



Understanding Psoriatic Arthritis



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Introduction

Psoriatic arthritis is a type of autoimmune disease, where your immune system mistakenly attacks the lining of your joints. Why this happens isn't really understood, but genes and triggers such as smoking and certain bacterial and viral infections seem to be involved.

As with any long-term condition, it is important that you work with your doctor to find the treatment that works for you.

This booklet has been prepared to help you:

- understand your condition and the different treatments available
- work with your healthcare team to reduce symptoms
- identify ways to assist you in managing your psoriatic arthritis and living a full and balanced life.

Remember that the information provided in this booklet is general in nature and not intended to replace professional medical advice. If you have any further questions about your condition or treatment, please contact your healthcare professional.

We hope you will find this booklet useful in your journey with psoriatic arthritis.

What is psoriatic arthritis?

Psoriatic arthritis is a disease that affects the joints (arthritis) as well as the skin or nails (psoriasis). Men and women are equally affected and although it can occur at any age, it most commonly occurs between 40 and 50 years of age. In more than 80% of people, the psoriasis appears before the arthritis.^{1,2}

Most people with psoriatic arthritis experience intermittent periods of intense disease activity (known as flares) and periods of no symptoms at all (known as remission). However, in some cases the disease is continuously active and may worsen over time. Early diagnosis and treatment may achieve remission and is the best way to avoid irreversible joint damage and disability.

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1. Arthritis Australia. Taking control of your Psoriatic Arthritis. Available at: http://www.arthritisaustralia.com.au/images/stories/documents/booklets/2016/ArthAus_Psoriatic_screen.pdf Accessed: August 2016.
2. Liu J-T et al. World J Orth 2014;5(4):537-543.

Symptoms of psoriatic arthritis

The symptoms of psoriatic arthritis vary from person to person. The main symptoms are inflammation of the joints (arthritis) and skin inflammation and scaling (psoriasis). While psoriatic arthritis is a chronic illness (meaning it can last for many years), people may experience long periods without symptoms (known as remission).

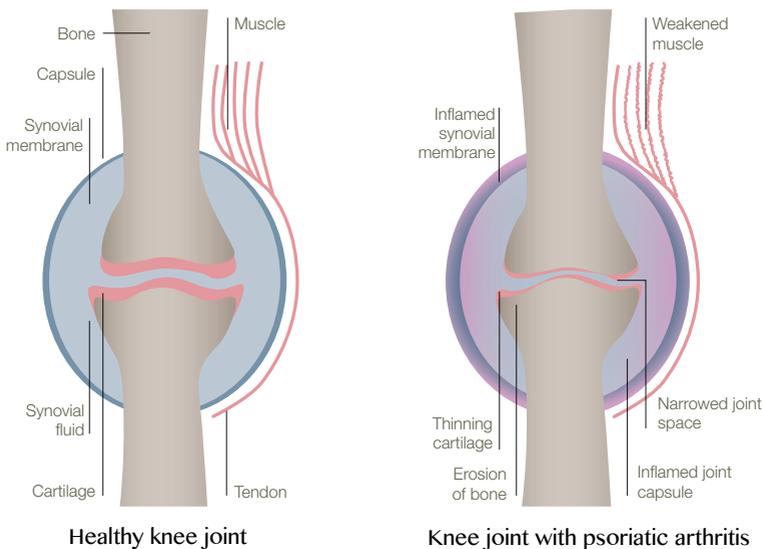


How does psoriatic arthritis affect the joints?

Psoriatic arthritis occurs when tendons (which attach muscles to bones) and ligaments (which connect one bone to the next) around joints become inflamed. This can cause: erosions of the bone at the site of attachment; inflammation and swelling of nearby soft tissues (including the membrane lining the joint called the synovium); and accumulation of fluid inside and outside joints. This makes affected joints swollen, hot and sore.

Effects of psoriatic arthritis on a joint^{1,2}

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Adapted from: 1. Australian Institute of Health and Welfare 2009. A picture of rheumatoid arthritis in Australia. Arthritis series no. 9. Cat. no. PHE 110. Canberra: AIHW; 2. Sankowski AJ et al. Pol J Radiol 2013;78(1):7-17.



Sometimes, joint inflammation in the fingers or toes can cause swelling, giving them a sausage-like appearance (called dactylitis).

Psoriatic arthritis usually affects the fingers, toes, wrists, ankles and knees. It can also affect the spine and sacroiliac joints (the joints of the lower back between the spine and the pelvis).



How does psoriatic arthritis affect the skin?

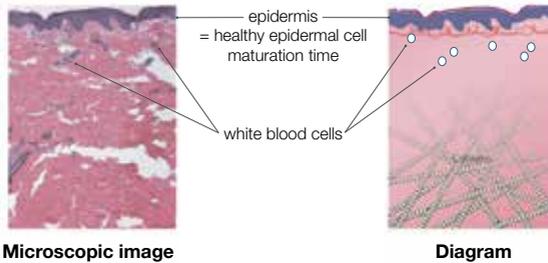
Psoriasis causes an inflammatory rash, most commonly on the elbows, knees and scalp. The skin rash of psoriasis is usually present in patients for several years before the onset of psoriatic arthritis, if it occurs. This is caused by overactivity of the immune system in the skin, which leads to skin cells being produced too quickly so new skin cells move to the outermost layer of skin in days rather than weeks (Figure 1). Dead skin cells pile up on the surface as scaly patches or 'plaques' (Figure 1). To support the increase in skin cell production, blood vessels become enlarged causing the patches to look red.

Changes in nails – such as thickening, colour change or separation from the nail bed – also occur in over 80% of people with psoriatic arthritis.¹

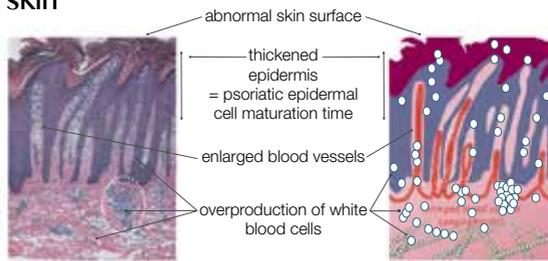
1. Mease PJ. Arthritis Care Res 2011;62(S11):S64-S85.

Figure 1: Normal skin versus psoriasis

Healthy skin



Psoriatic skin



Adapted from: Lowes MA, Bowcock AM, Krueger JG. Nature 2007;445(7130):866-873.



Psoriasis showing old, dry skin flakes (plaque psoriasis)



Psoriasis showing red raw young new skin cells



What causes psoriatic arthritis?

Psoriatic arthritis is as an autoimmune disease, meaning that the immune system attacks its own body tissues. While the exact cause of psoriatic arthritis is currently unknown, the result is an immune system that promotes inflammation in the joints, skin and sometimes other tissues of the body.

In these areas of inflammation, immune cells (lymphocytes) are activated producing chemical messengers (called cytokines).

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Lymphocytes are types of white blood cells that are involved in recognising and responding to infection and inflammation.

Cytokines are chemical messengers released from lymphocytes that regulate the body's response to disease and infection. Some cytokines reduce inflammation while others interact with the immune system to promote inflammation.

Conditions such as rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, psoriasis, Crohn's disease and ulcerative colitis are associated with an overproduction of lymphocytes and cytokines that promote inflammation. This can cause tissue damage.

One of these cytokines is a protein called tumour necrosis factor alpha (TNF- α). TNF- α plays a central role in orchestrating an immune response against infection and tissue damage, which results in inflammation. The immune system is then counter-balanced by other cytokines that normalise the inflammatory response.

In conditions such as psoriatic arthritis, the inflammatory response is magnified due to an over-expression of TNF- α which, along with other inflammatory cytokines, is responsible for increasing inflammation of the tissue lining the joints (called the synovium). This results in stiffness and swelling of the joints, and in the build-up of plaques on the skin that are commonly associated with the disease. Scientists believe that inherited genes and environmental factors have a role in triggering the development and progression of psoriatic arthritis.

The role of genes and family history

While there is no clear pattern of inheriting psoriatic arthritis, hereditary factors do seem to be an important determinant in people who develop the disease.¹

Several genes, such as *HLA-B27*, have been found to be more common in people with psoriatic arthritis.¹

1. Sheehan NJ. J R Soc Med 2004;97(1):10-14.



Environmental factors

A genetic tendency in an individual alone is not sufficient for that person to develop psoriatic arthritis. It is thought that certain infections or environmental factors may contribute to the development of psoriatic arthritis.

In people who have a genetic tendency towards developing psoriasis, certain factors may trigger or worsen psoriasis.

These include:

- stress
- injury or trauma to the skin
- diet (e.g. alcohol has been associated with flares)
- smoking
- medications such as antimalarials, beta-blockers (usually used to treat high blood pressure), common pain relievers (such as ibuprofen and aspirin) and lithium.



Key statistics

- Psoriatic arthritis is a fairly uncommon form of arthritis.¹
- Only 1 or 2 out of 10 people with psoriasis develop psoriatic arthritis,² but arthritis may be underdiagnosed in the psoriasis population.¹
- If left untreated, psoriatic arthritis can result in permanent joint and bone damage.

1. Liu J-T et al. World J Orth 2014;5(4):537-543. 2. Arthritis Australia Empowered website. Available at: <http://empowered.org.au/psoriatic-arthritis/> Accessed: August 2016.

Treatment options

Psoriatic arthritis is a chronic disease, which cannot be cured. However, there are many treatment options available that can ease the symptoms of psoriatic arthritis and even slow its progression to limit joint damage and disability.

Your doctor will work with you to decide which treatments are most suitable for you. This will involve considering factors such as your disease activity and the types of joints involved, as well as your general health and lifestyle.

The optimal approach to managing psoriatic arthritis usually involves a combination of medications, physical therapy, including joint-strengthening exercises, rest and, if required, joint surgery. Education about the condition is also an important component. Working closely with your healthcare team is the best way to help ensure that you get the most out of your treatment plan.

Medication

Medications used to treat psoriatic arthritis can be divided into two groups:

1. Those that help relieve symptoms and reduce inflammation (non-steroidal anti-inflammatory drugs [NSAIDs] and corticosteroids).
2. Those that can modify the disease or can achieve remission (disease-modifying anti-rheumatic drugs [DMARDs] and biologic agents).

All medications can have side effects and it is important to discuss the risks and benefits of any treatment with your doctor. Always speak with your doctor about any concerns you have about the medications you are prescribed, or if you experience any side effects.



Other management tips

In addition to treating your condition with medical or prescribed therapies, these tips can help you to manage symptoms.

- Avoid triggers – such as stress, cuts, scratches, sunburn and infections.
- Sunshine – small amounts of time spent in the sun (using sunblock as much as possible) may help to clear psoriasis.
- Baths – soaking in warm water with a bath oil or tar solution can soften plaques and lift scales. Avoiding perfumed products, detergents and antiseptics may also help symptoms.
- Moisturisers – non-scented moisturising creams, ointments and lotions can keep the skin soft and help with itchiness and cracking.

Pain relievers and anti-inflammatories

Non-steroidal anti-inflammatory drugs (NSAIDs)

As the name suggests, NSAIDs reduce pain and inflammation. NSAIDs are used to treat a very broad range of conditions.

Corticosteroids

Steroids are naturally produced by the body to be used in many normal body processes. Chemical corticosteroids alleviate joint pain, swelling and other symptoms of psoriatic arthritis by blocking the production of substances (such as prostaglandins) that promote inflammation or trigger allergic responses. Possible side effects with longer-term use may include weight gain, brittle bones and osteoporosis, glaucoma, cataract, increased risk of infection, high blood pressure, fragile skin and onset or worsening of type 2 diabetes. For this reason, corticosteroids are usually prescribed for a short period of time.

Other skin therapies

In people with severe skin inflammation, medications such as retinoic acid derivatives and psoralen plus ultraviolet light (PUVA) may be considered. It is important to consult your doctor if you would like more information about these treatment options as there may be possible side effects.



Disease modifiers

Disease-modifying anti-rheumatic drugs (DMARDs)

DMARDs are a group of unrelated drugs with different modes of action that collectively slow the progression of psoriatic arthritis and may help achieve disease remission. DMARDs are known to modulate the immune system and hence reduce inflammation. Your doctor can advise you if these agents may be appropriate for you.

Biologics

Biologic-response modifiers (biologics) work by targeting specific biological proteins involved in chronic inflammation. In psoriatic arthritis, biologics such as anti-TNFs work by helping to reduce the excess TNF- α levels produced during the inflammation process. The biologic attaches to TNF- α and stops the activity that is driving the disease process.



Talk to your doctor about any concerns you have about the medications you are prescribed or if you experience any side effects.



Living with psoriatic arthritis

The effects of psoriatic arthritis are more than just physical. Living with psoriatic arthritis can have an impact on your life socially, psychologically and even financially.

Psychological effects

Everyone responds differently to challenges. If you experience emotional reactions such as anger, frustration, helplessness or anxiety in relation to your psoriatic arthritis, you are far from being alone.

If you feel depressed, it is important to talk to someone you trust, such as a family member, close friend or a healthcare professional. There are ways to help you manage the emotional challenges of living with psoriatic arthritis. To find out more about depression and its symptoms, visit Beyond Blue: www.beyondblue.org.au



Living better with psoriatic arthritis

Living with any long-term health condition is difficult. Taking medication helps your disease but you need to take care of yourself too. There are things that you can do to help you cope more positively, beyond taking your medications as prescribed.



Things you can do for yourself

- Learn about your condition and take an active role in its management. A good place to start is by talking to your doctor and visiting the websites provided in the resources section of this booklet.
- Make time for physical activity. Physical activity is crucial in maintaining joint movement and muscle strength – it also has great mental health benefits such as relieving stress.
- Eat a healthy, well-balanced diet. While what you eat does not cause psoriatic arthritis, it may affect the way you feel. A good diet and an active lifestyle will reduce the risk of gaining weight and will keep your joints in motion, which may assist in the management of your symptoms. Your doctor or a dietitian may be able to help you with individual dietary advice to suit your needs.



- Don't smoke – cigarette smoking is associated with psoriatic arthritis progression and severity. Quitting smoking can be a challenging but important step to help your psoriatic arthritis. If you would like advice on how to quit smoking, you can talk to your doctor or other healthcare team members, call Quitline on 13 78 48 or visit www.quitnow.gov.au



- Use assistive devices. Many devices are available to help people with psoriatic arthritis manage their everyday activities. These range from small everyday helpers like jar grippers, to walking canes and braces for painful joints. Your doctor can refer you to an occupational therapist. Occupational therapists are able to provide advice on how to reduce joint strain and pain. They can also suggest changes that can be made in your house or recommend an assistive device that would best help you.
- Apply heat to affected areas. Heat application can help ease pain, relax muscles and increase blood flow. It is particularly useful before exercise, but should not be used on joints that are already hot and swollen.

- Educate your friends and family about psoriatic arthritis. This way they can better understand what you are going through and provide you with support if needed.
- If you are comfortable, talk to your employer about psoriatic arthritis and discuss your abilities, noting any constraints or concerns you may have.
- Get in touch with other people living with psoriatic arthritis. Feeling connected with others who are going through the same thing as you can make a huge difference. Consider joining a support group – a good place to start is by contacting Arthritis Australia: www.arthritisaustralia.com.au



Resources

Australian Rheumatology Association (ARA) **www.rheumatology.org.au**

An association that provides information for patients on the different treatments available for psoriatic arthritis.

Arthritis Australia **www.arthritisaustralia.com.au**

A national not-for-profit organisation that provides information about psoriatic arthritis and the support available. It promotes awareness of the challenges facing people with arthritis across the community, including leaders in business, industry and government.

Psoriasis Australia **www.psoriasisaustralia.org.au**

A national not-for-profit organisation that provides information and support to Australians with living with psoriasis.

Empowered – Arthritis Australia **<http://empowered.org.au>**

Bringing together people living with arthritis, their rheumatologists, general practitioners and allied health supporters to share knowledge on how to manage, survive and thrive with arthritis.

Always discuss any issues relating to your treatment with your doctor or a member of your healthcare team.

These websites are provided for your information only. The sites may contain content that the sponsor of this booklet does not endorse. The sponsor is not responsible for the validity of the information on these sites. Websites may contain or link to information that is not consistent with the way medicines are used in Australia.

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MKT-SIM-AU-0072 JANS1675/EMBC Date of preparation: October 2016