Volume XVII, Number 4
July/August 2017

The Next STEP

Toward a Healthier Future

A Bi-monthly Newsletter of the Sebastopol Toxics Education Program

Local Toxics Disposal

■ **The next Sebastopol Toxics Collections Day is August 15**, from 4 to 8pm. To make an appointment, call 707/795-2025 or 877/747-1870 at least 24 hours before the event. You can also drop items at the Household Toxics Facility.

■ **For more about local toxics disposal**, see *www.recyclenow.org* or call 707/565-3375.

Having Safe Fun in the Summer Sun

As we dutifully apply sunscreen on ourselves and our families, are we inadvertently exposing ourselves to toxics?

Often folks don't consider the toxicity of products they put on their skin. They see their skin as just a *barrier* to their body. But our skin can also be a *pathway* for materials to get inside us. This effect can be amplified by sunscreen ingredients that enhance skin penetration.

The result is that many sunscreen chemicals are being absorbed into our bodies — and are being regularly found in our blood, urine, and breast milk.

But are they toxic? Unfortunately, key sunscreen ingredients haven't been pre-evaluated by the Food and Drug Administration (FDA). Instead, materials already in use were "grandfathered in" when it began considering sunscreen safety.

However, the Environmental Working Group (EWG) reviewed the existing data on sunscreen materials and found that 75% of sunscreen products had troubling ingredients or inferior sun protection.

So how do you evaluate your current or candidate sunscreen? Here's some key information to help you choose a product that best fits your needs and priorities.

Sunscreen's goals and limits

First let's understand sunscreen's goals and limits. The nonprofit Melanoma Research Foundation (MRF) says, "broad spectrum sunscreen with an SPF of 15 or higher helps prevent sunburn and reduces the risk of early skin aging and skin cancer (melanoma and squamous cell carcinomas) associated with UV radiation."

However, MRF's proviso for this benefit statement is "[w]hen used as directed with other sun protection measures." The nonprofit Skin Cancer Foundation (SCF) also qualifies its sunscreen cancer-reduction claims with the contingency that we apply one ounce to our entire body 30 minutes before going outside, and reapply every two hours outdoors or immediately after swimming or sweating heavily.

Thus, even top experts say that sunscreen's benefits require thorough ongoing coverage — and other protection measures too. It's important that we do both.

Avoiding ingredients of concern

So how do you choose a less-toxic sunscreen? Here's some label-reading advice from EWG and other industry experts:

■ **Don't use products with oxybenzone. EWG considers it the "most worrisome" of the ingredients evaluated**. It's found in nearly 65% of the non-mineral sunscreens in EWG's 2017 sunscreen database, and can cause eczema-like allergic skin reactions that can spread beyond the exposed area and last long after you're out of the sun.

Experts also suspect that oxybenzone disrupts hormones, which can throw off one's endocrine system. A Centers for Disease Control and Prevention (CDC) study found oxybenzone in 96% of participants; those using sunscreen had higher levels.

■ **Consider avoiding octinoxate, which EWG also rates as a high toxicity concern.** It's readily absorbed into the skin, and can cause hormone disruption in humans (and wildlife, once it gets into the water). It can also encourage premature aging, as it produces free radicals that can damage skin and cells.

■ **Be watchful of homosalate and octocrylene, which EWG rates as a moderate toxicity concern. Homosalate** disrupts hormones, has toxic breakdown products, accumulates in our bodies, and is found in mother's milk. **Octocrylene** has higher rates of skin allergy, is readily absorbed, might accumulate in our bodies, can be toxic to the environment, and is found in mother's milk.

■ **Reconsider vitamin A — in any skin or lip products you wear outdoors.** It's being pitched as anti-aging. But EWG says that sun exposure to Vitamin A on our skin can speed up skin cancer development. It's in 14% of the sunscreens EWG reviewed in 2017. (It can also be labeled as retinyl palmitate, retinyl acetate, retinyl linoleate, or retinol.)

Note: For more about the debate over this, see *www.annmariegianni.com/ingredient-watch-list-should-you-avoid-retinyl-palmitate-in-your-sunscreens.*

*See **Sunscreen**, over ...*

***Sunscreen**, continued*

■ **Be cautious about so-called "inactive ingredients**." They're typically 50% to 70% of the total, and can still have toxic risks.

Of special concern is the preservative methylisothiazolinone (MIT), which was named "Allergen of the Year" by the American Contact Dermatitis Society in 2013. The EU has banned it from cosmetic leave-on products such as lotions starting this year. Still, MIT is allowed in U.S. products. In fact, EWG found it listed in 94 sunscreens this year, including six marketed to children.

For more about ingredients of concern, and safer options, see *www.ewg.org/sunscreen/report/the-trouble-with-sunscreen-chemicals*.

Choosing products wisely

■ **Look for fragrance-free products**. Scents bring more unnecessary chemicals and potential allergens to the mix.

■ **Don't buy sprays**. The tiny particles can be unsafe to breathe; and much of the product can miss your skin, wasting money and leaving you under-protected.

■ **Choose an SPF that meets your needs**. MRF recommends at least SPF 30 to ensure adequate sun protection. And there might be no added protection in SPFs above 50.

■ **Understand SPF's limits**. The SPF measures a product's protection from sunburn (UVB rays) but not other types of skin damage (UVA rays). Thus, even a high SPF product can still be weak in protecting against UVA's DNA damage, accelerated skin aging, and skin cancer.

■ **Buy sunscreen marked "broad spectrum**." This means that it protects against both UVA and UVB radiation. However, be aware that the UVA protection in these products can still be comparatively weaker.

■ **Get help finding less-toxic and more-effective products with EWG's online database and app.** It has data and ratings on specific sunscreen, lotion, and lip products.You can search by brand, specific product name, or ingredients, and sort the results by score. Or explore EWG's best and worst lists. *(www.ewg.org/sunscreen)*

■ **Also see EWG's webpage for its recommendations for improving regulations, to better protect and inform consumers.**

Your full sun protection plan

It's essential that sunscreen be just one component of your sun protection plan. Also follow this key sun protection advice:

Shield your skin with shirts, pants, shorts, and a hat. **Wear sunglasses** to protect your eyes from UV radiation. **Avoid mid-day sun (10 am to 2 pm).** Instead, go outdoors in early morning or late afternoon. **Find or create shade** when you're out, by bringing an umbrella, picnicking under a tree, or taking a canopy to the beach. **Use extra caution near water, snow, and sand**, as they reflect and amplify the sun's rays. **Avoid getting burned**; this damages your skin and increases your skin cancer risk.

Also protect children outdoors. Keep infants in the shade. Follow age advisories on sunscreen products, including warnings for infants younger than 6 months. Send sunscreen with your child to daycare and school, and ask about the organization's policies for application. Be sure there's shade in their play area. **Try to keep older children inside during the mid-day peak**. According to SCF, a bad sunburn in childhood or adolescence doubles the risk of melanoma later in life.

More Tips for a Healthier Summer

■ **Household vinegar is a handy, cheap, and less-toxic way to knock out any weeds peeking through concrete and pavement cracks**. Just pour a little on! I get it by the gallon for household uses. There are also stronger commercial products. Note: Vinegar is non-selective, so don't use it near plants you want to nourish.

■ **Avoid toxic insect repellants, such as DEET**. Learn more via the STEP Index under **Bug Repellants**.

■ **Protect your teenager from toxics at their summer workplace**. They have a right to be safe. Learn more about the common risks, as well as possible health symptoms, via the STEP Index under **Teenagers**.

You might also want to check out the EPA's online tool for identifying the expected daily UV levels in your area, so you can see when risks are high or low. UV levels vary because of the seasons, weather, and ozone depletion. (*www.epa.gov/sunsafety/uv-index-1.)*

For more sun safety tips, see *www.ewg.org/sunscreen/top-sun-safety-tips.*

To read an industry-oriented response to concerns about ingredients, see *www.skincancer.org/prevention/sun-protection/sunscreen/sunscreens-safe-and-effective.*

ADDITIONAL SOURCES: www.melanoma.org/understand-melanoma/preventing-melanoma/facts-about-sunscreen • www.womenshealthmag.com/beauty/6-scary-sunscreen-ingredients-and-6-safe-spf-products • https://well.blogs.nytimes.com/2013/05/27/the-new-rules-for-sunscreen/?_r=0

Disclaimer: This newsletter offers general summary content for informational purposes only. It is not intended as medical advice. Please do your own research on topics of interest to you, and consult with your medical professional to make appropriate choices for your particular health situation.

ABOUT STEP

The Next STEP (TNS) is published six times a year by the **Sebastopol Toxics Education Program** (STEP). **STEP is a project of the City of Sebastopol**, implemented by local citizen volunteers. **STEP's mission** is to support city residents in reducing their toxic use and exposure, creating a healthier and safer Sebastopol for everyone.

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