Harmful or Carcinogenic Ingredients in Our Skin Care

Are you aware that most of the personal care products used daily contain toxic chemical ingredients that are absorbed through the skin, inhaled or ingested? These chemicals are linked to cancer, birth defects, learning disabilities and other health problems. These chemicals are in products such as baby wash, lotion, shampoos, deodorant, and make-up. The cosmetics industry says it is safe to put toxic chemicals into personal care products because the amount in each product is too small to matter. But none of us uses just one product a day and small amounts of toxins can add up significantly enough to do harm, especially when they are also in our food and drinks.

Here is a list of the top 20 unwanted ingredients commonly found in your skin products, with their side effects.

- **1. Isopropyl Alcohol** This is a solvent and denaturant (poisonous substance that changes another substance's natural qualities). Isopropyl alcohol is found in hair color rinses, body rubs, hand lotions, after-shave lotions, fragrances and many other cosmetics. This petroleum-derived substance is also used in antifreeze and as a solvent in shellac. According to **A Consumer's Dictionary of Cosmetic Ingredients,** inhalation or ingestion of the vapor may cause headaches, flushed skin, dizziness, mental depression, nausea, vomiting, narcosis and coma.
- **2. Antibacterials** Overuse of antibacterials can prevent them from effectively fighting disease-causing germs like E. coli and Salmonella enterica. Triclosan, widely used in soaps, toothpastes and deodorants, has been detected in breast milk, and one recent study found that it interferes with testosterone activity in cells. Numerous studies have found that washing with regular soap and warm water is just as effective at killing germs.
- **3. Mineral Oil -** Baby oil is 100% mineral oil. This derived substance, a commonly used petroleum ingredient, coats the skin just like plastic wrap covers any given vessel. The skin's natural immune barrier is disrupted as this plastic coating inhibits its ability to breathe and absorb (moisture and nutrition). Your skin's ability to release toxins is impeded by this "plastic wrap," which can promote acne and other disorders by slowing down normal cell development causing the skin to prematurely age. **Petroleum distillates** are possible human carcinogens. They are prohibited for use in cosmetics in the European Union, but are found in several U.S. brands of mascara, foot-odor powder and other products. Look out for the terms "petroleum" or "liquid paraffin."
- **4. Propylene Glycol (PG) (PEG) (PROPANEDIOL**, DIHYDROXYPROPANE, METHYLETHYLENE GLYCOL, PROPANE) As a wetting agent and solvent, this ingredient is actually the active component in antifreeze. There is no difference between the PG used in industry (brake & hydraulic fluid, paint, floor wax) and the PG used in personal care products. It is used in industry to break down protein and cellular structure (what the skin is made of) stripping the Natural Moisture Factor, yet is found in most forms of make-up, hair products, lotions, after-shave, deodorants, mouthwashes and toothpaste. It is also used in food processing. Because of its ability to quickly penetrate the skin, the EPA requires workers to wear protective gloves, clothing and goggles when working with this toxic substance. Skin contact, dermatitis, kidney damage and liver abnormalities can inhibit cell growth in human tests and can damage membranes causing rashes, dry skin and surface damage. There is no warning label on products such as stick deodorants, where the concentration is greater than that in most industrial applications, leaving the immune system vulnerable. They are also potentially carcinogenic.
- **5.** Imidazolidinyl Urea and DMDM Hydantoin These release *formaldehyde* into your body. The Mayo Clinic, says formaldehyde can irritate the respiratory system, cause skin reactions, trigger heart palpitations, immunesystem toxicity, and cancer in humans. Exposure may cause joint pain, allergies, depression, headaches, chest pains, ear infections, chronic fatigue, dizziness and loss of sleep. It can also aggravate coughs and colds and trigger asthma. Yet it still turns up in baby bath soap, nearly all brands of body products, antiperspirants, nail polish, eyelash adhesive and hair dyes.
- **6. Bronopol** (2-bromo-2-nitropropane-1,3-diol) may break down in products into formaldehyde and also cause the formation of carcinogenic nitrosamines under certain conditions. It is found in expensive over-the-counter

- 7. Sodium Lauryl Sulfate (SLS) and Sodium Laureth Sulfate (SLES) Used as detergents and surfactants, these closely related compounds are found in car wash soaps, garage floor cleaners and engine degreasers. Yet both SLS and SLES are used more widely as one of the major ingredients in cosmetics, toothpaste, hair conditioner and about 90% of all shampoos and products that foam. According to the American College of Toxicology, both SLS and SLES can cause malformation in children's eyes, and damage to the immune system, especially within the skin. Skin layers may separate and inflame due to its protein denaturing properties. It is possibly the most dangerous of all ingredients in personal care products. Research has shown that SLS, when combined with other chemicals, can be transformed into nitrosamines, a potent class of carcinogens, which cause the body to absorb nitrates at higher levels than eating nitrate-contaminated food. According to the ACOT, "SLS stays in the body for up to five days..." Other studies have indicated that SLS easily penetrates the skin and maintains residual levels in the heart, the liver, the lungs and the brain.
- **8. DEA (diethanolamine) MEA (momoethanolamine) TEA (triethanolamine)** DEA and MEA are usually fisted on the ingredient label in conjunction with the compound being neutralized. Thus look for names like Cocamide DEA or MEA, Lauramide DEA, etc. These are hormone disrupting chemicals and are known to form cancer causing nitrates and nitrosamines. These are commonly found in most personal care products that foam, including bubble baths, body washes, shampoos, soaps and facial cleansers. On the show, CBS This Morning, Roberta Baskin revealed that a recent government report shows DEA and MEA are readily absorbed in the skin. "Repeated skin applications of DEA-based detergents resulted in a major increase in the incidence of two cancers liver and kidney cancers." **Diethanolamine** (DEA) is a possible hormone disruptor, has shown limited evidence of carcinogenicity and depletes the body of choline needed for fetal brain development. DEA can also show up as a contaminant in products containing related chemicals, such as cocamide DEA.
- 9. 1.2-Dioxane in Surfactants/detergents A wide range of personal care products including shampoos, hair conditioners, cleansers, lotions, and creams, besides household products such as soaps and cleaners, contain surfactants or detergents such as ethoxylated alcohols, polysorbates, and laureths. These ingredients are generally contaminated with high concentrations of the highly volatile 1,4 dioxane, which is both readily inhaled and absorbed through the skin. Epidemiological studies on dioxane-exposed furniture makers have reported suggestive evidence of excess nasal passage cancers. It is a known animal carcinogen and a possible human carcinogen that can appear as a contaminant in products containing sodium laureth sulfate and ingredients that include the terms "PEG," "-xynol," "ceteareth," "oleth" and most other ethoxylated "eth" ingredients. The FDA monitors products for the contaminant but has not yet recommended an exposure limit. Manufacturers can remove dioxane through a process called vacuum stripping, but a small amount usually remains. A 2007 survey by the Campaign for Safe Cosmetics found that most children's bath products contain 10 parts per million or less, but an earlier 2001 study by the FDA found levels in excess of 85 parts per million.
- **10. Parabens** (methyl-, ethyl-, propyl-, butyl-, isobutyl-) Parabens, which have weak estrogenic effects, are common preservatives that appear in a wide array of toiletries. A study found that butyl paraben damaged sperm formation in the testes of mice, and a relative, sodium methylparaben, is banned in cosmetics by the E.U. Parabens break down in the body into p-hydroxybenzoic acid, which has estrogenic activity in human breast-cancer cell cultures.
- 11. Nanoparticles Tiny nanoparticles, which may penetrate the skin and damage brain cells, are appearing in an increasing number of cosmetics and sunscreens. Most problematic are zinc oxide and titanium dioxide nanoparticles, used in sunscreens to make them transparent. When possible, look for sunscreens containing particles of these ingredients larger than 100 nanometers. You'll most likely need to call companies to confirm sizes, but a few manufacturers have started advertising their lack of nanoparticle-sized ingredients on labels. For a more complete discussion, see Screen Test: Reading the Micro-Fine Print. (a link on your computer)
- **12.** Lead and Mercury Neurotoxic lead may appear in products as a naturally occurring contaminant of hydrated silica, one of the ingredients in toothpaste. Lead acetate is found in some brands of men's hair dye. Brain-damaging mercury, found in the preservative thimerosol, is used in some mascaras and until recently, in many vaccinations.

- **13. P-Phenylenediamine** Commonly found in hair dyes, this chemical can damage the nervous system, cause lung irritation and cause severe allergic reactions. It is also listed as 1,4-Benzenediamine; p-Phenyldiamine and 4-Phenylenediamine.
- 14. Artificial Colors, Dyes & Coal Tar is a known human carcinogen used as an active ingredient in dandruff shampoos and anti-itch creams. Coal-tar-based dyes such as FD&C Blue 1, used in toothpastes, and FD&C Green 3, used in mouthwash, have been found to be carcinogenic in animal studies when injected under the skin. Some artificial colors, such as Blue 1 and Green 3, are carcinogenic. Impurities found in commercial batches of other cosmetic colors such as D&C Red 33, FD&C Yellow 5, and FD&C yellow 6 have been shown to cause cancer not only when ingested, but also when applied to the skin. Some artificial coal tar colors contain heavy metal impurities, including arsenic and lead, which are carcinogenic. The use of permanent or semi-permanent hair color products, particularly black and dark brown colors, is associated with increased incidence of human cancer including lymphoma, myeloma, and Hodgkin's disease.
- **15. Hydroquinone** Found in skin lighteners and facial moisturizers, hydroquinone is neurotoxic and allergenic, and there is limited evidence that it may cause cancer in lab animals. It may also appear as an impurity not listed on ingredients labels.
- **16. Talcum Powder** TALC, is a carcinogenic. Inhaling talc and using it in the genital area, where its use is associated with increased risk of ovarian and lung cancer, are the primary ways this substance poses a carcinogenic hazard.
- **17. Lanolin** itself is perfectly safe. But cosmetic-grade lanolin can be contaminated with carcinogenic pesticides such as DDT, dieldrin, and lindane, in addition to other neurotoxic pesticides.
- **18.** Chlorine Exposure to chlorine in tap water, showers, pool, laundry products, cleaning agents, food processing, sewage systems and many others, can effect health by contributing to asthma, hay fever, anemia, bronchitis, circulatory collapse, confusion, delirium diabetes, dizziness, irritation of the eye, mouth, nose, throat, lung, skin and stomach, heart disease, high blood pressure and nausea. It is also a possible cause of cancer.
- **19. Fragrance** The catchall term "fragrance" may mask phthalates, which act as endocrine disruptors and may cause obesity and reproductive and developmental harm. Avoid phthalates by selecting essential-oil fragrances instead. "Fragrance" is present in most deodorants, shampoos, sunscreens, skin care, body care and baby products. Many of the compounds in fragrance are carcinogenic or otherwise toxic. "Fragrance on a label can indicate the presence of up to 4,000 separate ingredients. Most or all of them are synthetic. The FDA reports have included headaches, dizziness, rashes, skin discoloration, violent coughing and vomiting, and allergic skin irritation. Exposure to fragrances can affect the central nervous system, causing depression hyperactivity, irritability, inability to cope, and other behavioral changes".
- **20.** Silica Crystalline silica is carcinogenic.

What You Can Do

- 1. Complain to your drugstore when you see unhealthy ingredients in their consumer products.
- 2. Visit www.safecosmetics.org/companies to find companies that have signed the *Compact for Safe Cosmetics*.
- 3. Take action It is your right to buy <u>safe</u> personal care products at <u>www.safecosmetics.org/action</u>.
- 4. Campaign for safe cosmetics: www.safecosmetics.org
- 5. Skin deep, look up your products and see how safe they are: www.cosmeticdatabase.com
- 6. National Library of Medicine's Household Products Database: www.householdproducts.nlm.nih.gov
- 7. For a better make-up source contact Aurelia McNeil 586.677.1096 https://www.mionegroup.com/home