

Psoriasis

Overview

Psoriasis is an inflammatory condition that mainly affects the skin.

What it looks like

Psoriasis appears as pink or red patches of skin that may be covered with silvery, flaky, scales. Patches of psoriasis may be itchy, and occur usually over the joints (such as the elbows and knees), but sometimes on the scalp, forehead, and body.

It can also occur on the soles of the feet and the palms of the hands and in severe cases there can be pus-filled 'pimples'.

Psoriasis can be a nuisance and cause embarrassment and anxiety. Although there is no cure, it can be treated and kept under control. Psoriasis affects about 2-3% of the population, and fortunately most people only have it mildly.

A glimpse at the causes

Psoriasis is caused by a problem in the immune system. The cells that normally attack viruses or bacteria in the body somehow turn on the skin cells, pumping out chemicals that stimulate the skin cells to divide, forcing new skin that doesn't mature properly to be produced.

This leads to a build-up of dead skin cells in certain spots.

Triggers

It's not known what starts the process but it's thought that it may be genetic (run in families), or have an environmental trigger, like stress or smoking. Either way, medical treatment is required to break the cycle.

Causes

In the genes

So far, abnormalities have been identified in at least nine genes that are believed to be associated with psoriasis. If a person has two parents with the genes for psoriasis, there is a 70% chance they too will have it.

Environmental triggers

In addition to the genetic predisposition there are a variety of environmental triggers including:

- Infection, particularly streptococcal throat infection.
- Medications, especially lithium, beta blockers, anti-malarials and anti-inflammatory drugs (NSAIDs), or stopping treatment with corticosteroids tablets.
- Trauma or injury to the skin, which make psoriasis lesions appear (known as the Koebner phenomenon).
- Stress.

Associated conditions

Psoriasis may also be an indication of, or be associated with, other underlying conditions which include:

- Inflammatory bowel disease, particularly

Crohn's disease.

- Obesity.
- Metabolic syndrome.
- Cardiovascular disease.
- Diabetes.
- Hypertension.
- Hyperlipidaemia.
- Non-alcoholic steatohepatitis.
- Lymphoma.

Symptoms

There are different types of psoriasis but some common symptoms include:

- A rash — flat, raised or lumpy.
- Joint pains.
- Nail problems (pitting or dots in the nails plus prominent lines running from the top to the bottom or the nail lifting from the nail bed).
- Red or inflamed skin.
- Silvery or gray scaly plaques or formations on the skin, particularly over the joints.
- Painful or itchy areas.
- Some pimple-like spots or pustules.

The most common type

The most common type of psoriasis is **Chronic Plaque Psoriasis**, which accounts for about 80-90% of cases. In this case the rashes are symmetrical in shape and can range in size from 1cm to 20cm in size. It usually appears on the knees, elbows, scalp and buttocks or behind the ears.

Other types

Other types include:

- **Inverse or flexural psoriasis**, which usually affects the skin folds, such as the armpits, groin, between the bottom cheeks, under the breasts or on the genitals. Psoriasis at these sites normally has a glazed or shiny appearance.
- **Erythrodermic psoriasis**, which occurs when almost the whole body is covered. It can come on very quickly (acute) or develop slowly. It is usually very inflamed and red in appearance. If it is acute it is known as unstable psoriasis and can make people quite sick. They can have trouble controlling their body temperature; they may lose a lot of fluid. They are also at risk of heart failure, they may be tired and weak (lethargic) or have a fever and/or swollen glands.
- **Pustular psoriasis**, which may be localised (found in small areas), or generalised (cover larger areas). The generalised form is uncommon and severe and can make people unwell and feverish. It has a lot of pimple-like small pustules across an inflamed background. Sometimes the palms of the hands or soles of the feet are affected.
- **Guttate psoriasis** occurs in about 2% of people with psoriasis. Affected people develop small, 1-10mm diameter, pale pink, slightly raised patches with fine scaling, most commonly on the trunk. Most people affected

are under 30 years of age. It sometimes occurs 2-3 weeks after an upper respiratory tract infection involving the streptococcal bacteria.

- **Scalp psoriasis**. The extent of scalp involvement may vary from a few small classic psoriatic plaques to widespread inflammation in an eczema-like condition that may rarely result in hair loss.
- **Sebopsoriasis** is a form of psoriasis usually seen on the face, eyebrows and around the nose. It is a red, shiny or greasy appearing scaling.
- **Psoriatic arthritis**. Up to 40% of people with psoriasis may also develop arthritis in their joints and experience pain and/or swelling in the joints.

Diagnosis

Diagnosis will involve examination of the skin taking into account the appearance of individual spots and their distribution, the history of their development and response to any treatments that have been tried. In some circumstances, a skin sample may be taken for testing to confirm the diagnosis and to rule out any other conditions.

Treatment

There are various types of treatments for psoriasis, including:

- Topical preparations (creams, ointments and lotions applied to the skin).
- Medications taken by mouth.
- Phototherapy (light therapy).
- Biological therapies, which use substances related to those that occur naturally in the body to treat the problem.

Topical treatments include:

- **Corticosteroids**. These are the most common therapy. They work quickly but the condition may recur once the treatment is stopped. Various strengths are used depending on the severity and site of the psoriasis at the time. They may become less effective over time and should only be used as a short-term treatment as they have a number of side effects including thinning of the skin, pigment changes, stretch marks and stripy or purple rashes. Preferably they should not be used on the face because of the risk of developing perioral dermatitis.
- **Vitamin D3 analogues**. Calcipotriol is the only vitamin D treatment available in Australia that can be applied to the skin. It slows down the process of skin cells to division/multiplication and encourages them to mature in a more orderly manner, but it can irritate the skin. It is slower to treat than the corticosteroids but it has fewer side effects and can be used over a longer period of time.
- **Retinoids**. These are vitamin A-based treatments that work by slowing the growth and shedding of skin cells. They also appear to have an anti-inflammatory effect. Vitamin A treatments may irritate the skin and should not

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be used during pregnancy.

- **Coal tar.** Topical preparations containing tar have long been used but the smell, staining, and potential for irritation make it a less popular choice, even though it can be quite effective. It may increase sensitivity to light, cause acne and inflame the hair follicles.

Tar shampoos are frequently used to treat scalp psoriasis.

- **Dithranol.** This is a treatment that slows the process of skin cell production and reduces inflammation. It may be used in combination with salicylic acid which aids in the removal of dead cells, or with tar treatments. It may irritate the skin and can stain it a purplish-brown colour, but it can induce long-term remission.

Systemic treatments

The most commonly used systemic therapies (treatments that affect the whole body) are **methotrexate**, **cyclosporin** and **acitretin**. They are usually reserved for when psoriasis covers more than 10% of the body's surface or if it is on sites that have a significant impact on quality of life, including scalp, palms, soles, face and nails.

- **Methotrexate** works by reducing inflammation through interfering with the production of lymphocytes (a lymphocyte is a type of white blood cell), which are driving the excessive multiplication of the skin cells. It is usually taken once a week, but only by people who have good kidney and liver function as it can cause liver toxicity. To reduce the risk of liver damage and nausea, folate may be taken with it. The most common side effects are nausea, loss of appetite, mouth ulcers and fatigue, but it can affect the bone marrow, and is associated with pulmonary fibrosis — a scarring of the lung tissue.

- **Acitretin** is an oral retinoid or **vitamin A** derivative. It works by targeting specific receptors (retinoid receptors) in the skin that help normalise the growth cycle of the skin cells. It can cause a rise in cholesterol and fatty acids (triglycerides) in the blood, but the most common problem is inflamed and cracked skin or lips, and dry eyes, nose and mouth. It is not recommended for women of child-bearing age as it can cause birth abnormalities and contraception is advised for at least two years after completing therapy.

- **Cyclosporin** suppresses the activity of the immune system, which is 'attacking' the skin. It acts rapidly to clear up psoriasis but has significant long-term side effects. It is recommended that people do not take this drug for a period of more than two years. Prolonged use may result in the development or worsening of hypertension (high blood pressure), kidney problems, an increased risk of skin cancer, and — in rare cases — hypertriglyceridaemia (raised fatty acid levels). Common nuisance, but non-serious, side effects include headache, tremor, numbness, hairiness, and thickened and bleeding gums.

It is recommended that people taking any of these drugs should have their blood pressure, kidney function, liver function, blood counts and lipid levels (fat levels in the blood) regularly monitored.

Liver problems occur more often in people who drink excessively or are diabetic.

Phototherapy

Phototherapy uses exposure to ultraviolet light — UVB and/or UVA. UVA is used in combination with a light-sensitising chemical called psoralen, hence the name PUVA. It reduces inflammation and decreases skin production.

It usually requires three treatments each week for about 6 to 8 weeks. There is a risk of 'sunburn' and freckling but the risk of developing skin cancer with UVB treatment is low.

For PUVA treatment to be effective, medications are taken to increase the skin's sensitivity to light, but these may cause nausea, flushing and headaches. It can be quite effective in producing a remission of six months or more in up to 70% of patients.

Biological treatments

Biological agents are therapies derived from naturally occurring human or animal proteins and include:

- **Ustekinumab**, which suppresses a very specific part of the immune system and targets the cells that are thought to be most important in developing psoriasis. It is now listed on the PBS for people with severe psoriasis not responding to the above mentioned conventional treatments. Because it is an immune system suppressant, people taking it will have an increased risk of contracting infections, especially colds.

- **Tumour necrosis factor (TNF) inhibitors.**

Three of these are available for use for psoriasis — etanercept, infliximab and adalimumab. They decrease inflammation by blocking part of the communication system between cells (TNF) that calls for an immune system response.

It is recommended that patients are evaluated for any underlying disease and are up-to-date with their immunisations prior to starting any biological therapy. There is usually a relapse on stopping the medication.

Lifestyle and diet

As psoriasis is associated with conditions such as heart disease, metabolic syndrome and diabetes, a healthy diet (low in fat and high in fibre) is recommended and alcohol consumption should be kept to a minimum.

Good general skin care can help manage psoriasis:

- Avoiding soap, and using soap-free cleansers, can help reduce skin dryness and the build-up of scaly patches.
- Regular use of moisturisers may help to restore normal skin hydration and help reduce the

need for creams containing medications.

Maintaining a healthy weight is also a good idea as psoriasis is associated with heart disease, diabetes, high blood pressure, and metabolic syndrome — all of which are made worse by a sedentary lifestyle and excess weight.

Stress reduction, meditation, yoga or exercise are all good ideas as stress may trigger psoriasis outbreaks.

Support & online resources

Some useful online resources for psoriasis are:

Psoriasis Australia

<http://home.vicnet.net.au/~psorias/>

Australian Prescriber

www.australianprescriber.com/magazine/32/1/14/8

The Australasian College of Dermatologists

www.dermcoll.asn.au/public/a-z_of_skin-psoriasis.asp

Health Insite

www.healthinsite.gov.au/topics/Psoriasis

It'sMyHealth.com.au