



WCH Fragrance-free Policy Management Presentation

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> FACT 62:
More women than men
suffer undetected
heart disease.



Background Information

- WCH Environmental Health Clinic is the **only** academically-affiliated, provincially-funded clinic in Ontario that addresses environmental sensitivities
- Having **environmental sensitivities** has been designated a **disability** protected by Canadian and Ontario Human Rights legislation and policies http://www.chrc-ccdp.ca/legislation_policies/policy_environ_politique-en.asp
- All hospitals have an obligation to protect patients, ensuring they don't become ill when they seek and receive care



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Slide 2

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Could we use a fact re: environmental sensitivities - 60-80% are women

Nancy, 2/13/2009



Background Information

INDOOR AIR QUALITY

- 80 – 90 percent of our time is spent indoors
- Indoor air is 2 – 5 times more polluted than outdoor air
- Fragrances are the most obvious indoor air pollutant 2nd to tobacco smoke



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Common sources of Indoor Air Pollutants

- **Volatile Organic Compounds (VOC's)** - furniture, carpets, paint, solvents, perfumes/scents, copy machine toners, carbonless paper, computers/printers, cleaning compounds, pesticides
- **Healthcare-specific chemical emissions** - from medications; chemicals used in radiology, pathology, endoscopy and laboratory; adhesives; and cleaning and sterilization of surgical and medical instruments (i.e. aldehydes)
- **Biological contaminants** - bacteria, viruses, mould, pollen, fungi - found in ventilation and humidification systems
- **Carbon Monoxide** - garages and loading docks



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Background Information

Common sources of Fragrance in Healthcare

- **Staff and visitors** who are wearing perfume, cologne or aftershave; scented cosmetics, skin lotions or hair products
- Scented **cleaning products**, floor wax, paint
- **Healthcare-specific chemical emissions:** medications; chemicals used in radiology, pathology, endoscopy and laboratory; adhesives; and cleaning and sterilization of surgical and medical instruments (i.e. aldehydes).



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Chemical components of Perfumes and Fragrance

- Up to 4,000 ingredients in manufacture of fragrances
- Up to 500 ingredients in a single perfume
- 95% are petroleum-based volatile organic compounds (VOCs), many known to be respiratory irritants/sensitizers
- Fixatives (e.g. phthalates) often used to aid persistence of the scent- known endocrine disruptors
- Some ingredients have been linked with cancer, birth defects and neurotoxic effects at higher exposure levels



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Ingredients In Fragrances Linked With Cancer and Birth Defects

Methylene chloride
Toluene
Ethanol
Methyl ethyl ketone
Tert Butyl
Sec Butyl
Benzyl chloride

*Compiled by comparing 120 fragrance chemicals from the EPA and
California's Prop 65 Chemicals*



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Neurotoxic Ingredients Found in Fragranced Products

Hexachlorophene

Cetyl-ethyl-tetramethyl-tetralin

1 Butanol

Isobutanol

Toluene

*Compiled from TOXLINE database of
fragrance industry and medical journals*



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Cosmetics and Fragrance Industry

- Modern fragrances are primarily synthetic materials, developed since World War II (80-90%).
- Regulation is largely done by the industry itself – perfumes have a “trade secret status” therefore government regulation is limited
- There are few industry studies on inhaling fragrance chemicals, and they are not routinely tested for chronic neurotoxic and systemic effects



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Common Symptoms Linked with Perfume Exposure

Symptom Presentation with Exposure		
■ Rash	■ Watery eyes	■ Difficulty concentrating
■ Dizziness	■ Runny, stuffy nose, sinuses	■ "Groggy" or "spacey" feeling
■ Headaches	■ Fatigue	■ Wheezing, shortness of breath



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Perfumes and Fragrances: Health Effects



- Contact sensitization to fragrances is one of the most common causes of contact allergy (Nielsen, NH, et al, 2001; Schnuch, A. et al., 2002)
- People with perfume contact allergy or hand eczema have more frequent and severe eye and/or airway symptoms associated with perfume exposure (Elberling, J. et al., 2004)
- Patients with respiratory symptoms related to perfume show increased release of histamine (Elberling, J. et al, 2007)



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Perfumes and Fragrances: Health Effects



- Prolonged inhalation of fragrances influences the ANS (pulse rate, blood pressure) and “mood”- alertness, restlessness (Heuberger, et al. 2001)
- Synergistic effects of perfumes and other chemicals unknown – however, the more chemicals combined, the lower the levels needed to induce sensory irritation (Cain and Cometto-Muniz, 1995)



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Asthma Facts

- Asthma affects approximately 3 million Canadians
- In Canada, there are 146,000 emergency room visits from asthma attacks annually
- Asthma is the leading cause of absenteeism from school and the third leading cause of work loss
- World-wide, the economic losses associated with asthma exceed those of TB and AIDS combined

Asthma Society of Canada, 2005

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Asthma and Perfumes


- Asthmatics are more severely bothered by perfume exposure than non-asthmatics (Elberling, J., 2005)
- Placebo-controlled studies have shown that asthma-like symptoms can be provoked by perfume (Millqvist E., Lowhagen, O, 1996; and Millqvist, Bengtsson, U and Lowhagan, 1999)
- Case report: health care worker, no hx of asthma or reactions to fragrances, experienced anaphylactic reaction when sprayed in the face with perfume, and continued to need oral bronchodilator at 2 month follow- up (Lessenger, J.E., 2001)



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Asthma and Perfumes

- Perfumes are a recognized trigger of asthma and work-related asthma (including healthcare workers) (Pechter, et.al. 2005; Henneberger, PK., 2007; The Lung Association, Ontario, 2009)



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Sensitivity to Fragrances

- Once sensitivity develops, symptoms occur with each subsequent exposure, even at low levels
- Often difficult to determine which chemical(s) are involved
- Severity of symptoms varies from one individual to another



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Sensitivities to Fragrances

Canada

- Approximately **1/3 of the Canadian population** is bothered by fragrances (complain of symptoms from exposure) (Sears, M, Canadian Human Rights Commission, 2007)

United States

- 16 – 33% of U.S population “especially sensitive” to chemicals, including perfume (Bell, 1996, 1998; Meggs, 1996)
- 30 % of US population finds fragrance on others irritating (adverse reactions) (Caress, S.M. and Steinemann, A.C. 2004, 2009)

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Sensitivities to Fragrances

Europe

- Danish study - ~42% of the population surveyed had at least one eye or airway symptom associated with perfume exposure (Elberling, J. et al., 2005)



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Most Vulnerable?


- Asthmatics
- Allergic or “sensitized” – i.e. contact allergy
- Women and unborn babies
- Children – developing, active, eat, drink and breathe more per kg. body weight than adults



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Multiple chemical sensitivities(MCS) Environmental sensitivities(ES)

- Symptoms occur with repeated chemical exposure
- The condition is chronic
- Low levels of exposure manifest symptoms
- Symptoms improve when incitants are removed
- Responses occur to chemically unrelated substances
- Symptoms involve multiple organ systems
- 4 neurological symptoms most common:
 - Having a stronger sense of smell than others
 - Difficulty concentrating
 - Feeling dull or groggy
 - Feeling "spacey"

1999 Consensus on Multiple chemical sensitivity. Arch Environ Health. May/June 1999; 54(3).
McKeown-Eyssen, G.E., Baines, C.J., Marshall, L.M., et al. Multiple Chemical Sensitivity:
Discriminant Validity of Case Definitions. Arch Environ Health 2001; 56(5): 406-12

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Prevalence of MCS/ES

Canada

- 2.4% (~643,000) of population reported diagnosis
- 3.4% women (~2.5 x more prevalent in women than men) (Park J, Knudson S. Health Reports, 18:1, Feb. 2007 – Statistics Canada, Catalogue 82-0003)
- 3.6% of all Canadian nurses experience chemical sensitivities (The 2005 National Survey of the Work and Health of Nurses)

United States

- 3-6% of population reported diagnosis by a physician (Sears, M.E., Canadian Human Rights Commission, 2007)



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Environmental Sensitivities: Legal Requirements



- ES is a disability covered by Canadian and provincial Human Rights Legislation*
- Diagnosed individuals must be accommodated in the workplace
- Purpose: To prevent injuries/illnesses, reduce costs and health/safety risks

* Canadian Human Rights Commission. Legislation and Policies: Policy on Environmental Sensitivities. June 2007



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Accommodation for Those With Environmental Sensitivities (CHRC)

- Minimize or eliminate exposure to triggers in the environment by:
 - developing and enforcing fragrance free and chemical avoidance policies
 - undertaking educational programs to increase voluntary compliance
 - minimizing chemical use and purchasing less toxic products
 - notifying in advance of construction, remodeling, cleaning activities





Why Fragrance Free?

1. Improves work environment
 - Health and Safety (indoor air quality)
 - Equal access
 - Enhanced morale
2. Protects patients and staff
3. Decreases absenteeism and improves productivity
4. Links to organization's Mission and Values
 - Respect
 - Equity



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Tips for success - workplace

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- Create an advisory committee to gather employee input and discuss the specifics of the policy or program recommendations
- Include discussion of enforcement in policy
- Address accommodation issues
- Address added “fragrance” versus odour



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Tips for success - workplace

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- Educate and make it easy - provide information on alternatives and give phase-in period
- Develop a communications mechanism, such as notices in payroll envelopes, signs in lobby, departments/offices, and voice message on main and program telephone lines
- Notify clients prior to appointment, if feasible
- Provide ongoing education – articles in newsletter, samples at “health and safety” days, notices on appointment/business cards, etc.

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What Can we Do?

It is as simple as asking our community to:

- NOT wear perfume, cologne or scented aftershave products
- NOT wear scented products (lotions, antiperspirant/deodorant, creams etc...)
- LOOK for products labelled "fragrance-free"
- USE scent-free detergents and fabric softeners



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What can You Do?

Do not wear to Work

- Perfume
- Cologne
- Scented aftershave
- Scented hairspray, mousse, gel, putty, oils
- Scented creams, lotions, sunscreens
- Scented deodorant/antiperspirant
- Scented laundry products



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What Can You Do?

- Read labels - avoid products with fragrance in the ingredient list
- Try different products, to see what works best for you
- Start with the most accessible and least expensive alternatives
- Ongoing education for visitors, staff and patients



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Corporate Initiatives

- Fragrance free education – public places
- Corporate signage – fragrance free (elevator banks, wait areas, lobby and inside elevators)
- Website information to staff/visitors
- Scripted messages placed on the main WCH and program lines to remind patients/visitors of FF organization



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Corporate Initiatives

- FAQ's for patients/staff (coming soon)
- Staff forums to increase awareness
- Webcast available for staff to view in future
- Ongoing review of corporate policy
- Managers may use this presentation for their staff as an education tool



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Resources

Fragrance-free

- Guide to Less Toxic Products www.lesstoxicguide.ca/
- We Share the Air: Dalhousie University
http://environmentalhealthandsafetyoffice.dal.ca/radiatio_1589.html
- The Canadian Lung Association http://lung.ca/protect-protegez/pollution-pollution/indoor-interieur/scents-parfums_e.php
- Canadian Centre for Occupational Health and Safety
www.ccohs.ca/oshanswers/hsprograms/scent_free.html
- Fragranced Products Information Network
www.fpinva.org



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Resources

Environmental Health and MCS/ES

- Women's Health Matters – Environmental Health Centre
www.womenshealthmatters.ca/centres/environmental/index.html
- Environmental Health Association of Ontario
<http://ehaontario.ca/>
- Environmental Health Association of Nova Scotia
www.environmentalhealth.ca/



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Resources

Accommodation for ES/MCS

- Canadian Human Rights Commission. Legislation and Policies: Policy on Environmental Sensitivities. June 15, 2007. Retrieved April 2, 2010 at http://www.chrc-ccdp.ca/legislation_policies/policy_envIRON_politique-en.asp.
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QUESTIONS?



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