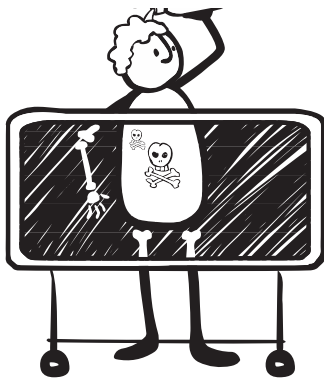

Footnoted and Annotated Script

THE STORY OF **STUFF** PROJECT

By Annie Leonard

Can I tell you, I love my Pantene Pro V. Of the dozen or so personal care products I use everyday, it's the one I can't live without.

Says it gives my dull hair "the ultimate cool shine." How does it do that? I was wondering that, while I was lathering it into my hair one day, so I read the ingredients right here: Sodium Laureth Sulfate, Tetrasodium EDTA, Methyl-iso-thiazolinone... What is this stuff?



I took this list to some scientists who know how to read it. Turns out my Pantene contains a chemical linked to cancer.¹ And lots of other products in my bathroom from sunscreen² to lipstick³ and even baby shampoo⁴ also contain chemicals linked to cancer or other problems like learning disabilities, asthma and even damaged sperm.⁵

Like most parents, I try to keep my family safe but now I find out my bathroom is a minefield of toxins. What are we supposed to do?

To find out the answers we have to go back to one of the key features of our materials economy: Toxics in, toxics out.

If, at the factory, you pour toxic chemicals into a product – like baby shampoo – you're going to wind up with... toxic baby shampoo⁶ ... AND toxics in workers⁷, communities⁸, and, duh, babies.⁹

1. Toxic suds? You betcha. All those sudsy products like shampoos and body washes that contain sodium laureth sulfate (or ammonium laureth sulfate, PEG, ceteth 20, and a slew of other chemicals with "eth" in the name) undergo a nasty chemical process called "ethoxylation." This cheap short-cut companies use to provide mildness to harsh ingredients requires the use of the cancer-causing chemical ethylene oxide, which generates the super nasty 1,4-dioxane as a by-product. 1,4-dioxane is a chemical "known to the State of California to cause cancer" under proposition 65, and is a known animal carcinogen and probable human carcinogen according to U.S. EPA. It is also suspected as a kidney toxicant, neurotoxicant and respiratory toxicant, according to California EPA, and is a leading groundwater contaminant. Unlike many other countries, the U.S. government does not limit formaldehyde, 1,4-dioxane, or most other hazardous substances in personal care products. Product tests conducted by Organic Consumers Association and consumer advocate David Steinman in March 2010 found 1,4 dioxane in Annie's favorite Pantene Pro V Ice

Shine Shampoo. <http://www.1-4dioxane.com/uploads/Dioxane-Results-2010.pdf>. Seems like we can find better ways to wash our hair than dousing ourselves with neurotoxins and carcinogens.

2. Protecting yourself from the sun shouldn't be a dangerous activity. But, a number of common sunscreen chemicals are linked to health effects such as cancer, and may also disrupt estrogen and thyroid hormones. Sixty percent of sunscreens contain the potential hormone disruptor oxybenzone that readily penetrates the skin and contaminates the bodies of 97% of Americans. <http://www.ewg.org/2010sunscreen/>
3. Dabbing on a little bit of lipstick seems harmless enough, right? Sure, only if you don't mind a little lead! In 2007, the Campaign for Safe Cosmetics commissioned tests of 33 top-selling red lipsticks at an independent lab and found lead in 61% of them. Follow-up tests by U.S. FDA detected even higher levels of lead than in the tests commissioned by the Campaign for Safe Cosmetics in all 20 lipsticks tested. Highest lead levels were in top-selling brands

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So let's take a closer look at this toxic outrage where it seeps into our lives every day -- in the bathroom. The average woman in the U.S. uses about 12 personal care products daily. The average man, about 6.¹⁰ Each product contains a dozen or more chemicals.

Less than 20% of all chemicals in cosmetics have been assessed for safety by the industry's safety panel¹¹ so we just don't know what they do to us when we use them. Would you fly on an airline that only inspects 20% of its planes?

Of course, not all of these chemicals are dangerous. But we know that many *are*. Some are carcinogens – that means they can cause cancer.¹²

Others are neurotoxins and reproductive toxins; proven to mess up brain development and reproduction in animals.¹³ Wait a minute, we're animals too!

It's like a giant experiment. We're using all these mystery chemicals and just waiting to see what happens.¹⁴

One thing we do know is that they're getting inside us.

I had my body's toxicity levels tested, and I'm loaded with things like mercury, flame retardants, triclosan and lead!¹⁵ We all are.¹⁶ Even babies are being *born* pre-polluted.¹⁷

Now I know we can't live in a lead free world, but do they have to put lead in our lipstick?¹⁸

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- L'Oreal, Maybelline, Cover Girl and Revlon. In 2009, independent testing of children's face paints commissioned by the Campaign for Safe Cosmetics found 10 out of 10 products tested contained lead. Lead is a proven neurotoxin that can cause learning, language and behavioral problems such as lowered IQ, reduced school performance and increased aggression. It can also impact fertility, including increasing risk for miscarriage and reducing sperm quality. Early-life lead exposure can even increase risk for Alzheimer's and Parkinson's disease. Pregnant women are particularly vulnerable to lead exposure, because lead easily crosses the placenta and enters the fetal brain where it can interfere with normal development. Experts say there is no safe level of lead exposure for children and the Centers for Disease Control and Prevention recommend that parents avoid using cosmetics on their children that could be contaminated with lead. See: www.safecosmetics.org/lipstick and www.safecosmetics.org/prettyscary
 4. We're washing our kids in tubs full of toxic suds! Dozens of children's bath products analyzed at an independent laboratory in 2009 were found to contain formaldehyde and 1,4 dioxane, two chemicals that cause cancer in lab animals and are classified as probable human carcinogens. (See note 1). Popular brands containing these chemicals include Johnson's Baby Shampoo, Sesame Street Bubble Bath and Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash. The companies argue that each product contains just low levels of these toxins – but there shouldn't be any carcinogens in baby shampoo at all. Period. The good news is, many companies have already figured out how to make excellent products without the toxic chemicals. To learn more check out: <http://www.safecosmetics.org/toxictub>
 5. Ah, the sweet smell of...reproductive toxics. Many fragrance-containing products – from hairsprays, to deodorants, perfumes and cologne – contain the chemical diethyl phthalate (DEP), which is linked in recent human studies to sperm damage in adult men, abnormal reproductive development in infants and Attention Deficit Disorder in children. To learn more, check out this DEP science review on page 21 of this report: http://safecosmetics.org/downloads/NotSoSexy_report_May2010.pdf
 6. See note 4.
 7. Despite the fact that workers in nail salons are constantly exposed to hazardous cosmetic chemicals, there is shockingly little health research available about the health impacts on this population. We shouldn't be surprised, though, since cosmetic companies are not required to monitor the health effects of highly exposed worker populations, and the government isn't conducting this research either. What we do know is cause for concern: Nail salon workers are exposed to many problematic chemicals such as phthalates, toluene, formaldehyde, acetone, methylacrylates and more. These exposures often occur in poorly ventilated spaces to a workforce comprised mainly of women of childbearing age, who are especially vulnerable to toxic exposures. Occupational health research suggests adverse effects on attention, information processing and increased occupational asthma. See WVE report, "Glossed Over: Health Hazards Associated with Toxic Exposure in Nail Salons," <http://www.womenandenvironment.org/newsreports/issuereports/WVE.NailSalon.Report.pdf>

Hair salon environments are also a health concern. An increasing number of studies of humans link long-time hair dye use with cancer,

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Maybe I just bought the wrong thing.

At the store, the choices seem endless. I can get lipstick in 49 shades or shampoo for hair that's too dry, oily, fine, limp, or frizzy. But what about the choices that really matter? Like the choice to buy products that are safe?

It turns out the important decisions don't happen when I choose to take a product off the shelf.

They happen when companies and governments decide what should be put on the shelves.

So who are these companies? This is Procter & Gamble. They're the ones offering me "Herbal Essences," the number two shampoo in the country.

It contains toxic petrochemicals – made from oil.¹⁹ Since when is oil an herb?

On cosmetics labels, words like "herbal", "natural", even "organic" have no legal definition.²⁰ That means *anybody* can put *anything* in a bottle and call it natural. And they do. I mean, can you imagine a top seller called "petro-essences?" Gross.

What's even nastier are hair relaxers marketed to 5 year olds, and skin whitening creams. These are *super toxic*²¹ both in their ingredients and in the message they send about what beauty is.

including bladder cancer, non-Hodgkin's lymphoma, and multiple myeloma. See http://www.cosmeticsdatabase.com/research/coal_tar_hair_dye.php and <http://www.ncbi.nlm.nih.gov/pubmed/19092492?dopt=AbstractPlus> and <http://www.newscientist.com/article/dn13533-hair-dye-may-raise-cancer-risk-for-coiffeurs.html>

8. It's a pretty simple equation: toxics in, toxics out. The chemicals used in cosmetics end up polluting our communities during production (<http://scorecard.org/> or <http://scorecard.org/env-releases/us-map-tcl>) and after we wash them down the drain or throw them away. Recent research indicates that toxic cosmetic ingredients are ending up in our drinking water, rivers and lakes and even in the sewage sludge spread on our food-producing farm fields.

Triclosan, a common chemical used in anti-bacterial hand soap, toothpaste, facewash, deodorant, a host of personal care products, is one example of a chemical that poses hazards throughout its lifecycle. Triclosan persists in the environment, breaks down into substances highly toxic to wildlife, pollutes the human body (it's been found in breast milk and the cord blood of newborn babies), and poses health risks that are barely studied and poorly understood. Triclosan is linked to liver and inhalation toxicity. Low levels of triclosan may disrupt thyroid function. Wastewater treatment does not remove all of the chemical. Triclosan ends up in lakes, rivers and water sources, where it is very toxic to aquatic life. Triclosan also can degrade into a form of dioxin, a class of chemicals linked to a broad range of health problems including cancer, and new research shows that triclosan in tap water can react with residual chlorine from standard water disinfecting procedures to form a variety of chlorinated byproducts, including chloroform, a suspected human carcinogen. An advisory committee to the federal Food and Drug Administration has found that household use

of antibacterial products provides no benefits over plain soap and water. The American Medical Association recommends against using triclosan in the home, because it may encourage bacterial resistance to antibiotics. See <http://www.ewg.org/water/downthedrain>, <http://www.foodandwaterwatch.org/water/chemical-contaminants/what-is-lurking-in-your-soap/>, <http://www.ewg.org/reports/triclosan> and <http://www.sciencedaily.com/releases/2010/05/100526134152.htm>

9. Our babies are being born pre-polluted. This is just SO wrong! In a 2006 study from Mt. Sinai Medical Center and Environmental Working Group (EWG) called "The Pollution in Newborns," researchers analyzed the umbilical cord blood of newborn infants and detected an average of 200 industrial chemicals known to be toxic in every baby. <http://www.ewg.org/reports/bodyburden2/execsumm.php>. In a 2009 study, EWG and Rachel's Network detected synthetic fragrance chemicals Galaxolide and Tonalide for the first time in umbilical cord blood samples. <http://www.safecosmetics.org/article.php?id=601>
10. Based on Environmental Working Group, June 2004 survey of 2,300 people. Women use an average of 12 personal care products a day containing about 180 chemicals; men use an average of 6 products containing about 85 chemicals. <http://www.cosmeticsdatabase.com/research/exposures.php>
11. This stuff is barely getting tested. As of January 2010, the Cosmetics Ingredients Review (CIR) panel – the industry funded panel that is charged with assessing the safety of ingredients in cosmetics – assessed 1,594 cosmetic ingredients for safety, out of the 12,500 ingredients that FDA estimates are used in cosmetics. This is based on an Environmental Working Group assessment of chemical review lists published by CIR. The companies say they do a lot of their own testing, but these studies typically look for short-term health effects

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Ooh, here's Estee Lauder offering me a chance to help find a cure for breast cancer.

That's nice. But wait...they're also using chemicals linked to cancer.²² Don't you think the best way for Estee Lauder to fight cancer is to stop using those chemicals in the first place?²³

So really, I get to choose between meaningless claims on a bottle. But these guys get the real choice about what goes into those bottles.

And that happens back here at the factories where they're formulated.

Why do the makers of these products use all these toxics, are they *trying* to poison us?

No, they're just working from a 1950s mindset when people were totally swept up in "better living through chemistry".²⁴

In all that excitement, they forgot to worry about human health impacts.

That was years ago, and they are still using these same old toxic chemicals. Today big cosmetics companies say the doses of poison in their products are small enough to be harmless.

Yeah maybe if you use them once a year!



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- such as swelling and rashes, and do not consider the long-term effects of cumulative daily exposures to cosmetic chemicals.
12. Carcinogens + Cosmetics = Dumb Idea. Examples of known or suspected carcinogens in personal care products include: coal tar in Neutrogena dandruff shampoo; petroleum distillates in Maybelline Lash Discovery Waterproof Mascara and Cover Girl Volume Extract Waterproof Mascara; hydroquinone in Paula's Choice and Physician Complex skin bleaching creams; phenolphthalein in Luster's Pretty-n-Silky No-Lye Conditioning Cream Relaxer; formaldehyde and 1,4 dioxane in Johnson's Baby Shampoo, Mr. Bubble Bath, Sesame Street Shampoo and many other bath products (see note 4).
 13. Examples of reproductive toxins include dibutyl phthalate and toluene in nail polish; lead acetate in men's hair dye; glycol ethers in nail polish and perfume; neurotoxins include mercury in skin lightening creams and mascara; lead in lipstick and face paint; fluoride in toothpaste (when swallowed); aluminum in anti-perspirants; dyes such as D&C Red 6 Barium Lake, and FD&C Blue 1 Aluminum Lake.
 14. Speaking of a giant experiment, some products, like sunscreens, anti-aging creams, even powders, contain ingredients that are engineered to the nanoscale—meaning extremely tiny and operating in the realm of quantum physics—yet this information doesn't have

to be on the label and scientists don't know what they might do to our health or the environment. One nanometer (nm) is roughly 100,000 times smaller than the width of a human hair. Nanoparticles of titanium dioxide and zinc oxide now used in some sunscreens can measure 20 to 30 nm in size -- or even smaller. How do these unbelievably small particles act once they get into our bodies or go down the drain? Preliminary studies show reason for concern and some nanoscale ingredients have been shown to be powerfully toxic in ways never before seen in other chemicals. Learn more <http://www.foe.org/healthy-people/nanosunscreens> and <http://www.safecosmetics.org/article.php?id=307>

15. Annie had her "body burden," the level of toxics in her body, tested in the summer of 2009 through Commonwealth's Biomonitoring Resource Center in conjunction with Dr. Ted Schettler from the Science and Environmental Health Network. Her body was found to contain all sorts of chemicals including Bisphenol A, Lead, Perfluorinated compounds, Triclosan, Mercury, and Deca-BDE (a flame retardant). More information on Annie's body burden tests can be found in *The Story of Stuff* book. To learn more body burden testing or biomonitoring, check out www.commonweal.org/programs/brc/index.html
16. Even teenagers have hazardous cosmetics chemicals in their bodies and this is especially scary because it's such an important period in

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I guess they never get out and see that their products are being used and combined with other products every day: a little toxic dose under your arms, a little more on your hair, on your lips.²⁵ And workers in nail and hair salons get dosed all day long!²⁶

So the industry is used to doing things this way. And they can, because even now that scientists have linked the chemicals they're using to all sorts of problems, there are *no* laws to get rid of them.

You're thinking - *Really?* Come on. *Nobody's* making sure that the stuff we smear all over our bodies is safe?

No! The FDA doesn't even assess the safety of personal care products, or their ingredients.²⁷

Since 1938, they've banned just 8 out of over 12,000 ingredients used in cosmetics.²⁸ They don't even require that all of the ingredients be listed on the label!²⁹

Now this is an example where we can all agree a little more government action would be helpful!

This lack of regulation leaves a huge hole that the cosmetics industry is all too happy to fill.

They set up their own committee to self-police their products.³⁰

And compliance with their "recommendations" is voluntary!

So, the cosmetics industry is *making the rules and then deciding whether or not to follow them.*

So, you see, it isn't our fault that these toxic products are in our bathrooms. It's a whole broken system

their development. Environmental Working Group (EWG) detected 16 chemicals from four chemical families - phthalates, triclosan, parabens, and musks - in blood and urine samples from 20 teen girls aged 14-19. Studies link these chemicals to potential health effects including cancer and hormone disruption. These tests feature first-ever exposure data for parabens in teens, and indicate that young women are widely exposed to this common class of cosmetic preservatives, with two parabens (methylparaben and propylparaben) detected in every single girl tested. Teenage girls use an average of 17 cosmetics and personal care products per day, compared to an average of 12 for adult women. Adolescence encompasses maturation of the reproductive, immune, blood, and adrenal hormone systems, rapid bone growth associated with the adolescent "growth spurt," shifts in metabolism, and key changes to brain structure and function. Alterations in an array of sex hormones, present in the body at levels as low as one part per billion (ppb), or even one part per trillion (ppt), guide this transformation to adulthood. Emerging research suggests that teens may be particularly sensitive to exposures to trace levels of hormone-disrupting chemicals like the ones targeted in this study, given the cascade of closely interrelated hormonal signals orchestrating the transformation from childhood to adulthood. <http://www.ewg.org/>

reports/teens

17. See note 9.

18. Why does lipstick have lead in it? Either because ingredients used to make the lipstick are contaminated with lead, or because lead is part of the pigment companies are using to add certain color quality. For more about lead in lipstick, see note 3.

19. Concerned about the oil spill in the gulf? Looking to reduce your carbon consumption? One good place to start is in your bathroom. A number of ingredients used in cosmetics and personal care products are derived from oil or are processed with oil derivatives. Learn more here: http://www.huffingtonpost.com/stacy-malkan/petroleum-in-perfume_b_573288.html and here http://www.huffingtonpost.com/ronnie-cummins/the-oil-spill-in-bathroom_b_614215.html

Regarding "Herbal" Essences, this shampoo ranks a 5 (moderate toxicity) on EWG's Skin Deep database, with several petroleum-based chemicals of concern linked to allergies, organ system toxicity, skin irritation and neurotoxicity. Product tests conducted by David Steinman in 2007 found 1,4 dioxane in this shampoo at 24 parts per million. Under threat of a lawsuit in California, due to the state's

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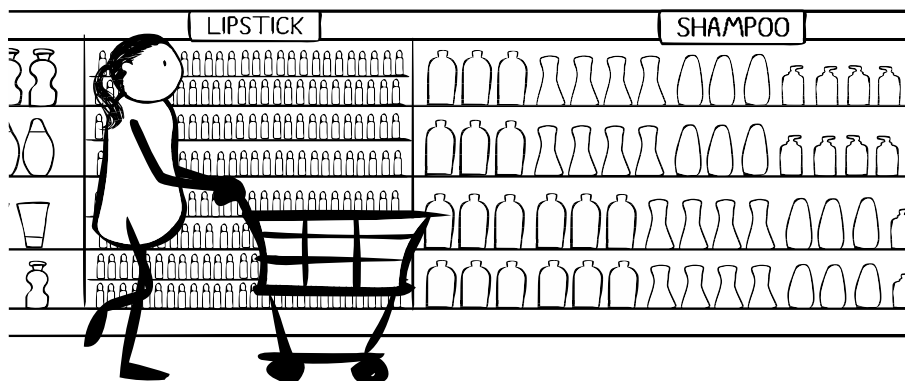
that's ignoring the simple rule: toxics in, toxics out.

But we're not helpless. There are resources online that we can use to protect ourselves by identifying the best possible choices in the store.³¹

But the real action is with people working to change the system. Because, if we really want to solve this problem, we gotta start here with these guys.

Women, parents, workers, people all over the country are demanding that Congress pass a new law giving the FDA the power to make sure that our personal care products are safe.

We need common-sense laws based on the precautionary principle.



Proposition 65 law, P&G agreed to reformulate 18 shampoos in the Herbal Essences line by July 2010 to reduce levels of 1,4 dioxane. See Campaign for Safe Cosmetics press release: "Procter & Gamble to Reduce Toxic Chemical in Herbal Essences Shampoo." <http://safecosmetics.org/article.php?id=620>

20. Since when is a synthetic neurotoxin considered a "natural ingredient"? Since, umm, never! But personal care products can be labeled as "organic" without having a single organic ingredient in them, and they can include "natural" as a descriptor even if they have lots of synthetic and harmful ingredients. If you want true organic, look for seals from the USDA's National Organic Program (which is the most strict organic certification program). Other third-party certification organizations also offer "organic" or "natural" seals that require companies to meet certain criteria to participate. Even if a product carries a seal, it's important to still look at the label to be sure that the product doesn't include harmful ingredients. <http://www.organicconsumers.org/bodycare/index.cfm> <http://www.fda.gov/Cosmetics/ProductandIngredientSafety/ProductInformation/ucm203078.htm>
21. The Chicago Tribune recently tested 50 skin-lightening creams at an independent laboratory and found six of them contained illegal amounts of mercury. http://articles.chicagotribune.com/2010-05-18/health/ct-met-mercury-skin-creams-20100518_1_skin-lightening-creams-mercury-testing. Five of the creams had mercury at levels exceeding 6,000 parts per million — enough to potentially cause

kidney damage over time. Mercury is also a potent neurotoxicant that can cause brain damage and learning disabilities at low levels. Skin whitening creams also commonly contain hydroquinone, a suspected carcinogen that is banned in Europe, Japan and Australia. Hydroquinone is also linked to ochronosis, a condition in which the skin becomes dark and thick. Hair relaxers often contain over 100 chemical ingredients, including multiple chemicals of concern, for example phenolphthalein, a chemical linked to cancer. Hair conditioners marketed to African American women may contain placenta, which can be hormonally active. Vital to a growing baby in the womb, these same extracts in cosmetics give the body a slug of hormones that may be enough to spur breast growth in toddlers according to a few recent case studies. Source: Davis, Devra, PhD, MPH. "The Secret History of the War on Cancer," (Basic Books. 2007. p 284).

Also see the paper, "Personal Care Products that Contain Estrogen or Xenoestrogens May Increase Breast Cancer Risk," Donovan Maryann, et al., Medical Hypotheses, Sept. 15, 2006; Volume 68, Issue 4, Pages 756-766 (2007) <http://www.medical-hypotheses.com/article/S0306-9877%2806%2900702-X/abstract>

22. Examples include: Estee Lauder Color Intensity Quad Microfine Power Eye Shadow contains silica and titanium dioxide (inhalation risk for cancer). Several Estee Lauder products including Bumble & Bumble Grooming Cream and Aveda Confixor Liquid Gel contain diazolidinyl urea, a preservative that typically releases formaldehyde

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That means that when we're dealing with hazardous chemicals, just err on the side of caution. Let's not debate how much lead should be allowed in lipstick... Just get toxic chemicals out of our products.

Smarter laws would force companies to get past that old 50s mindset and figure out how to get us all clean and shiny *without* toxic chemicals.³²

Can they? Totally. Many responsible cosmetics companies are already putting safer products on the market.

Green chemists are developing substances that are designed to be safe and non-toxic in the first place. European governments have required the removal of many toxic chemicals and companies have figured out how to comply.³³

When cosmetics are reformulated to be safe and labeled honestly, *then* we can feel comfortable with the choices available at the store.

We can choose bouncy hair or full hair. Shiny lipstick or matte. We can even choose to feel beautiful without using 20 products. But we'll know that whatever we choose, the most important choice, the choice to be safe and healthy, has already been made.

(probable human carcinogen) into products. Estee Lauder's brand Bumble and Bumble ranks #15 of the Top 20 brands of concern in EWG's Skin Deep database, <http://www.cosmeticsdatabase.com/research/topbrands.php>. Among the chemicals of concern found in that brand are several ingredients that undergo "ethoxylation," a chemical process that uses ethylene oxide (a known breast carcinogen) to process other chemicals that typically end up contaminated with 1,4 dioxane (a probable human carcinogen). See note 1. Ethoxylated ingredients in Bumble & Bumble products include: PEG-7 glyceryl cocoate, PEG-40 castor oil, Cetearth-12, Cetearth 20, PEG 40, PEG 45M, PEG 75 and PEG 100 stearate. Estee Lauder products also commonly contain parabens that have the potential to act like estrogen in the body. Estrogen mimics are a concern because higher exposures to estrogen throughout a woman's life increases her risk of breast cancer. Most of these products listed also contain the ingredient "fragrance" which can contain any number of the fragrance industry's 3,100 stock chemical ingredients, the blend of which is almost always kept hidden from the consumer. The Campaign for Safe Cosmetics commissioned an independent lab to test 17 fragrance products and found, on average four hormone-disrupting chemicals linked to a range of health effects including sperm damage, thyroid disruption and cancer. See State of the Evidence: <http://www.breastcancerfund.org/clear-science/chemicals-linked-to-breast-cancer/cosmetics/> and <http://safecosmetics.org/notsosexy>

23. What is pinkwashing? A term used to describe the activities of companies and groups that position themselves as leaders in the struggle to eradicate breast cancer (often labeling products with the iconic pink ribbon) while engaging in practices that may be contributing to rising rates of the disease. Not cool!

Despite their reputation as champions for women's health Estee Lauder, Revlon and Avon could all be called pinkwashers! With their high-profile breast-cancer-charity events, all three companies

continue to use chemicals linked to cancer and other chemicals linked to harm. These "pink-ribbon leaders" manufacture dozens of products each that rank an 8 or higher on Skin Deep's toxicity scale (10 is the worst) – including products that contain carcinogens and hormone-disrupting chemicals linked to increased cancer risk.

For more about the not-so-cute history of the pink ribbon (which was co-opted by a beauty magazine) and Breast Cancer Awareness Month (which was started by a pharmaceutical/chemical company), see Chapter 6 of the book "Not Just a Pretty Face: The Ugly Side of the Beauty Industry" by Stacy Malkan. www.notjustaprettyface.org

24. In the 1950s government subsidies helped companies figure out how to process oil byproducts into synthetic chemicals and resins to make all sorts of wonder (what's in it) products from plastics to make-up. Billions of tons of synthetic substances that never existed in nature before were released into the environment with little understanding of their impacts on people, wildlife and the ecosystem. Now, every baby on Earth is contaminated with man-made toxins before they are even born. Mountains of scientific evidence implicate chemical exposures in modern-day health afflictions such as breast cancer, testicular cancer, childhood cancers, learning disabilities, autism, asthma, infertility, birth defects, Attention Deficit Disorder and other diseases that have been rising in recent decades. That doesn't exactly sound like better living now does it?

The President's Cancer Panel recently highlighted that "the true burden of environmentally induced cancer has been grossly underestimated. With nearly 80,000 chemicals on the market in the United States, many of which are used by millions of Americans in their daily lives and are un- or understudied and largely unregulated, exposure to potential environmental carcinogens is widespread." To learn more check out: http://www.nytimes.com/2010/05/06/opinion/06kristof.html?_r=1 <http://deainfo.nci.nih.gov/advisory/>

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pcp/pcp08-09rpt/PCP_Report_08-09_508.pdf

But there is a better way! Green chemistry is the science of figuring out how to design products and processes in ways that minimize or eliminate hazardous substances. In the 21st century, all chemistry should be green chemistry. <http://www.beyondbenign.org/>

25. The companies argue that each product contains only low levels of toxic chemicals – it's just a little carcinogen in the baby shampoo, and a little more in the bubble bath, body wash, diaper cream, toys, food, water, air ... yikes! If this sounds a little crazy, that's because it is. There are a few things wrong with the industry's "low toxic doses are OK" argument. First, low doses are adding up; the average woman is exposed to over a hundred cosmetic chemicals a day, and many of these toxic exposures have similar mechanisms of action in the body (i.e., dozens of chemicals that act like estrogen). Secondly, low doses do matter: even the tiniest amounts of some substances can cause harm (think lead paint chips); and some chemicals are more problematic at lower doses than higher ones. For example, small doses of hormone-disrupting chemicals basically act like a key in a lock, turning hormone signals on and off – yes, the same signals that direct important bodily functions such as reproductive capacity. Third, chemical risk assessments typically study just one chemical at a time, rather than considering the potential for enhanced toxicity of chemical mixtures – even though evidence suggests that some chemicals can exponentially increase each other's health impacts, <http://safecosmetics.org/article.php?id=295>. The bottom line: companies are not studying the long-term health impacts of repeated exposures to the chemical mixtures typically found in cosmetics – in other words, they have no idea about the real health risks of these products.
26. See note 7.
27. "FDA's legal authority over cosmetics is different from other products regulated by the agency, such as drugs, biologics, and medical devices. Cosmetic products and ingredients are not subject to FDA premarket approval authority, with the exception of color additives ... Cosmetic firms are responsible for substantiating the safety of their products and ingredients before marketing."

FDA Authority Over Cosmetics, last updated 12/22/09. Available: <http://www.fda.gov/Cosmetics/GuidanceComplianceRegulatoryInformation/ucm074162.htm>

28. Ingredients Prohibited & Restricted by FDA Regulations. Last updated 5/21/2009. Available: <http://www.fda.gov/Cosmetics/ProductandIngredientSafety/SelectedCosmeticIngredients/ucm127406.htm>
29. The Fair Packaging and Labeling Act requires manufacturers of cosmetics to list the ingredients on labels – with a couple big loopholes. Companies are not required to disclose the constituent chemical ingredients that make up "fragrance," which is considered a trade secret. Fragrance can include a dozen or more chemicals that are not listed on a package label. The law also exempts impurities or contaminants from being listed on labels. Unfortunately, products quite commonly contain hazardous impurities such as 1,4 dioxane and formaldehyde. See note 4. <http://www.fda.gov/cosmetics/cosmeticlabelinglabelclaims/cosmeticlabelingmanual/ucm126444.htm> and <http://safecosmetics.org/notsosexy>

30. A great example of the fox guarding the henhouse! The Cosmetics Ingredient Review (CIR) panel -- established by the cosmetics industry trade association, funded by the industry and housed in the same location as the Personal Care Products Council (the industry trade association) -- is in charge of assessing the safety of ingredients in cosmetics sold in the United States. In its 30-year history, the CIR has reviewed less than 20% of the ingredients used in cosmetics, and found all but a handful to be safe. The program is voluntary, so the industry is not required to follow the recommendations of the CIR. Hmm...anybody else think that this set up sounds problematic?
31. It's confusing out there in the unregulated marketplace where consumers don't have a right to know everything that is in products we use on our bodies and even 'natural' personal care products can be full of toxic chemicals. That's why it's important to pass laws that require companies to be transparent and responsible. The most important thing you can do right now to protect yourself and your family from toxic personal care products is mobilization to pass safe cosmetics legislation in 2010.

In the meantime, here are some ways you can reduce toxic exposures in your home:

- Simplify: use less stuff less often, and choose products with shorter ingredient lists and fewer hazardous synthetic chemicals (do you really need to spray "air freshener" around the house or sit in a tub full of toxic suds?) Want more tips? visit www.safecosmetics.org/takeaction
- Just say No to Fragrance: It's best to avoid the mystery concoction known as "fragrance," made from a dozen or more secret chemicals. Everything has a fragrance these days, from make-up, to candles and even clothes. Check labels carefully; even "fragrance free" products may contain fragrance chemicals to cover up the odor of other chemicals.
- Read labels: Thankfully there are great resources online to help consumers make sense of confusing product labels. One of the best is the Environmental Working Group's Skin Deep database at www.cosmeticsdatabase.org, which ranks products for toxicity on a scale of 1-10.

Another tip: Look for Products that are Safe and Sustainable: Besides screening products for toxicity concerns, when you can, look for products that are made in ways that are sustainable and support fair trade.

For example, look for products that source organic ingredients, especially USDA Organic products (e.g. these ingredients are renewable, don't come from oil, and they weren't produced using pesticides and conventional agricultural practices, learn more here: <http://organicconsumers.org/bodycare/index.cfm>). You can also look for products that use fair trade certified ingredients (e.g. the folks producing ingredients get a fair price for their products, <http://www.greenamericatoday.org/programs/fairtrade>). And just because it's from a natural source, doesn't guarantee it's sustainable. For example, the last habitat of the orangutan in Indonesia is being destroyed to plant conventional palm oil plantations to supply cosmetics and food – not a good thing! Learn more: <http://ran.org/content/problem-palm-oil>

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32. For the first time in more than 70 years, the U.S. Congress is considering legislation that will shift the beauty industry away from hazardous chemicals. This is a really big, exciting step in the right direction! Current law – the Food, Drug and Cosmetics Act of 1938 – allows the cosmetics industry to make its own decisions about what's safe, with very little government oversight.

FDA cannot require companies to ensure cosmetics ingredients have been assessed for safety, can't require that all the chemicals in cosmetics are disclosed to consumers, and the agency can't even require product recalls. It's time to bring the laws into the 21st century.

Legislation anticipated to be introduced in July 2010 will require manufacturers to be fully transparent about what's in personal care products, and will set up a fair system to assess the safety of cosmetic ingredients and phase out the most harmful substances.

Not everybody is as excited about this. The big cosmetics companies have spent millions trying to defeat this effort before the bill has even been introduced. It will take a major mobilization of women, parents, workers and everyone who is affected by this problem (all of us!) from across the political spectrum to pass this landmark legislation. Take action at www.safecosmetics.org/takeaction.

33. In 2003, the European Union banned from cosmetics approximately 1,400 chemicals that are known or highly suspected of causing cancer, genetic mutation or birth defects. http://www.safecosmetics.org/downloads/EU-Cosmetics-Directive_2003.pdf -- the U.S. has banned only eight (see note 28). More than 500 products sold in the U.S. contain ingredients banned in cosmetics in Japan, Canada or the European Union. <http://www.ewg.org/node/22624>