Psoriatic arthritis – Active living
A patient handbook about psoriatic arthritis
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Dear patient!

The first step towards getting better for an affected person starts by obtaining detailed information about their illness. This is particularly true for chronic complaints such as psoriatic arthritis. This chronic inflammation of the joints primarily affects persons with psoriasis: Approximately one third of psoriasis patients have typical joint complaints in addition to the skin symptoms. Symptoms may vary greatly – from mild swelling of the joint and moderate complaints to severe pain and significantly impaired mobility.

For a long time, the physical and emotional strains of psoriatic arthritis on the affected persons, but also the social and economic effects of this illness, were underestimated – even by many physicians. Treatment was also often unsatisfactory for a long time, since only few medications were licensed for treating psoriatic arthritis and there were few reliable data available, especially on long-term therapy. These times are fortunately in the past: With medical research, therapy for psoriasis and psoriatic arthritis has made major advances in recent years. Owing to modern treatment options, such as the use of biologics, it is becoming increasingly possible to stop the progress of destructive illness processes and reach a state of being largely or even completely free of complaints.

The first step to getting better always consists of knowing about the processes which occur in the body and active participation. Those who suffer from psoriatic arthritis need a lot of information. This patient handbook is intended to assist you in this regard, since it contains many important and current facts about psoriatic arthritis. As an affected person, one can best address an illness in an active and targeted manner when one has as much information as possible.

Wishing you informative and interesting reading,

Yours truly,
Professor Dr. med. Stefan Schewe
“Dermatologists and rheumatologists should work together very closely in this illness, which affects both organ systems.”

Professor Dr. med. Stefan Schewe
Information on the disease

The most important information about psoriatic arthritis clearly summarized

What is psoriatic arthritis?

Psoriatic arthritis (other names: psoriasis arthropathica, arthritis or arthropathia psoriatica) is chronic inflammation of the joints (arthritis) which occurs in association with psoriasis. The joint inflammation is often accompanied by typical scaly skin. Many patients (approx. 60–90 %) also have characteristic nail changes.

Together with other chronic inflammatory joint disorders, psoriatic arthritis is in the group of so-called spondyloarthropathies or spondyloarthritides (abbreviation: SpA). Spondyloarthritis means inflammation of the small vertebral joints, possibly also the iliosacral joint (between the pelvis and the spine).
How common is psoriatic arthritis?

Psoriasis occurs in approximately two percent of the population in Germany; approximately one third of these patients additionally suffer from psoriatic arthritis. This means that approximately six out of 1000 persons (0.6 % of the population) suffer from psoriatic arthritis.

Who is affected?

Psoriatic arthritis first occurs mainly during adulthood between age 20 and 50. Men and women are more or less equally affected.

Since a predisposition to developing psoriasis and psoriatic arthritis can be inherited, relatives of patients have an increased risk of illness.

Up to 75 % of patients develop the characteristic skin changes before the joint inflammation; psoriasis may appear months or years before joint involvement occurs. Approximately 10 % develop the arthritis before the skin symptoms, or both occur simultaneously.
How does psoriatic arthritis develop?

Much is still unknown about the causes and development of psoriatic arthritis and connections with psoriasis.

It is likely that a combination of genetic (inherited), immunological and environmental factors play a role in its development.

Specific genes which are not yet known in detail appear to be responsible for the inherited predisposition to develop joint involvement. It is also regarded as confirmed that the disorder is based on an immune system disorder. This causes a chain reaction of various processes in which numerous cells and pro-inflammatory messenger substances participate.

The interaction of these factors ultimately leads to chronic inflammation.
What role is played by the messenger substance TNF-α?

Increased concentrations of TNF-α were detected in tissue samples from skin changes or joint fluids of affected joints in patients with psoriasis and psoriatic arthritis.

This led to the assumption that the messenger substance is also significantly involved in the development of psoriatic arthritis.

Another indicator of this is provided by the observation that specific inhibition of TNF-α using special, genetically engineered substances (so-called biologics) can improve both the scaling skin changes and the joint inflammation in psoriatic arthritis.

Tumour necrosis factor alpha (TNF-α)

is a naturally occurring messenger substance (cytokine) of the immune system which plays a major role in inflammatory and immunological processes of various chronic inflammatory disorders.

It has numerous tasks, but primarily promotes inflammation (pro-inflammatory).
Which joints are affected?

The knee, ankle, toe and finger joints are most frequently affected by psoriatic arthritis. This pattern of involvement is also referred to as the peripheral type. Characteristically, only a few joints are inflamed at the same time; the illness often progresses asymmetrically, that is, not equivalently on both sides. Dactylitis, in which the inflammation affects an entire finger or toe, is also typical.

- Joints of the spine and the connection between the sacrum and iliac bone (iliosacral joint) may also be affected. This form is called the central or axial type.
“In light of its possible progression, psoriatic arthritis must no longer be underestimated. On the other hand, its progression varies greatly. Therefore, a diagnosis of psoriatic arthritis certainly does not mean that the illness must progress rapidly and lead to disability.”

Professor Dr. med. Stefan Schewe
What signs are typical?

Characteristic symptoms of psoriatic are (pressure) sensitive or swollen joints and impaired mobility, which is usually most pronounced in the morning after getting up.

This is termed morning stiffness. However, it is not always only the joints which are affected: The connective tissue between tendon and bone may also occasionally become inflamed (enthesitis).

- The Achilles tendon or the connective tissue between tendons and bone on the soles of the feet, knees, pelvic bones and ribs are frequently affected.
What accompanying symptoms may occur?

The nails are more or less noticeably changed in up to 90% of all patients with psoriatic arthritis. Generally, several nails on the hands and feet are simultaneously affected on both sides, and sometimes the surrounding skin as well. So-called spotty nails with small (up to roughly pinhead-sized) hollow indentations in the nail plate which form as a result of disturbed nail growth are most commonly found.

Pronounced changes in the nail’s surface structure occur less often. The nail bed – the underside of the nail plate – can also be involved: There are often yellow-brownish discolourations which shine through the nail plate and are reminiscent of spots caused by oily solutions. They are therefore called (psoriatic) oil spots. When changes are pronounced, the nail loses its hold in the nail bed and may detach.

Patients with psoriatic arthritis are frequently diagnosed with a metabolic syndrome. The metabolic syndrome is today considered to be the crucial risk factor in developing cardiovascular diseases and is characterized by four factors: obesity, high blood pressure (hypertension), cholesterol levels in the blood that are too high (hypercholesterolemia) and insulin resistance (diabetes mellitus).

In this case the chronic inflammatory process of PsA on the skin and joints leads to a significantly increased risk, especially if additional factors such as smoking are also involved. Smoking is thus not only a risk factor for the development of psoriatic arthritis; it also has a negative effect on the course of the disease and the accompanying diseases.
Information on the disease
Psoriasis is an illness with an extremely diverse presentation. Psoriasis vulgaris (“vulgaris” = “common”) is the most frequently occurring form at more than 90%.

The illness may range from minimal symptoms to pronounced changes in which large areas of skin are involved. Typical skin changes consist of so-called plaques: sharply delimited reddish lesions which are raised above the level of the skin and covered with silvery-shiny scales.
The size, form, extent and location of these plaques differs greatly from one person to the next, often with differing stages of development.

The lesions can generally occur anywhere, but certain body regions are preferred. This includes the extensor side of the knees and elbows, the sacral region (above the buttocks), gluteal crease, the navel region and the hair-bearing part of the head (capillitium) and ears. The hair-bearing scalp often has sharply delimited, strongly scaling lesions with inflammatory redness.

- Sometimes scaling is only mild on the head and is the sole indicator of the illness with no further skin changes being visible.
**How does psoriatic arthritis progress?**

Psoriatic arthritis may progress very differently in each individual. The illness generally tends to progress, so that more and more joints are afflicted over time.

Traditionally, a distinction is made between different forms of progression. These are distinguished by the symptoms (primarily the involvement pattern of the joints) and findings from imaging procedures. However, there are also transitional and mixed forms.

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**Types of PsA**

1. Symmetric polyarthritis
2. Asymmetric form (oligoarthritis)
3. Distal interphalangeal (DIP) arthritis
4. Spondylitis
5. Mutilating arthritis

“The progression of psoriatic arthritis can only be predicted with great difficulty. There are only a few criteria which indicate that the illness will advance more rapidly in a patient. On the other hand, we have expensive, but very effective medications available today, which are clearly better able to influence the rapidly advancing progression which destroys joints than even some years ago.”

*Professor Dr. med. Stefan Schewe*
<table>
<thead>
<tr>
<th>Progression form</th>
<th>Frequency (in terms of all cases)</th>
<th>Preferred joints</th>
<th>Typical signs and special attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymmetric form (oligoarthritis)</td>
<td>more than 50%</td>
<td>Finger or toe middle, end and base joints, knee and hip joints</td>
<td>Mild progression Only a few inflamed joints; joints are usually swollen and painful</td>
</tr>
<tr>
<td>Symmetric polyarthritis</td>
<td>20–40%</td>
<td>Wrists, middle and end joints of fingers and toes</td>
<td>Usually symmetric distribution; tendentially severe progression</td>
</tr>
<tr>
<td>Distal interphalangeal (DIP) arthritis</td>
<td>approx. 5%</td>
<td>Finger or toe end joints</td>
<td>Several joints are inflamed, asymmetrical as well as symmetrical. Similar complaints as in the asymmetric form; frequent nail changes.</td>
</tr>
<tr>
<td>Vertebral inflammation</td>
<td>Rarely alone, more commonly (up to 15 %) together with other forms of progression.</td>
<td>Sacrum and iliac bone connections (iliosacral joints) and/or vertebral joints</td>
<td>Painful movement limitations in the region of the spine, occasionally also without any symptoms</td>
</tr>
<tr>
<td>Mutilating arthritis</td>
<td>approx. 5%</td>
<td>Usually many joints on the hands and feet, but also vertebral joints and also the connection between the sacrum and iliac bone (iliosacral joint)</td>
<td>Relatively severe progression with changes in the bones (bone degradation) and joints, leading to severe deformities and movement limitations frequently accompanied by general symptoms (e.g. fever, weight loss) and pronounced skin symptoms</td>
</tr>
</tbody>
</table>
How is psoriatic arthritis diagnosed?

Particularly when psoriasis is already known, newly occurring joint problems should always be investigated as early and thoroughly as possible to detect the illness in a timely and targeted manner and provide treatment.

To differentiate psoriatic arthritis from other similar (joint) disorders, the assessment of x-ray images is used in addition to the typical complaints and patterns of joint involvement; for the affected bones and joints often show characteristic changes.

A significant indicator consists of the current or previous presence of psoriasis in the patient or in close relatives. Psoriatic arthritis progresses with little pain in some patients, so that they usually do not see a physician immediately.

This often means that valuable time passes, for despite absent or only mild complaints, the bones can undergo transformation, leading to movement limitations.

The examination options listed below are not only important for a diagnosis, but also to check progression and monitor therapeutic success.
There are no specific lab tests which can be used to unambiguously detect psoriatic arthritis. Depending on the inflammation activity, some lab parameters are more or less elevated, generally indicating inflammation within the body. These particularly include the erythrocyte sedimentation rate (ESR) and the concentration of C-reactive protein (CRP) in the blood serum.

However these parameters are also elevated in other inflammatory diseases and therefore provide little information alone. The so-called rheumatism factor, which is usually positive (that is, detectable) in rheumatoid arthritis, can only be detected in a few cases in psoriatic arthritis and therefore also serves as a means of distinguishing the disease from rheumatoid arthritis.
Information on the disease
What other illnesses can be similar?

Other rheumatic disorders may also be possible causes of very similar symptoms and complaints. The most important illnesses which must be distinguished from psoriatic arthritis include rheumatoid arthritis and ankylosing spondylitis (Bechterew’s Disease).

The following signs indicate that the illness is progressing:

- Clearly visible swelling occurs on several joints
- Episodes of inflammation on joints, tendon attachment points or the skin are more pronounced and last longer
- The physician continuously finds signs of inflammation in the blood
- X-ray images or other imaging procedures show changes which can be interpreted as beginning or new destruction of joints
“The progression of the illness can be seen with particular clarity in characteristic changes in the x-ray images (and possibly also in MRI or other imaging procedures). Therefore it is necessary to check the affected joints, particularly in the hands and feet, with regular x-rays approximately once a year.”

Professor Dr. med. Stefan Schewe
How can PsA be treated?

Therapy for psoriatic arthritis requires expertise and should be handled by a specialist; that is, a rheumatologist and/or dermatologist.

The objective of any treatment is to relieve pain and other complaints, preserve joint function and mobility, and prevent the illness from progressing. This usually requires taking medications. In all cases, measures such as physical therapy provide support.

TIP

Regular check-ups by a suitable physician (approx. every three months) are the best prerequisite for detecting development of the disease and responding with suitable treatments.
**Drug therapy**

Depending on the symptoms and stage of the illness, various groups of active substances are available. When psoriasis is present at the same time, it is beneficial that the applied medication also improves the skin.

**Cortisone-free anti-inflammatories**

At the start of therapy, so-called non-steroidal (=cortisone-free) anti-inflammatory drugs (NSAID) or antiphlogistics, the classic antirheumatic agents, are generally used. They primarily inhibit inflammation and relieve pain.

However some of these substances may also worsen the skin changes or lead to gastrointestinal complaints. The latter is particularly true for older representatives of this active substance group (e.g. acetylsalicylic acid, ibuprofen, diclofenac). The so-called COX-2 inhibitors (coxibs) are newer substances.

They are better tolerated by the stomach due to a more specific mode of action.

**Glucocorticoids (cortisone)**

In acute and severe inflammation of individual joints, it is possible to inject glucocorticoids (cortisone) directly into the joint (intra-articular) to obtain rapid relief of pain and swelling. Glucocorticoids are derivatives of cortisol, a natural adrenal gland hormone. It has many effects in the human body.

Cortisone products are also called glucocorticoids, corticoids or steroids in medical usage. They have a strong anti-inflammatory effect, but may also intensify the psoriasis.
**Basic therapeutics**

When the response to therapy with non-steroidal antiphlogistics is insufficient or there is severe, advancing progression, so-called base therapeutics are generally used. These are medications which are generally used to treat rheumatoid arthritis and other chronic inflammatory disorders. Only a few base therapeutics are also licensed for the treatment of psoriatic arthritis. These include methotrexate (MTX), leflunomide and gold compounds.

Some other active substances also appear to be effective in psoriatic arthritis. For instance, improvements of simultaneously existing joint inflammation are often seen in patients who are treated with cyclosporin due to severe psoriasis.

**Methotrexate**

Methotrexate (MTX) is a medication with numerous effects. It largely acts on psoriatic arthritis by intervening in the inflammation process and inhibiting the excessive reactions of the immune system. MTX is effective against joint inflammation and skin changes and is also approved for both applications. The substance is available as a solution for injection and in the form of tablets, and is administered once weekly.

Subcutaneous injection (under the skin) may also be possible; patients can do this themselves using a prefilled syringe. The most important side effects consist of liver and blood count changes. To avoid harming their liver, patients should not drink alcohol during MTX treatment. Intensive sun exposure should also be avoided. Additionally, folic acid significantly can reduce the side effects. Common side effects include loss of appetite, nausea, vomiting, abdominal pain and diarrhea. A complete list of side effects is found in the corresponding package insert.
"Patients with psoriatic arthritis must be informed that they have a serious illness which can also destroy the joints. Therefore, they should be regularly examined by a specialist to have the course of their disease evaluated. However, they should also know that we have effective therapies available today which should be used in a rapidly progressing disease."

Professor Dr. med. Stefan Schewe
**Leflunomide**

Leflunomide acts on psoriatic arthritis by inhibiting the inflammation, disturbed immune system reactions and increased tissue growth. It is generally taken once daily in tablet form.

Among others, the most common side effects include lack of appetite, nausea, vomiting, abdominal pain, diarrhoea, headache, fatigue, hair loss or skin rash. Some patients develop a slightly elevated blood pressure or transient mild weight loss.

**Gold for injection**

The significance of gold preparations in the treatment of psoriatic arthritis has decreased greatly in recent years due to newer, better treatment options.

Therefore, they are only rarely used today. It is especially disadvantageous that gold may worsen the skin changes.
**TIP**

During the course of therapy (irrespective of the medication being used), check-ups are required every two weeks in the first six months, followed by every four to eight weeks. Blood pressure is measured, and blood and urine samples are used to check liver and kidney function as well as blood formation.
**Biological substances (TNF-α antagonists)**

When cortisone-free anti-inflammatories and basic therapeutics are not sufficiently effective, there is the option of therapy with TNF-α antagonists. These belong to the group of biologics (biologicals), a modern generation of medications.

These are various proteins which are produced using genetic engineering and whose therapeutic effects are due to their promotion or inhibition of the activity of naturally occurring substances. They are produced from living cells using biotechnological procedures.

Most preparations are injected under the skin (subcutaneously) and can also be administered by the patient after suitable instruction. Since biologics act very specifically, they appear to have fewer negative effects on normal (physiological) processes in the body and have fewer side effects than common medications.
TNF-α antagonists act by inhibiting the pro-inflammatory messenger substance tumour necrosis factor alpha, which plays a decisive role in the development of psoriatic arthritis and psoriasis. TNF-α acts on specific cells by docking to cell surface protein structures which are called receptors.

These receptors transmit decisive signals to the cell. Some TNF-α antagonists act by blocking the messenger substance itself, while others occupy the receptor and thereby also prevent the messenger substance from having an effect.

The most common side effects include reactions at the injection site after the injection, such as redness, swelling, pain or itchiness. Other common side effects include infections, allergic reactions and fever.

The development and production of biologics is very costly. The substances are therefore primarily an option for treating adult patients with active and progressing forms of psoriatic arthritis which do not respond sufficiently to basic therapeutics. Significant improvements can be achieved even in very severe cases. Herein the TNF-α antagonists generally act both on the joint inflammation and on skin changes of psoriasis.
**Physical treatment measures**

Apart from drug therapy, various physical treatment measures are important to preserve joint functions. It is therefore important for the exercises to be learned under the expert instruction of a physical therapist. Afterwards, it is also possible to perform them independently and regularly at home. If the disease activity is especially pronounced or during acute episodes, often only passive exercises are possible; but they are also important.

Bath treatments (balneotherapy) provide an opportunity to beneficially affect the skin and joint symptoms at the same time. Apart from thermal or sulphur baths, these especially include combinations of baths in concentrated salt solution (brine) followed by UV irradiation (balneo-phototherapy, photo-brine therapy). Climate therapy on the Dead Sea is a special form.

**INFO**

Active physical therapy exercises are a fundamental part of treating psoriatic arthritis. Special movement exercises which help to restore or preserve the best possible mobility are performed under expert instruction.

They should be customised for every patient and adapted to the particular stage of the disease.
**TIP**

Cold or heat therapy, massage, electrotherapy and other physical procedures may be helpful in certain cases.
**Surgical procedures**

Sometimes surgical interventions are required for psoriatic arthritis. Several measures serve to avoid (further) joint destruction.

This can also be achieved with so-called radiosynoviorthesis. Herein a radioactive substance is injected into the joint, destroying the tissue which has undergone inflammatory changes.

If joint or tendon damage has already occurred, function may be improved by a reconstructive, that is, restorative procedure. Sometimes joint stiffening (arthrodesis) or the implantation of a joint replacement (endoprosthesis) is required.

Whether and when such surgery makes sense depends on many circumstances, such as the nature and function of the joint, stage of illness and extent of physical impairment.

**INFO**

In individual or a few joints, the pathologically altered tissues of the joint’s inner membrane (synovial membrane) can be removed by endoscopic intervention (that is, by endoscopy). Such an surgery is called a synovialectomy.
**Other accompanying measures**

Since psoriatic arthritis not only leaves physical marks on affected persons, but also means major mental strain, accompanying psychotherapeutic procedures and/or psychosocial care can often be very helpful for better management of the many challenges which are associated with the illness.

Targeted strategies also facilitate a beneficial effect on pain reactions. Various methods can be helpful, such as behavioural therapy, relaxation exercises, meditation, yoga or tai chi.

They facilitate better stress and pain management, increase the quality of life, and thereby result in a better course of the disease over the long term.

Last but not least, these methods can also contribute to better managing mental problems such as depression or fatigue which occurs with the illness.

You will find out over time which method is right for you and suits you best. Not every procedure is suitable for all patients. Of course you can also obtain advice from your physician or therapist.
“Progressing psoriatic arthritis cannot be affected by the methods of alternative medicine. Therefore, irrespective of the treatment being administered, follow-up examinations by a knowledgeable physician are necessary in all cases.”

Professor Dr. med. Stefan Schewe
Living with chronic illness is always stressful. Furthermore, treatment and support measures often require a lot of effort and additional time. The following tips can help you to better live with and manage your illness and show you how you can contribute to successful treatment.

- Think positively. A positive and confident attitude lets you better manage many stresses and impairments associated with the illness and the therapy.
- Don’t let your illness negatively impact your everyday life too much. Try to structure your life in such a way that you enjoy it and undertake leisure activities, travel, etc. with your family and friends.
- Be sure to understand that treatment requires a great deal of participation by you. The success of all prescribed treatment measures, including physical therapy and other supportive measures, also decisively depends on you. Make an active contribution. It is important that you work together well with your physician and other medical personnel.
- Inform yourself about your illness, and get help and advice from experts and other affected persons, e.g. in patient organisations. A problem shared is a problem halved – therefore such self-help groups are very helpful. One is not alone in the world with one’s problems, and receives a lot of support.
- Self-help groups can contribute to optimising the diagnosis and treatment in psoriatic arthritis.
**Physical movement and sports**

“Those who rest, rust” — this is also true for patients with psoriatic arthritis. Regular movement is absolutely necessary and sensible to prevent stiffening of joints, strengthen muscles and tendons (to relieve joints) and avoid joint malpositioning. Targeted training provides better circulation and nutrition to the musculoskeletal system (bones, cartilage, muscles) so that muscle strength and endurance are improved. This contributes to preserving physical and mental well-being. Last but not least, physical exercise also has very positive mental effects.

Like physical therapy, any training must also be adapted to the respective health and training status of the individual patient. Targeted endurance and/or strength training is generally possible with good health and low disease activity. However, such activities should be discussed beforehand with the physician or physical therapist.

Sports which place less stress on the joints are recommended such as swimming (especially backstroke), cycling (Nordic) walking or cross-country skiing. On the other hand, you should avoid activities which may overexert, incorrectly exert or damage the joints. This especially includes sports with abrupt movements and sudden stops, such as tennis, squash, football or other ball sports.

Your physical therapist can advise you in this regard. It is best to have an individualized training program customized for you by your physical therapist which you can then perform regularly on your own.

**TIP**

Fundamentally, the same holds true for psoriatic arthritis as for other inflammatory joint diseases: Moving the affected joints as well as possible is better than resting them.
“Movement without excessive use of strength is the motto. Even when joints are noticeably inflamed, it is better to move them than to rest them.”

Professor Dr. med. Stefan Schewe
Nutrition, drink and tobacco

There is thus far no scientifically confirmed knowledge that nutrition plays a decisive role in the development or progression of psoriatic arthritis. Consequently, there is no special diet. As a result, you don’t need to restrict your diet excessively.

However, a balanced, wholefood diet is generally recommended. This includes plenty of fresh fruit and vegetables, salads, grains (whole grain products), legumes and (low-fat) dairy products. The following tips may also be helpful:

- **Give preference to plant foods.** Reduce consumption of meat and sausages to a maximum of two meals per week. Largely replace animal fats with plant oils.

- **Eat more fish.** It is known that the unsaturated omega-3 fatty acids contained in fish oils have an anti-inflammatory effect. They are found particularly in fat-rich salt-water fish such as salmon or mackerel. One to two meals of salt-water fish per week are recommended.

- **Absolutely avoid being overweight,** since this additionally stresses the joints.

- **Avoid excessive alcohol consumption,** since alcohol is pro-inflammatory.
Much additional information on the topic of eating and drinking in rheumatism can be found in our brochure of the same name.
A
analgesic (plural: analgesics)
pain relievers
anamnesis
medical history
ankylosing spondylitis (= Bechterew’s disease)
specific form of chronic inflammatory joint disease
ankylosis
osseous stiffening
antagonist
substance directed against a specific effect or structure (e. g. receptor)
anti-inflammatory
counteracting inflammation
antibody (= immunoglobulin)
Protein (protein molecule) which is formed as a reaction of the immune system and is directed specifically against a specific substance or structure (antigen)
antigen
substance which is foreign to the body (or part of the body) and may trigger an immune reaction
antiphlogistic
counteracting inflammation
antipsoriatic drugs
preparation for treating psoriasis
antirheumatic drug
(plural: antirheumatic drugs)
medication for treating rheumatic diseases with different mechanisms of action
arthritis
inflammation of a joint
arthrodesis
joint stiffening
arthrography
x-ray image of a joint with contrast agent
arthropathy
(inflammatory or degenerative) joint disease
arthroscopy
joint endoscopy
arthrosis
chronic degenerative (due to excessive use or stress) joint changes
autoantibodies
antibodies directed against the body’s own tissues; autoantibodies can be detected in autoimmune diseases

B
balneotherapy
treatment with baths
basic therapeutic (DMARD = Disease Modifying Antirheumatic Drug)
long-acting disease-modifying antirheumatic
Bechterew’s disease
see ankylosing spondylitis
biologic
(plural: biologics; english biologics, biologicals)
active substances produced by genetic engineering, “biological substances”
blood count
collective description for lab tests in which the amount of your blood’s cell components (blood cells, hemoglobin) is determined
C
C-reactive protein (CRP)
protein whose concentration in the serum can increase up to 1000-fold within a few hours in certain inflammatory processes
colitis ulcerosa (ulcerative colitis)
chronic inflammatory disease of the intestines
cortico(stero)ids (glucocorticoids)
group of medications which are derived from cortisone and are primarily anti-inflammatory, but also have numerous other effects
cortisone
artificially produced derivative of cortisol, a hormone which is produced in the adrenal glands; is a member of the glucocorticoids
cyclooxygenase (COX)
enzyme complex which plays a key role in prostaglandin production
**cytokine**
Umbrella term for numerous messenger substances intrinsic to the body which transmit signals between cells of the immune system and other cells and thereby play an important role in immune reactions. Among other functions, cytokines have many inflammation-promoting (pro-inflammatory) and immunoregulatory effects and also play a role in controlling blood formation. The cytokines include e.g. the interleukins or TNF-α.

**Crohn’s disease**
chronic inflammatory bowel disease

**D**

**dermatology**
specialised medical field which deals with disorders of the skin, skin attachments and mucous membranes

**differential diagnosis**
differentiation and delimitation of similar diseases

**DMARD**
see basic therapeutic drugs

**E**

**effusion**
collection of fluids, e.g. in the joint; usually externally recognisable as swelling, which may also be painful due to pressure on neighbouring nerves

**endoprosthesis**
part which is made from materials which are foreign to the body as a replacement for a body part, e.g. a joint replacement

**enthesitis**
inflammation of a tendon attachment point

**erythrocyte sedimentation rate (ESR)**
speed with which the blood cells settle at the bottom due to gravity if one allows a blood sample (which has been mixed with an anticoagulant) to stand for 1 or 2 hours. Elevated ESR may indicate acute or chronic inflammation in the body.

**extraarticular**
affecting organ (system(s)) other than the joints

**G**

**glucocorticoids (cortico(stero)ids)**
group of medications which are derived from cortisone and are primarily anti-inflammatory, but also have numerous other effects

**H**

**HLA system**
(= human leukocyte antigen system)
system of human tissue antigens which occur on the cells of nearly all tissues and can be especially detected on leukocytes

**I**

**immunosuppressant (plural: immunosuppressants)**
medication which suppresses or weakens immune system reactions

**immunosuppressive**
suppressing or weakening the immune response

**Immune system**
defence system; entirety of all structures (cells, antibodies, messenger substances etc.) in the body which are responsible for defence against substances which are foreign to the body (antigens) or degenerated body cells (cancer)

**immunology**
discipline concerned with the structure and function of the immune system

**interleukins (IL)**
messenger substances which are produced by leukocytes (white blood cells) and mediate the transmission of information within the immune system, activate other cells and additionally have hormone-like effects. Depending on the type (IL-1 to -18), the interleukins exert numerous effects.

**intra-articular**
within or into the joint

**iritis**
inflammation of the iris of the eye
J
juvenile idiopathic arthritis
form of chronic joint inflammation which primarily affects children and/or adolescents

L
leukocyte
white blood cell
lymphocyte
subtype of white blood cells (leukocytes) which plays an important role in immune defence

M
macrophage
subtype of white blood cells (leukocytes) which is part of the immune system. Macrophages can "digest" foreign substances and are therefore also called phagocytes
mediators
messenger substances which serve in communication between cells
mon(o)arthritis
inflammation of a (single) joint
mon(o)articular
affecting a (single) joint
monoclonal
originating from or formed by one cell
monotherapy
treatment with only one medication or active substance

N
non-steroidal antirheumatic (NSAR or english: NSAID)
active substance not derived from cortisone (steroid) with a pain-relieving and anti-inflammatory effect based on inhibition of prostaglandin-production

O
oligoarthritis
inflammation of a few joints (usually 1 to 3 joints)
oligoarticular
affecting few joints
oral
on, in, through the mouth
osteoporosis
bone disease with loss or reduction of bone substance; the consequence is an elevated risk of bone fractures

P
pannus
cell mass which invades cartilage and bone and destroys them; characteristic attribute of RA
parenteral
circumventing the digestive tract
pathogenesis
formation and development of diseases
phototherapy
treatment with natural or artificial light
placebo
a dummy medication
plaque
on the skin: flat raised, plate-like skin change, typical of psoriasis
polyarticular
affecting many joints
polyarthritis
inflammation of several or many joints
prognosis
evaluation of the foreseeable outcome of a disease or condition
progressive
advancing
progression
advancement of a disease or change
pro-inflammatory
promoting inflammation
prosthesis
artificial replacement of body parts
protein
protein substance
psoriasis
psoriatic skin disease
psoriatic arthritis
chronic inflammatory joint disease which is usually accompanied by psoriasis of the skin and/or nails

PUVA (= psoralen + UVA)
UVA irradiation with the addition of psoralen to increase light sensitivity (photochemotherapy); psoralen can be administered in tablet form or applied externally. There is also a special form, PUVA bath therapy, in which the substance is added to the bath water.

R
receptor
Structure of a cell which is usually at the cell surface, which receives signals transmitted by messenger substances and transmits them to the cell nucleus. Receptors are specialised to certain messenger substances and enable the cell to react to this messenger substance.

rehabilitation
restoration, reintegration or prevention to correct health disorders

remission
permanent or temporary disappearance of disease symptoms; asymptomatic condition

rheumatoid factor (RF)
antibodies against the body's own proteins; especially detectable („positive“) in the serum in rheumatoid arthritis; also rarely in healthy persons

rheumatoid arthritis (RA), chronic polyarthritis
chronic inflammatory joint disorder; also commonly called rheumatism in common language

S
spondyloarthropathy
inflammatory rheumatic disease, primarily with spinal changes

spondylitis
inflammation in the spinal region

spotty nails
nail changes which are typical of psoriasis and psoriatic arthritis, with small (approx. up to pinhead-sized) indentations in the nail plate which are caused by disturbed nail growth

steroid
see corticosteroids

subcutaneous (s. c.)
under the skin

synovial fluid = synovia
thickly viscous fluid contained in the joint cavities (=synovial cavities) which contributes to reducing friction between bone surfaces

synovial joint
joint in which the involved bone surfaces are covered with a layer of joint cartilage and have a joint cavity which is filled with synovial fluid and lined with a synovial membrane, as well as being strengthened by a connective tissue capsule and ligaments

synovial membrane (= synovialis)
inner membrane of the joint capsule which consists of connective tissue, it lines the joint cavity and produces the synovial fluid

synovitis (= synovialitis)
inflammation of the synovial membrane

systemic
affecting an entire organ system or (in the broader sense) also several organ systems; that is, the entire organism

T
tumour necrosis factor-alpha inhibitor (TNF-α inhibitor)
naturally occurring messenger substance (cytokine) of the immune system with diverse effects, among other functions it also plays a central role in many inflammatory processes
**Further information**

*Knowledge is power. Face your disease smart and strong.*

**Self-help groups**

**Deutsche Rheuma-Liga Bundesverband e. V.**  
Maximilianstr. 14 | 53111 Bonn  
Tel.: 02 28 / 7 66 70 80 | Fax: 02 28 / 7 66 06 20  
www.rheuma-liga.de

The German Rheumatism League is the largest self-help organisation in the health field with approx. 250,000 members. It offers help and self-help for affected persons, exercise opportunities, public information and represents the interests of rheumatism sufferers, among other roles.

**Deutscher Psoriasis Bund (DPB) e. V.**  
Seewartenstr. 10 | 20459 Hamburg  
Tel.: 0 40 / 22 33 99 - 0 | Fax: 0 40 / 22 33 99 - 22  
www.psoriasis-bund.de

The DPB is the largest patient organization representing the interests of all people suffering from psoriasis in Germany.

**Internet addresses**

**www.psoaktuell.com**  
Provides advice for psoriasis, tips on managing the illness

**www.rheumanet.org**  
The Deutsches Rheumahaus offers diverse information and links on rheumatic diseases

**www.rheuma-online.de**  
Informationen zu Rheuma von A bis Z (Information on rheumatism from A to Z). Current news on the disease and therapy options, possibility for affected persons to exchange experiences

**www.rhzmev.de**  
Rheumazentrum München (Munich Rheumatism Centre):  
Rheumatism from A to Z, with numerous photos on psoriatic arthritis  
and an option to search for a physician

**www.wegweiser-psoriasis.de**  
Offering information on psoriasis

**www.wegweiser-rheuma.de**  
A list of recommended websites on various rheumatic diseases
**Book tips**

**Arthritis psoriatica.**
Wolfgang Miehle  
Rheumamed-Verlag, 2006  

**Psoriasis und Gelenkerkrankungen.**  
(Psoriasis and joint disorders.)  
Uwe Wollina, Gert Hein and Burkhard Knopf  
Urban & Fischer Verlag, 2002  