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Vulval and vaginal lichen planus (LP)

What is lichen planus?

Lichen planus (LP) is a skin disorder that affects at least 1% of adults. LP is an inflammatory condition and some people who have it also have autoimmune diseases like lupus, rheumatoid arthritis, Sjogren's syndrome, and Grave's disease. No one knows what causes LP.

Lichen planus can occur anywhere on the skin. There are multiple forms of LP and each one behaves a bit differently. One type mainly affects hair follicles and can cause hair loss. Another type causes skin bumps of various sizes that are a different colour and texture to the surrounding skin – these often clear up on their own. Some forms of LP are itchy and the rash can become large, thick, and purple in colour. The type of LP that occurs on moist hairless skin is shiny, red, and usually painful.

Three types of LP occur on the vulva – erosive, hypertrophic, and classic. If a person has one type of LP, they are more likely to have another type. They are also more likely to have other skin disorders like lichen sclerosus and psoriasis (see *Lichen sclerosus* and *Vulval psoriasis*). It sometimes is difficult to tell the difference between LP and lichen sclerosus. However, treatment is similar and both need ongoing review with a healthcare provider familiar with these conditions. People with vulval LP also may be affected by chronic vulvovaginal pain, sexual problems, candidiasis, and flares of previous viral infections like herpes and warts (see *Vulvovaginal candidiasis*, *Vulvodynia*, *HPV and the vulva*).

Erosive lichen planus

Erosive LP is the most common type of LP on the vulva. It affects the inner part of the vulva and sometimes occurs inside the vagina. It can also affect the anus, mouth, oesophagus, tear ducts, and skin lining the eyes. It is a chronic condition with no known cure, but it can be controlled with treatment.

Erosive LP is usually painful. Many people report stinging with urination, pain with sex, and increased discharge. There is shiny redness over the vestibule, the inner



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labia minora, the periclitoral structures, and/or the posterior fourchette (see *Vulval anatomy*). Sometimes the redness extends over the whole labia minora onto the interlabial fold. In some cases the redness is continuous across this whole area and extends into the vagina, and in others there are separate areas with unaffected skin in between. There might be a white or lacy border to the red areas, or the white areas can be raised like islands in a red sea.

Erosive LP can cause scarring. The shiny surfaces may stick together – this is also called fusion. If the labia minora scar together, this can make it difficult to pass urine or have sex. The vagina can also become partially or completely closed. If the vagina or labia have fused together, it is possible to do a surgery to release the scar tissue. However, the LP must be under excellent control before and after this procedure, otherwise the scar tissue will quickly return.

It is important to treat erosive LP to prevent scarring and improve quality of life. This usually requires long-term strong steroid ointments every day. If there is LP inside the vagina, the steroid needs to be applied with an applicator or dilator/trainer. This can be with the same steroid that is used on the outside skin. In some cases, doctors will prescribe products (prednisone suppositories or hydrocortisone foam) marketed for use in the bowel. It is safe to use these products in the vagina, in order to treat LP.

Some people with LP will need other treatments besides topical steroid ointments. Some specialists use immune modulating creams like pimecrolimus or tacrolimus. Some doctors recommend immune suppressing tablets like weekly methotrexate or daily prednisone. Each of these medications has its own side effects that your doctor will discuss with you. Patients being treated for a widespread autoimmune condition (like rheumatoid arthritis or lupus) often find this treatment also helps their LP. Each person is different so it is important to work with your doctor to find the combination of medications that is right for you.



Hypertrophic lichen planus

Hypertrophic LP is uncommon. It usually occurs as an oval rash around the vulva or the perianal area. It is raised and red to purple in colour. The clitoral structures and labia are often swollen. The border can look white to grey. Hypertrophic LP is itchy and painful, so there are often marks from rubbing and scratching. Hypertrophic LP is also treated with strong topical steroid ointments, usually long-term. It is easy for the affected skin to have a yeast or bacterial infection, and these require other medications to get under control.

Classic lichen planus

Classic lichen planus occurs mostly on hair bearing skin and looks similar on the vulva as on other skin surfaces. It shows up as raised areas that are brown, purple, grey, or red, and have a different texture to normal skin. These areas are often itchy. Sometimes it is just one spot, other times there are many spots making a pebbly or cobblestone appearance. It can affect hair follicles and cause hair loss. Classic LP usually goes away on its own, although this might be sped up by using steroid ointments. This type of LP is easier to deal with than the other 2 types.

Does lichen planus increase the risk of cancer or pre-cancer?

Classic lichen planus does not pose any risk of cancer or pre-cancer. Hypertrophic lichen planus might rarely be a reason for pre-cancers and cancers to develop on the vulva, but there are too few cases to be sure about this.

The relationship between erosive lichen planus and cancer is controversial. It seems that problems relating to human papillomavirus (HPV) might be more common in skin affected with erosive LP. Many younger people have been vaccinated against HPV at school. Meanwhile, older unvaccinated women have more risk of pre-cancers and cancers of the cervix, vulva, and vagina due to HPV (see *HPV and the vulva*). In the rare circumstance that a cancer or pre-cancer seems to arise out of erosive LP, it is important to see if there is also lichen sclerosus on nearby skin. We know that erosive LP and lichen sclerosus can occur in the same person at the same



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time, but it is lichen sclerosus that is more likely to cause vulval pre-cancers or cancers.

People with erosive and hypertrophic LP require ongoing visits with a doctor familiar with these disorders. The purpose of the visits is to check if condition is being treated adequately, to assist with symptoms, and ensure there are no suspicious areas on the skin.

How is lichen planus diagnosed?

It is possible to diagnose LP by examining the skin. In many cases, it is helpful to obtain a small sample of the affected skin for be reviewed under the microscope by a pathologist. This is called a biopsy and can be done in your doctor's rooms while you are awake (see *Biopsy*). Your doctor may ask a specialised pathologist to review the biopsy, to get the most accurate report about your condition. A swab of the skin and vagina may also be done to look for yeast or bacterial infections.

How does lichen planus affect sex and childbirth?

Untreated erosive and hypertrophic LP usually are so uncomfortable that people cannot have sex. After a period of effective treatment, some people can start having sex again. Hormone replacement and/or vaginal oestrogen often help people have sex more comfortably. In some cases, people develop nerve and muscle pain in addition to the discomfort from LP. These issues require other types of treatments, like pelvic floor physiotherapy and/or tablets for nerve pain. Even with these options, some people find sex is just too difficult or not enjoyable, so they end up avoiding it. Many types of specialised practitioners, like pelvic floor physiotherapists, women's health GPs and nurses, sex counsellors, gynaecologists, and sexual health doctors, can help with these issues (see *Painful sex*).

If someone with LP has scarring that reduces the size of the vagina or the vaginal opening, it may be possible to improve this through surgery, combined with ongoing vaginal dilator/trainer use and daily strong steroid ointment. This situation requires



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work and long-term dedication by the affected person, so surgery should not be seen as an 'easy fix'.

Erosive and hypertrophic LP are uncommon in people of childbearing age. Most affected people find LP improves during pregnancy. It is safe to continue using steroid ointments during pregnancy. It is safe to try for vaginal birth. After childbirth, people often experience a flare and need to increase the strength and/or frequency of their steroid ointment. It is important to arrange appointments with your specialist to plan for what to do with treatment after birth to ensure the LP stays under control. Breast/chest-feeding people may also need to use oestrogen creams or pessaries to keep their vulval and vaginal skin as healthy as possible.