

A patient guide to
Psoriasis



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Overview and goals of this guide

Psoriasis is a chronic (long-term) condition. It causes swelling and red patches on the skin. Psoriasis has no cure, but a number of medications can help to manage symptoms. Treatment with these medications, especially soon after diagnosis, can improve quality of life and overall health.

The goal of this patient guide is to provide you with a comprehensive resource on psoriasis. It can also give you ideas for ways that you and your doctor can work together to manage your symptoms. This guide may also help your family and friends understand your condition.

There are five parts to this guide:

1. Understanding your psoriasis

This part of the guide talks about psoriasis itself: symptoms, types, statistics, causes, risk factors, triggers and diagnosis. This information can help you take a more active role in managing your condition.

2. Managing your symptoms

This section provides tips on how to deal with psoriasis in your daily life. The information can help you manage your symptoms through lifestyle changes.

3. Psoriasis treatment approaches

This section covers ways to treat psoriasis. We've included tables showing the most common medications, their side effects and important information regarding their use.

4. References and resources

This section lists references and resources. You may want to consult these for more information on psoriasis and its treatment.

5. Ongoing care for living with your condition

We've included pages you can use to record your symptoms, concerns, quality of life and medication adherence. These pages may be helpful to use during discussions with your doctor.

Understanding your psoriasis

Psoriasis is a disease of the immune system. The immune system is the body's defense against infection and disease. When the immune system detects cells that don't belong in the body (bacteria, viruses or foreign cells), it releases cells to attack them. The immune system also helps the body to recover and heal after any illness.

In people with psoriasis, the immune system does not work properly. It attacks healthy cells as well as foreign cells. Immune system cells, known as T-cells, become overactive and "attack" the skin. This attack starts a number of events that make skin cells multiply too quickly, resulting in skin cells "stacking up" on the surface of the skin. This causes chronic inflammation, swelling and pain.

Definitions

Autoimmune disease

An illness of the immune system

Immune system

The body's defense against infection and disease; the immune system includes special cells and organs that work together to defend the body against attacks by foreign invaders



The following table shows how the immune system usually works and how it is affected by psoriasis.

Role of the immune system in psoriasis

	Normal immune system	Immune system in psoriasis
Definition	<ul style="list-style-type: none"> The immune system is the body's defense against infection and disease that cause illness 	<ul style="list-style-type: none"> Psoriasis is an autoimmune disease The body's immune system does not function properly
What is attacked	<ul style="list-style-type: none"> The immune system attacks cells that don't belong in the body (bacteria, viruses or foreign cells) 	<ul style="list-style-type: none"> The immune system mistakes healthy cells for foreign cells It attacks healthy cells in the skin
How it works	<ul style="list-style-type: none"> When the immune system detects foreign invaders, it releases fighter cells that attack the invaders The immune system attacks or kills foreign cells 	<ul style="list-style-type: none"> White blood cells (fighter cells) move into the skin and cause the release of chemicals resulting in inflammation, swelling and pain Over time, the skin may become red, scaly and itchy

Overview of psoriasis

Psoriasis is a chronic (long-term) condition. A pattern of remission and relapse is common. A remission is a period of time with mild or no symptoms. A relapse is defined as symptoms that occur after a period of low disease activity. Additionally, a “flare” (or “flare-up”) is when existing symptoms suddenly get worse.

Different people have varying symptoms. The severity of symptoms can also differ. For some people, psoriasis is just a bother. For others, the disease may impact their life more significantly.

Definitions

Flares or flare-ups

Existing symptoms suddenly get worse

Remission

Period of time with mild or no symptoms



Symptoms of psoriasis

Psoriasis affects the skin. It causes skin cells to build up and form thick, silvery scales. It also causes dry, red patches on the skin that are itchy and sometimes painful. Symptoms of psoriasis may include:

- Areas of dry, cracked skin that may bleed
- Burning or soreness of the skin
- Thickened, pitted or ridged nails

Currently, psoriasis has no cure. However, your doctor can help you find many ways to help manage your symptoms. A dermatologist, a doctor who specializes in treating skin diseases, can offer help in treating psoriasis.

Psoriasis can occur in a small area or be widespread over a large area of the body. Mild cases of the disease may impact appearance only. Severe cases can cause pain and be disabling. Most types of psoriasis go through cycles. They start with flaring for a few weeks or months. Then the flaring becomes less severe or goes away completely for a period of time (remission).

Types of psoriasis

There are different types of psoriasis. People usually have only one type of psoriasis at a time. Most types involve having red lesions. These lesions may be covered by a scaly surface.

Definition

Lesion

Infected or diseased patch of skin

Types of psoriasis

Type	Basic information	Lesions
Plaque psoriasis	<ul style="list-style-type: none"> Most common form, affecting 80 to 90% of people with psoriasis Most people who develop plaque psoriasis do so before 40 years of age 	<ul style="list-style-type: none"> Red, raised and round to oval shape with a dry, thin, silvery white scale Vary in size Vary in number Most commonly occur on the elbows, knees, scalp and lower back but also are seen on the chest, buttocks, arms and legs
Inverse psoriasis	<ul style="list-style-type: none"> Second most common type, affecting 2 to 6% of people with psoriasis Most common in people who are overweight 	<ul style="list-style-type: none"> Red, smooth and tender, not much scaling Commonly seen in skin folds near the genitals, under the breasts or in the armpits
Guttate psoriasis	<ul style="list-style-type: none"> Occurs in less than 2% of people with psoriasis Most common in people younger than 30 years of age Often comes on suddenly Often seen after a streptococcal bacterial infection (for example, strep throat) 	<ul style="list-style-type: none"> Drop-like, small, pink to red dots Seen mainly on the chest, back, arms and legs
Pustular psoriasis	<ul style="list-style-type: none"> Rare form of psoriasis Some forms may be quite serious May cause fever and liver problems Primarily affects adults 	<ul style="list-style-type: none"> White blisters of pus (not contagious) surrounded by red and scaling skin May occur in one specific area of the body or spread all over the body
Erythrodermic psoriasis	<ul style="list-style-type: none"> Least common form of psoriasis May cause chills, decreased body temperature, fever and tiredness May be life-threatening 	<ul style="list-style-type: none"> Fiery redness covering nearly the entire body Shedding of scales in large patches rather than smaller flakes

Statistics on psoriasis

Approximately 7.5 million people — about one in 40 — in the United States have psoriasis. It is more common among Caucasians than African Americans. The disease affects men and women equally. Psoriasis can occur at any age. However, it is more common in people between 15 and 30 years of age and then later in life between 50 and 60 years of age. The disease may be more severe among people who develop the disease earlier in life.

Causes of psoriasis

Many risk factors and triggers may play a role in developing psoriasis, including: family history, immune system, medications, infections and environmental factors.

Risk factors

- ❖ **Family history.** Psoriasis may be inherited or passed down through your family. If one or both of your parents have this disease, you may have certain genes that make you more likely to develop it. However, you can inherit a certain genetic profile without actually developing the disease.
- ❖ **Immune system.** An immune system that is not functioning properly is thought to be involved with psoriasis (see pages 3 and 4 of this guide).



Triggers

If someone has a genetic profile that makes psoriasis more likely, triggers are things that can cause symptoms to appear or to worsen. Listed below are some common triggers for psoriasis.

- ❖ **Medications.** Some medications may cause symptoms of psoriasis or may worsen existing symptoms. Examples of these medications include:
 - Lithium (given for bipolar disorder)
 - Chloroquine and Plaquenil (medications for malaria)
 - Interferon-alfa (given for some liver infections)
 - Inderal (given for high blood pressure)
 - Indomethacin (given for arthritis)
- ❖ **Infection.** Certain types of bacteria cause infections that may trigger psoriasis.
- ❖ **Trauma.** An injury to the skin (such as skinned knees, bug bites or sunburns) may promote the development of psoriasis. If an injury triggers psoriasis, it may occur one to two weeks after the injury.
- ❖ **Colder climates.** Living in colder climates may promote the development of psoriasis. This may be due to less exposure to sunlight, which has been shown to protect against the disease.
- ❖ **Lifestyle.** Smoking, stress and being overweight might increase the chance of developing psoriasis.

Other conditions associated with psoriasis

Having psoriasis increases the risk of having other conditions (see below). Your doctor may do tests to see if you have or are at risk for any associated illnesses. If so, your doctor may refer you to another doctor who specializes in that illness.

Conditions that may be more common in people with psoriasis

Disease or condition	Information
Cardiovascular (heart) disease	<ul style="list-style-type: none"> Increased chance of heart attack and stroke Patients are encouraged to quit smoking, reduce stress and decrease sodium intake
Cancer	<ul style="list-style-type: none"> Increased risk of lymphoma, a cancer of the lymphatic system, and skin cancer Patients are encouraged to follow regular, recommended health screenings
Mood disorder	<ul style="list-style-type: none"> Higher risk of depression
Diabetes	<ul style="list-style-type: none"> Higher risk of diabetes
Obesity	<ul style="list-style-type: none"> Increased incidence of obesity
Osteoporosis	<ul style="list-style-type: none"> Greater chance of having brittle bones that break easily
Psoriatic arthritis	<ul style="list-style-type: none"> Higher risk of developing psoriatic arthritis

Definition

Lymphatic system

Tissues and organs that produce and store cells that fight infection and disease

Diagnosing psoriasis

Psoriasis is diagnosed through a physical examination. Your doctor will examine your skin lesions to determine the type of psoriasis. Because nails may be affected, your doctor may look at those as well. Your doctor will look for small pits, loosening of the nail, or a red-brown coloring of the nail. Psoriasis skin lesions vary, depending on the type of psoriasis (see page 7).



Managing your symptoms

Talking with your doctor (usually a dermatologist) is the best way to develop a plan for managing your psoriasis. This plan may include medication and lifestyle changes.

Lifestyle approaches

Many lifestyle approaches can help you cope with the symptoms of psoriasis.

- ❖ **Baths.** Take a bath lasting at least 15 minutes every day to help your skin heal. Add oils, colloidal oatmeal, Epsom salts or Dead Sea salts to the bath water. Avoid hot water, harsh soaps and vigorous scrubbing, which can worsen symptoms. Pat skin dry with a towel (do not rub).
- ❖ **Moisturize.** Apply a heavy, ointment-based moisturizer right after your bath, while skin is still moist, to help your skin heal. In addition, using a moisturizer several times a day may be necessary in dry, cold weather.
- ❖ **Wrap.** For an acute flare-up, your doctor may recommend that you cover the affected skin overnight. After applying an ointment-based moisturizer, wrap the area with plastic. Ask your doctor or pharmacist how to cover affected skin on the face. In the morning, remove the wrap and gently wash away any scales.
- ❖ **Sun.** Small amounts of sunlight may improve skin lesions. Be careful: too much sunlight may cause or worsen psoriasis outbreaks and result in damage to your skin. Apply sunscreen with SPF of at least 15 to healthy skin.
- ❖ **Avoid triggers.** If possible, find out what causes your psoriasis to flare (stress, smoking, skin injuries, etc.) and try to avoid it. Cigarette smoking can increase the risk of psoriasis and worsen symptoms. Ask your doctor or pharmacist for a referral to a quit-smoking program. Avoid using a nicotine patch because it may also worsen your symptoms.



Eating healthy

Eating a healthy diet gives your body the fuel it needs to perform at its best. Invest the time to learn how to improve your diet. Good nutrition can:

- ❖ Improve immune function
- ❖ Increase energy
- ❖ Stabilize your mood
- ❖ Manage fatigue

If you are looking for a specific diet to follow, the DASH (Dietary Approaches to Stop Hypertension) diet tops many lists and is recommended by the U.S. Department of Agriculture (USDA) as an ideal food plan for all Americans. Originally, the purpose of the diet was to be used by people with high blood pressure. It may serve useful as a foundation for your own eating plan. This food plan is rich in fruits, vegetables, whole grains and low-fat dairy products. It also includes meat, fish, poultry, nuts and beans. It limits red meat, foods and beverages sweetened with sugar, and foods high in fat.

Ask your doctor if there are vitamins or minerals that could help to manage your symptoms and keep you healthy. Also, note how your diet affects your symptoms. Having an autoimmune disease may increase your likelihood of experiencing sensitivities to various foods.

Supporting your emotional health

Managing your emotional health helps to maintain your physical health. Some people become overwhelmed with their diagnosis and the life adjustments they need to make. This is normal. Managing your stress and emotions and seeking help from friends, family or professionals are important aspects of staying healthy. Many patients also benefit from in-person or online support groups.

Stress

Stress may make the challenges of life difficult to handle. Stress can also increase the chance of flares. Useful strategies for managing stress include:

- Staying aware of stressors by recording them in a journal
- Trying to avoid or reduce your exposure to stressors
- Making time to do things you enjoy
- Having quiet time every day
- Trying relaxation techniques
- Knowing your limits and resting when necessary
- Connecting with others and letting them know how you are feeling

Depression

Everyone feels sad now and then. Sometimes a deep sadness or loss of interest in activities you usually enjoy can actually be a medical illness called depression. Depression causes deeply sad or gloomy feelings that make it hard to do normal daily activities, such as getting out of bed, going to work or taking care of yourself or your family.

Depression is a health problem. It is not a character flaw or weakness.

Depression is treatable. Feeling hopeless and helpless are symptoms that can be treated. There are several ways to treat depression — most often medication and/or therapy are used.

If you think you may be depressed, speak with your doctor. Your doctor may prescribe an antidepressant medication to help with your symptoms. Please note that it may take several weeks for you to feel the full benefit of antidepressants. Your doctor may also recommend counseling with a mental health professional. It can be helpful to speak to someone about the impact psoriasis has on your life.

You can also take some steps to help manage your symptoms. Lifestyle changes may help. For example, increasing your activity can help. Keep a regular sleep schedule as much as you can. Consider ways to relax your body and mind, such as yoga, tai chi, meditation or prayer.

Depression is a serious condition, especially if it puts you or someone around you in danger. Your doctor can recommend therapy that can help. If you have thoughts of suicide or of harming yourself or others, call 911 or a suicide hotline (1-800-273-TALK) or go to an emergency room.

Helping your family and friends understand your psoriasis

Taking the time to educate family and friends about your psoriasis can help them to better understand and support you. Including them in your lifestyle modifications and treatment plans can help increase your and their morale. It may also give them a more realistic view of your experience. You can explain to your loved ones when you need help and when you prefer to be independent.

The National Psoriasis Foundation (www.psoriasis.org) offers resources that may help you explain your psoriasis to your loved ones. Taking part in classes with your family or reading information together are good ways to educate them. For younger children, provide information appropriate for their ages.



Psoriasis treatment approaches

Treatment goals

The main goals of psoriasis therapy are to:

- ❖ Slow the overproduction of skin cells
- ❖ Effectively and safely clear skin lesions
- ❖ Remove scales and smooth the skin

No single treatment works for everyone. Your doctor will work with you to find the best options for your condition. Lifestyle changes and medication help most people with psoriasis to achieve their goals.

Overview of medications

Some medications for psoriasis are applied to the skin to help clear skin lesions. Others are taken by mouth or given by injection to help control the disease process. The treatment that is right for you depends on a variety of factors, such as:

- ❖ How severe your psoriasis is
- ❖ How much of your body is affected
- ❖ What specific type of psoriasis you have
- ❖ How well you respond to initial treatment

Methods for administering medications for psoriasis include:

- ❖ Topical (applied to the skin)
- ❖ Oral (taken by mouth)
- ❖ Subcutaneous injection (injected under the skin)
- ❖ Intramuscular injection (injected into the muscle)
- ❖ Intravenous infusion (infused into a vein, usually given by a health care provider)

You usually can administer your own oral and topical medications. Some injectable medications can be administered at home. Other injectable medications are administered by your nurse or doctor. If your medication can be self-injected, your doctor, nurse or pharmacist will first instruct you how to give yourself the medication. Use these injectable medications with caution; they have strong effects on the immune system and have the potential to cause life-threatening infections.

Your doctor may also prescribe phototherapy. This provides controlled exposure to natural or artificial ultraviolet light.

Topical therapies

Topical therapies include moisturizers and a variety of treatments applied to the skin. You can apply moisturizers to the skin several times per day to relieve dryness, itching and irritation. These come in forms such as lotions, creams and ointments. Ointments can prevent water from evaporating from your skin better than creams and lotions can. During cold weather, you may need to apply a moisturizer several times a day.

Your doctor may suggest treating your psoriasis with a corticosteroid. Corticosteroids come in various strengths. They treat skin lesions by reducing swelling and itching. Lower-strength corticosteroids are generally applied to more sensitive areas, such as the face. Higher-strength corticosteroids may be used on recurring skin lesions or on the hands and feet.

Topical therapies and how they work

Types	How they work
Corticosteroids	<ul style="list-style-type: none"> • Reduce swelling and itching
Vitamin D	<ul style="list-style-type: none"> • Slows down the growth of skin cells
Topical retinoids	<ul style="list-style-type: none"> • Normalize skin cell activity and may relieve swelling
Anthralin	<ul style="list-style-type: none"> • Helps to normalize skin cell activity and makes skin smoother
Tar preparations	<ul style="list-style-type: none"> • Reduce inflammation, itching and scaling
Salicylic acid	<ul style="list-style-type: none"> • Aids in promoting removal of dead skin cells and reduces scaling of lesions

Topical therapies for psoriasis

Medications	Forms	Potential side effects	Important information
Corticosteroids			
<ul style="list-style-type: none"> betamethasone dipropionate (Diprosone) betamethasone valerate (Luxiq) clobetasol propionate (Clobex, Temovate) desonide (DesOwen) hydrocortisone (Hytone) mometasone (Elocon) triamcinolone acetonide (Kenalog) 	<ul style="list-style-type: none"> Cream Foam Gel Lotion Ointment Shampoo Solution Spray 	<ul style="list-style-type: none"> Skin burning, itching, dryness, redness 	<ul style="list-style-type: none"> Store at room temperature External use only Do not apply to eyes Do not use on healthy skin or over large areas Do not cover unless instructed by your doctor to do so
Vitamin D			
<ul style="list-style-type: none"> calcipotriene (Calcitrene, Dovonex) calcitriol (Vectical) 	<ul style="list-style-type: none"> Cream Ointment Scalp solution 	<ul style="list-style-type: none"> Skin stinging, itching, irritation Dry, peeling skin Increased sensitivity to the sun 	<ul style="list-style-type: none"> Store at room temperature Do not apply to face, eye area or genital regions Avoid excessive sun exposure

Topical therapies for psoriasis (continued)

Medications	Forms	Potential side effects	Important information
Retinoid			
<ul style="list-style-type: none"> tazarotene (Tazorac) 	<ul style="list-style-type: none"> Cream Gel 	<ul style="list-style-type: none"> Skin burning, stinging, itching, redness Dry skin Increased sensitivity to the sun 	<ul style="list-style-type: none"> Store at room temperature For external use only Do not apply to eyes or mouth Only apply to affected areas Make sure skin is clean and dry before applying Wash hands before and after use unless applying on hands Avoid excessive sun exposure
Other preparations			
<ul style="list-style-type: none"> anthralin (Dritho-Scalp, Psoriatec) 	<ul style="list-style-type: none"> Cream Ointment 	<ul style="list-style-type: none"> Skin irritation Temporary skin discoloration Increased sensitivity to the sun 	<ul style="list-style-type: none"> Store at room temperature away from heat and light Keep container tightly closed For external use only Wear gloves to apply Permanent staining of fabrics, showers, countertops, sinks and other materials can occur Avoid contact with unaffected skin Avoid contact with eyes or mucous membranes

Topical therapies for psoriasis (continued)

Medications	Forms	Potential side effects	Important information
Other preparations (continued)			
<ul style="list-style-type: none"> Tar preparations (Balnetar, Psoriasin, Polytar Bath, Tarsum) 	<ul style="list-style-type: none"> Bath additives Cream Foam Gel Liquid Ointment Shampoo 	<ul style="list-style-type: none"> May irritate acute inflammation of the skin (from sources other than psoriasis) Increased sensitivity to the sun 	<ul style="list-style-type: none"> Strong odor Can stain skin, clothing and light colored hair Can be messy to apply Use carefully when skin rash is inflamed Avoid contact with eyes and mucous membranes Avoid excessive sun exposure
<ul style="list-style-type: none"> Salicylic acid (Dermarest, Keralyt, Salex) 	<ul style="list-style-type: none"> Cream Foam Gel Lotion Shampoo 	<ul style="list-style-type: none"> Skin irritation, inflammation, stinging, dryness, redness 	<ul style="list-style-type: none"> Store at room temperature away from heat and moisture Keep medication in the container it came in, tightly closed Should not be used on large areas of the body or left on for longer than directed Avoid contact with eyes and mucous membranes Do not use on sunburned, dry, chapped, irritated or broken skin

Proper application of topical therapies

Topical products should be applied sparingly to affected areas as directed by your doctor or pharmacist. Apply a thin layer and rub it in gently. Don't cover up the area with any bandages, wraps or other dressings unless instructed by your doctor. Avoid getting these medications in your eyes, your mouth or on the lips. If this occurs, rinse with plenty of water. Read the package insert for more information, or ask your doctor or pharmacist for help.

Wash your hands with soap and water before and after applying any topical medication. Some medications, such as anthralin and tar preparations, may stain skin, hair and clothing. Be careful when applying these types of products.

Some of these medications are shampoos that are applied to the scalp. Lather and leave the shampoo on the hair and scalp for the amount of time instructed. Be sure to wash your hands after use. Avoid getting shampoo in your eyes.

Other medications for the scalp should be applied onto the lesions after parting your hair. Parting your hair away from the lesions on your scalp makes it easier to apply medication to them.

Try not to spread these topical products onto unaffected areas of skin. This can help you avoid unnecessary side effects, such as burning of the skin, stinging, irritation or redness.

Oral and injectable medications

Different types of medications can be used to achieve treatment goals. Each type of medication works in a specific way. When the right medication is used correctly, it can be very effective, but it can also have side effects. Your doctor will work with you to weigh the risks and benefits of each therapy option and choose the one that is right for you.

Disease-modifying drugs (DMDs)

DMDs suppress the immune system and slow down the disease process. These drugs are prescribed if topical treatments don't work or if you have moderate to severe disease. DMDs are longer-term treatments. If your doctor prescribes a DMD, you will not notice its effects immediately. The drug has to reach a certain level in your blood before it can take effect.

Some of these drugs may be used alone, with topical treatments, in combination with one another or with phototherapy. Your doctor or pharmacist can let you know if your medications are safe to use with phototherapy. Some medications may increase your sensitivity to light and should not be combined with phototherapy.

Disease-modifying drugs (DMDs)

Medications	Forms	Potential side effects	Important information
<ul style="list-style-type: none"> • acitretin (Soriatane) 	<ul style="list-style-type: none"> • Capsule 	<ul style="list-style-type: none"> • Dry lips, mouth, nose, eyes • Skin itching, scaling • Hair loss • May increase aggressive thoughts or depression • May increase liver enzymes, triglycerides and fat in the blood • May cause night blindness • Increased sensitivity to the sun 	<ul style="list-style-type: none"> • Take with food • May take 8 to 16 weeks to see an effect • Known to cause birth defects • Two forms of birth control must be used starting 1 month before taking Soriatane and for 3 years after stopping treatment; progestin-only birth control pills are not an effective form of birth control in women taking Soriatane • Cannot donate blood while on the medication and for 3 years after stopping treatment

Disease-modifying drugs (DMDs) continued

Medications	Forms	Potential side effects	Important information
<ul style="list-style-type: none"> • Cyclosporine modified (Neoral, Gengraf) 	<ul style="list-style-type: none"> • Capsule • Solution 	<ul style="list-style-type: none"> • Stomach upset • Headache • Burning sensation of the arms or legs • Excessive hair growth • May affect kidney and liver function • May increase blood pressure 	<ul style="list-style-type: none"> • Avoid grapefruit and grapefruit juice • Avoid excessive sun exposure
<ul style="list-style-type: none"> • methotrexate (Rheumatrex Dose Pack, Trexall) 	<ul style="list-style-type: none"> • Injection • Tablet 	<ul style="list-style-type: none"> • Stomach upset • Headache • Mouth ulcers • May affect liver function • Increased risk of infection • Increased sensitivity to the sun 	<ul style="list-style-type: none"> • May take 3 to 6 weeks to notice an improvement • Known to cause birth defects • Pregnancy is to be avoided if either partner is taking methotrexate and for 3 months after treatment for males and 1 ovulatory cycle after treatment for females • Place all used syringes in a Sharps container – do not throw in a trash can

Biologic response modifiers (BRMs)

BRMs are a new class of medications. BRMs block the destructive effects of the immune system. BRMs slow disease progression. They can induce remission in some cases. BRMs are given as injections into the vein (intravenously), the muscle (intramuscularly) or just under the skin (subcutaneously). This class of drugs may help patients who have not responded well to other treatments. BRMs may be used in combination with other medications.

Biologic response modifiers (BRMs)

Medications	Forms	Potential side effects	Important information
<ul style="list-style-type: none"> • adalimumab (Humira) • etanercept (Enbrel) • infliximab (Remicade) • ustekinumab (Stelara) 	<ul style="list-style-type: none"> • Subcutaneous injection • Intravenous (IV) infusion 	<ul style="list-style-type: none"> • Injection-site reactions • Headache • Flu-like symptoms • Upper respiratory tract infections • Urinary tract infection • Infusion-related reactions such as fever, chills (Remicade only) • Tuberculosis (TB) and other serious infections • Heart failure • Certain types of cancers • Possibility of reversible posterior leukoencephalopathy syndrome (RPLS) (Stelara only) 	<ul style="list-style-type: none"> • Contact your doctor before receiving any vaccinations or allergy shots • Place all used syringes in a Sharps container – do not throw in a trash can • Contact your doctor if you develop symptoms of a cold or flu (fever, sore throat, fatigue, etc.) • Store under refrigeration or per package directions • May increase the chance of certain types of cancer

Injection-site reactions

If you inject your medications, you may get a reaction at the site of the injection. Injection-site reactions can include:

- ❖ Redness
- ❖ Rash
- ❖ Stinging
- ❖ Tingling
- ❖ Swelling
- ❖ Itching
- ❖ Pain
- ❖ Discomfort

There are several ways to help reduce or prevent these reactions.

Steps to avoid injection-site reactions

Step	Explanation
Preparation	<ul style="list-style-type: none"> • Allow the medication to reach room temperature before use • Apply ice to the injection site before and after injection
Method	<ul style="list-style-type: none"> • Ensure that you are using the correct injection method for your medication
Placement	<ul style="list-style-type: none"> • Rotate the injection sites at least 1 inch from the previous injection site • Avoid injecting into areas that are swollen, red or hard • Record when and where you inject each time to help keep track • Do not rub the injection site after an injection
Supplies	<ul style="list-style-type: none"> • Use a new needle for each injection
Treatment	<ul style="list-style-type: none"> • Check with your doctor about medications you may be able to use before an injection to reduce pain and swelling

Call your doctor

After an injection, call your doctor if you experience any of these:

- Nausea
- Vomiting
- Fever
- Low blood pressure (dizziness, light-headedness, fainting)
- Injection site does not heal within a few days



Phototherapy

Phototherapy is sometimes used to treat psoriasis. Phototherapy is exposure to natural ultraviolet (UV) light from the sun or artificial UV light administered in a medical clinic or at home. UV light can reduce swelling and slow the production of skin cells that cause symptoms of psoriasis. Brief, routine exposure to small amounts of UV light may improve symptoms in some people. Ask your doctor or pharmacist before exposing yourself to UV light to manage your symptoms. Keep in mind that some medications may increase your sensitivity to the sun.

Your doctor may recommend phototherapy in combination with a medication called psoralen. Psoralen is available as a pill, lotion or bath salts and is used to make the skin respond better to UV light. This treatment is sometimes called PUVA (psoralen plus ultraviolet A). This treatment is used for severe cases of psoriasis.

Methoxsalen (8-MOP, Oxsoralen) is also used in combination with phototherapy to treat psoriasis.

Another form of light therapy uses a laser to treat affected areas. Laser light therapy is used for mild to moderate symptoms.

Keeping informed about your therapy

Several steps can help you get the most out of your psoriasis therapy:

- ❖ Take time to learn about your medications
- ❖ Don't be afraid to ask questions
- ❖ Always use the medication exactly as directed by your doctor
- ❖ Do not skip or change doses
- ❖ Establish a normal routine for taking your medications so you don't forget
- ❖ Keep a careful record of the names and doses of your medications
- ❖ Always check with your doctor before starting any new medications, even those that are over-the-counter or herbal
- ❖ Try not to miss any clinic appointments

Definitions

Phototherapy

Treatment that uses exposure to ultraviolet light to slow the growth of affected skin cells in patients with psoriasis



Traveling with your medication

General tips for traveling with your medication include:

- ❖ Keep medications away from heat and direct sunlight
- ❖ Use special travel bags (from drug manufacturer) with room for an ice pack
- ❖ Always carry your medication bag with you in your carry-on bag
- ❖ Bring your injection system on the airplane
- ❖ It is best to have medication in original pharmacy-labeled packaging
- ❖ Medications/supplies are routinely x-rayed during airport screening; as an option, you can ask for visual inspection of these items

Airlines may have other requirements. Call and find out the policy of your airline before your trip.

Pregnancy, breastfeeding and fertility

Let your doctor know right away if you are pregnant, planning to become pregnant or breastfeeding. Some medications for psoriasis should not be used during these times, as they may affect fertility or the developing fetus. Talk with your doctor about which medications are most appropriate for you.

Vaccine considerations

Many of the medications used to treat psoriasis may weaken your immune system. This lowers your body's ability to fight infection. Because of this, you should be cautious of vaccines that contain a live virus (for example, FluMist). By definition, a live vaccine contains a small amount of a weakened virus. This kind of vaccine helps the body to develop immunity against a specific disease. For most people with healthy immune systems, these vaccines are safe and effective. For people with weakened immune systems, live vaccines may actually cause an infection. Before receiving any vaccines, be sure to let your doctor, pharmacist or nurse know which medications you are taking.

Before treatment

Before you begin treatment, talk to your doctor if you are:

- Pregnant
- Planning to become pregnant
- Breastfeeding



Complementary and alternative medicine (CAM)

You may be curious about complementary medicine. This refers to treatments such as herbal treatments or acupuncture. The United States Government does not regulate these therapies. There is no way to guarantee their safety. While some people derive benefit from CAM, these treatments can also worsen your condition.

Make sure that you get your information from a reliable source before starting CAM. Weigh the risks and benefits of the therapy carefully. If you decide to use a complementary therapy:

- ❖ Tell your doctor and pharmacist
- ❖ Listen to your doctor's advice regarding the therapy
- ❖ Continue with your conventional therapy as directed
- ❖ Document CAM you are using and when, as well as any unexpected side effects
- ❖ Speak with your doctor before taking any nutritional supplements; these can be harmful and life-threatening under some circumstances

References

The following sources were used in the development of this guide:

About Psoriasis. Statistics. National Psoriasis Foundation. 9 May 2012.

http://www.psoriasis.org/learn_statistics.

Gladman, Dafna D. “Psoriatic Arthritis” *Dermatologic Therapy*. 22.1. (2009):40-55.

Gottlieb, Alice B. and Francis Dann. “Comorbidities in Patients with Psoriasis.”

American Journal of Medicine. 122.12. (2009):1150.e1-1150.e9.

Gottlieb Alice B., *et al.* “Guidelines of Care for the Management of Psoriasis and Psoriatic Arthritis. Section 2. Psoriatic Arthritis: Overview and Guidelines of Care for Treatment with an Emphasis on Biologics.” *Journal of the American Academy of Dermatology*. 58.5. (2008):851-864.

Horn, Eli J., *et al.*, for the International Psoriasis Council. “Pregnancy Outcomes in Psoriasis: Why Do We Know So Little?” *Journal of the American Academy of Dermatology*. 61.2. (2009):e5-e8.

Husni, M. Elaine. and Philip J. Mease. “Managing Comorbid Disease in Patients with Psoriatic Arthritis.” *Current Rheumatology Reports*.12.4. (2010):281-287.

“Information for Patients: Osteoarthritis.” About Joints. 9 May 2012.

<http://www.aboutjoints.com/patientinfo/topics/osteoarthritis/Osteoarthritis2.html>.

Iofin, Ilya, *et al.* “Psoriatic Arthritis and Arthroplasty: A Review of the Literature.

Bulletin of the NYU Hospital for Joint Diseases. 66.1. (2008):41-48.

Levine, Danielle and Alice B. Gottlieb. “Evaluation and Management of Psoriasis:

An Internist’s Guide.” *Medical Clinics of North America*. 93.6. (2009):1291-1303.

Menter, Alan, *et al.* “Guidelines of Care for the Management of Psoriasis and Psoriatic Arthritis. Section 1. Overview of Psoriasis and Guidelines of Care for the Treatment of Psoriasis with Biologics.” *Journal of the American Academy of Dermatology*. 58.5. (2008):826-850.

“Minimizing Flare-ups.” PsoriasisNet. 9 May 2012.

http://www.skincarephysicians.com/psoriasisnet/flare_ups.html.

Nestle, Frank O., Daniel H. Kaplan, and Jonathan Barker. “Psoriasis.” *New England Journal of Medicine*. 361.5. (2009):496-509.

“Psoriasis.” American Osteopathic College of Dermatology. 9 May 2012.

http://www.aocd.org/skin/dermatologic_diseases/psoriasis.html.

“Psoriasis.” Mayo Clinic. 9 May 2012.

<http://www.mayoclinic.com/health/psoriasis/DS00193>.

“Types of Psoriatic Arthritis.” National Psoriasis Foundation. 9 May 2012.

<http://www.psoriasis.org/NetCommunity/Page.aspx?pid=392>.

Wollina, Uwe, *et al.* “Psoriatic Arthritis.” *Dermatologic Therapy*. 23.2. (2010):123-136.

“X-Plain Psoriasis. Reference Summary.” National Library of Medicine. 9 May 2012.

<http://www.nlm.nih.gov/medlineplus/tutorials/psoriasis/htm/index.htm>.

Resources

American Academy of Dermatology

www.aad.org

866.503.SKIN (7546)

International Psoriasis Council

www.psoriasisCouncil.org

972.861.0503

**National Institute of Arthritis and
Musculoskeletal and Skin Diseases**

www.niams.nih.gov

877.22.NIAMS (64267)

National Psoriasis Foundation

www.psoriasis.org

800.723.9166

Ongoing care for living with your condition

Taking an active role in your health care includes paying careful attention to both symptoms and treatment. It also means talking openly with your doctor. This part of your patient guide can help you:

- Track your disease symptoms and medication side effects
- Understand more about how your condition might affect your quality of life
- Understand more about how to get the most from your medication therapy
- Record questions or concerns to discuss with your doctor

This section includes tools you can use on an ongoing basis. You may want to make multiple copies of the pages labeled “worksheets” so you always have the blank copy in the guide to come back to.

Disease symptoms and medication side effects

Most doctors suggest that you keep track of your symptoms and side effects. This can help them develop the most effective treatment plan for you. You can help by telling your doctor more about your symptoms and side effects — how severe they are, how long they last and if they have a trigger.

Use the table on the following page to list details related to your disease symptoms and medication side effects.

Worksheet: Disease symptoms and medication side effects

Use the chart below to track:

- ❖ Disease symptoms and medication side effects
- ❖ The severity rating on a scale of 1 (not at all/none) to 10 (severe)
- ❖ Important factors that seem relevant, such as:
 - What you were doing or eating that day
 - Time of day
 - Stressors
 - Amount of sleep


This chart may reveal patterns or triggers to discuss with your doctor or health care provider.

Symptom or side effect	Rating	Important factors

Health-related quality of life

Today's health care industry looks at "quality of life" as a measure of health. Your quality of life includes your complete physical, mental and social well-being. It includes your happiness and satisfaction with life as a whole.

Take the survey on the following page every month to assess your quality of life. Save each month's page. Every few months, review your charts and note your observations.

 Answer these questions every month.

Worksheet: Health-related quality of life

How do you feel about your quality of life today?

You are the expert on your life. Keep track of your responses by entering them in the table provided. Look at the changes in answers over time. Share your answers with your doctor.

1. Overall quality of life

In the last four weeks, how would you rate your overall quality of life?

Very good	Good	Neutral	Poor	Very poor
1	2	3	4	5

2. Health satisfaction

In the last four weeks, how satisfied have you been with your health?

Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied
1	2	3	4	5

3. Medication interference


In the last four weeks, how often has your medication therapy interfered with your quality of life?

Never	Rarely	Sometimes	Very often	Almost always
1	2	3	4	5

Fill in the month and put the numbers from your answers in the column underneath.

Summary of responses

Month	
1. Overall quality of life	
2. Health satisfaction	
3. Medication interference	
TOTAL	

 You'll need one copy every month. Make copies as needed.

Medication adherence

Research often shows medication adherence rates (taking medication as directed) can be as low as 50 percent. Taking the right medication at the right time can mean:

- ❖ Symptom relief or reduction in symptoms
- ❖ Delay in disease progression
- ❖ Possible decrease in your health care costs
- ❖ Improved quality of life

The answers to just a few questions can help your health care team identify potential risks to your success. Answer the questions on the following page every month, and keep track of your responses. Note any changes in your answers over time. Share your answers with your doctor.

Worksheet: Medication adherence

Think about all of the medications you take. Put the numbers that correspond with your answers in the boxes to the right. Do this every month, and save the sheets to compare changes over time.

1. Forget to take medication

Over the last four weeks, how often did you forget to take your medication? **Rating**

Never	Rarely	Sometimes	Very often	Almost always	<input type="text"/>
1	2	3	4	5	

2. Not careful taking meds

Over the last four weeks, how often did you find yourself not as careful about taking your medication as prescribed?

Never	Rarely	Sometimes	Very often	Almost always	<input type="text"/>
1	2	3	4	5	

3. Stop or skip taking meds

Over the past four weeks, did you ever stop taking your medication or skip doses because you felt better?

Never	Rarely	Sometimes	Very often	Almost always	<input type="text"/>
1	2	3	4	5	

4. Take more or less of meds

Over the past four weeks, did you ever take more or less than prescribed of your medication?

Never	Rarely	Sometimes	Very often	Almost always	<input type="text"/>
1	2	3	4	5	

5. Side effects

Over the past four weeks, did you experience any side effects from your medication?

Never	Rarely	Sometimes	Very often	Almost always	<input type="text"/>
1	2	3	4	5	

TOTAL

If you are concerned about any of your answers to the above questions, please call your doctor or health care provider.

Worksheet: Clinic appointments

Record the date of each appointment (appt). Note any instructions from your doctor. Also, use the notes space to record questions to ask at your next visit.

Date of appt	Doctor	Reason for appt	Next appt
Notes			

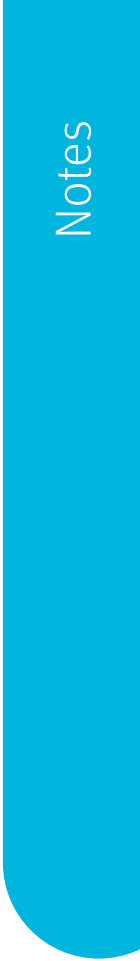
Date of appt	Doctor	Reason for appt	Next appt
Notes			

Date of appt	Doctor	Reason for appt	Next appt
Notes			

 Make copies as needed.

Lined writing area consisting of 26 horizontal lines.

Lined writing area with horizontal lines for text entry.



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- › Providing ongoing, personalized support from disease-specific experts
- › Helping you manage the details so your condition does not manage you

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This guide provides an overview of psoriasis. It is not meant to replace medical advice from your doctor, pharmacist or other health care provider. Please contact them for more information. This guide is intended to be accurate. However, Prime and Prime Specialty Pharmacy are not responsible for loss or damage due to reliance on this guide.

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