

Non-toxic Cosmetics & Body Care

A Factsheet from the Neighborhood Network

Perhaps you will be as surprised as I was when you read the following statement: "FDA [Federal Food and Drug Administration] is only able to regulate cosmetics after products are released to the marketplace. Neither cosmetic products nor cosmetic ingredients are reviewed or approved by FDA before they are sold to the public." This was taken from the FDA website at (<http://www.cfsan.fda.gov/~dms/cos-206.html>). Under the Federal Food, Drug, and Cosmetic Act, FDA cannot require companies to do safety testing before marketing, but if the safety of a cosmetic product has not been determined, the product's label must read "WARNING: The safety of this product has not been determined." The FDA can inspect the manufacturing process of a product, but the only way it can take action against certain products is through legal action. Reporting of complaints to FDA is voluntary, and can come directly from consumers or through the manufacturer, again on a voluntary basis. Meanwhile, a 1997 General Accounting Office (GAO) study identified 125 cosmetic ingredients suspected of causing cancer and others of causing birth defects. (From: Statement of Senator Ed Kennedy on FDA Reform and Cosmetic Exemption, September 1997) ¹

An ABC news report from November 18, 2002 says: Products labeled as "dermatologist-tested," "non-irritating" or "hypo-allergenic" may lead you to believe that these products will be gentler on your skin, but dermatologists say these terms are of little value. "There is no standard or board to confirm whether a product is hypo-allergenic," says Dr. Bruce Robinson, clinical professor at Lenox Hill Hospital in New York. In reality, "hypo-allergenic" means that a product is free from the most common allergens, but many patients can still be allergic to these products." Some common allergens which may cause red, scaly, itchy skin are fragrances and preservatives.² However, in its article "Cosmetic Ingredients—Understanding the Puffery" the FDA says, "Although cosmetic claims are allowed without scientific substantiation, if a cosmetic makes a medical claim, such as removing dandruff, the product is regulated as an over-the-counter drug for which scientific studies demonstrating safety and effectiveness must be submitted to FDA."³

Therefore, it is up to the consumer to be smart about the cosmetics they use. This is a general overview of some of the common cosmetic ingredients you may wish to watch out for and some resources for more information.

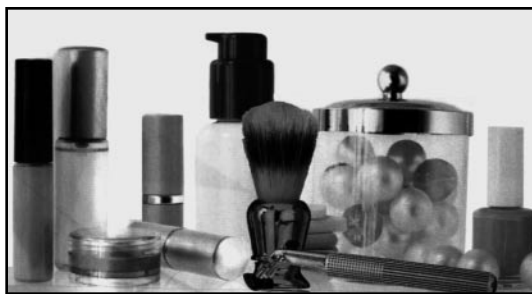
Here are some common cosmetic ingredients and associated health effects:

- Alcohol—in mouthwashes of concentrations more than 25%, has been linked to oral and throat cancer by the National Cancer Institute in 1991.⁴
- Aluminum—very commonly used in antiperspirants, and while not certain, some studies have associated it with increased risk of Alzheimer's disease.⁵
- Alpha Hydroxy Acids—overuse increases ultraviolet (UV) sensitivity ⁶.

According to the FDA, two consequences of using creams containing these acids are increased proliferation of skin cells and deeper penetration of sun radiation into the skin, both of which raise the possibility of an increased risk of skin cancer with continued use. (Environmental Health Perspectives Volume 108, Number 5,

May 2000) A 1999 FDA factsheet said "Since 1989, the Food and Drug Administration has received more than 100 reports of adverse reactions in people using AHA products. These included severe redness, swelling, burning, blistering, bleeding, rash, and skin discoloration." (See <http://vm.cfsan.fda.gov/~dms/fdacaha.html>)

- DEA—diethanolamine, a fatty acid derivative, and the National Toxicology program found evidence of liver and kidney cancer in mice (but not rats), as well as enlargement of the thyroid gland. The NTP points out that it is absorbed through skin and accumulates in organs such as the brain, and research has shown enlargement of the thyroid gland. It can combine with other chemicals used in cosmetics to form nitrosamines, which are carcinogenic substances. ⁶
- DBP—dibutyl phthalate; found in nail products. EHP Volume 109, #5, May 2001 says that animal tests show that it depresses the male hormones involved with sexual development, and has been associated with undescended testicles (cryptorchidism) in male laboratory animals. This is cause for concern because a study done by the NIEHS of 289 subjects showed this chemical appearing frequently in the urine of women in childbearing age,



reported Newsday 3/4/03. Newsday also reported that this phthalate is considered to be the most toxic phthalate. (See "phthalates", below) An NIEHS analysis stated that there is no evidence for concern of reproductive effects on the general population given estimated exposures, but there is evidence for concern about the exposure of women of child-bearing age to DBP, due to effects on the development of offspring, particularly their reproductive system.

- Fluoride—A 1990 National Toxicology Program study showed possible link to cancer in male lab rats. At least 22% of all American children now have dental fluorosis (discoloration and, in advanced cases, pitting) as a result of ingesting too much fluoride, according to the Centers for Disease Control (CDC). The Agency for Toxic Substances and Disease Registry (*Toxfaqs* Sept. 2001) says "Small amounts of fluoride help prevent tooth cavities, but high levels can harm your health. In adults, high fluoride exposure over a long time can lead to skeletal fluorosis with denser bones, joint pain, and a limited range of joint movement."
- Fragrances (various)—Environmental Health Perspectives Volume 106, December 1998 says perfumes are associated with health effects such as respiratory irritation, asthma, headaches, dizziness and fatigue. Perfumes may contain phthalates. (Newsday 3/4/03) Many fragrances are petroleum based, and can be contaminated with benzene, a carcinogen. Ingredients such as ethyl acetate and benzaldehyde can depress the nervous system. ⁶



- Hair Dyes: “The use of semi permanent and permanent hair color products, particularly black and dark brown colors is associated with increased incidence of human cancer. . . including non-Hodgkin’s lymphoma, multiple myeloma, and Hodgkin’s disease. In fact there is growing evidence that the use of hair coloring products accounts for 20% of all non-Hodgkin’s lymphoma cases in all U.S.”⁵
 - Nonylphenol—a surfactant (a substance that helps disperse oil) which mimics estrogen; used in shampoos, hair colors, and shaving creams.⁶
 - Sodium Lauryl/Lauryeth Sulfate (SLS) — known skin irritants. However—Not proven to be a carcinogen according to the federal government, despite much controversy.⁶
 - Parabens—used as preservatives, these are irritants and are associated with weak endocrine disruption (they mimic estrogen).⁶
 - Preservatives (various)—may be harmful to skin cells. May contain or release formaldehyde (e.g. diazolidinyl urea and imidazolidinyl urea.)⁵
 - Propylene Glycol—an inexpensive substitute for glycerin, which keeps products moist. Animal tests show liver and kidney damage, and the Material Safety Data Sheet says it is mildly irritating to the skin and eyes, especially with prolonged contact. It is mildly neurotoxic.⁶
 - Phthalates— (see also DBP) In March 2003, Newsday reported on the presence of these chemicals in cosmetics and other products used around the home, saying that “Some researchers say there is evidence that the chemicals can cause birth defects and damage the male reproductive system.” These chemicals are the subject of national controversy because they are found so widely in the population, and the federal government is paying a lot of attention to them. They are found especially in plastics, but also in cosmetics, and the effects are found even at low doses. They are used in hair spray, perfume, and nail polish; they are likely to accumulate in body fat.⁶ Environmental Working Group, working with nottopretty.org, found them in 52 of 72 name brand cosmetics.
 - talc—(talcum powder) found to be carcinogenic in animal tests,⁶ and has also been found to sometimes be contaminated with asbestos, a known lung carcinogen.
- There are of course other ingredients which you may want to investigate but this gives you some idea of the range of concerns. Some of the above products have been found in water supplies. Certainly there are many products used in cosmetics that are NOT toxic under normal use patterns, so this article is not meant to instill panic but to inform. The FDA publishes an “FDA Consumer” newsletter which can be accessed at <http://www.cfsan.fda.gov/~dms/cos-prd.html>. Here you will find a list of products types, such as hair spray, creams, nail polish, hair straighteners and colors, etc. with associated information on cautions.

So what is an educated consumer supposed to do?

First of all, the good news is that there are always safer alternatives. Many of the cosmetic brands available at health food stores contain fewer, if any, of the above mentioned ingredients to beware of. Look for products made with natural and/or plant-based ingredients and fragrances (i.e. jojoba oil which mimics natural sebum). Always read labels to be sure. The businesses listed below are some of the companies that provide more natural, and in some cases organic, body products. [NOTE: The federal organic standards do not apply to cosmetics, so not all “organic” body products are as natural as you might think. (“Is Organic Shampoo Chemistry or Botany?” New York Times May 18, 2003 at www.nytimes.com)] Some companies, such as Terressentials, are voluntarily following the federal food standards. You can contact each company to be sure.] Products that are labeled as safe for people with multiple chemical sensitivity tend to be the purest—if it’s better for someone who is chemically sensitive, it’s probably better for everyone, especially children.

The following products have fewer, if any of the above ingredients:

- Aveda (www.aveda.com)
- Aubrey Organics (www.aubrey-organics.com)
- Avalon (www.avalonnaturalproducts.com)
- Burt’s Bees (www.burtsbees.com)
- Dr. Hauschka Skin Care (www.drhauschka.com)
- Ecco Bella (www.eccobella.com)
- Kiss My Face (www.kissmyface.com)
- Magick Botanicals (www.magickbotanicals.com)
- Nature’s Gate (www.levlad.com)
- Neways (www.neways.com)
- Sacred Sun (www.nutritionalhealingtechnologies.com search on “Sacred Sun”)
- Terressentials (www.terressentials.com)
- Tom’s of Maine (www.tomsofmaine.com)
- Weleda (www.weleda.com)
- Zum Products (indigowild.com)

Secondly, if you do have a complaint about a cosmetic, let the FDA know. You may not be alone so your action can help others also. For example, in an article on hair dyes, the FDA states, “FDA encourages consumers to understand the risks that come with using hair chemicals, and to take a proactive approach in ensuring their proper use. [FDA] can take action when safety issues surface.” Therefore, only when a complaint reaches FDA can a product be investigated after it is approved for use.

Contact the Food and Drug Administration at
5600 Fishers Lane
Rockville, Maryland 20857
1-888-INFO-FDA or FDA’s Office of Consumer Affairs at (1-800) 532-4440.
or go to their website <http://www.fda.gov/comments.html> to send email.

References:

1. Senator Ed Kennedy Statement to Congress, September 1997: <http://www.senate.gov/~kennedy/statements/970905fdacosmetics.html>
2. It’s Not Easy Being Beautiful:
Tips to Preventing Cosmetic Infections, Allergies by Jamie Cohen http://abc-news.go.com/sections/living/HealthyWoman/HWfeature_CosmeticCare021118.html
3. Understanding the Puffery; (<http://www.fda.gov/fdac/reprints/puffery.html>)
4. Winn DM, Blot WJ, McLaughlin JK, et al.: Mouthwash use and oral conditions in the risk of oral and pharyngeal cancer. *Cancer Res* 51:3044-3047, 1991
5. The Safe Shopper’s Bible: A Consumer’s Guide to Non-Toxic Household Products, Cosmetics, and Food, by David Steinman and Samuel Epstein, M.D. 1995. (This book has several chapters on the various categories of body products, and lists products by brand name with their associated risks.)
6. Drop Dead Gorgeous: Protecting Yourself from the Hidden Dangers of Cosmetics, by Kim Erickson, 2002.

Other Resources:

For more information about phthalates in cosmetics, visit www.nottoopretty.org or contact

Jane Houlihan, Environmental Working Group, 1426 U Street, NW, Suite 100, Washington, D.C. 20009, 202-667-6982, jane@ewg.org, www.ewg.org

For a flyer called “Fragrances: The Health Risks” contact the Fragranced Products Information Network at www.fpinva.org/ or email fpinva@fpinva.org.