INDULGE YOURSELF AFTER A SUNNY DAY:

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Your partner for the best personal care
Science for healthy skin

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Ideal for pH 5.5 healthy skin

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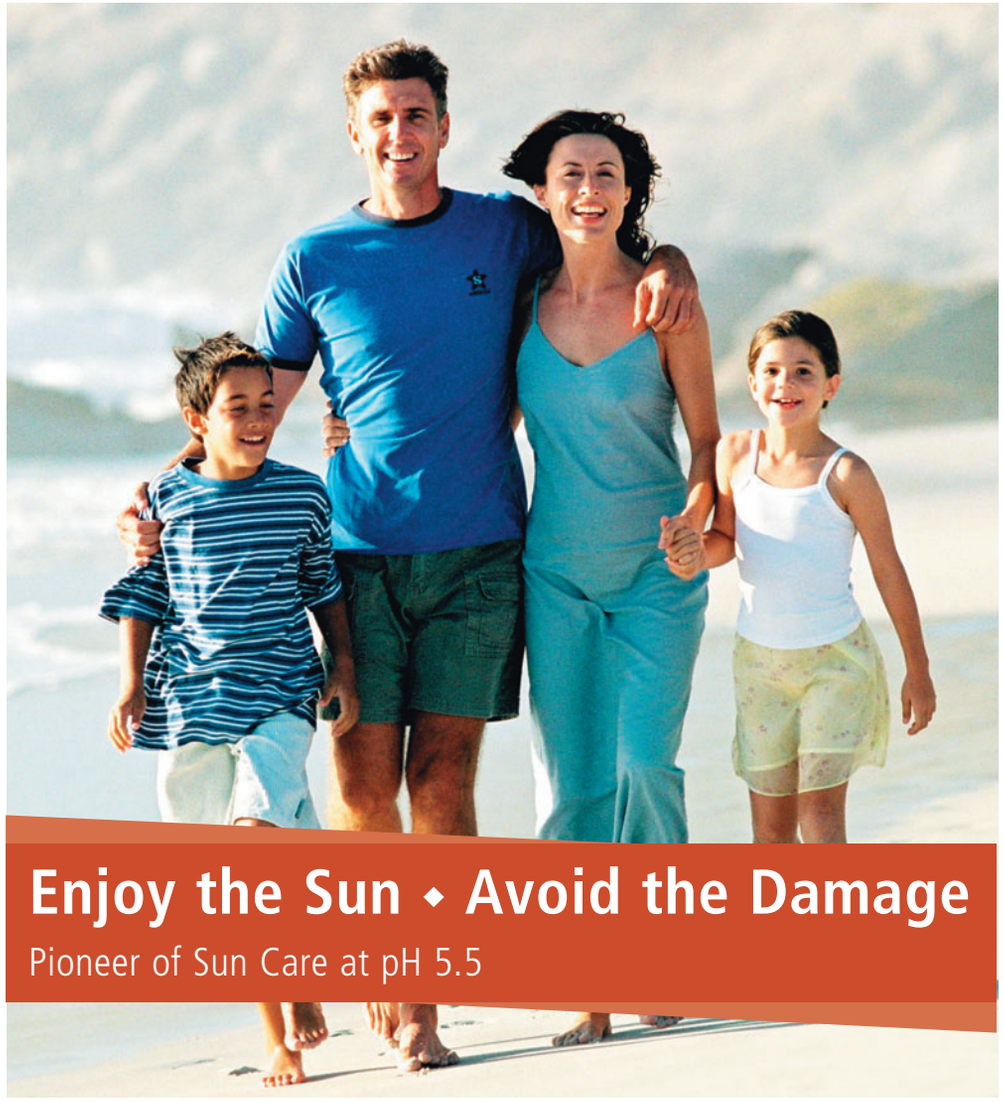
SUN CARE



Enjoy the Sun ◆ Avoid the Damage

Pioneer of Sun Care at pH 5.5

WHAT ARE DAMAGING EFFECTS UNDER THE SUN?

Sunburn
Allergies
Light induced reactions to the sun
Premature skin ageing
Skin irritations
Dehydration
Cancer

THE STRUCTURE AND FUNCTION OF YOUR SKIN

The skin is the human being's largest organ. It covers an area of 1.5 to 2 square metres, and accounts for around 20% of the body's weight.

The skin provides protection from:

- UV-Radiation
- Heat or cold
- Mechanical influences (pushing, blows, cuts)
- Chemical influences (dust, solvents, acidic or alkaline solutions, harmful gases etc.)
- Micro-organisms (bacteria, viruses, fungi)
- Dehydration

This sensory organ is sensitive to:

- Temperature stimuli
- Tactile perception (shapes, surfaces)
- Contact by touch (hitting, caressing, tickling etc.)
- Pain

Our skin is a visible indicator for all those around us. Beautiful, healthy skin is appealing, whilst damaged, diseased or aged skin is perceived as less attractive. The condition of our skin is therefore a vital factor affecting our self-confidence. We only feel comfortable, if our skin is healthy and are very selective about what we allow to 'get under our skin'.

THE SKIN CONSISTS OF THREE LAYERS:

Subcutaneous fatty tissue,
which is up to ten centimetres thick, with fat deposits, functions include nutrient storage, shock absorption, heat insulation and keeping the skin firm.

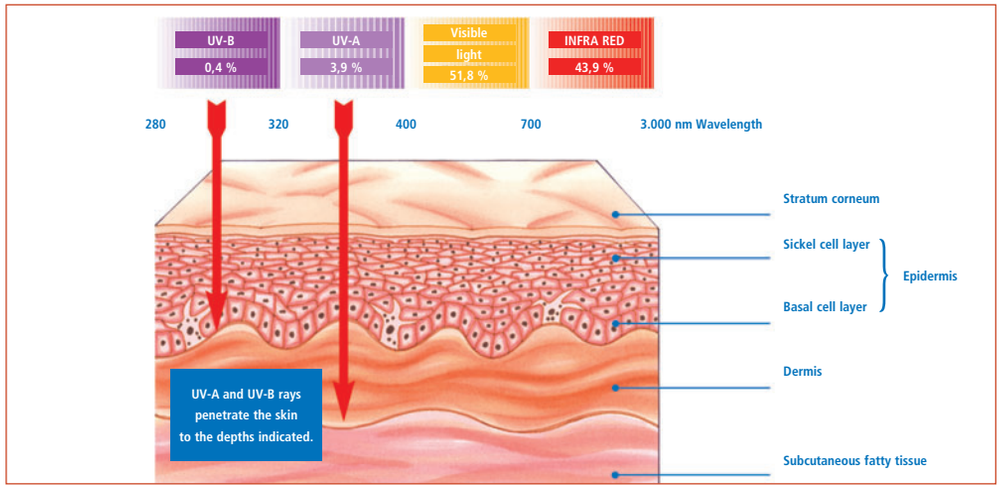
Dermis,
connective tissue with elastic fibres, e.g. collagen, which becomes less elastic with time, blood vessels for supplying the skin with blood, nerve fibres and sensory corpuscles for perception, sebaceous glands, sweat glands, hair roots.

Epidermis (including a living part),
constant formation of new cells at the base of the living epidermis, which are pushed toward the surface by the older cells, production of protein (keratin) and lipids (fats), the cells die after about 14 days at the transition to the horny layer of the epidermis (stratum corneum), deposited between the cells are pigment cells (melanocytes) and immune cells.

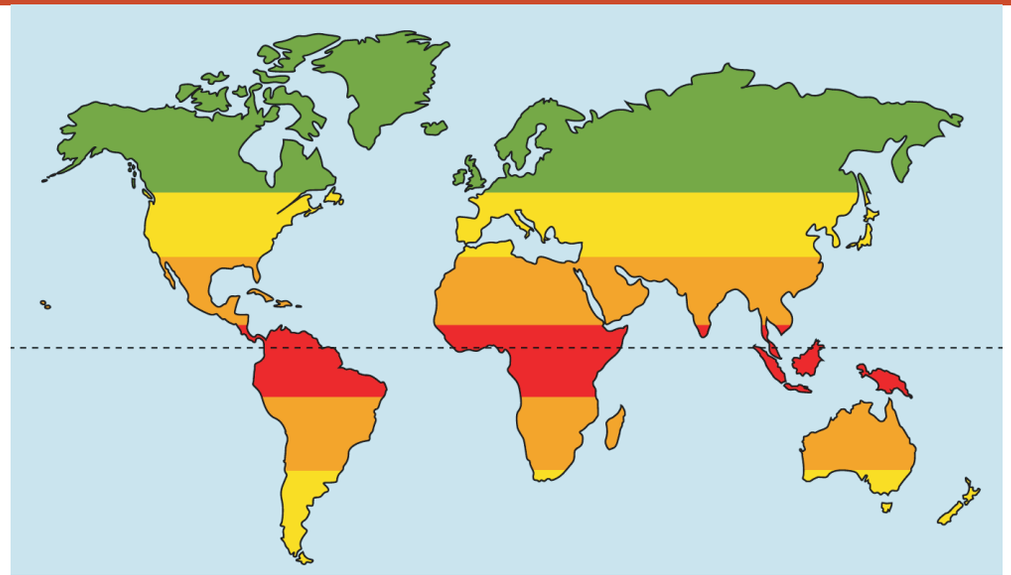
Stratum corneum,
cytoskeletons made of keratin, embedded in a lipid matrix, similar in construction to a brickwork wall, the keratinocytes are pushed upwards by the continuous supply of cells from the living epidermis and are exfoliated (peel off) as microscopic horny scales after a further 14 days. Without the horny layer of the epidermis, the body would lose about 20 litres of water a day through the skin (normal: 0.5 l). This layer, which is only 0.02 millimetres thick acts as an effective barrier to harmful substances, germs and UV light.

Hydrolipid film,
a fine film on the surface of the skin composed of a mixture of sebum and sweat, providing fatty and aqueous components. This acidic out layer plays an important role in fending of infection and maintaining the ecological balance of the skin.

The stratum corneum and the hydro-lipid film also contain natural moisture-retention factors (NMF), which are substances that prevent water from evaporating from the skin surface, by binding it. In conjunction with the barrier effect provided by the brickwork structure of the horny layer and the hydro-lipid film, the moisture-retention factors and the acid mantle ensure adequate hydration of the skin and prevent harmful substances from entering. The skin remains smooth, supple and robust as long as barrier function, moisture-retention factors and acid mantle are intact.



Source: German Association for Dermatological Prevention



Source: German Association for Dermatological Prevention

Low – UV-index: 0-1, low danger of sunburn

Middle – UV-index: 2-4, danger of sunburn up 30 min.

High – UV-index: 5-7, danger of sunburn up 20 min.

Very high – UV-index: >8, danger of sunburn in less than 20min.

THE ULTRAVIOLET RADIATION OF THE SUN

The sun not only produces warmth (thermal radiation or infrared IR) and the visible light (spectral colours e.g. rainbow), that we can see, but also rays with shorter and longer wavelengths. For the skin it is mainly the light in the ultraviolet (UV) range that is problematic. We distinguish between UV-A, UV-B and UV-C rays, although practically no UV-C reaches the earth's surface.

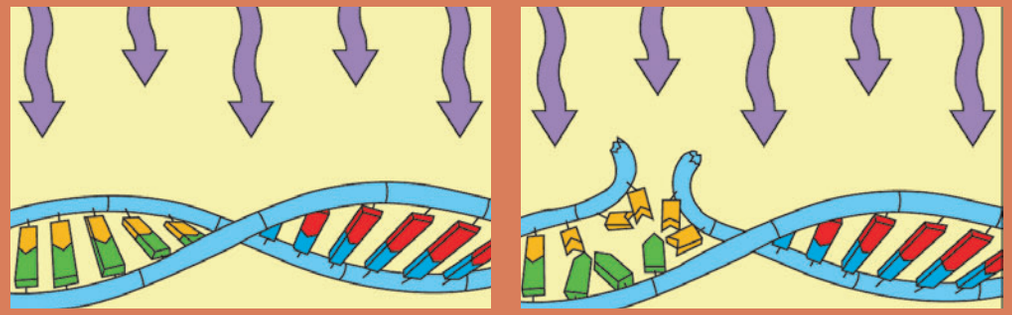
Most of the dangerous short-wave rays are partially reflected, scattered or absorbed by the earth's atmosphere, diminishing or eliminating the radiation altogether before it can reach the earth. UV light is mainly absorbed by ozone in the stratosphere at a height of 19 - 21 km, however water vapour, dust and environmental pollution also absorb these rays at the lower levels. This is why the hole in the ozone layer is considered to be so dangerous as the reduced level of ozone in the higher atmosphere allows much more UV radiation to penetrate to the earth.

There are additional factors which also influence how much UV light reaches the earth's surface. Radiation in high mountainous regions is much more intensive than in lowland areas for instance. The position of the sun also plays a role. The more vertical the position of the sun in relation to the earth's surface, e.g. in the tropics, or during summer in more northerly latitudes, the more intensive the radiation. The daily variation of the position of the sun also influences radiation intensity: it is maximum at midday. Reflected sunlight also increases the amount of radiation. This means that UV radiation in areas with water, light sand or snow is higher.

Furthermore it is important to know that bright sunshine is not necessary for a sunburn, as even when the sky is overcast, sufficient UV light reaches the earth's surface.

The shorter the path travelled by the UV light through the atmosphere, the stronger its effect on the skin.

Intensive UV rays: penetrate into the depth of the skin



Source: German Association for Dermatological Prevention

Diagrams of the DNA Helix
Deep within our cells is DNA - it is nature's computer program for the functioning of our cells.

EFFECT OF THE SUN ON THE SKIN

Part of the UV light reaching the skin's surface is reflected or diffused. The rest is mainly absorbed by the horny layer. UV-B rays only penetrate around 1 mm to the base of the epidermis, while UV-A light can reach the lower levels
of the connective tissue. UV-A and UV-B rays can bring about various changes in the skin.

Sunburn is a frequently observed instant reaction of the skin to too much sun. Under natural conditions it is virtually only ever caused by UV-B rays. UV-B light damages the living skin tissue, amongst other things, by prompting the formation of free radicals. This releases irritants such as histamine and prostaglandin, which cause pain, reddening, swelling and flushing, as well as, blisters by more severe inflammation. Sunburn from UV-A only occurs after very long periods spent in the sun or under turbo sun lamps in the solarium.

UV-B light can bring about chemical changes in our genetic material DNA, which can cause disorders in the reproduction and metabolism of cells. Such damage is dealt with by the body's natural repair systems quickly and reliably, but, if there is frequent exposure to high levels of UV-B light, these repair systems will not be able to cope. Cells may start to mutate. This is the first step towards skin cancer, which may even develop after a time lapse of more than two decades. It is also encouraged by the fact that UV radiation suppresses the immune system, thus hindering the elimination of initial cancer cells during formation. UV-A light can bring about chemical changes in the elastic fibres of the connective tissue found in the

dermis. This speeds up natural ageing processes, which cause the skin to lose its elasticity. Skin that has been exposed to the sun starts to sag and show deep noticeable wrinkles, earlier than skin that has been protected from the sun. UV-A also causes the release of reactive substances called free-radicals (reactive oxygen bonds).

It can also generate genetic mutation (see DNA diagram). Chemical changes in substances on and in the skin produced by the effect of UV light are also the reason behind photo-allergic and photo-toxic skin reactions. They are mainly caused by UV-A in conjunction with naturally occurring substances such as psoralens from meadow grasses, drugs such as tetracycline or substances in cosmetics such as fragrances and UV filters.

Special examples of an allergy to the sun are the so-called Mallorca acnes and polymorphous light erruption. Mallorca acne is mainly associated with oily skin and takes the form of reddening and welts. It is caused by the fat and emulsifiers used in skin care and protective products.

Polymorphous light eruption appears as reddening, welts or blisters. Predominately effecting women and people with dry skin. It generally disappears once the skin has become accustomed to the sun.

The skin is protected from UV rays by melanin, the skin's natural pigment, which is a natural UV filter and the so-called skin thickening of the horny layer resulting in light tanning in just a few hours, UV-B encourages the pigment cells of the epidermis to form melanin, resulting in slower but more intensive tanning. This causes the horny layer approx. 0.02 mm thick to double in size, thus allowing less UV light to reach the living layers of the skin.

TAKE ALTERATIONS OF YOUR SKIN SERIOUSLY:

Pigmentation marks and moles – see your doctor for regular skin check-ups!

Dermatologists recommend regular inspection of the skin by a dermatologist as a preventative measure. Particularly high-risk persons, i.e. very fair-skinned individuals spending a lot of time in the sun, having had many sunburns or a positive diagnosis of skin cancer or a history of skin cancer, should attend annual check-ups.

Looking out for changes in your skin yourself is beneficial.

ABCD as defined by the Cancer Society

A for Asymmetry
Does a pigmentation mark or mole appear more noticeable in its shape not being round or oval ?

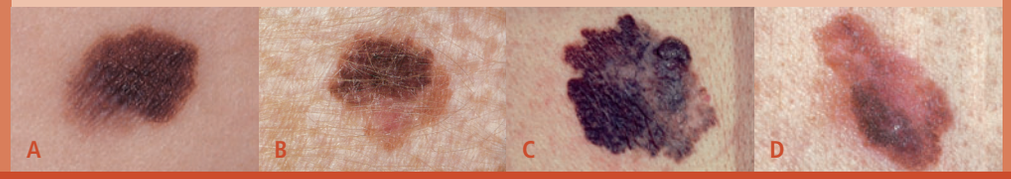
B for Border
The border of a pigmentation mark or mole should be clear and regular. Should its border appear undefined, have an irregular shape be cautious and consult a dermatologist or your family physician.

C for Colour
Should a mole have more than one tone of colouration; watch it closely.

D for Diameter
A pigmentation mark or mole that has a diameter of more than 5 mm should be inspected closely.

Have a family member check the areas of the body that you can not observe for yourself. Should you be unsure, your medical professional is there to help you.

Taking self-sufficient measures towards prevention and immediate action should irregularities occur help you maintain a healthy, happy you.



DIFFERENT SKIN TYPES REACT DIFFERENTLY UNDER THE SUN – HOW ABOUT YOUR SKIN?

The skin is in a position to protect itself against damage caused by UV radiation. Adaptation over thousands of years has resulted in people living in sunny or tropical regions having more effective self-protection mechanisms at their disposal than for example central or northern Europeans.

Sunlight, particularly the UV component, stimulates production of melanin. Pigment-forming cells called melanocytes are located in the deeper living layer of the epidermis. These produce the pigment melanin. Its action as a natural sun protector by absorbing UV light (both UV-A as well as UV-B) coupled with a radical trapping capacity. The ability to synthesise melanin and the distribution pattern of the protective pigment are specified in the genetic make-up of every individual and vary from person to person.

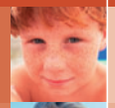
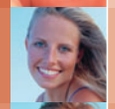
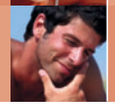
Pigmentation is decisive for individual sensitivity to sunlight. On exposure to solar radiation, this changes to the extent that a tan develops. Individuals who are able to produce little melanin do not get much of a tan and retain their sensitivity to light, while people who are able to produce a lot of melanin are able to get tanned easily and are less sensitive. Being aware of one's personal sensitivity to light is the most important prerequisite for effective sun protection.

If the skin is not exposed to UV light, the deposits of melanin and skin thickening will be lost in time due to the constant natural process of cell renewal.

For people, who live in seasonal climates, this means that in winter and spring the ability of the skin to protect itself is minimal. It takes two to three weeks for the skin to build-up its full protection. Sunburn reduces this self-protection, as it brings about the increase shedding of the skin cells. The skin in fact becomes damaged even before sunburn occurs, leading in the long-term to premature skin ageing and a high risk of skin cancer. Children are much more sensitive to the sun than adults, due to the looser structure of their. skin. This is why it is extremely important that children are protected against sun exposure.

Unpigmented skin such as scars or that found in patients suffering from the disease vitiligo has a much lower level of self-protection. The higher the intensity of the rays, the sooner the skin will be damaged.

It is important to decide, how to categorize your skin type for the best possible protection. The table below will help you judge the self-protection time of your skin (the time that can be spent in the sun without sun protection before burning occurs).

Skin type		Colour of hair, skin	UV sensitivity, sunburn, tanning	Self-protection time – No sunburn up to:
I		• Blond to red hair • Pale skin with freckles	• Very Sensitive • Does not tan • Always becomes sunburned	5-10 minutes
II		• Blond hair • Pale skin with occasional freckles	• Sensitive • Tans lightly • Generally becomes sunburned	10-20 minutes
III		• Dark blond to brown hair • Medium complexion	• Less sensitive • Tans lightly • Seldom becomes sunburned	20-30 minutes
IV		• Dark hair • Dark complexion	• Not sensitive • Tans deeply and fast • Almost never burns	Over 45 minutes

SUN PROTECTION PRODUCTS

Staying in the shade, covering up with clothes and slowly getting used to the sun are all effective ways of protecting ourselves from the sun, but they are not practical at all times or for the entire surface of the skin.

To prevent damage to the skin, it is essential to use sun protection products, with an adequate SPF = sun protection factor, for your skin type and the climatic circumstances. They contain filter systems, which prevent the sun's rays from penetrating the skin. Such products reduce the amount of UV light that reaches the living layers of the skin causing damage. The level of protection varies and has to be chosen according to the intensity of the UV light and the individual sensitivity of the skin to ensure optimum protection.

There are two options for protecting the skin from UV light with sun protection products:

- The use of chemical filter substances, which absorb UV light. We distinguish between UV-A; UV-B and broad-spectrum filters depending on, which type of UV rays they protect against.
- The use of natural mineral pigment particles, which cover the skin and reflect both UV-A and UV-B. Depending on their concentration in the formula, a disadvantage is their tendency to "whitening" forming a visible white film on the skin when sweating or bathing. sebamed Sun Care Multi Protect is formulated with the latest innovation in filter technology. Our filter system contains both UV-A and UV-B reflectors and absorbers.

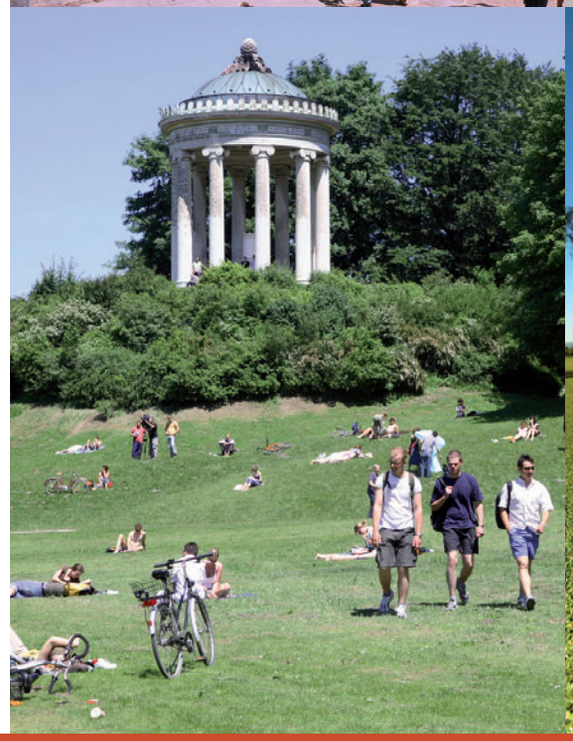
SUN PROTECTION FACTORS – HOW DO THEY WORK ?

The level of protection offered by a sun protection product is indicated by its sun protection factor = SPF marked on the packaging e.g. 30

The UV-B SPF specified for most sun protection products is measured according to the degree of skin reddening under UV-B rays, and indicated to what extent the skin's own protection from sunburn is extended by the sun care product. The user needs to know how long he can spend in the sun without burning. The categorisation into different skin types helps us determine, which factor(s) is (are) right for our individual needs. **For example, SPF 30 increases the possible time spent in the sun from 10 – 20 minutes for skin type II, up to 4 hours depending on how accustomed the skin is to sun exposure and the geographical light intensity.** The user's existing tan and the prevailing conditions (altitude above sea level, the latitude, time of day, reflection by sand, water, snow) also have to be taken into account. If the user has no tan at all, or in the case of intense light, the calculation should be based on the lowest self-protection time specified, and the highest time, if the user is already tanned or the light is less intense.

To help you determine the best protection, please refer to our table on the following page with the recommended time / skin type / climatic and geographical condition and SPF. Furthermore dermatologists recommend that 2/3 of the recommended time is the best general rule. Then move into the shade to give your skin relief. But even in the shade 50% radiation reaches the skin.

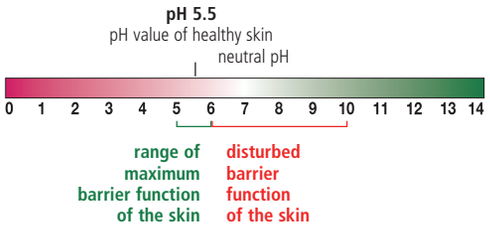
When travelling you will find that various products show different SPFs due to the different methods used for measurement. For example, the American method of measuring the SPF results in much higher values than the European norms, despite an identical level of protection. Europe has tried to standardise the measuring



of the sun protection factor through initiating the COLIPA test method. The SPFs of sebamed Sun Care Multi Protect sun products are measured using this method.

Where UV-A is concerned, not all products specify the sun protection value like sebamed Sun Care has. The reason for this is, that it has to be tested with other methods, which generally determine the level of protection afforded, the extent to which the product prevents immediate tanning is generally used. The sun protection factor for UV-A is tested according to the new COLIPA method regulated by European cosmetic laws. The UV-A factor is expressed as a percentage. It is not possible to deduce the level of protection from premature skin ageing or sun allergies directly from these values. With high-quality sun protection products, the UV-A protection factors are high enough to prevent damage to the skin during extended exposure to the sun together with UV-B protection.

SUN PROTECTION WITH THE pH VALUE 5.5 OF HEALTHY SKIN



The skin's natural self-protection depends on pH. At pH 5.5 the barrier function against UV and other noxious influences is at its maximum. Sebamed sun care provides the optimum pH 5.5 to help stabilize this high protection level additionally to its sunscreen effects.

Skin type	Used to sun	Light intensity	Recommended SPF	Time spent in sun
I Very sensitive	No	Low	50-50+	2-3 hours
	No	High	50+	2-3 hours
	Yes	Low	30-50	3-4 hours
	Yes	High	30-50+	2-3 hours
II sensitive	No	Low	30	3-4 hours
	No	High	50+	2-3 hours
	Yes	Low	20-30	3-4 hours
	Yes	High	30	2-3 hours
III Less sensitive	No	Low	20-30	3-4 hours
	No	High	30-50	2-3 hours
	Yes	Low	20-30	3-4 hours
	Yes	High	20-30	3-4 hours
IV Not sensitive	No	Low	6-15	3-4 hours
	No	High	15-20	2-3 hours
	Yes	Low	15	3-4 hours
	Yes	High	15-25	3-4 hours

SKIN CARE DURING AND AFTER SUNBATHING

Sunbathing is not gentle on the skin. Even without sun-burn or the skin damage, resulting from excessive exposure to the sun, sunbathing still takes its toll on the skin. Furthermore not only the sun, but heat, wind and wimming errode the moisture content of the skin. It becomes rough and flaky. Skin lipids are also washed or rubbed off, thus weakening the natural barrier effect. Although skin thickening partly compensates for this deficit, the skin still needs special care when sunbathing.

The moisturising substances (humectants) contained in skin care products help to prevent the skin from drying out. Sun protection products also have to cater to this requirement. Natural humectants such as the Hydro-Fructol Formula used in the moisturizing complex of sebamed Sun Care increase the skin's ability to retain moisture. Botanical oligosaccharides are skin-related and easily absorbed, making the skin smooth and supple. The skin care used during sunbathing also has to protect the skin from free radicals. Free radicals are produced in the skin even before it becomes sunburned. They can be neutralised by vitamin E contained in sun care and after sun products, thus preventing them from harming the skin.

After sunbathing, other sources of skin irritation and stress should be avoided. When washing the water should not be too hot, and prolonged baths and showers are not a good idea. As a cleanser you should use a mild soap-free preparation, which is more suited to the skin thanks to its slightly acidic pH value of 5.5 than soap or a product with a neutral pH value. It is better to pat your skin dry than rubbing it with the towel. Your hair is also at risk and should therefore be washed and treated carefully. Mild shampoos and conditioner adjusted to a pH value of 5.5 like sebamed Everyday Shampoo and Repair Shampoo help the hair to regenerate itself.

Skin care after sunbathing is essential. There are special after-sun preparations, which have been designed to regenerate the skin, which is irritated and dehydrated. They replenish the skin's deficits in lipids and moisture, neutralise free radicals and soothe the skin. Skin irritation responds well, for example, to the ingredient bisabolol in camomile and liquorice root. Cooling ingredients such menthol soothe the burning sensation of skin, which has been exposed to too much sun. Sun protection products and after-sun preparations are available in the form of creams, lotion, gels, sprays or oil. Creams and lotions are the most popular. They are emulsions, i.e. mixtures of oily and aqueous constituents. If the oil forms the dispersion medium, this called a water-in-oil emulsion. This is in contrast to oil-in-water emulsion in which the water acts as the dispersion medium, thus making the product feel lighter and moister. Oil, lipo gels or hydro gels on the other hand consist only of either oily or aqueous substances.

WATER RESISTANT

Sun creams, lotions and sprays can be made waterproof by the addition of particular ingredients. Water-resistance of sun protection products is important with regard to water sports and perspiration. The distinction 'waterproof' or 'water-resistant' does not however mean that 100% UV-B exists after prolonged contact with water. The filter and pigment substances are washed away to some extent, with the effect increasing the longer the stay in the water and the greater the perspiration. Rubbing dry with a towel will remove more or less of whatever is left of the sun protection product. It is therefore advisable to reapply the sunscreen after every prolonged contact with water, at the latest after drying.

SAFETY OF SUN PROTECTION PRODUCTS

Good sun protection products should not only be effective as indicated by their SPF, but also offer good skin tolerance, which has been demonstrated through dermatological testing.

The risk of skin reactions to sun protection products is low. However, given their use by millions of people, and in general the ever increasing number of allergy sufferers, sebamed Sun Care has been formulated without:

- Alcohol
- Parabens
- PABA esters
- Paraffin
- PEG bonds
- Acrylamides

The ingredient listing according to the international standard INCI appears on the bottom of the product packaging, so that your physician, pharmacist or chemist can give you additional advice should you have any further inquiries.

The packaging also contains a product insert with the sun exposure tables, as shown in this guide for your quick reference, when using the product.

sebamed Sun Care Multi Protect sun products are also available without perfume.

12 TIPS FOR EFFECTIVE SUN PROTECTION

- Chemical filter complexes need some time to take full effect as they remain on the surface of the skin. Therefore, apply sun protection 20 – 30 minutes before exposure to the sun, for maximum sun protection.
- Re-apply sun protection after 90 min. to 1,5 hours spent in the sun, after swimming, sports and drying yourself, as the protective effect, even with water resistant products, diminishes through the length of time spent in the water, perspiration and rubbing.
- UV rays are strongest between 11 a.m. and 3 p.m. (11:00 – 15:00). Avoid this intense midday sun and relax in the shade or indoors
- Use sun protection even in the case of indirect sunlight (e.g. clouds, shade). Sand, water and snow reflect and intensify UV rays, therefore use and adequate SPF for these conditions.
- Certain drugs can induce severe skin reactions in combination with UV radiation. If you are under drug treatment, ask your doctor, if your medication can cause a reaction in combination with intense light.
- Should you have reached the point at which your skin starts to redden, act immediately to avoid any further damage to the skin. The use of further sun protection does not allow you to stay in the sun!
- Babies under 12 months should never be exposed to direct sunlight. For older children, it is recommended, that you use sun protection products with a SPF 30 to 50+
- For further protection wear a hat, sunglasses and textiles (e.g. cotton t-shirt) that is not easily penetrated by sunlight
- Particularly for those with lighter coloured skin, a dark suntan comes at a price: "Fry now, pay later!!", later meaning years or even decades.
- Be good to your skin - Apply sun care products generously and frequently. Utilize an After Sun product to cool, soothe and moisturize the skin after exposure
- During sunbathing and other outdoor activities in direct sunlight, it is not recommended to use deodorants or perfumes, as this could cause pigmentation marks.
- Check your and your children's skin in the evening, as sun damage can appear hours after exposure. Apply a soothing After Sun product and give your skin a rest for the next couple of days.

Dermatologically tested for high skin tolerance

THE UNIQUE PROPERTIES OF sebamed SUN CARE:
- → Highly effective UVA/UVB protection
- → With pH 5.5 for healthy skin
- → SPF tested according to COLIPA regulations
- → UVA protection: 98 % UVA absorption (higher than Australian Standard)
- → Alcohol-free
- → Free from paraffin, parabens, PEG bonds and PABA esters, acrylamide

WITH AND WITHOUT PERFUME
OIL-IN-WATER EMULSIONS

LOTION

Multi Protect Sun Lotion
- Sun protection for the body
- Available in SPF 6, 10,15, 20, 25, 30, 50 and 50+

CREAM

Multi Protect Sun Cream
- Sun protection for face + body
- Available in SPF 15, 20, 25, 30, 50 and 50+

SPRAY

Multi Protect Sun Spray
- Sun protection for face + body
- Very easy to apply
- Available in SPF 20 and 30

Product features:
- Reliable UVA + UVB protection with the pH 5.5
- Highly effective UVA/UVB filter system combined with micro-pigments prevent sunlight induced damages and irritations to the skin
- Anti-Ageing skin protection with vitamin E and regenerating provitamin B5
- Natural Hydro-Fructol formula keeps the sun-exposed skin smooth and supple to protect the elasticity of the skin
- Counteracts sun-induced pigmentation marks and signs of premature ageing
- Water & sweat resistant up to 6 hours, sand resistant
- Easily applied, non-greasy, does not leave white residues
- Oil-free, alcohol-free
- Tested efficacy and skin tolerance

Indications:
- Shields against sunburn
- For sensitive skin
- For sun-intolerant skin
- Suitable for children
- Dermatologically and clinically tested

AFTER SUN

Soothing Balm
- Soothes sun-exposed skin

Product features:
- Specially formulated after sun balm rapidly relieves and revitalizes overheated skin after sun exposure
- Balanced complex of skin care ingredients restores hydrolipid balance of the skin
- Vitamin E protects against free radicals
- Combined cooling and soothing properties of menthol, allantoin and bisabolol regenerate the skin
- High content of essential natural lipids in cacao butter and glycerin provide intense hydration and protect the elasticity of the skin
- Makes the skin smooth and supple to enhance your tan
- pH 5.5 strengthens the natural protective function of the skin's acid mantle

Indications:
- After-sun skin care for over-heated and sun-stressed skin
- For sun sensitive skin
- Recommended for children

WITH AND WITHOUT PERFUME
WATER-IN-OIL EMULSIONS

Lotion

Multi Protect Sun Lotion
- Sun protection for the body
- Available in SPF 20, 30, 50 and 50+

Cream

Multi Protect Sun Cream
- Sun protection for face + body
- Available in SPF 20, 30, 50 and 50+

Spray

Multi Protect Sun Spray
- Sun protection for face + body
- Very easy to apply
- Available in SPF 50

Product features:
- Reliable UVA + UVB protection with the pH 5.5
- Highly effective UVA/UVB filter system combined with micro-pigments prevent sunlight induced damages and irritations to the skin
- Skin protection with vitamin E and regenerating provitamin B5
- Natural Hydro-Fructol formula provides intense hydration to protect against dryness
- Water & sand resistant
- Easily applied, non-greasy, does not leave white residues
- Oil-free, alcohol-free
- Tested efficacy and skin tolerance

Indications:
- Shields against sunburn
- Dermatologically and clinically tested

FREQUENTLY ASKED QUESTIONS:

If I pre-tan in a solarium, am I better protected, when I go on vacation?

No:
It is not the depth of tanning alone that protects the skin against UV rays. In the sun the skin reacts to the combination of UVA/UVB building a light barrier through an increase in the thickness of the Stratum corneum. Solariums often have machines that work only with UVA or minimum UVB parts. This doesn't cause the skin to thicken and therefore this offers no real protection.

Do self-tanning products protect against the sun?

No:
Self-tanning products allow for a gentle bronzing effect to your teint through the fact that the sugar compound colours the cells of the horny layer. However, there are self-tanning products that are combined with an SPF.

Can I use the sun product I purchased last year?

It depends:
If you use it within the limit of 12 months after opening as represented on the packaging.

Once I have applied a sun protection factor, am I protected for the whole day?

No:
The sun protection effect does not last all day. That is why the packaging instructions inform that reapplication is important to sustain protection. Frequently, and generously - the more the better and once an hour is a good rule of thumb. Frequent application does NOT increase the sun protection factor

With a SPF 50+, can I remain in the sun all day?

No:
Even an "Very High" SPF is not a go ahead for all day sun exposure. Between 11 a.m. to 3 p.m. (11:00 – 15:00) you should avoid the sun, as it is at its zenith. The rays are the most intensive, during these hours. It is time to move into the shade. **Please consult the tables in the guide** and your product insert for the best recommendation of the time limit most suited to your skin type. However, experts also recommend not to take this timing to the maximum, but to move into the shade for a while, especially, when this is the first time you've been out in the sun.

You can't get a tan in the shade.

Incorrect:
In the shade you can get a tan, it is just a slower process, but healthier. Even under a sun umbrella 50% of the rays reach your skin.

Medication can increase the skin's sensitivity to light ?

Yes:
Certain medication e.g. antibiotics like Tetracyclines, which are often used for skin disorders; medication for rheumatism and especially all St. John's wort preparations can definitely increase the photosensitivity of the skin. If you are taking medication, it is advisable to read the product insert carefully, before sun exposure. Should you be in doubt, consult your physician or pharmacist.

If I don't apply the sun product until I reach the beach is this too late?

Yes:
sebamed Sun Care offers latest in filter technology. The chemical filter compounds penetrate the skin to protect at deeper levels against UV-A and UV-B rays. This filter system needs approximately 20 – 30 minutes to reach its effectiveness.

Underwater one can't get a sunburn?

Incorrect:
Approximately, 80% of UV radiation can penetrate water to a depth of 30 cm. Also wet skin is more sensitive then when the skin is dry, which means that the skin can burn 4 x as fast. Water makes the skin swell releasing the urocanin acid (the skin's own UV filter) out of the skin. For this reason it is important to use water resistant products. sebamed Sun Care is water-resistant up to 6 hrs, however reapplication in regular intervals is still very important.

Pimples on the skin are a sign of a sun allergy?

Not necessarily:
Pimples can be an indication for a light-induced dermatitis, which is commonly known as Mallorca acne. This is normally a reaction of sunlight with the emulgators and fat compound of the emulsion. For this reason sebamed Sun Care is an oil-free formulation.
A real polymorphous light eruption appears more in the form of itchy welts, which form particularly on the décolleté, the top of the arms or legs. Women are more prone to an allergic reaction then men. The reasons for this are in general unknown, however according to medical professionals it is assumed that the reaction is caused by UV-A rays, which activate a large amount of free-radicals in the skin. sebamed Sun Care contains a highly effective UV-A filter system, testing a 98% protection, combined with vitamin E, a free-radical scavenger to protect against the development of light-induced irritations.

Perfumes lead to the formation of pigment marks?

Not necessarily:
Not only the alcohol in perfume, but essential perfume oils such as a combination of bergamotte, citrus fruits, cedar can lead to pigment marks. Today there are also a number of summer or light versions of fragrances, which contain lesser amounts of alcohol and perfume oils, which do not cause a darkening of pigmentation. sebamed Sun Care has also sunscreens without perfume.

After Sun products are not necessary

Incorrect:
Especially sun-stressed skin needs a lot of moisture for re-hydration, cooling and soothing. After Sun Soothing Balm has been formulated with menthol, bisabolol, allantoin, panthenol and vitamin E to relieve your skin after sun exposure.

The sun is healthy, because the body produces vitamin D for the bones.

Partially right:
It is true that the body requires UV radiation to build-up and maintain the bones by synthesizing vitamin D. However it is sufficient to spend 15 – 30 mins. daily outdoors, even under a cloudy sky, for the body to produce a sufficient level.

Don't exfoliate after a vacation, or you will peel-off your tan

Right:
A peeling exfoliates old cells that the horny layer is casting-off. This removes the "greyishness" from your tan, but at the same time reduces the optical depth of your tan, as the old cells were carrying melanin (tan). Afterwards apply a generous amount of Body Lotion or Body-Milk and your tan will appear in its best light.

How can I calculate the SPF that I need?

The first step to enjoying the sun is protective prevention against skin damage. We would like to refer you to the two tables in our guide, which will assist you in determining your individual sun sensitivity and the right SPF for your skin type.

Do I need another SPF in the mountains, than at the beach ?

In general, yes:
As presented in the information in this guide, the sun does not shine everywhere, with the same intensity. Geographical factors, as well as, the season of the year should be taken into account, when choosing the product for your sun care requirements. UV radiation at midday is more intense than at 7 a.m. In the summer the sun is more aggressive than in the winter. The closer you get to the equator the more intense the sun. The higher the altitude the more intensive the sunlight. For every 300 m over sea-level the UV radiation increases by 4%.