The Dirty Dozen

Cosmetic Chemicals You Should Avoid

the LASER IMAGE company

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Letter From The Author

I want to give you a little background information on myself so you know that what I am going to educate you on is not only from my own personal experience but also from that of patients and friends who I have worked with.

I have been in beauty industry since 2002 and have been internationally trained at the School for Estheticians and Cosmetologists in Stockholm, Sweden. I have a masters in fashion, print and beauty makeup. My main work experience is with top plastic surgeons in the Los Angeles area.

My passion for the health and wellness of our bodies has led me to engross myself in my different facets and has led to the creation of new advanced skin and body treatments. We realized that a combination approach to address a patients concerns leads to better results and a high satisfaction rate.

We all know that to be healthy we should exercise, eat healthy food, and avoid smoking. We may also know that eating organic food or meat without antibiotics is even better for us because it helps us avoid consuming harmful chemicals. And similarly, most people know that to be healthy and clean we need to shower, moisturize our skin, and brush our teeth, right? But did you know that by choosing the wrong products you can be introducing harmful chemicals to your body?

Some personal care products contain petroleum products, known carcinogens and chemicals that disrupt our endocrine systems. By putting them ON our body, those chemicals are going IN our body.

BHA and BHT

1. BHA and BHT

BHA (butylated hydroxyanisole) and
BHT (butylated hydroxytoluene) are closely related synthetic antioxidants used as preservatives in lipsticks and moisturizers, among other cosmetics. They are also widely used as food preservatives.

BHA and BHT can induce allergic reactions in the skin, interferes with hormone function and may cause cancer.
Long-term exposure to high doses of BHT is toxic in mice and rats, causing liver, thyroid and kidney problems and affecting lung function and blood coagulation.
The European Union prohibits the use of BHA as fragrance ingredient in cosmetics but The State of California only requires warning labels on products containing BHA, notifying consumers that this ingredient may cause cancer.

Coal Tar Dyes

2. Coal Tar Dyes: P-phenylenediamine and colors listed as “CI” followed by a five digit number.

Coal tar-derived colors are used extensively in cosmetics, generally identified by a five-digit Color Index *(CI)* number. The U.S. color name may also be listed *(e.g., “FD&C Blue No. 1” or “Blue 1”).*

P-phenylenediamine is a particular coal tar dye used in many hair dyes. Darker hair dyes tend to contain more phenylenediamine than lighter colours. Look for p-phenylenediamine hair dyes and in other products colors listed as "CI" followed by five digits.

Coal tar is a mixture of many chemicals, derived from petroleum and are potential to cause cancer. These colors may also be contaminated with low levels of heavy metals and some are combined with aluminum. Aluminum compounds and many heavy metals are toxic to the brain. Some colors are not approved as food additives, yet they are used in cosmetics that may be ingested, like lipstic

P-phenylenediamine is permitted only in hair dyes and must be accompanied by a warning that the product “contains ingredients that may cause skin irritation on certain individuals” and if used near the eyes “may cause blindness.”

DEA – Related Ingredients

3. DEA - Related Ingredients

DEA (diethanolamine) related ingredients are used to make cosmetics creamy or sudsy, or as a pH adjuster to counteract the acidity of other ingredients. They are mainly found in moisturizers, soaps, cleansers and shampoos.

In laboratory experiments, exposure to high doses of DEA-related ingredients has been shown to cause liver cancers and precancerous changes in skin and thyroid. These chemicals can also cause mild to moderate skin and eye irritation.

Look also for related chemicals MEA and TEA.

Didutyl Phthalate

4. Dibutyl Phthalate

Dibutyl Phthalate (prounced thal-ate), or DBP, is used mainly in nail care products as a solvent for dyes and as a plasticizer that prevents nail polishes from becoming brittle.

DBP is absorbed through the skin. It can enhance the capacity of other chemicals to cause genetic mutations, although it has not been shown to be a mutagen itself. In laboratory experiments, it has been shown to cause developmental defects, changes in the testes and prostate and reduced sperm counts.

The European Union classifies DBP as a suspected endocrine disruptor on the basis of evidence that it interferes with hormone function, and as toxic to reproduction on the basis that it may cause harm to the unborn child and impair fertility.

The European Union classifies DBP as very toxic to aquatic organisms and has banned DBP in cosmetics, as well as in childcare articles and toys.

Other phthalates are widely used as fragrance ingredients in cosmetics – in particular diethyl phthalate (DEP). DEP is suspected of interfering with hormone function (endocrine disruption), causing reproductive and developmental problems among other health effects. Fragrance recipes are considered trade secrets, so manufacturers are not required to disclose specific fragrance chemicals. The best bet to avoid phthalates in cosmetics is to opt for products that do not list “parfum” or “fragrance” as an ingredient.

Formaldehyde – Releasing Preservatives

5. Formaldehyde-releasing preservatives

These ingredients:

- DMDM Hydantoin
- Diazolidinyl Urea
- Imidazolidinyl Urea
- Methenamine
- Quarternium-15

functions as a preservatives. Unfortunately they slowly and continuously release small amounts of formaldehyde, which causes cancer. Formaldehyde-releasers are used in a wide range of cosmetics.

Other industrial applications of formaldehyde include production of resins used in wood products, vinyl flooring and other plastics, permanent-press fabric and toilet bowl cleaners.

The International Agency for Research on Cancer classifies formaldehyde as a known human carcinogen (a substance that is capable at causing cancer in a living tissue). Most of the cancer research on formaldehyde has focused on risks from inhalation. Small amounts of formaldehyde may off-gas from cosmetics.
Some formaldehyde releasers can also irritate skin and eyes and trigger allergies at low doses.

In the European Union formaldehyde-releasing preservatives in cosmetics must be identified on the product label with the notice, "contains formaldehyde" if the concentration of formaldehyde in the product exceeds 0.05 per cent. 44 However, there is no restriction on the low-levels of formaldehyde released by DMDM hydantoin, diazolidinyl urea, imidazolidinyl urea, methenamine, quarternium-15 and sodium hydroxymethylglycinate, nor on the use of these ingredients themselves..

Parabens

6. Parabens

Parabens are the most widely used preservative in cosmetics. An estimated 75 to 90 per cent of cosmetics contain parabens (typically at very low levels).

Parabens easily penetrate the skin and are suspected of interfering with hormone function (endocrine disruption). Parabens can mimic estrogen, the primary female sex hormone. In one study, parabens were detected in human breast cancer tissues, raising questions about a possible association between parabens in cosmetics and cancer. Parabens may also interfere with male reproductive functions. In addition, studies indicate that methylparaben applied on the skin reacts with UVB leading to increased skin aging and DNA damage.

Parabens occur naturally at low levels in certain foods, such as barley, strawberries, currents, vanilla, carrots and onions, although a synthetic preparation derived from petrochemicals is used in cosmetics. Parabens in foods are metabolized when eaten, making them less strongly estrogenic. In contrast, when applied to the skin and absorbed into the body, parabens in cosmetics bypass the metabolic process and enter the blood stream and body organs intact. It has been estimated that women are exposed to 50 mg per day of parabens from cosmetics.

Methylparaben, butylparaben and propylparaben are some of the most common parabens in cosmetics. Other chemicals in this class generally have “paraben” in their names (e.g., isobutylparaben,
ethylparaben, etc.).

Parfum (a.k.a. Fragrance)

7. Parfum (a.k.a. fragrance)

The term parfum (or fragrance) on a cosmetic ingredients list usually represents a complex mixture of dozens of chemicals. Some 3,000 chemicals are used as fragrances.

Fragrance is an obvious ingredient in perfumes, colognes and deodorants, but it's used in nearly every type of personal care product. Even products marketed as "fragrance-free" or "unscented" may in fact contain fragrance ingredients, in the form of masking agents that prevent the brain from perceiving odour. In addition to their use in cosmetics, fragrances are found in numerous other consumer products, notably laundry detergents and softeners and cleaning products.

Many of unlisted fragrance ingredients are irritants and can trigger allergies, migraines and asthma symptoms. A survey of asthmatics found that perfume and/or colognes triggered attacks in nearly three out of four individuals. People with multiple chemical sensitivities (MCS) or environment-related illnesses are particularly vulnerable, with fragrances implicated both in development of the condition and triggering symptoms.

PEG compounds

8. PEG compounds

PEGs (polyethylene glycols) are petroleum-based compounds that are widely used in cream bases for cosmetics as thickeners, solvents, softeners and moisture-carriers.

PEGs show some evidence of genotoxicity, which may cause cancer, and if used on broken skin can cause irritation and systemic toxicity. The industry panel that reviews the safety of cosmetics ingredients concluded that some PEGs are not safe for use on damaged skin (although the assessment generally approved of the use of these chemicals in cosmetics). Also, PEGs function as “penetration enhancers,” increasing the permeability of the skin to allow greater absorption of the product - including potentially harmful ingredients.

Petrolatum

9. Petrolatum

Petrolatum, also known as mineral oil jelly, is used as a barrier to lock moisture in the skin in a variety of moisturizers, lip balms and lip sticks. It is also used in hair care products to make hair shine.

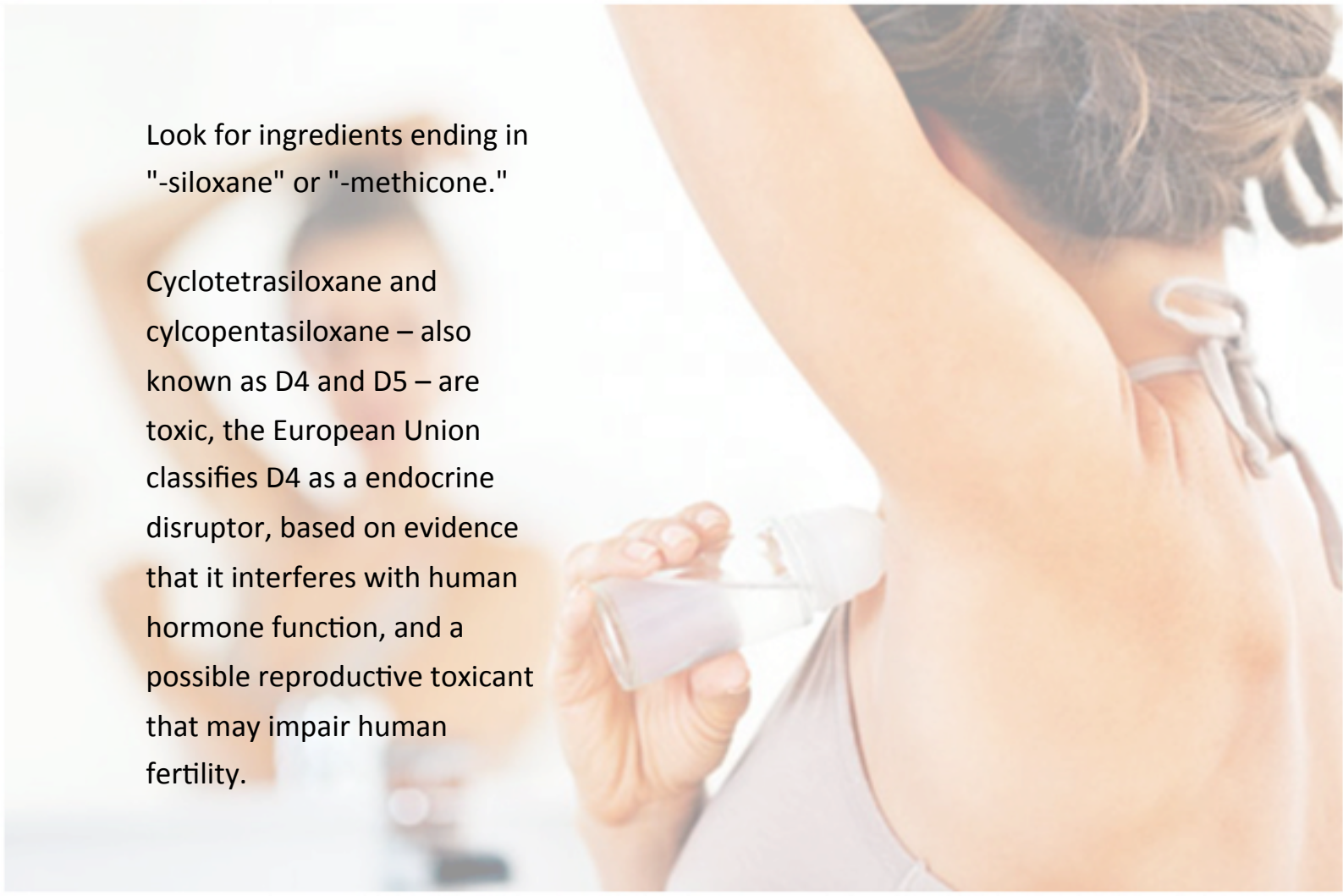
Petrolatum can be contaminated with polycyclic aromatic hydrocarbons (PAHs). Studies suggest that exposure to PAHs – including skin contact over extended periods of time – is associated with cancer.

Mineral oil and petroleum distillates are related petroleum by-products used in cosmetics. Like petrolatum, these ingredients may be contaminated with PAHs.

Siloxanes

10. Siloxanes

These silicone-based compounds are used in cosmetics to soften, smooth and moisten. They make hair products dry more quickly and deodorant creams slide on more easily. They are also used extensively in moisturizers and facial products.



Look for ingredients ending in "-siloxane" or "-methicone."

Cyclotetrasiloxane and cylcopentasiloxane – also known as D4 and D5 – are toxic, the European Union classifies D4 as a endocrine disruptor, based on evidence that it interferes with human hormone function, and a possible reproductive toxicant that may impair human fertility.

Sodium Laureth Sulfate

11. Sodium Laureth Sulfate

Sodium laureth sulfate (sometimes referred to as SLES) is used in cosmetics as a cleansing agent and also to make products bubble and foam. It is common in shampoos, shower gels and facial cleansers. It is also found in household cleaning products, like dish soap.

Sodium lauryl sulfate (SLS), a related cleansing agent, is a skin, eye and respiratory tract irritant and toxic. These ingredients usually have chemical names including the letters “eth” (e.g., sodium laureth sulfate).

Triclosan

12. Triclosan

Triclosan is used mainly in antiperspirants, cleansers, toothpaste and hand sanitizers as a preservative and an antibacterial agent. This chemical can be found in a wide range of household products, including garage bags, toys, linens, mattresses, toilet fixtures, clothing, furniture fabric, paints, laundry detergent and facial tissues, as well as cosmetics.

Triclosan can pass through skin and is suspected of interfering with hormone function (endocrine disruption).

The extensive use of triclosan in consumer products may contribute to antibiotic-resistant bacteria.
Triclosan is irritating to the skin and eyes, and is very toxic to aquatic organisms. In other words, it doesn't easily degrade and can build up in the environment after it has been rinsed down the shower drain.

Conclusion

Once inside our bodies, these chemicals have a wide variety of harmful effects. Depending on what chemicals are and how often we are exposing ourselves to them will cause different effects.

For instance, a lotion that has two endocrine disruptors in it, and you put that lotion on twice a day and it absorbs completely into your skin (which is the biggest organ of our body), and you have been doing that for 5-10 years, that is going to impact your endocrine system, perhaps making your cycles irregular or making it difficult to get pregnant, or decreasing sperm counts in a male. The exact effects are difficult to measure, because we are exposed to so many chemicals in a day, or in our lifetime, and there is not a control group of people who are not exposed to any chemicals. Therefore the harmful effect becomes difficult to prove.

However, the idea that these chemicals are not affecting our bodies is absurd. Our skin is the largest organ in the body, and is covered with pores and hair follicles all leading to the inside of our body. People have been using the skin as a way to deliver medication forever. Even before modern medicine people would apply mixtures, liquids, and pastes to the skin to fix ailments of all kinds. Today, we use patches to administer everything from nicotine to estrogen with studies proving that the medication gets into the body. So if medication can be absorbed through the skin, why couldn't the ingredients in a lotion?

Next time when you are buying a skin product, take a close look on the ingredients list in the back of the packaging and see what you really are paying for. Do not just buy something because it is cheap or convenient, purchase products that that are good for you, not that make you sick.
Remember; What You Put ON Your Body Goes IN Your Body!