



PSORIASIS

DEFINITION

Psoriasis is a chronic skin disease that is classically characterized by thickened, red areas of skin covered with silvery scales. The extent of skin involvement can range from discrete, localized areas to generalized body involvement. The most common areas of involvement include the elbows, knees, trunk, and scalp. The joints, nails, and mucous membranes may also be affected with the disease. Some cases of psoriasis are so mild that people don't know they have it. Severe psoriasis may cover large areas of the body. Dermatologists can help even the most severe cases. Psoriasis is **not contagious** and cannot be passed from one person to another, but it is most likely to occur in members of the same family. In the United States, two out of every hundred people have psoriasis (four to five million people). There are approximately 150,000 new cases that occur each year.

WHAT CAUSES PSORIASIS?

Although much more is known about psoriasis today than even five years ago, we still do not fully understand the pathogenesis of psoriasis. Research suggests that gene mutations, immunologic variances, and environmental factors all play a role in the development of the disease. Researchers have found 9 gene mutations that may be involved in causing psoriasis. One of these mutations on chromosome 6, called PSORS-1, appears to be a major factor that can lead to psoriasis. Mutations on genes cause certain cells to function differently. In psoriatic patients, these mutations seem to largely affect T-helper cells. In a normally functioning immune system, white blood cells produce antibodies to foreign invaders such as bacteria and viruses. These white blood cells also produce chemicals that aid in healing and fighting infective agents. But with psoriasis, special white blood cells called T-cells become overactive. These T-cells "attack" the skin and set off a cascade of events that make the skin cells multiply so fast they start to stack up on the surface of the skin. Normal skin cells form, mature, and are then sloughed off every 30 days. In plaque psoriasis, however, the skin goes through this whole process in 3-6 days. Normally T-cells produce chemicals that help heal the skin. In psoriasis, T-cells produce an abnormally large amount of these chemicals and actually cause more inflammation in the skin and joints. Not everyone who has these gene mutations gets psoriasis and there are several forms of psoriasis that people can develop. Certain environmental triggers play a role in causing psoriasis in people who have these gene mutations. Many factors are also known to aggravate psoriasis. The most important of these are listed below:

- Injury to the skin from cuts, scratches, friction, or even sunburn
- Changes in season (psoriasis usually worsens in the winter)
- Physical, mental and emotional stress and anxiety (many patients flare from stress or tension)
- Infections (particularly strep throat)
- Medications (such as gold, Lithium, Beta blockers)
- Unhealthy lifestyle choices including obesity, smoking, and excessive alcohol consumption have been linked to more severe psoriasis and poor overall health

TREATMENT

The extent of the rash, discomfort to the patient, and presence or absence of associated arthritis are important factors in determining the form of treatment. While over-the-counter medicines may work for patients with mild psoriasis, stronger medicines are necessary for more severe or stubborn cases. These medicines usually consist of creams or ointments rubbed into the psoriatic plaques. Generally, the creams fall into the following categories: cortisones, vitamin A creams (Tazorac), vitamin D creams (Dovonex), tar, anthralin, immune modulating creams (Protopic, Elidel), and combination products (Taclonex). Occasionally, for uncomplicated psoriasis, injections of cortisone directly into the involved areas is quite helpful.

Sunlight and artificial ultraviolet light is helpful in clearing psoriasis. One light treatment called PUVA involves taking a pill and then being exposed to ultraviolet light. PUVA can unfortunately increase one's chance of skin cancer. Broad band and narrow band UVB light treatments are now favored over PUBA and very helpful.

In severe cases, certain anti-cancer drugs such as Methotrexate, Cyclosporine, or oral retinoids (Soriatane) have been necessary for relief of the disease, but these drugs have far too many side effects for routine usage and are generally prescribed at university centers. A new class of systemic injectable drugs ("biologic agents" such as Humira, Enbrel, and others) help many patients with severe disease achieve clearing. The risks and benefits of these medications must be discussed thoroughly with your dermatologist and close follow-up including blood work and TB testing is required while on these agents.

OUTLOOK

There is no cure for psoriasis. Through diligent use of medication, most cases of psoriasis can be effectively controlled. Clearing is often incomplete, but the disease can sometimes disappear for months or even years between flares. More often, however, the fact that psoriasis waxes and wanes over time makes it an undesirable companion for life. Psoriasis research is ongoing and always providing us with new medications and therapies; even if treatment has failed for you in the past, we may discuss new approaches to clearing your psoriasis at future visits.

The National Psoriasis Foundation is a non-profit organization providing excellent information and resources for patients with psoriasis. For more information, contact:

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