


Is the **chemical brew** in your cosmetics  
slowly eroding your health?







**W**e live in a culture that reveres youth and beauty, so it should come as no surprise that we are especially vulnerable to ads promising that their products will keep us forever young, forever desirable. But some of those promises are like Sleeping Beauty's poisoned apple—irresistible on the outside, but deadly within.

Consider your daily beauty routine: perhaps a moisturizer, a foundation, a hint of blush, eye shadow, mascara, a bit of lip color, a spritz of perfume. All across America women perform these daily rituals to look their best. The only problem? They may also be poisoning themselves a little each day—and a lot over a lifetime.

An estimated 100,000 synthetic chemicals are currently registered for use in the US, and fewer than 10 percent of them have been tested for their effects on human health. At the same time that an increasingly high number of these chemicals have found their way into cosmetics, personal care products, and our environment, breast cancer incidence has risen dramatically—from a lifetime risk

# The **DARK** side of *beauty*

By Rosemary Carstens

Corbis



## The DARK side of *beauty*

of one in 20 in the 1960s to one in seven today. "It is unacceptable that cosmetic companies continue to use ingredients that are breast carcinogens, as well as other toxic chemicals, in their products," says Jeanne Rizzo, RN, executive director of the Breast Cancer Fund in San Francisco. "We call on the cosmetics industry to phase out their use of these harmful ingredients."

The American Cancer Society projects 211,240 new cases of invasive breast cancer among women in the US in 2005 alone, and 40,870 breast cancer deaths, 99.9 percent of them in women. The majority of breast cancer incidents cannot be explained by hereditary factors, and new studies have put scientists on high alert about the effects of constant exposure to an array of harmful chemicals over time. Long-term exposure to even very tiny doses, whether ingested, inhaled, or absorbed through the skin, can prove potentially dangerous.

### The two worst offenders

Leading beauty care products frequently contain two classes of synthetic chemicals known as parabens and phthalates (THAL-ates) that can cause serious health problems. Parabens are used as preservatives to make products such as blushes, eye shadows, lipsticks, and foundations stay fresh longer, and to enhance skin absorption. Phthalates are plasticizers and, in cosmetics, add texture and luster—they make lotions and moisturizers appear to do a better job, make our skin feel or look smoother, make hair sprays and nail polishes flexible, and disperse fragrance. The FDA doesn't regulate the use of these chemicals in cosmetics and beauty aids, nor does it require manufacturers to disclose them as ingredients. The so-called "trade secrets loophole" allows manufacturers to conceal them under generic terms such as "fragrance."

Theo Colborn, PhD, president of The Endocrine Disruption Exchange in Paonia, Colorado, has put together a large database about chemicals that interfere with the development and function of the endocrine system. She and her staff review new findings and provide customized information to researchers, legislators, and other organizations worldwide. Colborn, a highly regarded environmental health analyst, says,

## 3 steps to better beauty choices

1

Check the ingredients in the products you now use and search for safer substitutes if they contain parabens or phthalates. Go to the resources provided in this article for more information, use searchable product databases to check ingredients, or contact manufacturers directly about their products.

2

Remember that current labeling laws contain a "trade secret" loophole that allows companies to use generic terms such as "fragrance" rather than disclosing ingredients. Most synthetic fragrances contain phthalates.

3

If you experience an adverse reaction of any kind to a product, report it to the FDA, either by telephone at 301.436.2405, or by email at [CAERS@cfsan.fda.gov](mailto:CAERS@cfsan.fda.gov).

"There is no doubt about the need for extreme caution in using products that contain parabens and phthalates. Well over 100 studies since 1992 have demonstrated that these chemicals can disrupt both male and female hormone function, interfering with the roles of estrogen and testosterone in animals and in tissue cultures, while other studies have found intact parabens in human breast tumors." The mounting evidence of phthalates' dangerous effects on male reproductive development during pregnancy and after birth particularly alarms Colborn. She notes that a broad spectrum of birth defects and lifelong reproductive impairments occurred in lab animals exposed to these chemicals. Colborn cautions women to "learn, read labels, go natural."

While the individual chemical doses in the cosmetics we use may seem too minute for concern, the typical US woman applies about 12 products every day that together average a staggering 168 ingredients. Jane Houlihan, vice president of research for the Environmental Working Group (EWG) in Washington, DC, confirms that the risks from multiple exposures add up.







About 100,000 chemicals are registered for use in the US; fewer than 10 percent of them have been tested for their health effects.

Houlihan warns that the “total risk can be greater than the sum of the parts [as] some chemicals amplify the risks of companion chemicals.”

### Who's protecting consumers?

The European Union (EU) has taken the international lead in guarding the public against chemical bombardment in personal and household products. In 2001 it classified the phthalates di-2ethylhexyl (DEHP) and di-n-butyl (DBP) as substances toxic to reproduction, saying they “should be

175 companies have signed on—giving hope to those unwilling to sacrifice health, yet unwilling to “go bare.”

regarded as if they impair fertility in humans” and “as if they cause developmental toxicity in humans.” In 2003 the European Parliament banned reproductive toxicants such as DEHP and DBP, as well as other carcinogens and mutagens, in both domestic and imported cosmetics.

In the US, many manufacturers oppose tighter regulations, in part, no doubt, to avoid the expense of reformulating scores of products, but increased pressure from advocacy groups is finally getting results. In 2005 the California State Assembly passed a safe cosmetics act to tighten regulation and disclosure requirements for known harmful chemicals. Also, US Senator Frank R. Lautenberg (with the support of such influential proponents as Senators John Kerry, Hillary Clinton, and Ted Kennedy) introduced the Child, Worker, and Consumer Safe

Chemicals Act to establish “a safety standard that each chemical on the market must meet.” The legislation shifts the task of proving the safety of chemicals from the EPA to the chemical manufacturers. Colborn warns, however, that “the bill is just the first step toward making needed changes, and it could easily be undermined by industry lobbyists.”

Several nongovernmental groups are particularly active in the fight for stronger regulation, labeling without loopholes, and better public education about the human hazards of this chemical bombardment (see “Where Can I Learn More,” page 72). Stacy Malkan, media spokesperson for The Campaign for Safe Cosmetics and Health Care Without Harm, frames the groups’ central focus when she says, “The FDA’s regulatory system needs a complete overhaul when it comes to the regulation, testing, and approval of chemicals. People have a right to know what is in the products they buy. Cosmetics are among the least regulated. Our organizations believe chemical companies should themselves be testing their products before supplying them to others.”

The Campaign for Safe Cosmetics asked hundreds of cosmetics companies to sign their Compact for the Global Production of Safe Health and Beauty Products, which includes a pledge that their products will meet the EU standards within three years and be free of chemicals known or strongly suspected of causing cancer, mutation, or birth

Go to [www.breastcancerfund.org](http://www.breastcancerfund.org) to download a handy purse-sized safety tip card and refer to it when you shop.







## We do have choices—and it makes sense to take a cautionary approach.

defects. Although several major cosmetic companies, including Avon, Estée Lauder, L'Oréal, Revlon, Proctor & Gamble, and Unilever had refused to sign the compact as of September 2005, 175 companies have signed on—among them The Body Shop, Burt's Bees, Kiss My Face, and Avalon Natural Products—giving hope and options to those of us unwilling to sacrifice our health, yet unwilling to “go bare.”

### Going chemical free

Avalon Natural Products responded to mounting scientific evidence and the EU legislative actions by beginning, in 2003, to reexamine its ingredients. According to Morris Shriftman, the company's senior vice president, Avalon reformulated more than 80 products in its organic line to eliminate parabens. It had already excluded synthetic colors and fragrances, formaldehyde donors (preservatives that precipitate formaldehyde when mixed with certain common ingredients), and any objectionable ingredients listed in the EU directive. While the company has yet to reformulate all the products in its other lines, it continues to review and revise the ingredients. Avalon has become one of the major financial supporters of the Breast

Cancer Fund and is active in a program to stimulate and encourage the growth of organic agriculture. Avalon uses only herbal infusions, essential oils, and plant oils certified to the standards set by the National Organic Program, and it lists the certifiers on its labels. The company has also rejected the use of mineral oil and petrolatum because these petroleum-based ingredients can clog the skin and because petroleum is a nonrenewable resource.

Newer cosmetic companies have taken the high road from the beginning. Five years ago, Myra Eby founded MyChelle Dermaceuticals in Frisco, Colorado, after more than two decades of experience in the natural products industry. “The use of irritating and toxic chemicals in so-called natural skin care products just didn't make sense to me,” Eby states. “The body absorbs at least 60 percent of whatever is applied topically to the skin.” As a new mother, Eby wanted skin care products so safe and

natural they could be used even on a baby's delicate skin. So she set out to create products that are free of parabens, phthalates, propylene glycol, EDTA, urea, and artificial colors and fragrances.

Even though Avalon and MyChelle—and a slew of other conscientious companies—have begun offering healthier beauty options, don't be fooled by companies who call their products “natural” after adding a few herbs or oils but whose products are filled with other harmful ingredients. A lot still needs to be done before cosmetics' labeling becomes meaningful. Just because a product is found in a natural foods store, for example, does not automatically mean it's safe. You still have to read and analyze the ingredient list carefully before you buy.

### The cosmetic conundrum

While it's true that a host of cosmetic companies now make a range of skin care products, where do we go for makeup? Are there any options for those of us who aren't ready to follow Theo Colborn's advice and “go natural”? For some of us, going natural can feel like “going ugly.” But there are ways to stay our prettiest and still make safer choices.

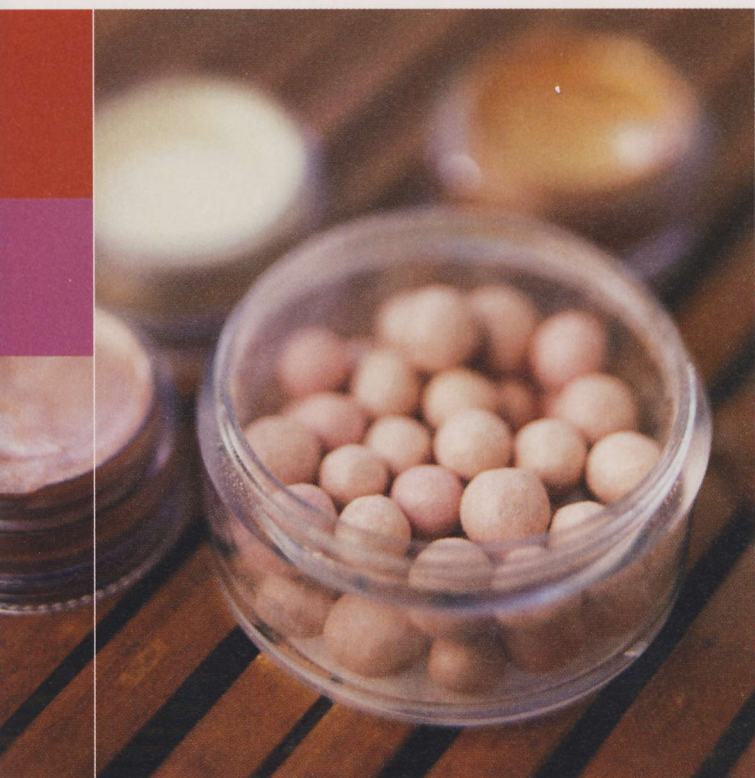
One option is to use the searchable Skin Deep database on the EWG website to find out how the cosmetics tested in its study of more than 10,000 beauty products rank in harmful ingredients. The site lists health concerns for each product category and then names the top-10 products to avoid and the 10 best choices. The site also provides detailed information



about ratings and ingredients for a full range of cosmetics and skin care products.

Not-so-natural beauties in search of a bit of color should consider using crushed mineral cosmetics. Unlike most cosmetics, mineral makeup contains no talc, chemical additives, fragrance, fillers, preservatives, or dyes. And some products contain natural sunscreens. Also, while the FDA ignores the chemical ingredients in most cosmetic lines, it does carefully regulate mineral pigments. All micas and oxides are manufactured to high standards of purity in special laboratories. "While all cosmetic manufacturers purchase pigments," reports Kathleen O'Brien, president and founder of Alima crushed mineral cosmetics, "it is what happens with the pigments after their purchase that makes the difference. Mineral makeup is combined with as little as possible. There is no need for preservatives if the minerals are kept dry and clean in their powdered form." Generally applied with a brush, mineral-based foundations, blush, and eye shadows blend a silky whisper of color across your skin that reflects light and minimizes imperfections—without any harmful side effects.

We do have choices when it comes to beauty aids, and it makes sense to take a precautionary approach. Search for products that are pure, safe, natural, and organic. We may have to say goodbye to a favored cream or foundation—but we owe it to ourselves and our children to educate ourselves, choose wisely, limit the number of products we use, and buy from those manufacturers who are concerned about safety and quality.



Try mineral makeup for natural, silky color.

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## Where Can I Learn More?

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>> **The Breast Cancer Fund** is extremely well organized nationwide. It works closely with the Campaign for Safe Cosmetics and initiates major fund-raising events to further the cause. For extensive information, including scientific sources and study reports, plus downloadable posters, visit [www.breastcancerfund.org](http://www.breastcancerfund.org), or call 415.346.8223.

>> **The Campaign for Safe Cosmetics** seeks to protect consumer and worker health by pressuring the health and beauty industry to phase out the use of known or suspected harmful chemicals. See which companies have signed the compact and view posters available for download at [www.safecosmetics.org](http://www.safecosmetics.org), or call 202.222.0712.

>> **The Environmental Working Group**, based in Washington, DC, specializes in environmental investigations. EWG does its own laboratory tests to determine new environmental and health concerns and to find solutions. Access the Skin Deep report and a searchable database of results from its six-month investigation into the health and safety of more than 10,000 personal care product ingredients at [www.ewg.org/reports/skindeep](http://www.ewg.org/reports/skindeep) or call 202.667.6982.

>> **Think Before You Pink** lists which companies are fighting tighter regulations and names some of the industry bad boys at [www.thinkbeforeyoupink.org](http://www.thinkbeforeyoupink.org), or call Breast Cancer Action at 877.278.6722 (toll free).

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What, after all, is beauty? Who defines and determines who and what is beautiful? In reality, we do. Unfortunately, we are all influenced by media buzz and marketing hype, by fashion trends and the computer-enhanced images around us. Many have learned to equate happiness with beauty, rather than with self-acceptance and emotional and physical well-being. But beauty must genuinely be more than skin deep—it must be wise and everlasting. In this millennium, let's start a new cultural revolution—one that values health as the true American beauty. **A**

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