
Treatments for Lichen Planus

A patient guide to medications, side effects, and what to expect

Lichen planus is an inflammatory condition that can affect the skin, nails, mouth, scalp, genitals, esophagus, and other mucosal surfaces. Because lichen planus can look and behave differently from person to person, there is no single treatment that works for everyone.

Below are some treatment options commonly used to treat lichen planus; however, you should speak with your healthcare provider to determine the best treatment plan for you.

Goals of Treatment

- Improve your ability to eat, sleep, work, and participate in daily activities
- Reduce inflammation and symptoms such as itching, pain, or burning
- Stop new lesions from developing
- Heal existing sores or erosions
- Reduce scarring or permanent hair loss when possible
- Protect important areas, such as the eyes or esophagus
- Minimize medication side effects

Note: Lichen planus can be chronic and may come and go over time. Improvement does not always mean that the disease has completely gone away. Some people need treatment for weeks or months, while others may need lifelong treatment.

How Do I Know What Treatment is Best for Me?

Your treatment plan depends on many factors, and you and your healthcare provider should discuss and decide which is the best treatment for you. Below are some of the considerations to think about when deciding the best treatment.

- **Your Disease Characteristics**
 - Where is your lichen planus located?
 - How extensive or severe is your lichen planus?
 - How much pain are you in?
 - How quickly is treatment needed depending on your disease severity?
- **Your Medical History**
 - What are your existing health conditions?
 - What other medications are you taking? Are there any potential medication interactions?
 - Are you pregnant or do you plan to become pregnant soon?
- **Treatment Characteristics**

- Do you want/need a topical medicine or a systemic medicine? Topical medicines are typically tried first before progressing to systemic medicines. Often, both are used together.
 - Topical medicine: a medicine that is applied on the surface of your skin or mucosal tissue to treat localized spots. Typically a cream or ointment for the skin, a solution for the scalp, or a gel, ointment or swish for the oral mucosa.
 - Systemic medicine: a medicine that enters your bloodstream to reach more spots in the body. Typically a pill or injection.
- Will your medicine suppress the immune system or not?
- **Individual Goals/Preferences**
 - How much improvement do you desire? For example, do you want your lichen planus to be 100% improved or are you willing to accept a partial improvement? Keep in mind that more improvement may be associated with stronger medications and the possibility of more side effects.
 - What are the things that you want to accomplish if you had better disease control (e.g. not be in pain/itchy, the ability to eat certain foods, etc.)
 - How much risk are you willing to take with side effects?
 - How quickly do you want to see improvement?

How Do I Know if my Treatment is Working?

- You have less pain
- You have less bleeding
- You have less itching
- You have less redness or open sores
- You have fewer flare-ups with triggers of your lichen planus
- You have less need for topical medicine to relieve your symptoms

Treatment Options

Below are some treatment options for lichen planus in order of increasing strength. Generally, you might try one medication before moving down the list; however, you and your healthcare provider should work together to determine which treatment route is best for you.

Topical Medicines

Topical Corticosteroids

- **Examples** (in order of increasing strength):
 - Hydrocortisone → Triamcinolone → Fluocinonide → Clobetasol

- **How Do They Work?**
 - Topical corticosteroids reduce inflammation directly where they are applied, often quickly (2-4 weeks, but sometimes even more quickly) improving pain or itching. They do not suppress the immune system when just applied on the body's surface. They are often the first treatment for localized lichen planus.
- **How Are They Given?**
 - Skin: cream, ointment, or lotion
 - Scalp: solution, foam, or lotion
 - Mouth: paste, gel, or mouth rinse
 - Genital area: cream or ointment
 - Some topical steroids can be placed in a custom tray for difficult-to-treat oral disease
- **How Long Do They Take to Work?**
 - Many people begin to notice improvement within a few weeks.
- **What are Some Possible Side Effects?**
 - Side effects depend on where the steroid is used and how long it is used. Using the medication exactly as prescribed helps reduce these risks.
 - Skin:
 - Thinning of the skin
 - Easy bruising
 - Stretch marks
 - Visible small blood vessels
 - Mouth:
 - Oral yeast infection (thrush)
 - Irritation or burning
 - Increased blood sugars in sensitive diabetic patients

Topical Calcineurin Inhibitors

- **Examples:**
 - Tacrolimus ointment,
 - Pimecrolimus cream
- **How Do They Work?**
 - Topical calcineurin inhibitors are non-steroidal, anti-inflammatory medications which calm inflammation at the targeted area. They do not suppress the immune system when just applied on the body's surface. They can be particularly useful for longer-term treatment or sensitive areas, where prolonged steroid use may cause unwanted skin thinning.
- **How Are They Given?**
 - They are applied directly to affected skin or mucosal surfaces as creams or ointments. Tacrolimus may also be prescribed in specialized formulations for oral disease.
- **How Long Do They Take to Work?**
 - Many people begin to notice improvement within a few weeks.

- **What are Some Possible Side Effects?**
 - Burning or stinging when first applied. The burning often improves as the skin or mucosa becomes accustomed to the medication.
 - Redness or irritation

Steroid Injections

- **Example:** Triamcinolone
- **How Do They Work?**
 - Steroid injections may be used for reducing inflammation in individual thick, persistent, or difficult-to-treat lesions on the skin or ulcers in the mouth. They do not suppress the immune system because they are only given at targeted areas. For lichen planopilaris, injections may be used on active areas of the scalp.
- **How Are They Given?**
 - Steroid injected directly into a lesion
- **How Long Do They Take to Work?**
 - Many people begin to notice improvement a few days to weeks.
- **What are Some Possible Side Effects?**
 - Temporary pain at the injection site
 - Skin thinning or a small indentation
 - Lightening of the skin at the injection site

Systemic Medications

Oral Corticosteroids

- **Example:** Prednisone
- **How Do They Work?**
 - Systemic steroids reduce inflammation throughout the body. They are often used for severe or widespread lichen planus, particularly during flare-ups when a faster response is needed. These medicines work very quickly; however, given their side effects including suppressing the immune system, they should be given at the lowest possible dose for the shortest duration needed.
- **How Are They Given?**
 - They are given as a pill by mouth, typically daily.
- **How Long Do They Take to Work?**
 - Many people begin to notice improvement within a few days to weeks.

- **What are Some Possible Side Effects?**
 - Short-term effects
 - Increased appetite
 - Difficulty sleeping
 - Mood changes or irritability
 - Increased blood sugar
 - Increased blood pressure
 - Fluid retention
 - Longer-term side effects
 - Weight gain
 - Diabetes or worsening blood sugar control
 - Bone thinning/osteoporosis
 - Cataracts
 - Glaucoma
 - Increased risk of infection
 - Gastrointestinal complications
 - Because of these risks, your doctor may gradually reduce ("taper") the dose rather than stopping prednisone suddenly after prolonged treatment.

Metronidazole (brand name: Flagyl)

- **How Does It Work?**
 - Metronidazole is an antibiotic that can treat lichen planus through its anti-inflammatory effects. It is not an immunosuppressant (does not suppress the immune system).
- **How Is It Given?**
 - Metronidazole is given as a pill by mouth, typically twice a day.
- **How Long Does It Take to Work?**
 - It typically takes 4-6 weeks to see the full effects of metronidazole.
- **What are Some Possible Side Effects?**
 - Stomach upset (e.g. nausea)
 - Potential discomfort after drinking alcohol (e.g. flushing, headache, stomach upset), though this does not occur in every patient
 - Neuropathy (rare) with use over 1 month (typically reversible if metronidazole is stopped)
- **Lab Monitoring**
 - None

Hydroxychloroquine (brand name: Plaquenil)

Note: Hydroxychloroquine is a very safe medicine compared to the other treatments, but often takes longer to work (3-6 months for full effects).

- **How Does It Work?**
 - Hydroxychloroquine is a non-steroidal anti-inflammatory medicine. It is not an immunosuppressant (does not suppress the immune system). You may read that it can be used as a treatment for malaria, but for lichen planus it is used as an anti-inflammatory medication.
- **How Is It Given?**
 - Hydroxychloroquine is given as a pill by mouth, typically every once or twice a day based on your weight.
- **How Long Does it Take to Work?**
 - Hydroxychloroquine is slow-acting. It may take 3 to 6 months to see its full effects, although you may begin seeing improvements sooner.
- **What are Some Possible Side Effects?**
 - Nausea or stomach upset
 - Headache
 - Very rarely, more serious effects on the eyes (see below)
- **Lab Monitoring**
 - None
- **Eye Monitoring**
 - Hydroxychloroquine can very rarely cause damage to the eye's retina. Once it is determined that you will stay on the medication long term, you should have a baseline retinal exam within the first year you are on the medication. After 5 years of use you should obtain annual eye exams with an ophthalmologist (eye doctor) to monitor for these effects.

Acitretin (brand name: Soriatane)

- **How Does It Work?**
 - Acitretin is a Vitamin-A derivative that reduces inflammation. It is non-steroidal and is not an immunosuppressive (does not suppress the immune system).
- **How Is It Given?**
 - Acitretin is given as a pill by mouth, typically daily.
- **How Long Does It Take to Work?**
 - It may take up to 3 months to see the full effects of acitretin, although you may start experiencing improvement sooner.
- **What are Some Possible Side Effects?**
 - Dry lips/mouth
 - Dry skin
 - Dry eyes
 - Dry or irritated nose
 - Peeling skin

- Hair thinning
- Nail changes
- Increased sensitivity to sunlight
- Increased cholesterol/triglycerides
- Liver inflammation
- **Lab Monitoring**
 - While on acitretin, your doctor will likely monitor your bloodwork to track your blood counts, cholesterol/triglycerides, and liver function.

PDE-4 Inhibitors

- **Examples**
 - Apremilast (brand name: Otezla)
 - Roflumilast (Daliresp)
- **How Do They Work?**
 - PDE-4 inhibitors are non-steroidal, anti-inflammatory medicines. They are not considered traditional immunosuppressants.
- **How Are They Given?**
 - PDE-4 inhibitors are given as a pill by mouth, typically twice a day.
- **How Long Do They Take to Work?**
 - On average, patients may begin seeing improvements with PDE-4 inhibitors around 3-4 months, although you may begin noticing improvement sooner than that.
- **What are Some Possible Side Effects?**
 - Nausea, diarrhea, or stomach upset though this may improve over time if you continue on the medication
 - Sleep disturbance
 - Headache
- **Lab Monitoring**
 - None

Methotrexate

- **How Does It Work?**
 - Methotrexate is an anti-inflammatory medicine. It is an immunosuppressive (suppresses the immune system). You may read that it can be used as a chemotherapy drug, but for lichen planus it is used at lower doses as an anti-inflammatory medication.
- **How Is It Given?**

- Methotrexate is given as a pill by mouth, but can also be injected under the skin, typically once per week. Folic acid or folinic acid (Leucovorin) is often prescribed as a pill to take to minimize the side effects of methotrexate.
- **How Long Does It Take to Work?**
 - It may take up to 3 months to see the full effects of methotrexate, although you may start experiencing improvement sooner.
- **What are Some Possible Side Effects?**
 - Nausea or vomiting
 - Fatigue, particularly around the day after the dose
 - Hair thinning
 - Decreased blood counts
 - Liver inflammation
- **Lab Monitoring**
 - While on methotrexate, your doctor will likely monitor your bloodwork to track your blood counts, liver and kidney function. Your doctor may also order a liver ultrasound if you remain on the medication for a long time.

Azathioprine (brand name: Imuran)

- **How Does It Work?**
 - Azathioprine is a non-steroidal, anti-inflammatory medicine. It is an immunosuppressive (suppresses the immune system).
- **How Is It Given?**
 - Azathioprine is given as a pill by mouth, typically daily.
- **How Long Does It Take to Work?**
 - It may take up to 3 months to see the full effects of azathioprine, although you may start experiencing improvement sooner.
- **What are Some Possible Side Effects?**
 - Nausea or vomiting
 - Decreased blood counts
 - Liver inflammation
 - Increased risk of infection
 - Increased risk of certain skin cancers with long-term use
- **Lab Monitoring**
 - While on azathioprine, your doctor will likely monitor your bloodwork to track your blood counts and liver function.

Mycophenolate (brand name: Cellcept or Myfortic)

- **How Does It Work?**
 - Mycophenolate is a non-steroidal, anti-inflammatory medicine. It is an immunosuppressive (suppresses the immune system).
- **How Is It Given?**
 - Mycophenolate is given as a pill by mouth, typically twice a day.
- **How Long Does It Take to Work?**
 - It may take up to 3 months to see the full effects of mycophenolate, although you may start experiencing improvement sooner.
- **What are Some Possible Side Effects?**
 - Nausea or diarrhea
 - Decreased blood counts
 - Increased risk of infections
 - Liver abnormalities
- **Lab Monitoring**
 - While on mycophenolate, your doctor will likely monitor your bloodwork to track your blood counts and liver function.

JAK-Inhibitors

- **Examples:**
 - Tofacitinib, baricitinib, and upadacitinib
- **How Do They Work?**
 - JAK-inhibitors are non-steroidal, anti-inflammatory medicines. They are immunosuppressive (suppresses the immune system). They are a new, emerging medication for lichen planus and are typically reserved for patients who have not had success with other treatments or for patients with severe disease.
- **How Are They Given?**
 - JAK-inhibitors are given as a pill by mouth, typically daily or twice a day.
- **How Long Do They Take to Work?**
 - It typically takes up to 12 weeks to see the full effects of JAK-inhibitors though many patients see improvement as early as 4 weeks.
- **What are Some Possible Side Effects?**
 - Stomach upset
 - Increased risk of infections (specifically shingles)
 - Increased cholesterol & triglycerides
 - Major adverse cardiac events (e.g. stroke, heart attack)
 - Blood clots
- **Lab Monitoring**

- While on JAK-inhibitors, your doctor will likely monitor your bloodwork to track your blood counts, cholesterol/triglycerides, and liver function.

Phototherapy

Narrow-Band UV-B Light

- **How Does It Work?**
 - Phototherapy uses narrow-band ultraviolet-B light to penetrate the skin and treat inflammation. It is typically used for cutaneous (skin) lichen planus.
- **How Is It Given?**
 - Phototherapy sessions occur in a clinic typically a few times per week. Treatment may continue for several weeks or months.
- **How Long Does It Take to Work?**
 - It may take up to 3 months to see the full effects of phototherapy, although you may start experiencing improvement sooner.
- **What are Some Possible Side Effects?**
 - Temporary skin redness and irritation, similar to a mild sunburn

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