## Contents

### Information on the disease
- What is psoriasis? 4
- Who is affected? 4
- How does psoriasis form? 5
- What happens in the body? 6
- What are typical signs of psoriasis? 7
- Where do complaints occur? 8
- How does psoriasis progress? 9
- What accompanying symptoms should I expect? 9
- How is psoriasis diagnosed? 10

### Information about treatment
- How is psoriasis treated? 11
- External therapy 12
- Systemic therapy 16
- Biological medications 19
- Accompanying treatment 22

### Living with psoriasis
- Help in everyday life 24

### Glossary A–Z
- 29

### Further information
- Internet addresses 32
- Notes 33
Dear patient!

Those who become ill can gain help in getting better from understanding the body processes which lead to the illness and information about diagnosis and treatment options. This is particularly true for chronic disorders such as psoriasis, medically called plaque psoriasis. Plaque psoriasis is not contagious, but it is visible. Affected people feel severely impaired in interactions with others. Others may react negatively to scaling, redness or altered fingernails. Many patients therefore increasingly withdraw in the course of the illness. To prevent this, it is important to actively address plaque psoriasis together with a physician whom you trust. The skin changes may vary greatly in individuals and change in the course of the illness. Every third patient with psoriasis also has joint problems, that is, they have so-called psoriatic arthritis. Symptoms may vary greatly – from mild joint swelling and moderate complaints to severe pain and considerably impaired mobility.

In the meantime, the background of these disease processes is far better understood. With medical research, therapy for psoriasis and psoriatic arthritis has made major advances in recent years. There are now many therapies to treat plaque psoriasis and psoriatic arthritis.

It is necessary to find out individually for every affected person what works best for them. Owing to modern treatment options, such as the use of biological medications (“biologics”), it is becoming increasingly more possible to reach a state in which one is largely, or even entirely, free of complaints.

The prerequisite for successful treatment is active participation by the affected person. This patient handbook is intended to make a contribution in the understanding of psoriasis, since it contains many important and current facts about psoriasis. It cannot replace a conversation with your physician, but helps to understand the background of psoriasis and its treatment and discuss questions which come up with your physician.

Wishing you informative and interesting reading,

Jörg C. Prinz
**Information on the disease**

**What is psoriasis?**

Psoriasis is a benign skin disease involving disturbed cornification and skin inflammation. Scaling red spots which are not painful, but often itchy, are typical. Apart from the silvery white skin scales and the strictly localised redness of the affected areas, other skin symptoms are also possible, which may make diagnosis more difficult. Finger and toe nails may also be affected.

Psoriasis is nearly always chronic. Lastly, it never fully disappears after the start of the illness, even if symptoms subside. Every third person also develops psoriatic arthritis, that is, joint inflammation.

**Who is affected?**

Psoriasis is one of the most common skin disorders. Approximately 1.6 to 3 million people in Germany are affected – approx. 2 out of 100 people in Western countries.

Psoriasis can start at any age; however, it rarely occurs for the first time in early childhood or old age. Three out of four people become affected before the age of 40, often between 15 and 25 years of age (type 1). Patients who become affected at this age often also have affected relatives; that is, there is an inherited component which increases the risk of this type of psoriasis. Psoriasis tends to be more severe in this group, with many relapses.

Out of the other affected people, most reported that complaints started between the ages of 50–60 (type 2). Here, inherited factors seem to play less of a role, and the illness tends to progress in a stable manner without frequent relapses.
How does psoriasis form?

Much is known today about the causes and origin of this disease process. Genetics likely play an important role in the development of psoriasis. We already know several genes today which are associated with an elevated risk of the illness. However, this alone does not yet explain the start of plaque psoriasis. The inherited factors must often be accompanied by specific triggers.

Typical triggers for first occurrence, but also for recurring relapses, may be:

- Stress, physical or emotional strain
- Infectious disorders, e.g. streptococcal infections
- Mechanical or physical stimuli (e.g. rubbing, pressure, sunburn)
- Excessive consumption of alcohol
- Medications (e.g. lithium, beta blockers, Ace inhibitors and the anti-malaria drug Chloroquine)
- Hormonal changes
- Overweight or excessive weight gain
- Environmental factors such as climate change or a moist and cold climate
What happens in the body?

As far as we know today, a change of the immune response in the skin is responsible for the inflammation and skin scales. Joint inflammation in psoriatic arthritis is also based on such an altered immune response of the body. The body’s own messenger substances of immune cells play an important role. They activate the body’s defence system and support the inflammation, e. g. to fight a pathogen and protect the body.

There are numerous messenger substances which play a role in the body’s defences. Tumour necrosis factor alpha (TNF-α), which has this name because it was first discovered in association with cancer research, is an important messenger substance. As we know today, TNF-α plays a role in various chronic inflammatory disorders. In plaque psoriasis, it is detectable at high concentrations both in the altered skin sites and in the joint fluids of inflamed joints in psoriatic arthritis. Some modern biological medications use the role of TNF-α in the signal chain of plaque psoriasis and psoriatic arthritis and inhibit this messenger substance, so that the inflammation slowly settles down again in the skin and joints.
What are typical signs of psoriasis?

All skin layers are altered in the spots of psoriasis (med. “plaques”). Clear, localised, raised red lesions with silvery, shiny scales are typical (psoriasis vulgaris, the most common form). All skin layers in these areas are severely thickened. Excessive and rapid production of skin cells leads to the characteristic silvery scales. There is also inflammation, as indicated by the redness of the affected skin areas. The size, form, extent and location of the lesions may differ from one person to another. There is also a form with lentil-shaped lesions which expand beyond their edges and which occurs particularly often after infections (psoriasis guttata). Other forms include yellowish pustules (psoriasis pustulosa).
Where do complaints occur?

The plaques appear particularly often on the extension sides of the knees and elbows, in the sacral area above the buttocks, and on the scalp. The skin directly adjacent to the scalp (hair-bearing area) is often also affected. The illness may also occur behind or in the ear; more rarely in body folds, that is, e.g. in the armpits, under the female breast, on the navel or in the inguinal regions. Psoriasis is particularly itchy and unbearable there and in the hairbearing regions.

The nails also change in the progression of the illness in every second affected person; they may, for example, show a yellow discolouration ("oil nails") or develop spots. This occurs particularly often in association with psoriatic arthritis.

Rarely, the flexion sides of the arms and legs are also affected (psoriasis inversa) or the palms and soles of the feet (psoriasis planta et palmaris).
How does psoriasis progress?

Plaque psoriasis progresses very differently from one individual to the next. In most cases, the illness is chronic; that is, it recurs, sometimes more and sometimes less severely. In some cases, however, the affected people only have complaints once in their life.

It is likely that both genetic predisposition and acting trigger factors play a role not only for the start of the illness, but also for progression. Herein type 1, which often begins at a young adult age, tends to progress more severely, and have more severe stages, than type 2, which begins later in life.

The skin symptoms of psoriasis can be reduced with treatment or disappear again, but the illness nevertheless remains present in the background. This is detectable in that the apparently healthy skin still shows characteristic changes.

What accompanying symptoms should I expect?

The joints are also affected in approximately every third person with psoriasis (psoriatic arthritis). The joint complaints usually occur after the skin symptoms, but sometimes also with them or even before them. The knees, ankle joint and finger and toe joints are often affected, and more rarely, the spine and sacrum. Usually, only a few joints are inflamed at the same time. It is typical that the affected joints are stiff in the morning and thicken (“sausage fingers” or “sausage toes”). Psoriatic arthritis is not only unpleasant and painful, but with insufficient treatment, it may also lead to massive changes of the joints, tendons and cartilage, so that gripping and holding often becomes very painful for the affected people.

Apart from this, other chronic disorders are also more common in patients with psoriasis, for example our “civilisation disorders” such as excessive weight, type 2 diabetes mellitus, high blood pressure, coronary heart disease and lipid metabolism disorders. Many of these problems can be counteracted with suitable lifestyle management.
How is psoriasis diagnosed?

Physicians diagnose psoriasis particularly on the basis of typical features of the skin symptoms. Herein he will pay particular attention to the skin in frequently affected body regions and to the nails. Depending on the location of the skin symptoms, he excludes possible other illnesses which require other treatment, such as fungal infections in skin complaints which are only in the folds of the skin.

For physicians, the so-called Auspitz phenomenon is an important indicator of plaque psoriasis: When the scales of the lesions are scratched off, they come off like candlewax (candle spot phenomenon). If one continues to scratch, a coherent membrane detaches – the so called last membrane – and dew drop-like, punctiform bleeding occurs from the middle layer of our skin, the dermis. A biopsy, that is, a tissue sample from a plaque, will normally not be required for a physician to diagnose plaque psoriasis. However, it may make sense if the lesions are possibly caused by a different illness.
Information about treatment

How is psoriasis treated?

Psoriasis is an illness which differs between individuals and progresses differently. Many treatment options are available. To find the right therapy for you, care by a specialist, that is, a dermatologist, is important; and in the case of psoriatic arthritis, you should also be seen by a rheumatologist. Find a physician whom you trust. Particularly with a lifelong illness such as psoriasis, it is important to develop a stable trust relationship with your physician.

It is currently not possible to cure psoriasis completely. The objective of treatment is therefore to obtain freedom from complaints for longer periods. However, occasional relapses usually cannot be completely avoided. Apart from good skin care, treatment initially includes superficially applied medications and light therapies, and if they are not sufficient, also medications which are to be used internally.
Medications which are applied externally on the affected skin regions are called topical medications. Various active substances are available; they are also used in combination with other topical medications or systemic (internal) therapies.

During an episode of psoriasis, ointments containing urea (3 to 10 percent) or salicylic acid (3 to 5 percent) are frequently used. If the callus layer is very thick, salicylic acid can be used at a concentration of up to 20%; however, this is associated with an increased risk of kidney damage. Baths with oil or salt additives soften the scales, so that they are then easily detached. Many patients find this very pleasant.

Not everything which is applied superficially remains on the surface. In many substances and particularly at higher concentrations, externally applied active substances can also enter the blood stream and cause effects on the entire body. Therefore topical therapy should always be precisely as directed by the treating specialist. The specialist will also regularly check the success of treatment and any side effects.
**Dithranol**

The active substance is a synthetically produced derivative of the tar which was formerly used. In mild to moderately severe psoriasis, very good improvement or even absence of complaints can be obtained in the majority of patients after four to eight weeks of use.

The disadvantage is that the cream frequently causes skin irritation (redness, burning). It should therefore always be applied using a fingerling or glove. Mild skin redness is desired as a sign of efficacy in the therapy of psoriasis. However, dithranol should not be used around the eyes and mucous membranes due to its skin irritating attributes. Caution is also indicated in the armpit, under the breast and in the inguinal regions. Another unpleasant property of dithranol is that it causes a brown discolouration of the skin, the laundry and even fittings and bathtubs.

Treatments may influence each other when combined with other therapies. For instance, the effects of dithranol are intensified when used simultaneously with urea and salicylic acid products. If dithranol is used at the same time as photosensitising medications, the effect is conversely intensified. Such a combination can be used to consciously increase the efficacy of the therapy.

**Corticoids**

Corticoids, artificially produced derivatives of the body’s own hormone cortisol, are anti-inflammatory and show good efficacy on psoriasis. The lesions disappear rapidly. If the skin is occluded after applying the ointment or cream, e.g. with plastic foil or by wearing a glove, the corticoids’ effect is intensified further.

Corticoids are used in mild to moderately severe psoriasis and are also combined with other treatment forms. In this way, the effect can be further intensified by combining them with salicylic acid products. Combinations with Vitamin D3 products are also common.
Relapses occur frequently after corticoids are stopped. Efficacy may also lessen over time. Modern products and preparations noticeably help to lessen side effects. The absorption of corticoids into the body differs from one product to the next and, clearly depending on the ointment or cream base, systemic side effects can be minimised by choosing a suitable corticoid.

The face, genital region, neck and areas in which skin touches skin are particularly sensitive; e.g. the armpits or areas under the female breast. Therefore, the physician will choose a corticoid which is adapted to the sensitivity of the affected region.

**Vitamin D3 derivatives**

The substances calcipotriol, calcitriol and tacalcitol are chemically based on Vitamin D3. They inhibit excessive cell growth in the uppermost skin layer and normalise callus cell maturation. These active substances also positively influence the inflammation by suppressing inflammation-supporting messenger substances. This lessens scaling and redness.

Vitamin D3 derivatives are used in mild to moderate psoriasis, both individually and in combination with UV treatment or other active substances.

Treatment of psoriasis lesions must be longer before full success is obtained. However, a noticeable improvement can occur after one to two weeks. Sometimes a more rapidly acting corticoid is used simultaneously in the initial treatment period. After application, an unpleasant sensation (itching, burning, stinging) may occur for a short time on the treated site. Otherwise the active substances are all well tolerated and cause few side effects when used correctly in the recommended dosage.
**Phototherapy**

Irradiation with light of certain wavelengths in the ultraviolet range (UVA and UVB) has been used to treat psoriasis for a long time. The light is intended to reduce inflammation and help to normalise cell growth in the skin. Phototherapy can be helpful particularly in more severe psoriasis afflictions over larger areas. It must be adjusted repeatedly according to the skin type and skin reactions, both at the start and during treatment. Redness, similar to a mild sunburn, is the objective; however it should not cause complaints.

The efficacy of UV therapy is often intensified with additional photosensitising medications. Psoralen, which can be taken in tablet form or applied externally, is a commonly used active substance. The frequent combination of Psoralen with UVA light is called PUVA (Psoralen + UVA). There is also a PUVA bath therapy in which the substance is added to the bath water.

Most patients tolerate phototherapy well, however side effects are possible in the event of overdosage. Therefore the physician must regularly check the skin after therapy. Long-term therapy is not advised, since the skin may prematurely age or be damaged just as in too much sunbathing or frequent use of solariums. When Psoralen is used internally in combination with phototherapy, the risk of some types of skin cancer also rises in the long term. The eyes are particularly sensitive to UV-rays and should be protected with suitable glasses during treatment. PUVA therapy must not be started when Cyclosporin is taken at the same time.
Systemic therapy

When external treatment alone is not sufficient, a number of medications which are used internally are also available. One also speaks of systemic therapy, wherein all active substances must be prescribed by a physician.

It is important that you use the medications precisely as your physician explains. You should absolutely not change the dosage or stop the product without consulting with your physician, since this may suddenly and dramatically worsen symptoms.

Fumaric acid ester

Fumaric acid is a substance which occurs in our own body, but also in plants. Fumaric acid esters (fumarates) are chemical compounds of fumaric ester which have been used to treat psoriasis since 1959.

It is assumed that the substance inhibits the formation of pro-inflammatory messenger substances and molecules and thereby fights the inflammation in the skin. Fumarates are used for moderately severe to severe psoriasis.

Fumarates are available in tablet form. The dosage of the active substance is increased from week to week according to a fixed schedule until the optimum effective dose is reached. Many weeks may pass until the psoriasis heals; therefore patience is required.

Fumarates are generally well tolerated. The medication may cause gastrointestinal complaints and hot flushes, but there is little risk of interactions with other medications which are taken at the same time. Fumarates also do not suppress the body's own defence system, so no increased susceptibility to infections is predicted. However, the physician will monitor the blood count, liver and kidney function parameters during treatment. Fumarates are generally combined with topical therapies.
Methotrexate

Methotrexate (MTX) has been used for years, among other things, in rheumatic disorders and plaque psoriasis. It is also used in high doses in cancer therapy. In psoriasis and psoriatic arthritis, the substance is dosed relatively low and primarily has anti-inflammatory effects. Since efficacy increases with the duration of treatment, the active substance is more suitable for long-term therapy.

However, adverse effects may occur; among others, they may involve the liver, kidney, blood-forming cells and gastrointestinal tract. Therefore, your physician will carefully verify whether the therapy may be suitable for you, select the lowest required dosage, and regularly check blood, liver and kidney parameters during treatment. To protect the liver, alcohol should be used with caution during therapy with MTX.

The active substance is available in tablet and injection form. It is used/taken once weekly. If the active substance is injected, it places less strain on the gastrointestinal tract. Using pre-filled syringes, patients can give themselves subcutaneous injections of MTX. Since MTX damages the unborn child, effective contraception should be used during therapy with this active substance and for six months afterwards. Men must also not father children during and for six months after treatment with MTX.
**Retinoids**

Retinoids are synthetically produced derivatives of Vitamin A. The retinoid acitretin is used particularly in severe psoriasis and often combined with other treatments, particularly phototherapy. Acitretin reduces the increased cell growth and accelerated cell maturation of psoriatic skin.

When taking acitretin tablets, adverse drug effects may occur, particularly on the skin and mucous membranes. Dry lips are typical when the dosage is well adjusted. Cream may help with dry skin; eye drops for dry mucous membranes of the eyes; contact lenses should be avoided. Acitretin harms unborn children; therefore monthly pregnancy tests and consistent contraception are necessary for up to two years after the end of treatment. It is therefore recommended not to use this substance in women of childbearing age at all.

**Cyclosporin**

Cyclosporin is obtained from a fungus. It inhibits the reactions of the immune system and has therefore been used in transplants for a long time to suppress the body’s rejection reactions. In low doses, Cyclosporin can promise success even in acute severe psoriasis and when other treatment options are not sufficient. Skin symptoms noticeably improve in most patients after a few weeks.

The treatment should not be used for more than two years, since adverse effects may occur on the kidneys, blood pressure often rises, and many other side effects may occur. The risk of cancer may also be elevated by longer treatment with Cyclosporin. Cyclosporin may furthermore alter the effects of other medications or have its own efficacy and safety altered by them. Your physician will therefore carefully weigh the risks and benefits of Cyclosporin treatment. Cyclosporin is often used in combination with topical products.

**Small Molecules**

PDE4 inhibitors: They are usually, as a rule, taken in the form of tablets (orally). These substances are targeted against pro-inflammatory messengers, which play an important role in psoriasis and psoriatic arthritis. PDE4 inhibitors inhibit the formation of cytokines.
Biotechnological protein substances (manufactured in living cells) have been available for more than a decade for the systemic treatment of psoriasis and psoriatic arthritis, the so-called biological medications or biologics. They inhibit pro-inflammatory messenger substances in various ways, thereby influencing the excessive immune response in psoriasis.

One of these messenger substances is tumour necrosis factor alpha (TNF-α). TNF-α plays an important role in the inflammatory processes of the skin and joints in psoriasis and psoriatic arthritis. The messenger substance binds to a molecule which is precisely matched to it and passes on the inflammation signal – a TNF-α receptor. In this way, inflammation cells are activated and other anti-inflammatory messenger substances are released. Various biologics inhibit this signal chain, which is associated with the messenger substance TNF-α, and thereby cause the inflammation to subside. They are also referred to as TNF-α antagonists or TNF-α blockers. The effects of these medications often begin very rapidly and can further increase over time. TNF-α antagonists have already been used for many years, and there is consequently a lot of experience with these biotechnology products.

Other, newer, biological medications inhibit various interleukins, also messenger substances, which play a role in inflammatory processes in the body.
**When are systemic biological agents used?**

The development and production of these biologics is very costly. The substances are therefore used in moderately and severe symptoms of plaque psoriasis and psoriatic arthritis, when other treatment forms were insufficiently effective or cannot be used for individual reasons. Therefore, your physician will usually try to treat the psoriasis with common therapies first. If this is unsuccessful or these treatments are not suitable, e.g. due to your previous illnesses, he/she may recommend therapy with a biologic to you.

The TNF blockers often work very well, even in many years of severe illness, and improve both the skin and any existing joint complaints. Many biological agents have been approved for the treatment of both psoriasis as well as that of psoriasis arthritis. Consult your doctor to identify which therapeutic agent is most suitable for you.

**Using biological agents**

The biological agents are administered in different ways. What they all have in common is that treatment is monitored by a physician who has experience with this therapy.

Most biological agents may be injected by the patient at home (injection) after the physician has started the treatment. Pre-filled syringes and pre-filled pens are available for this purpose. One first practices their use under expert instruction in the physician’s practice. How often an infusion is needed depends on the chosen biological agent, and the physician may also partly be able to modify this, depending on the product.
Note the risks

Since biologics act very specifically, they only appear to affect normal body functions to a very limited extent and have fewer side effects than other systemic medications for treating plaque psoriasis and psoriatic arthritis.

The most common side effects include reactions at the puncture site after the injection, e.g. swelling, redness, pain or itching. However, these skin reactions usually disappear rapidly. Furthermore, infections, allergic reactions and fever may occur more frequently during treatment with biologics. Herein the frequency of such side effects is likely to vary depending on the product. Due to a possibly existing risk of infection, the physician will definitely exclude illnesses, such as tuberculosis before starting treatment.

Your physician will also inform you about possible side effects of the selected product and tell you to what you should pay attention during treatment. Always contact your physician with questions and if anything is unclear!
Accompanying treatment

Balneo climate therapy

Many people with psoriasis experience improvements of their complaints in the summer months. Balneo climate therapy, in which natural sunlight irradiation takes place together with bath therapy, also utilises the favourable effects of the climate. The combination of ocean water with irradiation with natural sunlight is known, e.g. on the Dead Sea, but also on the North Sea and Baltic Sea in the summer, since sun irradiation is particularly intensive at the ocean. Due to its special geographic location, the dead Sea is also particularly high in salt content – apart from common salt, other minerals which may favourably affect psoriatic skin and complement the effects of the intensive sunlight also accumulate here. But the stimulating climate in the high mountains, where sun irradiation is also intensive, can likewise improve the symptoms.

Many patients benefit significantly from staying in such regions for several weeks, although the effect is frequently non-permanent. The effect also varies from patient to patient. Artificial balneo-phototherapy with a salt solution for bathing (brine) and artificial light, which can be done anywhere, is an alternative.

Patient education

Education programmes can help with understanding the background and trigger factors of psoriasis and recurring worsening bouts. These programmes also include information about skin care, therapy, nutrition, handling itchiness and scratching, and managing everyday situations. Many patients gain the feeling of being able to influence their psoriasis better, and experience the emotional strain of the illness less strongly.
Rehabilitation

Various specialised clinics in Germany offer specific rehabilitation measures for patients with psoriasis. They are located at the North or Baltic Seas or in the mountains, and utilise the beneficial effects of the climate. A variety of treatment options are also available there. Education is likewise offered there. The physician can prescribe rehabilitation measures.
Living with psoriasis

Help in everyday life

Living with a chronic illness is always a strain, particularly when it is as visible as psoriasis. Furthermore, treatment and support measures often require a lot of effort and added time.

It should be clear that treatment requires a lot of cooperation from you. The success of all treatment measures very decisively depends on you as well. Actively contribute to it. Work together with your physician and medical personnel – you are all on a team in the fight against psoriasis. A positive and confident attitude lets you better manage many strains and impairments in relation to the illness and the therapy. Do not allow the illness to impair you too much in everyday life, but continue trying to design your life so that it gives you joy. Don’t hide yourself, but continue to engage in leisure activities, travel etc. with family and friends.
Avoid triggers

There are many factors which are known to be associated with triggering and worsening plaque psoriasis. People affected by psoriasis should try to avoid or restrict these factors.

- Stress
- Mechanical or physical stimuli (e.g. rubbing, pressure, sunburn)
- Excessive consumption of alcohol
- Medications (e.g. lithium, beta blockers, ACE inhibitors and the anti-malaria drug Chloroquine)
- Overweight or excessive weight gain
- Environmental factors such as climate change or a moist and cold climate

Conversely, influencing factors can be consciously used for favourable effects on the illness, e.g. with a holiday in warm, sunny regions, best of all on the ocean or in the stimulating climate of the high mountains.
**Nutrition and lifestyle**

There are indicators that a consciously balanced diet which takes food intolerances into account can positively influence psoriasis. However, there is no reliable scientific data which hints at a particular “psoriasis diet”.

Not all, but many affected people do observe that

- a diet change in itself causes a change, regardless of the diet form,
- a Mediterranean diet with a lot of fruit and vegetables, unsaturated fatty acids, fish but little meat, as it is also recommended to prevent diabetes, cardiovascular disorders and cancer, tends to have favourable effects,
- a low-calorie diet can have positive effects and
- a significant weight gain tends to worsen symptoms.

Statistically, people with psoriasis have an elevated risk of many of our “civilisation diseases” as well, such as diabetes, high blood pressure and lipid metabolism disorders.

Apart from a balanced diet with a lot of fruit and vegetables, whole grain products, fish, unsaturated fatty acids, but little fat and red meat, not only is psoriasis influenced, but these civilisation diseases are also effectively combated. Therefore luxury goods are not recommended: Excessive and frequent consumption of alcohol worsens psoriasis. Smoking can also intensify the
symptoms of psoriasis and leads to more frequent relapses. Both factors are also risks for the aforementioned civilisation diseases.

Apart from diet, regular exercise in everyday life also plays an important role in preventing illness. Be physically active for at least half an hour at least three times a week! Even small steps into a more active life can help: Stairway instead of lift, bike to work instead of driving, go short distances on foot.

**Mental state**

Psoriasis can be very stressful for affected people. Many patients feel uncomfortable and exposed due to the visible symptoms of psoriasis. Affected people often withdraw from everyday life, friends and acquaintances. Try to consciously approach other people and continue to do what you enjoy in your free time. Don’t be afraid to talk about the illness and make it clear that psoriasis is not contagious and has nothing to do with a lack of hygiene. It’s important to include and inform friends and relatives. This strengthens mutual understanding and also helps with avoiding possible risk factors.

Psychotherapeutic procedures and/or psychosocial care can help with severe psychological strain in order to better manage the many challenges which are associated with the illness. Conversely, one’s mental state also clearly has an influence on psoriasis. For instance, stress plays a role in worsening psoriasis in many patients.

Behavioural therapies and relaxation exercises, relaxation exercises such as autogenic training, meditation, yoga or tai chi help to reduce stress, and better manage the illness and live with it. This also increases quality of life, and the progression of the illness can be favourably influenced.

These methods furthermore help with better managing psychological problems such as depression or fatigue symptoms related to psoriasis. Not every method is equally suitable for every person. You should take time to find out what works best for you. Of course you can also obtain advice from your physician or therapist.
Self-help

Apart from physicians and therapists, exchanges with other affected people can provide a lot of support, which helps with handling everyday life despite social and health problems.

Those who are affected by psoriasis become experts in their own illness through the years. Exchanges between affected people can therefore provide important tips for everyday life, as well as simply giving important human support. Local self-help groups provide a place where this life situation can be addressed in a personal, open and trusting manner, where listening and understanding are the focus, where exchanges and mutual advice are possible.

Within Germany, the Deutscher Psoriasis Bund e. V. (DPB = German Psoriasis Association) represents the interests of persons with psoriasis and psoriatic arthritis. Regional self-help groups and local contacts are found at www.psoriasisbund.de.
**Glossary A-Z**

**Acute**
Occurring suddenly and progressing rapidly (opposite of chronic)

**Anamnesis**
Medical history

**Antagonist**
Substance directed against a specific structure

**Antigen**
Structure which is foreign to the body, or may be from the body, and can trigger an immune reaction

**Antibody**
Protein molecule which is formed as a reaction of the immune system and is directed specifically against a certain structure (antigen)

**Arthritis**
Joint inflammation

**Balneotherapy**
Treatment with baths

**Biologic (plural: biologics, English: biologic)**
Active substances produced using biotechnological processes, so-called biological substances (English: biologics, biologicals)

**Chronic**
Long-lasting, persistent (opposite of acute)

**Dermatitis**
Inflammatory skin disease

**Dermatology**
Specialised medical field which deals with skin disorders

**Gene**
Inherited component, carrier of specific inherited information

**Immunology**
Knowledge about the structure and function of the immune system

**Immunosuppressive**
Suppressing or weakening the immune system

**Immune system**
Defensive system of our body with specific cells, antibodies, messenger substances etc. which are involved in the defence against substances which are foreign to the body and denatured cells

**Interleukins**
Interleukins mediate communication between leukocytes, as also between other cells involved in the immune reaction (e.g. macrophages).

**Intertriginous**
Places where skin touches skin (in skin folds)
**Corticosteroids**
Group of medications which are derived from cortisone and are primarily anti-inflammatory, but have many other effects as well. Other descriptions: corticoids, glucocorticoids, steroids

**Cortisone**
Artificially produced substance which is derived from the body’s own cortisol, a messenger substance formed by the adrenal gland

**Local**
Local – limited to specific body regions

**Oral**
On, in, by the mouth

**Pathogenesis**
Development and formation of illnesses

**PDE-4 / PDE-4 inhibitor:**
Phosphodiesterase 4 is one of 11 isoenzymes, which occurs in different tissues of the body and influences various cell functions via degradation of other messenger substances in the cell. PDE-4 inhibitors specifically block this enzyme and thus interfere with cell metabolism.

**Phototherapy**
Treatment with artificial or natural light rays

**Plaque**
On the skin: flat raised, plate-like skin changes

**Polyarthritis**
Inflammation of several or many joints

**Prognosis**
Assessment of the foreseeable results of an illness or state

**Progredient**
Advancing

**Progression**
Advancement of an illness or change

**Protein**
Protein substance

**Pruritus**
Itching

**Psoriasis**
Psoriatic skin disease

**PUVA (= Psoralen + UV-A)**
UVA irradiation with the addition of Psoralen to increase light sensitivity
Rehabilitation
Restoration, re-introduction

Remission
Long-term or transient disappearance of illness symptoms; complaint-free state

Receptor
Structure of a cell which picks up and transmits signals transmitted by messenger substances. Receptors specialise in certain messenger substances, therefore allowing the cell to react to them

Recurrence
Relapse

Rheumatology
Medical field which deals with the development, treatment and prevention of rheumatic disorders

small molecule
Low molecular weight compounds are referred to in various fields as a class of low molecular weight substances.

Squamous
Scaly

Subcutaneous
Under the skin, abbreviation s. c.

Syndet
Washing-active substance

Systemic
Affecting the entire body

TNF-α-Inhibitor
TNF-α antagonist, counterplayer, inhibitor substance of the messenger substance TNF-α

Topical
External, superficial

Trigger
Triggering stimulus

Tumour necrosis factor alpha (TNF-α)
Naturally occurring messenger substance of the immune system which is involved in numerous body processes. Among other things, it plays a central role in many inflammatory processes.
Further Information

Internet addresses:

www.psoriasisbund.de
The Deutscher Psoriasis Bund e.V. [German Psoriasis Association] is a self-help association which currently has 7,000 members in regional groups in all federal states.

www.psoaktuell.com
Provides advice for all persons affected by psoriasis – Pso aktuell [Psoriasis Now] is a journal which deals with useful information on all relevant problems and is published four times a year. It is published by K. i. M Info-Service gGmbH.

www.wegweiser-psoriasis.de
Information provided by Pfizer Pharma GmbH on psoriasis. You can find answers to your questions about psoriasis here.

www.psoriasis-netz.de
The psoriasis network is targeted at individuals with psoriasis and psoriasis arthritis as well as at their relatives and friends and the general public.

www.psonet.de
Here you will find an overview of all regional psoriasis networks. You will be able to locate a desired clinic within a regional PsoNet using the convenient PsoNet map search.