

The Stinking Truth: What Your Perfume Is Really About

Shannon Larson

Writer's comment: Although I have not always been an allergy sufferer, the seasonal allergies I have gained this past year have been enough to make me really empathize with those who have far more serious complications from allergens than my occasional sneezing fits. I was drawn to research the topic of fragrance after an incident occurred while I was sitting in a lecture hall at school one afternoon. I noticed that as a pretty, young girl, doused with the latest designer perfume, stepped into the classroom to take her seat near mine, my eyes began to tear up and I felt a headache creep up out of the haze of strong smells I was trapped in. Two people near me began sneezing. Was it all just coincidence? Was I just being the typical Birkenstock-wearing Californian, obsessing over something not worth fretting over? I was truly shocked to find out how much of my reaction had actually been underplayed.

—Shannon Larson

Instructor's comment: I like to tell students in my journalism course that if they write boring papers in the class, it's their own fault. For unlike as is the case with most courses at UCD where students write papers on assigned topics, in the journalism class I teach students about different kinds of features and assign them to write papers that fit these categories, but I don't provide them with topics. They choose the content of their articles for themselves. When you read this paper, it will be easy to tell that Shannon chose something here that she was really interested in. And after reading her piece, you might think twice about buying that bottle of Calvin Klein.

—Eric Schroeder, English Department

SHE SNEEZES ONCE, TWICE, THREE TIMES. Maybe she's born with it—or maybe it's your overbearing perfume. It offends some, makes others sick, and might even shorten that dream interview you've finally landed. So when is perfume pleasant and when is it poison?

New research shows our favorite sweet smells might *always* be toxic. Even the fruity lotions and cosmetics that fill the average person's medicine cabinet may pose serious health risks. The cocktail of chemicals found in all perfumes includes narcotics, carcinogens, and nervous system depressants and stimulants. And it's not just the wearers who are being affected—from elementary schools to the work place, people are having to rearrange their lives around these deadly smells.

Within the last decade, the incidence of people suffering from perfume allergies has doubled and is now only second to the largest United States allergen—nickel. Allergic reactions include more than just watery eyes and sneezing—many people suffer from migraines, asthma, skin rashes like eczema, and in severe forms, anaphylaxis (a serious allergic reaction that makes it impossible for them to breathe so that they have to be rushed to emergency medical care.)

While fragrances have been used for centuries, it wasn't until after World War II that they became manufactured primarily from synthetic materials. The specific changes in formulations during the 1980's had a connection with the increase of health problems. Of the 5,000-plus chemicals that cosmetic companies like to use in their scents, 84% have never been tested for human toxicity reports the *Journal of Toxicology and Applied Pharmacology*. We are just now finding out how harmful they really are.

Potion of Disease?

Think you don't take drugs? Think again. Take a good look at the list of ingredients on any bottle of perfume, lotion, or shampoo and you'll find two narcotics listed—ethyl acetate and linalool. On the EPA Hazardous Waste List, this duo causes respiratory disturbances, depressed heart activity, reduced spontaneous motor responses, and stupor. In one study, a popular brand name perfume acted on brain receptors in a way similar to how alcohol affects mood.

So maybe you lucked out and happened to buy a product without one or both of these chemicals. Before you feel relief and slather on that lotion, look again. Chances are you'll find benzyl acetate, limonene, or methylene chloride listed—all known carcinogens and all on the list of

the twenty most commonly used chemicals in fragrance products tested by the EPA. Benzyl acetate is described on the EPA Hazardous Waste List as “absorbed through the skin causing systemic effects.” One of the known systemic effects on humans is pancreatic cancer. Scientists have long known that much of the haze in our atmosphere is due to the reaction of the ozone with terpenes, like limonene. When people inhale limonene, whether directly from the person sitting next to them in the movie theatre or outside from the smog in the air, it aggravates heart and lung disease. In addition to affecting asthmatics, limonene (a chemical used in pesticides) also causes kidney tumors. It is especially popular in fruity scents.

Even central nervous system disorders like multiple sclerosis, Parkinson’s disease, Alzheimer’s, and Sudden Infant Death Syndrome are linked to many popular fragrance ingredients. A report by the Committee on Science and Technology tried to notify the public about this back in 1986. Commonly used chemicals like acetone, benzaldehyde, benzyl alcohol, ethanol, and terpene—just to name a few—act on the central nervous system as depressants. Immediate complications from these chemicals range from headache, nausea, vomiting, dramatic drop in blood pressure and even respiratory failure. Terpene causes loss of muscle coordination and respiratory depression. Camphor, a nervous system stimulant, is readily absorbed through the skin and causes dizziness, confusion, nausea, twitching muscles and convulsions. The EPA Hazardous Waste List reads, “avoid inhalation of vapors” under the description for this chemical. Yet we purposely put this toxin on our necks and bodies to smell good.

Remember the very popular ethyl acetate—the narcotic found in almost every fragrance on the market? It’s also involved in damaging our immune system. It causes anemia and leukocytosis, a blood disorder in which there is an increased number of white blood cells circulating. Another common chemical used in fragrances, α -pinene, also has an inhibitory effect on our immune system. It is currently being investigated by the EPA for its effect on our ozone layer and rivers.

When people complain of reactions to perfume, take them seriously. Why some are affected right away and others later down the road with more serious illnesses like Alzheimer’s disease, we don’t know. It is a fact that these chemicals are directly linked to the severe central nervous system disorders—we just don’t have enough research at this time to say that the exposure to them from perfumes is enough to have

the same drastic effect. One thing is for sure—many researchers are very suspicious and more and more studies are conducted on these chemicals every year. Over 12 million Americans suffer from asthma, and asthma related deaths have increased over 30% in the past 10 years. These chemicals directly cause constriction of the bronchioles and aggravate existing respiratory problems.

A Risk to My Baby?

Phthalates, a family of industrial chemicals and the main focus in perfume research, is known to cause multiple birth defects in the reproductive system of males. In a 2002 study by a coalition of environment and public health organizations, all 17 brand name perfumes tested, along with 72 other cosmetics, contained phthalates. The National Institutes of Health's Toxicology Program reports several animal studies which all show a direct correlation between exposure to this chemical, which is easily passed to the offspring through the placenta, and abnormalities in the development of male sex organs. Not-uncommon serious complications include undescended testes, leaving male offspring at higher risk for testicular cancer as adults; ectopic testes, where the testes are grown outside the scrotal sac; and absent testes altogether—all of which pose a great risk for permanent infertility.

More and more researchers are pointing their fingers at phthalates for the one percent decline in sperm count per year in industrialized countries. The prostate gland can also develop deformed—if this chemical in perfumes allows it to develop at all. Other malformations can occur, like hypospadias, a condition in which the urethra opens at the bottom of the penis instead of the tip. Studies with rats over the past decade have shown that phthalates cause substantial damage to the liver, kidneys, and lungs in the offspring. This is not a chemical that is easily avoided either—thousands of unsuspecting mothers subject their babies to this chemical even if they're not the ones wearing the perfume. (Something to think about next time you're grocery shopping.)

Make Me Less Feminine?

The incidence of breast cancer has also been on a steady rise over the past decade, despite new efforts like the monthly self-exam to make women aware of the risk. Could phthalates also be contributing to this

rise of cancer in women? Research shows a definite connection. American and European women between the ages of twenty and forty have higher levels of phthalates than any other population. Seduced by glamorous ads that say “*to be sexy is to smell delicious,*” we are unknowingly trading our breasts for Calvin Klein in a bottle.

Perfume Leave?

Sick leave. Maternity leave. Perfume leave? There’s no question about it—the chemicals in fragrance have the potential to really make us sick. What *is* curious is why businesses and organizations refuse to recognize the problem with perfume in the work place. According to Louis Kosta writing in *The Human Ecologist*, headaches cost \$50 billion in lost productivity and medical expenses in 1991 alone. The twenty most common chemicals found in fragrances all cause headaches or migraines (in addition to whatever other specialty they have in degrading our overall health.) Imagine what that statistic is now. In addition to headaches, studies have shown they cause circulatory changes and an inability to concentrate, fatigue, drowsiness, and chest tightness. How *is* someone supposed to work under these conditions? Most employers don’t see this issue as an issue at all, and hundreds of people have quit their jobs because of it.

What’s Being Done

Didn’t find the ingredients listed on your bottle of perfume? That’s because there is no law requiring companies to list the chemicals. Fragrance manufacturers claim that they would be giving up their trade secrets. The only thing they have to label is “fragrance.” Since there’s no list, there’s no regulation or monitoring of the contents either. There is also no legal definition of “fragrance free,” so don’t be so sure just because it reads so on your bottle of hairspray.

In 1988, the FDA banned the use of methylene chloride, but due to trade secret laws, there’s absolutely no possible enforcement. When inhaled, this chemical brings a long list of complications, the less severe include headache, giddiness, stupor, and tingling in the limbs. Could this be the mystery behind fragrances that perfume companies like to call “natural pheromones?” When you run into someone and all of a sudden find yourself mesmerized by their sweet smell are you actually showing the side effects of toxic chemicals such as this one?

In 1999 a petition to the FDA to pull *Eternity* by Calvin Klein off the market for health issues was begun by the Environmental Health Network of California. Over 700 people sent in complaints since the perfume significantly affected their health—the FDA has yet to address this issue and *Eternity* is still available at every department store.

A morning radio show in Northern California, *Paul & Phil*, addressed the issue this past April as most of us do until we know better—they laughed at and ridiculed a group of people with Multiple Chemical Sensitivity (MCS) who have demanded that perfume be removed from public areas because they have adverse health reactions. The root of the problem is in the attitude that “what I do doesn’t affect you”—in this case, “what I spray on myself is none of your concern.” But many Americans are finding out that it is very much a concern regarding their health and environment.

In 1995 California banned smoking in enclosed workplaces and then from restaurants and bars in 1998. It was obvious then that when left to their own devices, many smokers felt they reserved the right to smoke as they pleased because it was “their business.” Perfume allergens contain harmful chemicals that other people are forced to inhale just like second-hand smoke. The issue is coming to a head in hospitals and doctors’ offices but not in the law like it needs to.