Sun Protection 101

What is a Physical vs. Chemical Sunscreen?

There has been an influx of mineral sunscreens on the market and you may be wondering what is the difference to the sunscreen you have been using for years? Most sunscreens, sun creams, suntan lotions, or sunblock's fall into two categories, physical (mineral) sunscreens and chemical sunscreens. Both are types of photoprotective agents in that they protect the skin by minimizing or preventing damage caused by ultraviolet (UV) light. The classification as chemical or physical sunscreens depends on the ingredients; what is protecting your skin from the sun. Some sunscreens use a combination of both physical and chemical agents.

Physical sunscreens use minerals to deflect and reflect the UV rays, this can be thought of as a physical barrier of minerals protecting your skin from the sun. Chemical sunscreens contain a number of compounds to provide a broad spectrum of UV protection and use different chemicals to absorb the high energy UV light and prevent it from harming your skin.

Which Sunscreen is Right for You?

Everyone's skin can react differently to the ingredients in sunscreen. Both physical and chemical sunscreens are effective at protecting your skin from sunburn and skin damage when used properly. It is important to read the label of the product you are using and check the expiration date. If you have allergies to fragrances or chemical ingredients, it is also important to look at the label to prevent reactions. Chemical sunscreens can be irritating to sensitive skin and chemicals may have other side effects. You can utilize the EWG's (Environmental Working Group) website to search the product you are using to get a EWG score. An EWG score of 1 or 2 indicates that the product is Low Hazard, a score of 3-6 indicates Moderate Hazard, and a score of 7-10 indicates a High Hazard. This may help you choose a product best suited to you and your family.

10 Ways to Protect Yourself from the Sun:

1. Choose a broad-spectrum sunscreen with an SPF of 30 or greater.
2. Avoid being in the sun during peak hours when the UV radiation is at its highest, this is usually between 11:00 am and 3:00 pm.
3. Apply your sunscreen at least 15 minutes before exposure to the sun.
4. Reapply sunscreen every 2 hours (if you haven't been in water or sweating).
5. Reapply sunscreen immediately if you have been sweating or have been in water.
6. Wear protective clothing and hats to shield yourself from the sun.
7. Don't forget sun protection for your lips – choose a lip balm with an SPF.
8. If using an insect repellent, apply your sunscreen first.
9. Wear sunglasses with UVA and UVB protection.

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10. Keep babies (especially younger than 6 months old) out of the sun and out of heat. Ask your health care provider which sunscreen is best to use on their sensitive skin.

Want to Know More?

What is UV? Ultraviolet (UV) radiation refers to invisible short wavelength light rays from the sun that can range from 100 – 400 nanometers (nm). For reference, a nanometer is 1 billionth of a meter. The shorter the wavelength, the more harmful the UV radiation.

What is UVA? A long-range form of ultraviolet light (UV). UVA can easily travel though our ozone layer with 95% of it reaching the earth. UVA has a wavelength between 320 – 400nm. UVA can penetrate deep beyond our skins surface and is responsible for premature skin ageing, immediate skin tanning, and certain types of skin cancer.

What is UVB? Short-range form of ultraviolet light (UV). UVB is largely absorbed by our ozone layer with only 5% of UVB rays reaching the earth. UVB has a wavelength between 280 – 320nm. UVB only penetrates the outer protective layer of our skin, and is responsible for sunburns, delayed tanning, and most skin cancers.

What is SPF? Sun Protection Factor (SPF) is a ratio to measure the amount of UV radiation required to burn protected skin, compared to the amount of UV radiation required to burn unprotected skin. Therefore, if a sunscreen has an SPF of 30, it will protect the skin until it is exposed to 30 times more UV radiation than is required to burn the skin (if the sunscreen isn't used).

What is broad spectrum? Broad-spectrum sunscreens provide protection from a broad range of UV radiation which means it provides protection from both UVA and UVB sun rays.

References

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