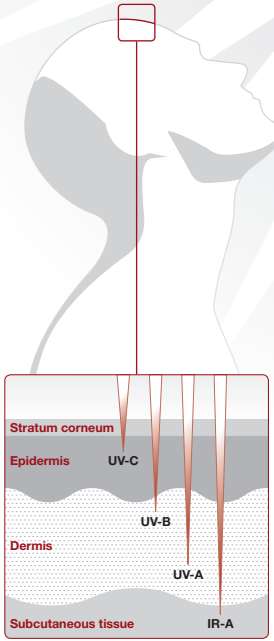
tiroler nussöl

Sun Manual

Sun protection? Of course!

Sun is life. It determines the rhythms of our days and nights, our seasons, and, through its influence on outside temperatures, even our choice of clothing. And this is where the danger lies, since when the sun is shining brightly we often choose what we wear according to the principle of “less is more.” When we do this, we only have positive feelings in mind: the desire to feel the warming rays of the sun on our bare skin or to get an attractive tan that makes us look healthier. In the process it’s easy to overlook the fact that our skin can only tolerate a certain amount of direct sunlight and that exceeding this limit can leave behind visible marks. The best-known sign of carefree enjoyment of the sun is an apparently harmless sunburn.

However, what many of those affected consider to be a matter of no concern can have a powerful effect on the skin, and, despite the skin’s astonishing ability to repair and regenerate itself, empirically cause it to age faster. In the worst-case scenario, sunburns (particularly if they are common during childhood and adolescence) can lead to serious skin damage and even life-threatening skin diseases.



Cause of sunburn

Sunburn is caused by the portion of sunlight made up of UV radiation. Sunlight consists of the following:

Ultraviolet (UV) radiation, approx. 6%
- Not perceptible to our senses
- Wavelength: 100–400 nm

UV radiation in turn is divided into:

Very shortwave UV-C radiation
Depth of skin penetration is insignificant

Shortwave UV-B radiation
Depth of skin penetration approx. 50–100 µm

Longwave UV-A radiation
Depth of skin penetration up to approx. 5 mm

Visible light, approx. 50%
- Wavelength: 400–750 nm

Infrared (IR) radiation, approx. 44%
- Thermal radiation
- Wavelength: 780 nm–1 mm

UV-C radiation is almost completely absorbed by the ozone layer. It is not detectable at our latitudes and in most cases originates from artificial sources.

Up to 90% of shortwave UV-B radiation is absorbed by the ozone layer. It causes slow, sustained tanning of the skin and the formation of a protective layer, which is called hyperkeratosis. Negative effects can be sunburn, with skin cancer as a longterm consequence.

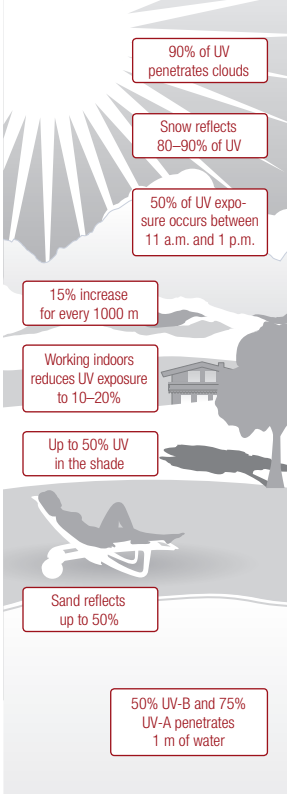
Longwave UV-A radiation is hardly absorbed by the ozone layer at all and penetrates more deeply into the skin. It causes the skin to tan rapidly, but not for very long. Known negative effects are light-related skin rashes and allergic reactions (sun allergy), sunburn, and, in the longer term, accelerated aging due to the destruction of elastic skin structures. UV-A radiation also increases the risk of skin cancer.

Prevention is the alpha and omega

The only reasonable way to reduce long-term sun-related damage is preventive protection. Because once your skin has turned red, it's already too late!

Effective prevention includes responsible behavior and the use of an appropriate sunscreen with effective filter combinations. Skincare after sunbathing is always recommended to restore the skin's lost moisture and to support regeneration. If sunburn is already present, cooling and moisturizing the skin can help alleviate symptoms and the pain from burning. However, pain relief does not mean that long-term damage from the sunburn has been prevented. According to current scientific knowledge, moisturizing care following acute sunburn cannot reverse the resulting damage to the skin!

Everyone has their own risk of sunburn!
The risk of sunburn is not the same for everyone. People with light skin are at a much higher risk than people with dark skin, and location and time of year also play a role in the question: how long can I stay in the sun unprotected?



The skin types

Classifying human skin according to skin types is helpful in determining individual protection time and therefore the personal risk of sunburn. Determining the skin types depends on the skin pigmentation. Hair and eye color are also an indication of the skin's sensitivity. But even people with dark hair can have very light skin and therefore a high risk of sunburn!

	Definition	Most common phenotype	Individual protection time
Skin type I	· Redness "always" · Hardly any tanning	· Very light (white) skin, possible freckles · Blue/blue-gray eyes · Ruddy, reddish, blonde to ash-blonde hair	5-10 min.
Skin type II	· Redness often · Limited tanning	· Light skin tending to redness · Blue or green-gray eyes · Blond to medium-blond hair	10-20 min.
Skin type III	· Redness rarely · Moderate tanning	· Light-brown skin · Green and brown eyes · Blond to dark-blond hair and light-brown hair	20-30 min.
Skin type IV	· Redness "never" · Strong tanning	· Brownish to brown skin · Brown eyes · Brown to black hair	30-40 min.
Children's skin	**Extremely sensitive, thin horny layer, low pigment formation**		**5-10 min.**

UV index/Radiation intensity

An individual UV radiation value, which is also the decisive factor in the choice of sun protection, can be determined for every location. This index indicates the highest daily value of solar irradiance that causes sunburn. The scale goes from 0 to 12. Values higher than 8 are currently rarely seen in Central Europe.

Index and skin type

Illustration	Radiation strength	Protection
	**Weak**	No protection needed
	**Medium**	Protection needed: hat, T-shirt, sunglasses, sunscreen
	**High**	Protection needed: hat, T-shirt, sunglasses, sunscreen
	**Very high**	Additional protection needed: avoid spending time outdoors if possible
	**Extreme**	Additional protection needed: avoid spending time outdoors if possible

From this value it's possible to derive how much time a certain skin type will take to develop a sunburn. The lower the value, the lower the danger of getting a sunburn. Depending on skin type, this results in the choice of the following sun protection factors (SPF):

Empfohlener Lichtschutzfaktor (LSF) nach Index und Hauttyp

UV index	Children's skin	Skin type I	Skin type II	Skin type III	Skin type IV
3-4	SPF > 25	SPF 15	SPF 10 – 15	SPF 10 – 15	SPF 10
5-6	SPF > 25	SPF 15 – 20	SPF 15	SPF 10 – 15	SPF 10 – 15
7-8	SPF > 25	SPF 25 – 30	SPF 15 – 20	SPF 15	SPF 10 – 15
9 and over	SPF > 25	SPF 25 – 30	SPF 20 – 25	SPF 15 – 20	SPF 15

You can find information about the current UV index on the Internet at **www.dwd.de**

Active sun protection is vital!!

Sunscreens help you avoid sunburn while at the same time reducing your risk of developing certain types of skin cancer. In the process sunscreen increases the individual protection time derived from your skin type as follows:

Individual protection time (in min.) times light-protection factor

= maximum time in the sun,

e.g. 10 (min.) × 30 (SPF) = 300 minutes / 5 hours

The generally recognized sun protection factor is related to UV-B radiation. Since UV-A is also among the risk factors, it is important that UV-A is also indicated separately on your sunscreen's package. The letters UVA inside a circle denote products that meet the currently valid requirements for UV-A protection according to COLIPA.

It depends on the filters

Sun protection products work by means of filters that protect the skin from radiation. A distinction is made here between physical and chemical filters. Chemical or organic filters absorb the UV radiation and transform it into heat, while physical filters (also called inorganic or mineral filters) reflect and disperse it.

In modern sun protection products both options are skillfully combined, which helps achieve stable medium and high light-protection factors. Antioxidants such as vitamin E are also effective against oxidative skin damage. Too many different ingredients, which may unnecessarily increase the risk of incompatibility with skin, are to be avoided.

Tiroler Nussöl meets all the requirements for optimal skin protection. In addition to the traditional green walnut shell extract, sun milk preparations and lip protection in the original Tiroler Nussöl product group contain a balanced combination of physical and dermatologically tested chemical filters. Tiroler Nussöl's suntan oil protects against UV radiation solely by means of chemical filters that are tolerated by the skin. In addition to the described protective effect, all Tiroler Nussöl products contribute to intensive skin care with their high-quality ingredients. As a result, moisture is optimally retained in the skin. The skin appears firm, feels soft, and retains a smooth, silky sheen.

Tiroler Nussöl makes it possible for people who are hungry for sunlight to enjoy the sun worry-free if they use the product appropriate for their circumstances and observe the additional safety measures that are recommended.

The indicated sun protection factor is always based on the correct use of the respective sun protection product. An important criterion here is applying the right quantity to the skin. 2 mg/cm is the minimum quantity that should be used to achieve the indicated SPF. This corresponds to about three tablespoons for an adult body. For example, if only 0.5 mg/cm is applied, only about a quarter of the indicated SPF is achieved. This means that if the indicated SPF is 20, the achieved sun protection factor will only be 5!

Ten tips for sunbathing in moderation

1. Allow your skin to adapt to the sun slowly.
Depending on your skin type, don't expose your skin to the sun for too long!

2. Stay in the shade on sunny days with a high UV index and avoid the midday sun between 11 a.m. and 3 p.m. That's when solar radiation is at its strongest!

3. If you're going to stay in the sun for a long time, always wear headgear that also protects your forehead, nose, and ears. And wear appropriate clothing that protects you from UV light!

4. Apply cream to the uncovered areas of your skin at the right time, before you expose them to the sun, and use the right sun protection factor (SPF)!

5. Apply sun protection evenly and generously, because small amounts reduce protection.

6. Always reapply sun protection after bathing or swimming or if you've been perspiring!

7. Bear in mind: reapplying sun protection does not extend the amount of time you can remain in the sun. The calculated protection time can only be used up once every 24 hours!

8. Never expose infants and young children to direct sunlight.
Use high sun protection factors (SPF >25) and protective clothing.

9. Medications can increase the skin's sensitivity to light or trigger allergic reactions – ask your treating physician or the pharmacist if you are taking any drugs!

10. Cosmetics, deodorants, and perfumes can lead to photoallergic reactions or pigment disorders and should therefore not be used when sunbathing.

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