

Perfume, Scented Products and Chemical Injury

Perfumes/colognes were designated in 1986 by the National Academy of Sciences as significant neurotoxins meriting further research of their neurotoxic properties. The report stated that 95% of the chemicals used in fragrances are synthetic petrochemicals. Perfumes/colognes and scented products were exempted from past legislation giving the physician access to trade secret information to assess and manage toxic effects (OSHA Hazard Communication Standard 29CFR1910.1200). Such products can contain mood-altering substances, which by definition change brain biochemistry. US EPA analysis has shown irritant and neurotoxic chemicals in fragrances.¹

Research by Bell^{2, 3} shows increased illness symptoms to perfumes/colognes among otherwise healthy young and elderly people. Scented and unscented hairspray causes reduced lung function in healthy persons compared to placebo.⁴ Standardized ASTM testing has confirmed respiratory irritation and neurotoxicity by inhalation testing.⁵

Individuals with asthma and other respiratory inflammation show documented decline in lung function with even brief exposures to scented products.^{6,7} Symptom exacerbation with perfumes/scented products occurred in the majority of such persons in a large epidemiologic study.⁸

Data analyzed on 90 of Dr. Ziem's patients with chronic illness from chemical injury shows that with exposure, 58% experience illness symptoms following 20 minutes exposure to perfumes/colognes, and 65% with exposure to air "freshener" (odor masking) chemicals while using a restroom.⁹ Dr. Ziem also has patients who developed chronic illness accompanied by chemical intolerance and neurologic changes following several repeated occupational exposures to perfume/cologne scented products.⁹

In response to these health hazards, there are increasing fragrance free policies in public places and workplaces (comparable to smoke free policy). In the large epidemiologic study above⁸, smoke was only slightly more exacerbating than fragrances/perfumes.

¹ L Wallace *etal*, US EPA Air and Waste Management Assoc, "Identification of polar volatile organic compounds in consumer products and common microenvironments", presentation at the 84th annual meeting & exhibition, Vancouver British Columbia, June 16-21, 1991.

² I Bell *etal*, "Symptoms and personality profiles of young adults from a college student population with self-reported illness from foods and chemicals." *Journal of American College of Nutrition* 12:693-702, 1993.

³ I Bell *etal*, "Possible time-dependent sensitization to xenobiotics: self-reported illness from chemical odors, foods and opiate drugs in an older population." *Archives of Environmental Health* 48:315-327, 1993.

⁴ *The Lancet*, December 2, 1978.

⁵ R Anderson *etal*, "Acute toxic effects of fragrance products", *Archives of Environmental Health*, Vol 53, No. 2: 138-146, Mar-Apr 1998.

⁶ P Kumar *etal*, "Inhalation challenge effects of perfume scent strips in patients with asthma", *Annals of Allergy, Asthma & Immunology* Vol 75: 429-433, Nov 1995.

⁷ C Shim, *etal*, "Effects of odors in asthma", *Am J of Med* Vol 80: 18-22, Jan 1986.

⁸ N Eriksson *etal*, "Flowers and other trigger factors in asthma and rhinitis - an inquiry study", *Allergy*, 42: 374-283, 1987.

⁹ G Ziem, Presented as an invited speaker to National Institute of Environmental Health Sciences Workshop on experimental approaches to chemical injury. "Profile of patient characterization: chemical injuries and chemical sensitivity." 1995. *Int J Toxicol* Nov-Dec, 1999.