

*It is important to remind ourselves, that we share the air. If, for health reasons, the air in our public spaces is now free from tobacco smoke, does it not follow that we should enjoy air that is free from synthetic chemicals?*

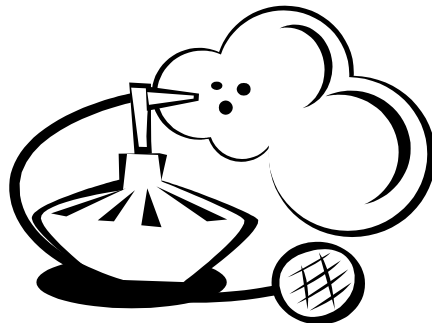


Association pour la santé environnementale du Québec  
Environmental Health Association of Québec

## No sense to scents

Rohini Peris

Increasingly, people are becoming sensitized to chemicals at home, in the workplace and in public places. For some, exposure to chemicals in perfumes can result in serious health effects. Babies and children are most vulnerable, as are people who suffer from intolerance to chemical exposures (Environmental Sensitivities or Chemical Sensitivities) and people recovering from cancer and other illnesses. As more information becomes available, people are requesting perfume/scent-free spaces in which to live, study and work. This can cause conflict with people who appear to tolerate these chemicals. It is well documented that healthy, clean air promotes healthy lungs and healthy people. The two are strongly interconnected. Since we spend most of our time indoors, and we all need to breathe and share the air, it is important to have clean air free of tobacco smoke, mould and other chemicals including those used in fragrances and perfumes.



### What are perfumes?

Perfumes are considered to be the most concentrated form of fragrance. They have been used by people for hundreds of years to make us more attractive. In the past when bathing was uncommon, dabs of perfume were used to mask unpleasant odours. Fragrances used to be extracted from plants, flowers and animals. Today, 80 to 95 per cent of fragrance materials are synthetic and are derived from petroleum. These include thousands of different chemicals and many times more combinations. When mixed together, these combinations are potent and persistent. By their very nature, fragrance chemicals volatilize into the air and remain for a long time. This poses an increased problem for human health, especially when ventilation is poor.

Some of the chemicals found in fragrances are: aldehydes, benzyl acetate, toluene, ethanol, acetone, benzene derivatives, formaldehyde, limonene, methylene chloride, methyl ethyl ketone, benzyl chloride and many others known to cause cancer, birth defects, infertility, nervous system damage, allergy symptoms,

headaches, difficulty breathing, eye, nose and throat irritation and other injuries.

*Some products marked as “unscented” can actually have an additional chemical used to mask the scent. This type of product will also cause health problems for people reacting to chemicals in perfumed products.*

### Where do you find scented products?

Fragrances can be found in personal products (soaps, shampoos, deodorants, hairsprays and gels, cosmetics, creams, make-up, etc.), cleaning products, laundry products, disinfectants, sunscreen lotions, incense, air fresheners, magazine inserts, paper, tissue paper, baby items and products, garbage bags, food, etc. In other words, they are everywhere. Today, there are over 1000 products on the market that include colognes, perfumes and eau de toilette. Even products labeled ‘unscented’ are often falsely labeled and actually contain fragrance products.

### How do perfumes affect us?

Fragrances are absorbed into the body through various routes such as: skin, mouth and nose (both by breathing and through the olfactory pathway, leading directly to the brain and nervous system).  
Fragrances in products used on the skin and



those that are inhaled enter the blood stream and are distributed to other organs. Since many of the same synthetic petrochemicals are also used as flavourings (raspberry, strawberry, lime, etc), they are also ingested.

Due to increased use and repeated exposures, problems have started to surface both for users and for others around them due to the volatile nature of fragrances. For instance, people suffering from Environmental Sensitivities / Multiple Chemical Sensitivity (ES/MCS) around the world have long been reporting adverse health effects due to their inability to detoxify and excrete commonly encountered chemicals. The resulting build-up of synthetic chemicals in the body and their residual effects leads to an inability to tolerate even low levels of exposure. The degree of reaction to the offending agent depends on the severity of the person’s sensitivity and can range from a mild irritation to respiratory symptoms such as shortness of breath and wheezing; neurological symptoms such as dizziness, headaches, migraines, nausea, fatigue, difficulty concentrating, depression, confusion, muscle weakness and pain; and systemic effects, such as loss of appetite and flu-like symptoms. Every system of

the body can be affected with multiple symptoms. Exposures can leave the sufferer disabled and unable to function at work or in public places, and often forced into exclusion. In Canada, approximately 3% of the population has received a diagnosis of Environmental Sensitivity / Multiple Chemical Sensitivity from a medical doctor. For more information, visit:

[http://www.aseq-ehaq.ca/ma\\_es/es\\_def.php](http://www.aseq-ehaq.ca/ma_es/es_def.php)

Skin allergies and respiratory distress due to fragrances are well recognized, as they are known to cause or worsen asthma, emphysema, bronchitis and allergies. According to research, many chemicals found in scented products can cause and worsen Sick Building Syndrome.

The brain is also impacted by fragrances containing neurotoxic compounds. Some effects are immediate and brief while others are long-term. These can include mood alterations as well as concentration and memory problems. Laboratory research shows that fragrance ingredients may affect receptors in the brain in ways similar to alcohol and tobacco. Testing of a perfume product by the Environmental Health Network revealed that the product contained over 800 compounds. Of concern was a phthalate known as diethyl phthalate (DEP), a plasticizer, which made up just over 10% of the perfume. DEP is an irritant and a suspected hormone disrupter that accumulates in fat tissue. Phthalates such as DEP are among the most common fragrance ingredients found in perfumes and cosmetics. They are also used to soften vinyl plastic and are used in perfumes and cosmetics for many reasons: they help penetrate and soften the skin, lubricate other substances in the formula and help the fragrances last longer.

Phthalates are suspected carcinogens and hormone disruptors increasingly linked to reproductive disorders. An association has been made with early puberty in girls and disturbing trends in reproductive health in human males. Tests reveal that women of childbearing age have the highest levels of phthalates in their bodies. It is of great concern that the most

fragile among us – the foetus – is being exposed to these chemicals at this most vulnerable time in human development.

It has been argued that the levels of phthalates in these products are not high enough to cause harm. Since these chemicals are also used in soft vinyl toys, food packaging, plastics, plumbing, wiring, carpentry and many more items, exposure to phthalates can occur many times every day.

*An estimated one in five Canadians are adversely affected by fragrance. For them exposure to perfumes causes symptoms such as asthma, coughing, shortness of breath, wheezing, watery nose and eyes, migraines, confusion and aching joints.*

#### **How can we be protected?**

Many people get offended when asked not to wear perfume in order to protect family members, co-workers or others from adverse health effects at home, in the work place, in places of worship or in social situations. This often stems from an assumption that since the product is on the shelf, it has passed rigorous testing and inspection and is safe for use. This is not true. The fragrance industry is not obliged to carry out testing or provide safety assurances. This is why there is no toxicity testing for over 80 percent of the approximately 4000 chemicals used by the industry. Moreover, for the few that have been tested, there are large information gaps. For example, a chemical might have been tested as a carcinogen but not

for bioaccumulation or other health effects such as neurotoxicity, hormone disruption, or adverse effects on children and the foetus.

In addition, there is no information on the effects of mixtures acting together, nor on the effects of new chemicals formed when different synthetic and natural chemicals are mixed. This information is lacking both on health effects and whether toxicity is additive or multiplicative. It is also not known what new compounds are formed once fragrance chemicals interact with the many proteins, hormones, etc., inside the human body.

Some chemicals contained in fragrances are also found in the environment – in outdoor air, waterways and aquatic wildlife. Fragrances from perfumed personal care and laundry products can be found in surface and drinking water. These chemicals break down on contact with sunlight and mix with other pollutants to form more noxious, irritating, allergenic compounds. Certain persistent chemicals such as synthetic musks can bioaccumulate in the fatty tissue of aquatic wildlife and are found in fish in the Great Lakes. These musk chemicals affect the endocrine (hormonal) systems of many species; coincidentally, serious endocrine disrupting effects such as the feminization of male fish and amphibians, and masculinization of females, have been noted in aquatic wild life.

### **Scent-free areas**

With an increasing number of people requiring scent-free spaces in which to live, work, play, worship, study and enjoy community life, it is important that employers, teachers and providers of community services are aware of this growing need. In addition, they should know how to approach the subject with others in order to successfully obtain scent-free spaces. The change to a healthier lifestyle is the easiest within the family as it depends directly on which products are purchased.

For work and school spaces and community centers, it is important to first establish a scent-free policy and then proceed to implement it. This can be achieved by posting the policy for all to see, by distributing information on scent-free products that are readily available in the area and by requesting that staff, students and visitors be scent-free. Visitors should be notified not to wear perfumes or colognes prior to arrival and 'Scent-free' signage should be posted in key areas around the building.

It is also important to make sure that only unscented products are used for cleaning within the building and that all products available to the public (soaps, creams, etc.) are scent-free. Care should be taken not to use any scented products, such as, air fresheners, scented candles, etc., within the building.

**Tips on how to become Scent Free**

**Beware of *Green washing*\* - ALWAYS READ LABELS**

AVOID	USE
<p><b><i>Fragrances and perfumes by themselves or contained in:</i></b></p> <ul style="list-style-type: none"> <li>• Personal products</li> <li>• Cosmetics</li> <li>• Laundry &amp; clothes softeners</li> <li>• All purpose cleaners</li> <li>• Disinfectants</li> </ul>	<p><b>Druide</b> line of products have a hair gel and hair spray, shampoos, deodorants, personal and cleaning products.</p> <p><b>The Pur and Pure</b> products are scent free and free of essential oils. This means that they do not contain even natural sources of possible allergens.</p> <p><b>Nature Clean</b> has a line of cleaning, laundry, clothes softener and personal care products and natural disinfectants. Read labels.</p>
<p><b><i>Some products have problematic odours:</i></b></p> <p><b>Chlorine bleach in clothes</b></p> <p><b>Fabric softener liquid or dryer sheets</b></p> <p><b>Dry-cleaned clothes</b></p> <p><b>New unwashed clothes</b></p> <p><b>Air fresheners</b> (These do not eliminate the source of the odour. Tiny droplets from these products are easily inhaled deep into the lungs)</p> <p><b>Burning Incense</b> (Cancer causing particles known as polycyclic aromatic hydrocarbons are released when incense is burned. These cling to fibers and children can inhale and ingest them when playing on the floor).</p> <p><b>Scented candles</b> (They tend to release more chemicals and soot than unscented candles. Candles with metallic wicks may contain lead.)</p>	<p><b>Green Beaver</b> – personal products. Read labels.</p> <p><b>Seventh Generation</b> – laundry products, gels, hair spray, shampoos, deodorants, make-up. Read labels.</p> <p><b>Safe makeup</b> is available in health stores – always read labels</p> <p><b>Shaving cream/lotion</b></p> <ul style="list-style-type: none"> <li>• <b>Druide:</b> Cleansing Lotion, Organic certified, can be used after shaving.</li> <li>• <b>Alba Botanicals</b> – Moisturizing cream, unscented.</li> <li>• <b>Kiss my Face</b> – Fragrance free moisture shave</li> <li>• <b>Clinique Shave gel</b> – unscented, not all natural</li> </ul> <p><b>Static Eliminator</b> cloths available in health stores eliminate static (2 cloths for 500 laundry loads)</p> <p><b>Dryer balls</b> – to soften clothes in the dryer</p> <p><b>Vinegar</b> – Used on face cloth in dryer or 1/8<sup>th</sup> to 1/4<sup>th</sup> cup in laundry with soap or rinse water. Removes impurities and softens clothes.</p> <p><b>Instead of air fresheners:</b> ventilate well, choose natural deodorizers that absorb odours, such as zeolite or baking soda.</p>

### Some of the chemicals to avoid

- Fragrance or Parfum
- BHA or BHT
- Colour
- Flavor
- Dibutyl Phthalate
- Phthalates
- Cocamide DEA
- Oleamide DEA
- Lauramide DEA
- Formaldehyde releasing preservatives:
  - DMDM hydantoin
  - diazolidinyl urea
  - imidazolidinyl urea
  - methenamine, quarternium-15
  - and sodium hydroxymethylglycinate
- Parabens
- Sodium Lauryl Sulfate (SLS)
- Sodium Laureth Sulfate (SLES)
- Petrolatum
- mineral oil
- white oil
- PEG or Polyethylene glycol or Propylene glycol, p-phenylenediamine
- MEA (monoethanolamide)
- TEA (Triethalonamine)
- Phenoxyethanol
- Triclosan
- Imidazolidinyl urea
- Aluminium
- Carbopol
- Silicone (Dimethicone)
- DEET
- Siloxanes (cyclomethicone, cyclotetrasiloxane)

**Be aware** that some large companies advertise ‘scent-free’, ‘perfume-free’ labels for fabric softener sheets or liquids. This does not mean that they are not loaded with chemicals which will emanate for long periods of time. Also, such claims for detergents by these companies may not always be true as they are sometimes contaminated by fragrances.

**\*Green washing:** using words such as ‘Organic’, ‘Clean’, ‘Green’, ‘Eco’, etc, or packaging that gives the appearance of being ‘green’ – such as using plants, the colour green, etc., BUT either does not list the contents of the product, or if the product content is listed it contains chemicals that are known or suspected to cause adverse health effects.

**Use products that have ECOCERT certification** Please note that this certification does not include scent-free. It is always important to read labels. <http://www.ecocertcanada.com/>

## RESOURCES

[www.aseq-ehaq.ca](http://www.aseq-ehaq.ca)

[www.HypersensibiliteEnvironnementale.com](http://www.HypersensibiliteEnvironnementale.com)

<http://www.nottoopretty.org>

[www.teensturninggreen.org](http://www.teensturninggreen.org)

[www.greenpeace.org/international/Global/international/planet-2/report/2005/2/perfume-an-investigation-of.pdf](http://www.greenpeace.org/international/Global/international/planet-2/report/2005/2/perfume-an-investigation-of.pdf)

Skin Deep – <http://www.cosmeticsdatabase.com>

Debra Lynn Dadd – <http://www.dld123.com/index.html>

Annie Berthold Bond – <http://www.anniebbond.com>

David Suzuki Foundation “Dirty Dozen” - <http://www.davidsuzuki.org/dirtydozen>

## BOOKS

The Safe Shopper’s Bible – David Steinman & Samuel Epstein, MD

Toxic Beauty – Samuel Epstein, MD

Clean and Green – Annie Berthold Bond

Consumer’s Dictionary of Cosmetic Ingredients, 7<sup>th</sup> Edition - Ruth Winter



More than one million Canadians suffer from Environmental Sensitivities. ***We can help you!***

**Common symptoms:** hives, muscular spasms, depression, nausea, asthma, heightened sense of smell, difficulty concentrating and/or remembering, variability in mental processing, headache, flushing (whole body, or isolated such as ears, nose or cheeks), confusion, dizziness, high or low blood pressure, eczema, skin eruptions, swollen limbs, memory loss, insomnia, pain



**Environmental Health Association of Quebec**

Educate yourself / become a member / make a donation: [www.aseq-ehaq.ca](http://www.aseq-ehaq.ca)

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Réseau pancanadien sur la santé des femmes et le milieu