



What are Summer's Top 3 Toxins? And how to avoid them without missing all the fun!

Message from Milly

Happy summer everyone!

I hope you all enjoyed a rollicking Fourth of July celebration and are savoring this unusually mild southern summer.

Today, we're going to talk about what I consider summer's top 3 toxins. Which are (drum roll please):

1. Sunscreen
2. Synthetic bug spray
3. Chlorine

Despite numerous safety warnings (from even mainstream sources), the first two, sunscreen and synthetic bug spray, are still used profusely on children and adults.

Fortunately, safer alternatives are now widely available. The key is to know how to spot a truly safe, non-toxic product vs. a pseudo-safe/green-washed product...and there are plenty of the latter out there.

Plus, it's also important to temper the amount of any type of sunscreen you use on your children for sake of their health. We'll dive into that more coming up.

Chlorine, on the other hand, is pretty unavoidable if you enjoy swimming and pool parties. But there are simple and effective steps you can take to minimize exposure and absorption.

Summer is meant to be fun and joyful, especially for the children. With these tips, you can make it a healthier and safer season too.

Blessings to all,

-Milly



Toxin #1: Sunscreen

Would you believe the ingredients in your typical sunscreen could be worse for your health than getting



a sunburn?

That's because common active ingredients like, oxybenzone and avobenzone are endocrine-disruptors and have been associated with cancers, low testosterone in boys, issues with birth weight, a higher risk of endometriosis, impaired thyroid hormone production, and an association with breast and other cancers.*

What's really awful, is that the United States allows for much higher concentrations of these chemicals than European products!

These chemicals have been proven to be absorbed into the blood stream via the skin or lungs (which is why I do NOT recommend aerosol sprays) where they can exist for weeks after application.*

A MUCH Safer Option: Mineral-Based Sunscreens

Sunscreens made with zinc oxide or titanium oxide, have been proven safe and effective for blocking UVA/UVB rays. The only potential safety issues come from inhalation, so PLEASE give up the sunscreen sprays---natural or not!

It's now also recommended that everyone get some unprotected sunshine daily to optimize vitamin D levels, support eye health, prevent chronic disease, support healthy serotonin levels which helps improve sleep and mental health and increase happiness.**

The right amount depends on your skin type but usually 10-30 minutes will do it. And you may wish to take more sun depending on your skin, base tan, history of skin issues, how strong the sun is that day, etc.

For help choosing a safer sunscreen, check out the [Environmental Working Group's Safer Sunscreen Guide](#).

References:

*<https://www.ewg.org/sunscreen/report/the-trouble-with-sunscreen-chemicals/>

**<https://www.healthline.com/health/depression/benefits-sunlight#sun-safety>

Summer Toxin #2: Synthetic Bug Spray

With concerns about insect-borne diseases like Lyme Disease and Rocky Mountain Spotted Fever, it is prudent to use bug

spray.

However, it's important to understand that the active ingredients in synthetic bug sprays are insecticides. And when we spray them on we're absorbing them via the skin and respiratory system.

DEET is the most popular active ingredient in most synthetic bug sprays. But, its benefits may not outweigh its risks.

Here are some of the potential toxicity side effects of DEET:

- Skin and eye irritation
- Dangerous to aquatic life (long-term)
- Irritates mucous membranes
- Central nervous system disturbances if ingested
- Disorientation
- Staggering gait
- Slurred speech
- Crying out
- Episodes of stiffening into a sitting position, extending of extremities, flexing of the fingers and dorsiflexing the toes.
- Jaundice
- Aplastic anemia
- Bleeding
- Convulsive seizure or death.
- Coma.

Need I go on?

For all the details, you can visit DEET's [Compound Summary on the National Institutes for Health website](#).

What to Use Instead:

Essential oil-based products have been used for centuries to repel bugs (and ticks) safely and effectively.

Geranium, cedarwood, citronella, eucalyptus, and clove are great as overall mosquito and tick repellents. Just dilute with carrier oil, apply, and go.

There are also some excellent premade all-natural bug sprays like Repel, which contains lemon eucalyptus, the only essential oil the CDC deems as effective as DEET, and BuzzAway.

Tree Hugger has a helpful article on this here: [The 7 Best Natural Insect Repellents of 2021](#), and I also like this recipe for homemade tick spray using rose geranium oil: <https://www.pestguides.com/how-to-use-rose-geranium-oil-for-fleas-and-ticks/> (though I cannot vouch for its effectiveness on animals).

And if for some reason you feel you must use a DEET-containing product, consider only applying it to your shoes in an outdoor area (and don't wear them indoors or in your tent).



Summer Toxin #3: Chlorine

There are few things more refreshing than diving into a pool on a hot summer day.

If you're lucky that pool would be a salt water pool with little, if any, chlorine.

However, most of us swim in chlorinated pools and even salt water pools usually contain some chlorine.



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This isn't all bad because chlorine serves a purpose as a disinfectant. However, it's also a pesticide*, a poison, a skin, eye, and lung irritant, and produces what's known as disinfection by-products or DBPs. These are formed from chlorine interacting with nitrogen from human cells, urine, sweat, etc. And they are real cause for concern as they've been shown carcinogenic and genotoxic when ingested or absorbed through the skin and lungs. **, ***

If you don't swim every day and/or you have your own outdoor pool and keep a low-level of chlorine, this probably isn't a big deal. However, public and private pools (in gyms, clubs, etc.) contain several times more chlorine than in-home pools, and levels can vary greatly based on who is adding it and when.

Regardless, here are some steps you can take (besides avoiding chlorinated pools altogether) to absorb less chlorine:

- Shower before entering. Not only does this keep the pool cleaner and reduce nitrogen levels, but it also reduces chlorine absorption via the skin.
- Wear goggles to protect your eyes.
- Shower well with non-toxic soap and conditioner right after swimming to remove excess chlorine.
- Teach your children NOT to drink pool water or play with it in their mouths. If you have to bribe them with juice boxes, do it.
- Don't pee in the pool! Seriously, it causes more nitrogen which requires more chlorine and produces more DBPs.
- Choose an outdoor pool to minimize chlorine inhalation.
- Inquire with the pool's staff about when they "shock", as this is typically when chlorine levels are highest.

And if you can find a non-chlorinated or lightly chlorinated pool, all the better.

Swimming in fresh water is also great, but be sure to check the safety/pollution status using swimguide.org before diving in (levels of industrial chemicals in rivers, lakes, etc. can be far worse than chlorine in a pool).

Enjoy the rest of your summer in safety and good health!

References:

[*https://emergency.cdc.gov/agent/chlorine/basics/facts.asp](https://emergency.cdc.gov/agent/chlorine/basics/facts.asp)

[**https://academic.oup.com/aje/article/165/2/148/98015](https://academic.oup.com/aje/article/165/2/148/98015)

[***: https://ehp.niehs.nih.gov/doi/10.1289/ehp.1001965](https://ehp.niehs.nih.gov/doi/10.1289/ehp.1001965)