



The Environmental Defence Guide to **Sunscreen**



You slather on sunscreen to keep your family from getting burned by the sun. But, are you getting burned by toxic sunscreen and misleading labels? Just when you thought you were being safe and wise by using sunscreen, you could be exposing yourself to nasty, cancer-causing chemicals, or using a product that doesn't protect you from the worst effects of sun exposure.

INGREDIENTS Most brands of sunscreen contain toxic chemicals, which put you at risk when you're making efforts to be safe. Studies have detected sunscreen chemicals in mothers' milk, so developing fetuses and newborns may also be exposed to the chemicals we put on our skin.

The worst of the bunch are oxybenzone and octinoxate, which also happen to be prevalent in Canadian sunscreen. Oxybenzone mimics estrogen, alters sperm production in animals, and has been associated with endometriosis. Octinoxate acts like a hormone, and, based on animal studies, causes reproductive system, thyroid, and behavioural alterations. Both chemicals are also allergens.

More moderate in the toxic department are homosalate, octisalate, and octocrylene. Homosalate disrupts estrogen, androgen and progesterone, and has toxic breakdown products. Octisalate has been shown to penetrate skin, and octocrylene is a common allergen.

The healthier ingredients are titanium dioxide, zinc oxide, avobenzone (which is often stabilized with octisalate, above) and mexoryl SX. None of these have any evidence of hormone disruption, and only avobenzone is an allergen. Titanium dioxide and zinc oxide do present inhalation concerns, so it is best not to use these, or other sun screen products, in a spray format, but they are safe and effective to use on your skin.

SUN PROTECTION

If you're going to the trouble to slather it on, you want to make sure your sunscreen is offering you adequate protection. But some sunscreen ingredients could be doing just the opposite. Vitamin A is an antioxidant that is believed to slow skin aging. But it may speed the development of skin tumors and lesions when applied to the skin in the presence of sunlight.

Also, don't assume that buying a sunscreen with a high SPF will do the job. Studies show that high SPF sunscreens don't provide much more protection than moderate SPFs. High SPFs also lead people to believe they can stay in the sun longer, resulting in more sunburns and damage. And in order to gain those high numbers, high SPF products contain higher concentrations of sun-filtering chemicals, which can present added health risks for little added benefit.

TIPS FOR CONSUMERS

- Reapply sunscreen every two hours (even if you're using sweat/water resistant or high SPF sunscreen). Apply 15 minutes before sun exposure.
- Try to limit time in the sun between 10am and 2pm, when rays are most intense.
- Watch out for vitamin A (in the form of retinol, retinyl palmitate, Alpha Hydroxy Acid). This anti-aging ingredient can increase your skin's sensitivity to the sun and the possibility of a burn.
- Avoid Oxybenzone, which can penetrate the skin, cause allergic skin reactions, and may disrupt hormones.
- Don't count on other products to protect you. There might be SPF in your moisturizer or foundation, but you probably don't use it the way you do sunscreen. In order to be effective, sunscreen needs to be reapplied throughout the day. Makeup and lip products do not offer significant sun protection.
- Don't assume you're safe if you don't look like a lobster. Many sunscreens contain anti-inflammatory chemicals that reduce redness and inflammation caused by the sun. But just because you can't see the effects of sun damage doesn't mean they're not there. Use adequate sun protection and reapply often no matter what.
- Shop for sunscreens with SPF between 30-50. And, did we mention you should reapply frequently? It's the best way to help sunscreen do its job!



FIND OUT MORE

Learn more about toxic chemicals, how to protect your family, and our work, at environmentaldefence.ca



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