

Harlem Globetrotters Of Science Take On The Environmental Washington Generals



By Josh Bloom — October 23, 2015



[1] This one had all the suspense of a [Harlem Globetrotters](#)

[2] - [Washington Generals](#) [3] game. (1)

In what can be seen, at the very least, as an appalling lack of creativity, our old friends the EWG Environmental Washington Generals (oops, I meant Environmental Working Group) decided that since they had finally hit dry wells with phthalates and BPA, it was time for a "new" chemical to scare people about, get some mainstream Scare Journalism coverage (which worked) and then drum up funding (which will certainly work).

What chemical did they choose and why?

There are 40,000 chemicals in the [Sigma-Aldrich catalog](#) [4], so perhaps they threw a dart because they claim to have hit on a "new" their words, not mine terrible toxin called triphenyl phosphate (TPHP), which is used in fingernail polish.

How deadly is it? The CDC has [plenty of data](#) [5]:

- It takes 1.4 grams (orally) to kill a rat. That is a whole lot.
- Extrapolating to humans (an approximation, at best) a lethal dose would be 245 grams, or, about 9 ounces, which is about the weight of 80 packets of sugar.
- "Workers exposed to an average air concentration of 3.5 mg/m³ for as long as **ten years** showed no evidence of adverse clinical effects." (3.5 mg/m³ is equivalent to .26 parts-per-million a concentration that even industrial workers will never see).
- And, even if you could blow enough of the stuff into the air so that people were breathing it: "**Concentrations of triphenyl phosphate aerosol high enough to produce acute toxic effects in man have not been achieved.**"

It is impossible to eat or breathe enough of triphenyl phosphate to harm yourself, but the Environmental Working Group still wants you to be scared because a tiny amount that are found in nail polish. Really, [they do](#) [6].

The Heather White, the Executive Director of EWG, wrote their typical [scare piece](#) [7] for *Ms. Magazine*

called "Your Nail Polish Could Be Disrupting Your Hormone System."

Endocrine disruptors? Again??? Can't they come up with *something* different?

Here are some examples of how Ms.White (predictably) fills the page with plenty of personal anecdotes to deflect the lack of data:

- "I cringed but simultaneously rejoiced. I had officially become that mom the one whose kid passed on nail polish because it might be toxic."
- "[TPHP] got into the bodies of all 26 women who volunteered to paint their nails for the study. The evidence showed up in their urine within half a day."

What is wrong with that last sentence? This is how our body is *supposed* to work. Drugs, and chemicals are typically metabolized in the liver to give water-soluble metabolites that are excreted in the urine. I'd be more concerned if it *didn't* show up in urine, that would mean that it would be accumulating in the body, which doesn't necessarily mean that it's a problem, but it would at least be worth mentioning. Instead, she treated their audience to the biological equivalent of *I dropped a rock and gravity worked*.

The lack of biological acumen aside, White's articles failed to do what chemical scare groups like EWG always fail to do - mention the most important parameter in determining toxicity: dose. Even a dangerous chemical will be harmless in a minuscule dose. And a safe one like TPHP... forget it.

- "Scientists suspect that the chemical at issue triphenyl phosphate, or TPHP disrupts the hormone system....The last thing girls need in their bodies as they are developing rapidly is something that may play havoc with their hormones."

It's difficult to find a chemical that EWG *doesn't* claim will disrupt hormones. *Everything* is an "endocrine disruptor." I take that back. I have yet to research their scientific positions on endocrine disruption by milk, Kryptonite, sousaphones, placebos, nose hair, or bocce balls, but I bet they're in the EWG archives as disrupting something or other.

- "But our list won't be complete until cosmetic companies verify their ingredients. As the Duke-EWG study showed, more polishes could contain TPHP and *fail to disclose it*."

Puts Watergate to shame.

- "The conclusion is inescapable: any girl who paints her nails stands a chance of coming into contact with a potential hormone disruptor."

Or a sabre-toothed tiger.

- The mani-pedi culture endangers salon workers and manicurists, too. Gov. Andrew Cuomo of New York sent shock waves through the salon community last May."

Except that one was real. Salon workers are constantly exposed to vapors of chemicals that are actually toxic. That has nothing to do with this whatsoever. Nice try, though.

- For now, I'll keep hoping my daughter makes healthy choices as she moves from tween to teen. And I'll hold my breath until the next EWG report."

One can only hope she holds it longer than that.

- Who knows what chemicals are lurking in the *stickers she put on her nails*?

We don't want to distract readers of *Ms. Magazine*, (both of you) but not every chemical in the world is "lurking," just waiting to poison you.

But to EWG, and the people scared into donating to its cause, the entire world is composed of chemicals that are just waiting in line for the privilege of poisoning you. In a (slight) sense they are right. But, what they don't realize is that 99.9 percent of them were created by Nature.

NOTE:

(1) For those of you who have no interest in sports, or are too young, the Globetrotters won 15,071 straight "exhibition" games, including 2,499 in a row against the Generals.

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Links

[1] <http://acsh.org/wp-content/uploads/2015/10/Screen-Shot-2015-10-23-at-2.54.55-PM.png>

[2] https://en.wikipedia.org/wiki/Harlem_Globetrotters

[3] https://en.wikipedia.org/wiki/Washington_Generals

[4] <http://www.sigmaaldrich.com/chemistry/aldrich-chemistry/aldrich-handbook.html>

[5] <http://www.cdc.gov/niosh/idlh/115866.html>

[6] <http://www.ewg.org/enviroblog/2015/10/your-nail-polish-could-be-disrupting-your-hormone-system>

[7] <http://msmagazine.com/blog/2015/10/21/your-nail-polish-could-be-disrupting-your-hormone-system/?source=acsh.org>