

# EltaMD<sup>®</sup> Sun Care FAQ



## What's the difference between physical and chemical sunscreens?

- **Chemical sunscreens absorb the sun's rays.**  
They contain chemicals such as avobenzone, aminobenzoic acid and cinnamates. Because chemical sunscreens are absorbed into the skin, they may cause irritation.
- **Physical sunscreens deflect the sun's rays.**  
Physical sunscreens contain ingredients such as zinc oxide or titanium dioxide. They create a photostable layer on the skin's surface and are not absorbed into the skin. All EltaMD<sup>®</sup> sunscreens are physical formulas.

## What is Sunburn Protection Factor (SPF) and how is it measured?

### The US Food and Drug Administration describes SPF:

"There is a popular misconception that SPF relates to time of solar exposure. For example, many consumers believe that if they normally get sunburn in one hour, then an SPF 15 sunscreen allows them to stay in the sun 15 hours (i.e., 15 times longer) without getting sunburn.

SPF	UVB RAYS BLOCKED
2	50%
10	90%
15	94%
30	97%

"This is not true because SPF is not directly related to time of solar exposure but to *amount* of solar exposure. Although solar energy amount is related to solar exposure time, there are other factors that impact the amount of solar energy. For example, the intensity of the solar energy impacts the amount.

"Because of the various factors that impact the amount of solar radiation, SPF does not reflect time in the sun. In other words, SPF does not inform consumers about the time that can be spent in the sun without getting sunburn. Rather, SPF is a relative measure of the amount of sunburn protection provided by sunscreens. It allows consumers to compare the level of sunburn protection provided by different sunscreens."

Source: US Food & Drug Administration, 12/09

## Why is zinc oxide better?

**Broader UV spectrum coverage:** Zinc oxide protects from 290nm to 390+ nm, providing the broadest range of UV protection. The chart on page 13 shows that zinc outperforms other widely used sunscreen ingredients. EltaMD sunscreens with zinc oxide provide true broad-spectrum protection and block UVB burning rays and UVA aging rays.

**Superior photostability:** Physical UV protectors such as zinc oxide and titanium dioxide protect by reflecting UV rays. These reflective agents are not substantially changed when exposed to UV rays. As a result, they provide longer lasting UV protection. Chemical UV protectors such as avobenzone, oxybenzone, octocrylene, octisalate and homosalate perform by absorbing UV. As these ingredients absorb UV they decompose and eventually UV protection is lost.

**Sensitivity-free:** Zinc oxide is a natural compound that is safe for even the most sensitive skin types, including post-treatment skin.

EltaMD<sup>®</sup>: The Science of Sun Care Delivered Safely

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