

What's the Difference Between UVA and UVB Rays?

UVA and UVB rays are the two basic types of ultraviolet rays present in sunlight; both can play a role in the formation of skin cancer.

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While the warmth of sunlight can be inviting after cold winter months, it is important to remember healthy habits to keep your skin safe in the sun. Prolonged and frequent sun exposure without the proper protection can result in an uncomfortable sunburn at best and significant skin damage at worst.

UVA and UVB rays are the two basic types of ultraviolet (UV) rays present in sunlight. They are the most damaging to the skin, and both play a major role in [skin cancer](#) formation.

UVA rays

Although UVA rays are more present in sunlight than UVB rays, UVA rays are less intense than UVB rays. We are exposed to large doses of UVA rays throughout our lives. They penetrate deeper into the skin than UVB rays, causing long-term skin damage and playing a greater role in premature skin aging (i.e. the formation of wrinkles).

UVA also causes more genetic damage than UVB in skin cells where most skin cancers arise. Genetic damage can result in the formation of cancerous cells in the body.

UVB rays

UVB rays vary in intensity, depending on the season, location, and time of day. The most significant amount of UVB hits the U.S. between 10 am and 4 pm, between April and October. Whereas UVA penetrates the skin, UVB causes damage in the protective outer layers of the skin, resulting in sunburns or sun poisoning.

Sunburns and tans are the result of the skin's cellular DNA's attempt to trying to protect itself from further DNA damage. This damage can increase the chance of developing [melanoma](#) or other skin cancers.

There are [plenty of measures](#) you can take to keep yourself safe from sun exposure:

- Use [sunscreen](#). Always use sunblock with an SPF of 30 or more and reapply every two hours (or immediately after swimming). Remember to replace your sunscreen every year: Some ingredients in sunscreen become less effective over time.
- Wear protective clothing. Don't be afraid to wear long sleeves or cover-ups. Protective clothing is often more effective in preventing sun damage than sunscreen. A simple wide-brimmed hat or baseball cap can help protect you from harmful UV rays. Don't forget the sunglasses!
- Seek the shade when possible, especially between 10 am and 4 pm when the sun is the strongest. If you're heading to the beach, try to go later in the day and bring an umbrella.
- Do not use tanning beds. Tanning beds contain harmful UVA rays. This can put you at a higher risk of developing melanoma.
- Know your [ABCDEs](#). It is important to regularly check your skin for anything out of the ordinary. Freckles and moles are often harmless, but it is important to perform regular self-exams, following the ABCDEs (asymmetry, border, color, diameter, evolution). Contact your doctor if anything seems unusual.

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