider how you feel around your gas stove when using it and consider the options of proper ventilation or removal of the stove. It's also a good idea to have the gas lines checked for leaks once in a while .

Water quality is the final issue in a kitchen. City water is treated water, and depending on how close or far you live from the treatment plant determines how much chemical exposure you have. The farthest home they deliver water to is guaranteed the safe drinking water, so the closer you are, the higher the exposure to the chemicals. Chlorines and fluorines are common and they both react with concrete, which is one type of water pipe used. Heavy plastic, clay, and even lead pipes were

common in various locations and time periods. Having your city water tested isn't a bad idea, as it lets you know what's in it. You may have some lead in your water from your own copper solder from years gone by, or from the pipes outside of your house and your control. One full spectrum test of the top stuff in your water is a good idea, once, and then you know.

For those on wells you should have your water tested every 3 months. A good way to remember this is to have your water tested every time you get your oil changed on your car. A bare minimum is in spring (highest water level) and the fall (lowest level) so that you are capturing the two most extreme conditions of the ground water. Inspect your well regularly and have a professional look at it to ensure it's not contaminated. If you have a dug well, versus a newer well, you could have more issues with contamination. Many jurisdictions are becoming stricter and stricter with the guidelines required to operate these wells, for public health safety. Be sure to talk to your public health inspectors for the most up to date information.

Filtering water is a large and contentious issue for many reasons and dedicating more time to that shall happen in another article.

Considering the time spent in the kitchen, the health opportunities that it can generate for you, and making it as healthy as possible is a really good idea. A safer space to work will be a better space to create healthy and nourishing meals for your body to help you become stronger and healthier.

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