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# Nail Lichen Planus

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## What is nail lichen planus?

Nail lichen planus (NLP) is a condition where long term inflammation of the nails causes changes in how the nails look and feel. It most commonly affects the fingernails, but can also occur in the toenails. **It is not contagious, meaning you cannot catch it from someone else or spread it to others.** NLP can affect anyone, but it is most common in middle-aged adults (~35-50 years old). Men are slightly more likely to get NLP than women. It is pretty rare, but can happen in children.

## What causes nail lichen planus?

The exact cause of NLP is unknown, but experts believe that NLP happens when the immune system attacks the cells that form your nails. This results in inflammation of the nail matrix (cells that make your nails) or nail bed (skin under the nail). It is not known exactly why your body starts attacking its own cells, but some possible triggers include:

- Certain medications
- Certain infections, like hepatitis C
- Reactions to environmental exposures

In most cases, a trigger is not found.

## What are the signs of nail lichen planus?

NLP can cause visible changes in the shape and texture of the nails.

When NLP affects the part that creates the nail, called the **nail matrix**, you may see:

- **Fragile, weak nails** that break easily
- **Ridges or grooves** running the length of the nail
- **Peeling, cracking, or splitting** of the nail
- **Rough, dull, sandpaper-like texture** of the nail
- **V-shaped scarring** at the cuticle, where the nail meets the skin, preventing the nail from growing at this location (this typically occurs later in the condition)
- **Pink thin streaks** running the length of the nail (less common)

When NLP affects the skin beneath the nail, called the **nail bed**, you may also see:

- Larger-than-normal **gap** between the tip of the nail and the nail bed beneath. Air between the nail and the nail bed from lifting makes the **tip of the nail** look **white or yellow**. If the nail is lifting for a long time, it may not easily reattach, and as this is clipped back, the nail appears shorter over time.

- **Thick, crumbly material under the nail** due to buildup of extra skin cells

NLP does not typically cause any pain or discomfort; however, the lifting or fragility of the nail can be uncomfortable or make usual daily tasks difficult.

## Can lichen planus affect other parts of the body?

NLP is just one specific subtype of lichen planus. About 30% of the time, people with NLP will only have lichen planus changes in their nails and nowhere else. If it were to happen at another part of the body, it has the highest chance of occurring in the mouth (oral lichen planus). This happens in about half of people with nail LP.

While NLP is most common on the fingernails, it can also affect the toenails. It may start in only one or a few nails and then progress to more nails as time goes on. However, it is important to know that NLP does not spread like an infection - a healthy nail cannot “catch” NLP from touching an affected nail.

Lichen planus can also affect the:

- **Skin:** red, purple, gray, brown bumps on skin
- **Mouth:** white lacy spots, redness, pain, or sores
- **Nails:** ridges, splitting, thinning, or nail loss
- **Genital skin:** pain, redness, sores, or scarring
- **Throat** (rare): pain or trouble swallowing

Tell your doctor if you have skin changes, mouth sores, genital pain, nail changes, or trouble swallowing.

## How is nail lichen planus diagnosed?

NLP can be difficult to diagnose as it can look like other nail conditions. It is often diagnosed based on the information your doctor gathers from hearing about your symptoms and examining your nails. However, your doctor may recommend a nail biopsy, in which a small part of your nail is removed and looked at under a microscope, to confirm the diagnosis. Additionally, a fungal test may be performed by scraping the surface of the nail in order to check for fungal infection, which can look similar to, or occur alongside, NLP.

## Does nail lichen planus cause permanent damage?

Yes, it is possible for NLP to cause permanent scarring and damage to the nails. The longer NLP goes untreated, the bigger the risk of permanent damage. If caught early, NLP can be effectively treated, and there is less chance of scarring.

## What is the treatment for nail lichen planus?

NLP can be very hard to effectively treat and it is important to have a conversation with your doctor about options. There is high rate of NLP coming back after treatment is stopped.

Depending on the location, severity, and extent of the condition, this might include:

- **Steroid injections into the nail area:** These are injections given around the cuticle to deliver the medicine more directly to the affected area. Injections are typically given once every 4-6 weeks. This choice can be good for patients who have more severe NLP in only one or a couple nails. There is temporary pain or discomfort with the injection.
- **Steroid injections into the muscle:** This is an injection of a larger steroid dose into the muscle (usually arm or buttock) which releases slowly over a month. This is given every month for 3-6 months. This may be suggested for those with multiple nails involved.
- **Other pill options your doctor might suggest:** Pills including acitretin, methotrexate, mycophenolate mofetil, JAK inhibitors (such as tofacitinib or baricitinib), or low-dose naltrexone can be tried.
- Unfortunately, topical treatments (topical steroids, calcineurin inhibitors) which might be helpful for other types of lichen planus do not work for NLP.
- Unfortunately, hydroxychloroquine, a pill commonly used for other types of lichen planus, has not shown to be helpful in NLP.

Importantly, NLP often requires multiple months of treatment before you will know if this is working. Patience is important.

## Who treats nail lichen planus? How often should I see them?

NLP is best treated by a dermatologist. Dermatologists who specifically specialize in nail disorders are often preferred for severe or hard-to-treat cases and for performing nail biopsies, though these can also be done by some general dermatologists. How often you follow up with your doctor will depend on the treatment option you are using. It is important to remember the slow rate of nail growth normally and that fingernails take about six months to grow out.

## Questions to ask at your visit

- Does my NLP look active today?
- How can we tell whether it is spreading or getting worse?

- How long will my medication take to work?
- What side effects should I watch for?
- When should I return?

## Other Resources:

- American Academy of Dermatology <https://www.aad.org/public/diseases/a-z/lichen-planus-overview>

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