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## Psoriatic arthritis

### What is psoriatic arthritis?

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Psoriatic arthritis is a painful, inflammatory condition of the joints that usually (but not always) occurs in association with psoriasis of the skin. Up to 40% of people with skin psoriasis have some signs of psoriatic arthritis.

Symptoms of psoriatic arthritis come and go but it is a lifelong condition. It may result in severe damage to the joints and can be as severe as [rheumatoid arthritis](#). Joint deformity and changes on X-rays may be found in approximately 40% of people with psoriatic arthritis.

People with severe psoriatic arthritis have been reported to have a shorter lifespan than average. This correlates with the severity of the joint disease.

Psoriatic arthritis belongs to a group of arthritic conditions called the spondyloarthropathies. Conditions included in this group have similar features and include:

- Psoriatic arthritis
- Ankylosing spondylitis
- Reactive arthritis
- Enteropathic arthropathy

Common features of the above four conditions include:

- Arthritis affecting joints of the arms and legs in an asymmetrical distribution
- Arthritis of the spine, hips and shoulders
- Negative rheumatoid factor (a blood test abnormality that is usually positive in patients with rheumatoid arthritis)
- Genetic susceptibility to the condition
- Distinctive features on X-rays
- Increased prevalence in males

### What causes psoriatic arthritis?

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The main contributing factors to the development of psoriatic arthritis are genetics, immunological factors and the environment.

#### Genetics

As in psoriasis of the skin, many patients with psoriatic arthritis may have a familial tendency toward the condition. However, a twin study found that arthritis was as common in dizygotic (fraternal) twins as in monozygotic (identical) twins so unknown environmental factors may also be important. First-degree relatives of patients with psoriatic arthritis have a 50-fold increased risk of developing psoriatic arthritis compared with the general population. It is unclear whether this is due to a genetic basis of psoriasis alone, or whether there is a special genetic predisposition to arthritis as well.

#### Immune factors

There is evidence to support the theory that psoriatic arthritis occurs as a result of an abnormal interaction

between the immune system and the joints. People with psoriatic arthritis seem to have an overactive immune system as is evidenced by raised inflammatory markers, in particular tumour necrosis factor (TNF), and increased antibodies and T-lymphocytes (infection-fighting cells).

### Environment

Presumably some environmental factor tips the balance in favour of the development of psoriatic arthritis in an individual who is genetically predisposed to the condition. As yet no reliable environmental factor has been identified.

## What are the signs and symptoms of psoriatic arthritis?

Psoriatic arthritis causes pain and swelling of joints, and stiffness, particularly in the morning. This may result in reduced mobility and function.

### Psoriatic arthritis



Specific problems include difficulties with using the hands, standing for long periods, and walking. Many patients with psoriatic arthritis have to discontinue or change their work because of the disease.

Other signs and symptoms of psoriatic arthritis include:

- Enthesitis (pain and swelling at insertion of tendons and ligaments such as the heel); this affects 1 in 5 patients with psoriatic arthritis
- 'Sausage' digits (very swollen fingers or toes that look like fat sausages)
- Joint deformity

Other features that may be seen in association with psoriatic arthritis include:

- Fatigue
- Iritis (eye inflammation); this does not often cause serious eye problems, and is often associated with arthritis of the spine
- [Mouth ulcers](#)
- [Psoriatic nail dystrophy](#): thickening and ridging of the nails with separation of the nail from the underlying nail bed

Psoriatic arthritis usually affects joints in an asymmetrical pattern (that is, different joints are affected on each side of the body). Approximately one third of patients will have spinal and/or sacroiliac (hip) joint involvement and two-thirds will have arthritis affecting the limb joints without spinal disease. The following are common ways in which psoriatic arthritis can present:

- Arthritis predominantly of the small joints at the ends of the fingers
- Severe deforming arthritis
- Arthritis involving many joints on both sides of the body symmetrically
- Asymmetrical arthritis affecting several joints in the fingers and hands
- Arthritis predominantly of the spine and sacroiliac joints (where the hip bones attach to the base of the

spine)

## What is the association with psoriasis of the skin?

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People with psoriatic arthritis usually have some skin signs eventually.

Psoriatic arthritis develops after skin psoriasis in approximately 70% of patients. Remaining patients have either a simultaneous onset of skin and joint psoriasis or joint symptoms precede any skin problem. The severity of the skin diseases does not predict the severity of the joint disease.

[Plaque psoriasis](#) is the most common form of skin psoriasis seen with psoriatic arthritis. Joint symptoms may flare with a flare in skin psoriasis but quite commonly the skin symptoms behave independently of joint symptoms. Most people with psoriatic arthritis have mild psoriasis.

## How is psoriatic arthritis diagnosed?

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The diagnosis of psoriatic arthritis is based on symptoms, examination of skin and joints and compatible X-ray findings.

X-ray findings that are characteristic of psoriatic arthritis include:

- Changes affecting the joints at the end of the fingers (distal interphalangeal joints)
- Asymmetrical joint involvement (particularly asymmetrical arthritis of the sacroiliac joints)
- Destruction of the bone and cartilage adjacent to joint spaces (osteolysis, erosions)
- A characteristic 'pencil-in-cup' deformity of the finger joints
- Slipping (subluxation) of the alignment of the joint
- Fusion of bones together across the joint space (ankylosis)
- Wispy and dense bony outgrowths around joints (whiskering and spurs, respectively)
- Increased calcium salt deposition around insertion of ligaments and tendons into bone and other features of enthesopathy

Other conditions with similar clinical and X-ray findings to psoriatic arthritis include:

- Rheumatoid arthritis
- Gout
- Osteoarthritis
- Reactive arthritis
- Ankylosing spondylitis

There are no diagnostic blood tests for psoriatic arthritis but tests may be done to help confirm the diagnosis and rule out other causes.

- Elevated ESR and CRP (erythrocyte sedimentation rate and C-reactive protein, respectively), which are markers of inflammation, may reflect the severity of the inflammation in the joints.
- Rheumatoid factor is usually negative but may be positive in up to 9% of patients with psoriatic arthritis.

## What treatment is available?

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Some treatments for joint psoriasis are also effective for skin psoriasis so treatment plans may take both skin and joint disease into account.

Traditionally, psoriatic arthritis has been treated with the safest medication first, using more aggressive treatment only if the first failed. It is now thought that treating the condition more aggressively from the outset may limit the eventual joint damage and disability. At this time it is not known what factors predict whether a person will have progressive joint disease.

If arthritis is mild and limited to a few joints and the skin disease is not severe the skin is treated with topical therapies or ultraviolet light and the joint disease is managed with pain relief (non-steroidal anti-inflammatory drugs, heat and ice), physical therapy and possibly corticosteroid injections into the joint.

If arthritis involves several joints or is moderate to severe then more aggressive therapy is likely to be needed, such as:

- [Methotrexate](#)
- [Ciclosporin](#)
- [Leflunomide](#)
- Sulfasalazine
- [Azathioprine](#)
- [Gold salts](#) (sodium aurothiomalate)

These medications improve symptoms of pain and stiffness but none have been shown to prevent progressive joint damage and all have potential for serious side effects. Methotrexate, ciclosporin, and leflunomide are drugs that have a beneficial effect on both joint and skin disease.

[Biologic response modifiers](#) are new drugs that target TNF (tumour necrosis factor) or other inflammatory mediators and aim to modify specific inflammatory pathways to prevent joint inflammation.

[Etanercept](#) is currently the only biologic that has been approved for the treatment of psoriatic arthritis but other agents are being studied. Etanercept is given by injection under the skin twice weekly. It has been shown to improve joint and skin psoriasis and is the only drug shown to prevent progression of psoriatic arthritis to date.

[Infliximab](#) has been shown to improve joint and skin manifestations of psoriasis.

Early studies of [alefacept](#) look promising for the treatment of psoriatic arthritis.

## What is the long-term prognosis for psoriatic arthritis?

Most people with psoriatic arthritis will have ongoing problems with arthritis throughout the rest of their life. Remissions are uncommon; occurring in less than 20% of patients with less than 10% of patients having a complete remission off all medication with no signs of joint damage on X-rays.

Features associated with a relatively good prognosis are:

- Male sex
- Fewer joints involved
- Good functional status at presentation (this relates to ability to carry out normal daily tasks at work and home)
- Previous remission in symptoms
- Some genetic subtypes (this can be determined by a blood test looking at a genetic marker called an HLA-group)

Features associated with a poor prognosis include:

- ESR >15 mm/hr at presentation
- Use of medication prior to initial consultation
- Absence of nail changes
- Joint damage on x-rays

### Related information

On DermNet NZ:

- [Psoriasis](#)
- [Chronic plaque psoriasis](#)

- [Flexural psoriasis](#)
- [Scalp psoriasis](#)
- [Guttate psoriasis](#)
- [Palmoplantar psoriasis](#)
- [Nail psoriasis](#)
- [Palmoplantar pustulosis](#)
- [Pustular psoriasis](#)
- [Erythrodermic psoriasis](#)
- [Treatment of psoriasis](#)
- [Rheumatoid arthritis](#)

**Other websites:**

- [Patient Linx Psoriasis newsletter](#)
- [The Psoriasis Association](#) UK
- [Psoriasis Association](#) New Zealand
- [The National Psoriasis Foundation](#) USA
- [Psoriatic Arthritis Alliance](#)
- [Grossbart.com](#) – Research-based approaches from a Harvard Med School Psychologist.
- [PsoriasisNet](#) – American Academy of Dermatology
- [Psoriasisguide.com](#)
- [Guttate psoriasis](#), [Nail psoriasis](#), [Plaque psoriasis](#) – emedicine dermatology, the online textbook

**Books about skin diseases:**

See the [DermNet NZ bookstore](#)

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DermNet does not provide an on-line consultation service.

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