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CAMPAIGN FOR FRAGRANCE FREE HEALTH CARE IN THE U.S.

Improving Indoor Air Quality in Health Care Settings by Controlling Synthetic Fragrance: What You as a Nurse Can Do -Written By Peggy Wolff, MS, APRN, HNC. December 16, 2005 www.PeggyWolff.com

Indoor air quality in health care settings is under scrutiny by numerous environmental health and nursing organizations because patients, nurses and others have experienced health problems in those settings. Health Care Without Harm, Environmental Working Group, American Nurses Association, Maryland State Nurses Association, University of Maryland School of Nursing, and Massachusetts Nurses Association are leaders in the movement to improve healthcare environments. Research has documented a direct connection between impaired health status and some chemical exposures. Harmful chemicals in the healthcare workplace include PVC's, disinfectants such as ethylene oxide and glutaraldehyde, DEHP-containing products, natural rubber latex, mercury, and pesticides, to name just a few.[1]

Some individuals and groups of individuals are especially affected by fragrance exposure. Infants and children with immature immune systems and elders with weakened immune systems are particularly susceptible to harmful chemicals. In addition, people with asthma, allergies, migraines, compromised immune systems, and those who have been chemically injured are particularly vulnerable. Some patients are expressing frustration because their right to access health care is affected by toxic chemicals in health care environments. *Sometimes they even have to choose between not getting health care and being exposed to harmful chemicals*. Individuals of reproductive age are at heightened risk of chemical body burden that can be transmitted to the unborn, while new mothers are torn between the positive and negative effects of breastfeeding their infants because hazardous chemicals are consistently being detected in the breast milk of a majority of women.

Nurses may be at even greater risk than patients because they experience cumulative exposure.[2] For an increasing number of nurses, fragrance use in their workplace is a barrier to employment. The Job Accommodation Network, a group concerned with employment rights for people with disabilities, has reported a sharp increase in the number of complaints related to fragrance and work. Between 1992-1995 JAN handled 37 cases related to fragrance while between 1995-2000, 567 cases were handled.[3] Lessenger reported a case of a medical assistant developing acute anaphylactic reaction after being sprayed by perfume and cautions

health care providers that this type of assault is becoming more common.[4]

This article focuses on the harmful chemicals in synthetic fragrance, another important and prevalent cause of poor indoor air quality in health care settings. The following questions will be answered: What are the health effects of fragrance exposure? What are some of the harmful chemicals commonly found in fragrance? What can you as a nurse do about this problem? What does a model fragrance policy look like? How would I go about advocating for or implementing such a policy? What are the key resources?

Health Effects of Synthetic Fragrance

At present one in five people in the U.S. experience adverse health effects from fragrance exposure.[5] These effects range from mild to serious with fatalities reported in a very small number of cases. Each and every system of the body may be adversely affected. An example related to the respiratory system occurs when a person has a flare up in their asthma or even has an asthma attack when exposed to fragrance. In one study 72% of asthmatics had negative reactions to perfumes.[6] Few nurses are aware that fragrance can cause respiratory problems. Respiratory problems can occur because fragrance is a known respiratory irritant. High levels of respiratory irritants can cause asthma or asthma-like conditions according to Betty Bridges, R.N., owner of an informative web site on fragrance and health.[7] In one tragic situation, a nurse practitioner died due to complications from an allergic reaction to perfume in 2002 at Inova Fairfax Hospital.[8] Many symptoms such as irritability, impaired concentration, headaches, ataxia, and dizziness may develop when the central nervous system is involved. The most common site for allergic reactions to fragrance is the skin, with between five and 20% of the population experiencing such effects.[9] Dermatitis, itchy or burning skin may occur. Cosmetics and fragranced products can also pose high risks for breast cancer and other illnesses.[10] See Table 1 for the Environmental Protection Agencies' list of adverse health effects associated with fragrance chemicals.

Harmful Chemicals in Synthetic Fragrance and Their Health Effects

What is in fragrance that could lead to this myriad of symptoms/health problems? For the past fifty years, 80-90% of fragrances have been synthesized from petroleum[11], not from natural sources, as advertisers might like us to believe. A few of the commonly found harmful chemicals in fragranced products are acetone, benzene, phenol, toluene, benzyl acetate, and limonene. See Table 2 for the some of the health effects associated with each of these chemicals. Only a small sampling of chemicals and some of their health effects are provided because of space constraints.

Harmful health effects of fragrance are caused not only by the chemicals mentioned above and a few thousand other individual chemicals, but each fragrance may well contain hundreds of different chemicals in combination. Only a small minority of individual chemicals have been tested for respiratory and neurotoxic effects and rarely have chemical combinations been tested for their health effects. Since fragrance ingredients are protected under trade secret laws, the consumer is kept in the dark about many of the harmful chemicals that make up fragrance.

Irritants in fragrance can initiate a *sensitizing process* "as the immune system 'learns' to recognize materials that will later prompt a reaction when re-exposer occurs.[12] Breakdown

products of limonene, a-pinene, and benzaldehyde are known sensitizers commonly found in fragrance. Phthalates and synthetic musk compounds are two groups of chemicals frequently found in fragrance products that are known to cause serious and long-term health effects. Phthalates have been shown to cause endocrine disruption and are *frequently* found in fragrance products.[13] Synthetic musk compounds used in fragrance can accumulate in fat tissue and be found in breast milk[14]. These same compounds have also been shown to contribute to water contamination, harming aquatic and other wildlife.[15]

Where is fragrance found?

Fragrance is ubiquitous in our society. In addition to being in obvious products like perfume and cologne, fragrance is in *most* personal care, laundry and cleaning products unless labeled "fragrance free". Fragrance may also be in bath tissue, candles, markers, and numerous other widely used products. Air "fresheners" usually contain synthetic fragrance; rather than freshening the air, they significantly compromise air quality.

What Can You as a Nurse do about Fragrance in the Workplace?

1. Avoid personal care, laundry and cleaning products that contain fragrance. Read labels carefully to see if the products are *fragrance-free*. *Scent-free* products may contain masking fragrances.
2. Request that other nurses on your unit avoid fragrance and fragrance products. Provide them with a list of fragrance-free products that are readily available and with little, if any, increase in cost. A list of fragrance-free products is available in the brochure mentioned in #3.
3. Distribute copies of the brochure, "The Hidden Dangers of Fragrances". A sample brochure is available by sending a SASE to the Environmental Health Coalition of Western Massachusetts, PO Box 187, Northampton, MA 01061-0187.
4. Inquire whether or not your health care setting has a policy or statement related to fragrance.
5. If your setting *has a policy/statement*, please email the name of the facility, its location, and, if available, the policy/statement to the address below. A list of large healthcare facilities with fragrance-related policies will be available on-line at www.hcwh.org.
6. If your setting *does not have a fragrance policy/statement*, consider creating one based on the following model:

Model for a Fragrance-Free Policy

Policy: Knowing that fragrance use significantly compromises indoor air quality and prevents access for some individuals, it is the policy of (name of your healthcare facility) to restrict the use of fragrance and fragrance products. This policy applies to all who use this facility including staff, patients, and visitors.

Definitions: Fragrance refers to a scent that is perceptible by others. It includes but is not limited to personal care products such as perfume, cologne, aftershave products, hair care products, soaps, lotions, powders, deodorants; laundry products such as detergents and dryer sheets; cleaning products; and, air "fresheners" that contain fragrance. Fragrance products: any product that contains fragrance or scent.

Procedure: Staff All staff will attend a brief training on the adverse health effects of fragrance. Staff will have an opportunity to share concerns and ask questions.
A pamphlet describing the issue and stating acceptable fragrance free personal care, laundry and cleaning products will be distributed. Health concerns that arise from infractions of the policy are to be directed to health services. Noncompliance issues are to be directed to the appropriate administrator.

Patients and Visitors Patients and visitors will receive a pamphlet explaining the reasons for and how to comply with the fragrance free policy. Signage that reads "Welcome. This is a Fragrance Free Health Care Environment. For the health and comfort of all who use this facility, kindly avoid using fragrance" will be posted at all entrances. Noncompliance issues are to be directed to the appropriate administrator.

Brigham and Women's Hospital in Boston, all hospitals in Halifax, Nova Scotia and many other health care facilities throughout Canada restrict fragrance use. Other policies that can serve as models are on web sites listed at the end of the article.

Step-by-Step Guide on Advocating for a Fragrance Policy in a Health Care Setting

1. Find and work with "like-minded" individuals; there is power in numbers.
   Create a support team so that you are not alone, thus minimizing burnout. Remember it takes time to implement a policy that affects so many people and in such a personal way. Contact the author for information and support.
2. Locate the person/people who has/have authority to implement the policy.
3. Set up a meeting with the person/people with the relevant authority. Decide who should attend the meeting and be prepared. Know what you want, what you are willing to do, and know what you want from them.
4. Bring scientific documentation; an example of a fragrance policy in use, an example of a model policy; and, a list of key resources including books, articles, and professional web sites such as references used in this article.
5. Emphasize a win-win outcome. Better air quality enhances staff health and productivity and makes the facility accessible for those with health problems related to fragrance.
6. Consider conducting a simple anonymous survey about the issue if administrators do not think that fragrance is a problem. See Table 3 for a sample survey.
7. Agree on dates for creating a draft of a fragrance policy, reviewing the draft, an implementing the policy. You may want to begin with just one area; if so, consider choosing the newborn nursery or pediatrics since people may be more open to change if it is for an infant or child.
8. Develop brochures for educating staff, patients and visitors. Develop a sign that welcomes all to your facility; post signs at all entrances. A suitable sign can be downloaded at www.hcwh.org.
9. Review the policy on a regular basis and revise as needed.

Join the CAMPAIGN FOR FRAGRANCE FREE HEALTH CARE IN THE U.S.

If you know of a facility that has a fragrance policy or a facility where nurses are interested in developing such a policy, email the author at the address below. A list of hospitals or large health care facilities that have fragrance policies is available at www.hcwh.org. Let's work

together to make our health care facilities healthier for all by being fragrance free!

Table 1: Common Health Effects from Exposure to Synthetic Fragrance

According to the Environmental Protection Agency, the following health problems have been associated with fragrance exposure: asthma, Reactive Airway Disease (RADS), difficulty breathing, coughing, fatigue, eye irritation, sinusitis, rhinitis, inflammation of mucous membranes, skin problems including dermatitis, immune system damage, nausea, vomiting, abdominal pain, changes in blood pressure, cancer, and even death in severe cases due to respiratory failure. Effects on the brain and nervous system include: convulsions, headaches/migraines, depression, dizziness, irritability, confusion, panic attacks, anxiety, memory loss, impaired concentration, drowsiness, insomnia, impaired vision, ataxia, stupor, spaciness, giddiness, slurred speech, twitching muscles, tingling in the limbs, and loss of muscular coordination. 1991 EPA Study by Larry Wallace. “Identification of Polar Volatile Organic Compounds in Consumer Products and Common Microenvironments”.

Table 2: Fragrance Chemicals and their Related Health Problems

Acetone-dryness of the mouth and throat; dizziness, nausea, lack of coordination, slurred speech, drowsiness, and in severe cases coma; it acts primarily as a CNS depressant. Benzene-irritation of the eyes and respiratory system; decrease in white blood cells, headaches. impaired judgment, and menstrual disorders. Phenol-eye, nose, and throat irritation, abdominal pain; cardiac arrhythmias and failure, cardiovascular collapse, chromosomal aberrations and damage; cold sweats, collapse, confusion, headaches, hemolytic anemia, profuse sweating, and ringing in the ear. Toluene-skin, eye, and respiratory irritant, CNS depressant, liver and kidney disorders, and toxic brain dysfunction. Benzyl acetate-skin, eye, respiratory and gastrointestinal irritant, vomiting, diarrhea, tissue damage, and abnormal EEG’s. Limonene-skin and eye irritant *and* sensitizer; stomach irritant, albumin and blood in urine; and many CNS effects.[1][2]

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Table 3: Sample of Fragrance Survey

January 2006

(Name of your health care facility) is considering having a policy that reduces the use of fragrance. By answering this short survey, you can help us in this decision.

Staff _____ Patient _____ Visitor_____

1. Do you experience any ill effects from fragrance? Yes ____ No_____

2. If yes, please describe briefly.

3. If you are a staff member, has your ability to work ever been affected by fragrance in your work area? Yes _____ No _____

4. If yes, please describe briefly.

5.What do you think about a fragrance policy?

Thank you for taking time to help us make your health care facility healthier!

Jane Doe, M.D.

Director, Health Services

Resources

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Key Web Sites

Canadian Centre for Occupational Health & Safety
Chemical Injury Information Network Environmental Health Network-
Barbara Wilkie-- Fragrance policies for Brigham & Women's Hospital and Kaiser Permanente and information on how to advocate for fragrance labeling and legislation
Environmental Health Nursing, University of Maryland, School of Nursing
"Fragrance Free! Creating a Safe Health Care Environment" Massachusetts Nurses Association on-line CEU Program, In Process
Fragranced Products Information Network-Betty Bridges, R.N.
Health Care Without Harm
National Institute of Building Sciences Indoor Environmental Quality Project 2005: Recommendations from the Access Board

Not Too Pretty -Cosmetics and Health

Peggy Wolff, M.S., A.P.R.N., H.N.C. is a Licensed Psychiatric-Mental Health nurse for more than 30 years and co-developer of the American Holistic Nurses Association's Certificate Program in Holistic Nursing. She specializes in working with people with environmental illnesses. An author of numerous articles on environmental health, she completed Health Care Without Harm's "RN No Harm Training Program". She can be reached at info@peggywolff.com

Additional Resources Added by The CIA Campaign
Cleaner Indoor Air Campaign www.CleanerIndoorAir.org
The Invisible Disabilities Association www.InvisibleDisabilities.org

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