



L'Association pour la santé environnementale du Québec / Environmental Health Association of Québec

www.aseq-ehaq.ca

HOW SAFE IS YOUR INDOOR AIR?

Tips for a healthy home

Is indoor air quality a concern for you?

It is estimated that we spend 90% of our time indoors. According to the Environmental Protection Agency, indoor air can be 10 times as polluted as outdoor air. Recent research shows connections between long-term low-level exposures to chemicals and a variety of health risks. Some people are more sensitive to commonly encountered chemicals and continued exposure can lead to disability. These include people who suffer from environmental sensitivities.

Environmental sensitivities encompasses a range of overlapping chronic conditions such as Multiple Chemical Sensitivity (MCS) and Electromagnetic Sensitivity and frequently contributes to overlapping illnesses such as Chronic Fatigue Syndrome/Myalgic Encephalomyelitis (CFS/ME) and Fibromyalgia (FM). The term describes a wide range of reactions to environmental factors including chemicals, foods, biological agents and electromagnetic radiation, at levels of exposure tolerated by many people.

The impact of living with the cocktail of chemicals now found in household air and dust is unknown. Those at greater risk from low-level chemical exposures include: the foetus, babies, children, women, the elderly, workers in a high-risk occupation, the poor, and people with chronic existing illnesses, such as allergies, asthma, and Multiple Chemical Sensitivity.

We can all benefit from using products with non-toxic chemicals. It therefore makes good sense to always opt for the safest product for all indoor environments - especially our homes - where we live, love, grow together, and raise our young! People with environmental or chemical sensitivities, allergies and asthma, must absolutely find less toxic products in order to maintain good health.

Natural does not equal safe

Choose products carefully. Don't be fooled by pretty logos or slogans. There are no legal definitions for "natural," "fresh," "green" or "botanical." Read labels carefully to identify all ingredients in each product.

Read labels

Some key ingredients to avoid are mentioned on the back page of this booklet. You can use this information to evaluate products yourself. The first ingredient makes up the greatest amount and the last ingredient is present in the least quantity. Manufacturing by-products may be present in the product but not listed. You can easily avoid parabens, which are derived from petroleum. They are often used in personal care products, and have been found to have endocrine-disrupting properties. The names of parabens often start with the prefixes methyl-, ethyl-, butyl- or propyl-. Look for these in the list of ingredients.

Many companies using less-toxic compounds are keen to make their ingredients known. Look for this information on labels. There are easy-to-find alternative products, but you need to read the labels and be careful and informed. Found mostly in Health food stores, an increasing number of safe products are available in regular stores due to public demand.

Endocrine disruptor

Endocrine disruptors are chemicals, that when absorbed into the body either mimic or block hormones and disrupt the body's normal functions, thus producing adverse developmental, reproductive, neurological, and immune effects in both humans and wildlife. This disruption can happen through altering normal hormone levels, halting or stimulating the production of hormones, or changing the way hormones travel through the body, thus affecting the functions that these hormones control. These chemicals are known human endocrine disruptors: dioxin, PCBs, DDT, and some other pesticides, and plasticizers such as bisphenol A.

How chemicals enter the body

Chemicals or chemical mixtures, once absorbed and circulated, add to the total level of toxic chemicals in our bodies, otherwise known as "body burden." With multiple exposures, the body's ability to self-cleanse can be overwhelmed. There are three main routes of exposure: the skin, lungs and the mouth.

Skin

The skin is the largest organ of the body, and can absorb chemicals in personal care and household cleaning products. This is a significant source of exposure especially since chemicals may come into frequent contact with the skin.

Lungs

When we breathe, delicate lung tissue is exposed not only to oxygen, but also to other chemicals which enter the bloodstream and are distributed without passing through the detoxification process of the liver. Toxic chemicals can cause damage throughout the body and some chemicals and particles can injure lung tissue itself. Most worrying is the use of 'aerosols', because the particles are very small.

Mouth

Toxic chemicals entering the body via the mouth are absorbed through the gastrointestinal tract. These include chemicals on the food, such as pesticides, or in products we eat and drink, and from substances applied on or near the mouth, such as lipstick. Due to frequent hand to mouth activity, children are particularly vulnerable to ingesting toxic residues found on floors, furniture, etc.

We are often busy with our lives, working hard, paying our taxes and giving over the management and regulation of these chemicals to proper authorities. Fact is, if this job was done properly, we would not have toxic body burdens as seen from recent testing of Canadians, including politicians.

We also tend to think that environmental hazards are pollution from certain industries, exhaust from vehicles, smog, etc. We see non governmental groups take on these issues and feel a sense of gratitude and relief that someone is doing the work we wish we had time for.

However: we do have time and control over what we purchase for our homes and families to eat, clean with, walk and sit on, or apply on their hair or skin.

Most of us use products every day that contain ingredients that qualify as environmental hazards. This information can help you understand the potential health risks of some common products, identify less toxic alternatives for personal and household care and evaluate other products you find in the market place. You have the power to make the change for a safer, sustainable environment by your choice of products! Ensure a healthy future for our children on this planet.

Tips to improve indoor air quality

- Never allow smoking indoors
- Scented products contain a wide range of hazardous substances and should be avoided. 'Fragrances' may contain phthalates, which act as endocrine disruptors and may cause obesity, reproductive and developmental harm. Avoid phthalates: choose products that do not mention 'perfume' or 'fragrance' on the list of ingredients.
- Keep your home well ventilated, keeping windows open in the summer.
- An air purifier and vacuum cleaner equipped with a HEPA filter will help to remove pollutants.
- Some household plants are natural air purifiers. These include: spider plants, dracaenas, philodendron, common ivy, aloe vera and rubber plant. Wipe with a damp cloth periodically to help keep them filtering efficiently. Make sure there is no mould growth on the soil. If there is, remove the top soil and replace with fresh potting earth.

Tips for healthy indoor air. Save money, protect your health!

Cleaning

The following ingredients are safe and environmentally friendly:

Sodium bicarbonate (baking soda): General cleaner, removes stains, deodorizes, unclogs drains. **Vinegar :** removes grease, disinfects, kills mould and mildew and softens fabrics. **Lemon juice:** removes grease and stains. **Salt:** Scours and disinfects. **Cornstarch:** deodorizes, removes

| Item/s | Eco-Solutions Cleaning |
|---|---|
| Mirrors, glass, dusting, counter tops, sink, tub, tiles, interior of cars, general cleaning | Use water in a spray bottle and wipe with a <i>microfiber cloth</i> (available at the dollar store!). If very soiled, add a few drops of unscented, biodegradable liquid soap in the bottle and spray area before wiping with microfiber cloth. |
| Toilet bowl | Sprinkle some baking soda. Pour a little vinegar on top. Brush well and flush. |
| Degreaser | Two parts baking soda, one part vinegar. Apply/ rub onto surface, leave for 10 minutes. Rinse well. Good for stove hood. |
| Floors | Hot water and vinegar to mop. If soiled, add 2 tbsps unscented biodegradable liquid detergent to water. Mop and rinse. Do not use on marble or surfaces that vinegar should not be used on |
| Tile grout, mould & mildew | Spray area with vinegar and hydrogen peroxide (equal parts). Leave on for 10 minutes then wash off with a brush. Or, mix two parts baking soda, one part vinegar. Scrub gently with a tooth brush. For shower curtains, apply undiluted vinegar to a sponge and wipe mildew. Hemp shower curtains naturally resist mould and are machine washable. |
| Drains | To deodorize, pour baking soda down the drain and rinse. To unclog, pour one cup baking soda down the drain. Add 1/2 cup vinegar. Flush with hot water after one hour. |
| Disinfectant | Fill a spray bottle with equal parts hydrogen peroxide and vinegar. Spray surface and wipe. |
| Deodorizer | <u>Carpets, rugs and shoes:</u> sprinkle baking soda. Leave overnight, vacuum. <u>Closets and fridge:</u> Place an open box of baking soda. Replace every 3 months. <u>Cat litter box, diaper pail:</u> Sprinkle baking soda before adding litter or diapers. |
| Air freshener | A clean, fresh home without the aid of chemicals is all that you need. However if you feel the need for a scent, here are some ideas: Bring a pot of water to boil. Add a cinnamon stick, a few clove or some dried herbs. Simmer for around 15 minutes. Empty garbage regularly, use baking soda in garbage can, open windows for fresh air. Stay away from all kinds of air fresheners (plug-in, counter, candle or spray variety). |

| Item | Laundry Eco-Solutions |
|-------------------|--|
| Prewash | Use a baking soda and water paste or scrub stains with unscented, biodegradable dishwashing |
| Laundry detergent | Some standard laundry detergents may contain toxic chemicals that are hazardous to health and the environment. Non-toxic, phosphate-free, unscented brands are available in health food stores and increasingly, due to public demand, in regular stores. 'Nature Clean' products are a good choice. To whiten and deodorize your clothes, add one cup of baking soda before adding soap and clothes. |
| Fabric Softener | In order to minimize the presence of chemicals in the home, the Canada Mortgage and Housing Corporation (CMHC) recommends not to use perfumed fabric softeners. Besides leaving chemical residues in all clothing, they also pollute the outdoor air through dryer exhaust. For an alternative, add one cup of vinegar per full load. This also deodorizes and removes soap scum. Nature Clean softener is a good choice. |

| | |
|-----------------------|--|
| Bleach | According to the CMHC, bleach produces gases which are harmful to health and the environment. Use eco and health friendly products from Nature Clean. |
| Static Cling | Don't over-dry clothes. STATIC ELIMINATOR cloths are a safe alternative and are reusable. |
| Dry Cleaning | Check out www.ecocleaners.ca —Chemicals used in the dry cleaning process are highly toxic and remain in the clothing for a long time. Many garments labelled 'dry cleaning only' can be hand washed in cold water, hung to dry and ironed. |
| Moth Repellents/balls | Try not to cram your closets. Well aired clothing is less attractive to moths. Do not use moth repellents/balls. Make sachets of cedar chips, cloves, dried lavender, citrus peel or pennyroyal leaves. |

Pesticides—Use *only* alternatives to pesticides

Prevention tips: **Keep** house clean, especially the kitchen and bathroom. **Empty** garbage cans everyday. **Store** food in containers with fitting lids. **Do** not leave overripe fruit on the counter. **Repair** leaks to avoid moisture problems. **Fill** holes and cracks to prevent insects from entering. **Remove** any firewood and tree branches in contact with the house.

| | |
|-----------|--|
| Ants | Mix 1 litre of water, 7 teaspoons of boric acid (available at most drug stores) and 1 cup of sugar. Soak cotton balls in the solution, then place them into an old margarine container with the lid on. Punch holes in the sides of the container to allow the ants to get in, and place the 'bait stations' wherever you have seen ants. If ants are very tiny, omit the container—keep cotton balls away from children and pets. Moisten cotton balls daily. After one or two weeks, make a new solution with only half the amount of boric acid. Use fresh cotton balls. Refill stations. A good portion of the ant colony will be killed with the first solution. But it is the weaker solution that will give you long term control as the ants continue to feed the colony with boric acid. It is important to allow the ants to take the solution back to the nest. Resist the temptation to stomp any ants that you see. |
| Fleas | Add 1 to 2 tablespoons of nutritional yeast (available in health food stores) to your cat or dog's food to prevent fleas. Frequently wash or vacuum all pet bedding, remembering to empty the vacuum cleaner bag after each cleaning session. |
| Head Lice | Work in a well-lit room. Coat hair with coconut or olive oil. Place a white cotton, smooth-surface cloth on the shoulders. Begin combing out one section at a time making sure to keep over the white cloth, using a special comb designed for head lice (available at pharmacies). Dip the comb in a bowl of hot soapy water after each pass to remove any lice or eggs. Make sure that the white cloth does not have any lice on it. Shake the cloth outside the house. Wash hair well. Repeat everyday till the lice and eggs have been removed. |

Key Ingredients to Avoid

Fragrance/parfum, BHA, BHT, Sodium Lauryl Sulfate(SLS), Sodium Laureth Sulfate(SLES), Petrolatum, mineral oil, white oil, colour, flavor, dibutyl phthalate, Phthalates, Cocamide DEA, Oleamide DEA, Lauramide DEA, parabens, PEG / polyethylene glycol / propylene glycol / p-phenylenediamine, MEA (monoethanolamide), TEA (triethanolamine), phenoxyethanol, triclosan, imidazolidinyl urea, aluminum, carbopol, silicone (dimethicone), DEET, siloxanes (cyclomethicone, cyclotetrasiloxane), formaldehyde releasing preservatives: DMDM hydantoin, diazolidinyl urea, imidazolidinyl urea, methenamine, quarternium-15 sodium, hydroxymethylglycinate

Resources

Books— Chemicals in household products

Exposed: The Toxic Chemistry of Everyday Products and What's at Stake for the American Power—*Mark Schapiro*

How Everyday Products Make People Sick: Toxins at Home and in the Workplace—*Paul Blanc, MD.*

Books— Cleaning Products

Better Basics for the Home: Simple Solutions for Less Toxic Living—*Annie Berthold Bond*

Clean House, Clean Planet—*Karen Logan*

Clean & Green, The Complete Guide to Nontoxic and Environmentally Safe Housekeeping -*Annie Berthold Bond*