

## **Genital Warts**

Genital warts are very common. They are caused by a virus, the human papillomavirus (HPV).

- There are at least 100 different types of HPV; at least 40 can infect the genital area.
- At least 75% of sexually active adults have been infected with at least one type of genital HPV at some time in their life.
- Most do not develop visible warts; the infection may show up on a cervical smear. This is known as subclinical infection.
- Visible genital warts are often easy to diagnose by their typical appearance. They are usually due to HPV Types 6 and 11.
- Some genital warts are often called [squamous cell papilloma](#).

Genital warts may occur in the following sites:

- Vulva
- Vagina
- Cervix
- Urethra
- Penis
- Scrotum
- Anus

Normal anatomical structures may be confused with warts. These do not require any treatment.

- [Pearly papules](#) (these are in a ring around the glans of the penis )
- Sebaceous glands on the labia (known as "[Fordyce spots](#)")
- Vestibular papillae (the fronds found in the opening to the vagina)

### ***Transmission of HPV***

Visible genital warts and subclinical HPV infection nearly always arise from direct skin to skin contact:

- Sexual contact. This is the most common way amongst adults.
- Oral sex. HPV appears to prefer the genital area to the mouth however.
- Vertical (mother to baby) transmission.
- Auto (self) inoculation from one site to another.
- Fomites (i.e. from objects like bath towels). It remains very controversial whether warts can spread this way.

Neonatal infection may arise by passing through an infected birth canal. This can lead to rare complications, such as laryngeal papillomatosis i.e. warts in the throat. Because this complication is unlikely, a caesarean section is rarely indicated simply because a pregnant woman has genital warts.

In small children, genital warts raise the possibility of sexual abuse but in many cases it is due to vertical transmission (see above).  
Transmission is common as genital warts often go unnoticed. Subclinical infections can also be infectious.

Often, warts will appear three to six months after infection but latency periods of many months or even years have been reported. Developing genital warts during a long-term relationship does not necessarily imply infidelity.

Visible warts are probably more infectious than subclinical HPV infection. Treating warts seems to decrease the chance of passing on the infection. We cannot tell whether the immune system completely clears the virus from the body, or whether the virus remains hidden but undetectable, capable of re-emerging years later if the immune system weakens. As a result, it is unclear how long someone remains infectious.

The risk of HPV transmission is extremely low if no warts recur a year after successful treatment.

### ***Condoms***

Condoms provide a physical barrier and lower the risk of passing on HPV. They do not, however, prevent all genital skin-to-skin contact.  
Use a condom to protect against other STDs, particularly with new sexual partners. For couples in long-term monogamous relationships, the value of condoms is more debatable.

### ***Treatment***

The primary goal of treatment is to eliminate warts that cause physical or psychological symptoms such as:

- Pain
- Bleeding
- Itch
- Embarrassment
- A constant reminder of STD

The underlying viral infection may or may not persist if the visible warts clear.  
If left untreated, warts may resolve, remain unchanged, or increase in size or number.  
Most people have a small number of warts that clear with a course of treatment but no one treatment is ideal for everyone.  
Options include:

- No treatment at all.
- Self-applied treatments at home.
- Treatment at a doctor's surgery or medical clinic.

If your skin problem is troublesome and/or persistent, make an appointment to see Dr Buckley in the Solas Dermatology and Laser Clinic.

### ***Self-applied treatments***

To be successful you must identify and reach the warts, and follow the application instructions carefully.

- [Podophyllotoxin](#) solution (Condyline™, Wartec™) destroys the affected skin cells so the warts shrink or disappear. Podophyllotoxin solution contains purified podophyllin in a more standardised form. It is not recommended for internal use or for extensive warts (more than 10 square centimetres). It should not be used during pregnancy.
- [Imiquimod](#) cream (Aldara) enhances the body's immune response to the infection. Warts seem less likely to recur compared to other treatments. Imiquimod is more effective for women than for men, probably because of differences in genital skin. It may cause burning and even ulceration as it clears up the warts. Although annoying, the treatment can usually be continued. Imiquimod is not currently recommended during pregnancy.

### ***Treatment at the clinic***

- [Cryotherapy](#) with liquid nitrogen is effective for both dry and moist warts and can be used for external and internal warts. It may be the best treatment during pregnancy. It is moderately painful and blistering sometimes occurs. Treating large warts or large numbers of warts at one time can also be messy and unpleasant.
- [Podophyllin resin](#) 10%-25% suspension in benzoin tincture contains a number of agents, including podophyllotoxin. Preparations vary greatly in their concentration of active components and contaminants, the shelf life and stability of podophyllin resin are unknown, and well-standardised preparations are not available. As a result, it is no longer commonly used in New Zealand. Podophyllin is not recommended for use on wart areas of more than 10 square centimetres, as it can be toxic. It must not be used in pregnant women.
- [Trichloroacetic acid](#) (TCA) solution is a caustic agent. It must be applied sparingly and carefully or it may "run", damaging normal tissue. It is not commonly used to treat warts in New Zealand.
- [Electrocautery](#) or diathermy physically destroys the warts by burning them. Local or general anaesthesia can be used.
- [Curettage and scissor or scalpel excisions](#) directly remove the warts. Suturing is rarely required. Some pain is likely. Secondary bacterial infection is an occasional complication.
- [Laser ablation](#) is sometimes recommended for extensive infection, or difficult-to-reach areas such as the cervix, but it is not widely available in New Zealand.
- [5% fluorouracil cream](#) (Efudix) is currently a specialist-only medication in New Zealand. It is a cytotoxic agent i.e. it destroys abnormal cells. It can result in very painful erosions so it is not recommended for routine treatment of warts and should not be used in pregnancy.
- [Vaccine](#) development is an area of active research, and several different approaches are being tested in animal models, including "therapeutic" vaccines that might help those already infected.

### ***Other therapies***

- **Interferon** is an antiviral agent that is effective when it is injected into genital warts. Side-effects are common e.g. a flu-like illness and pain at the injection site. Interferon injections are generally only used for those who have not responded to other treatments and are not currently licensed in NZ. Systemic and topical interferon have not been found to be helpful for genital warts.
- **5-fluorouracil/epinephrine-gel** implant contains the same drug as in [5% fluorouracil cream](#), together with a vasoconstricting agent and a stabilising gel. The mixture is injected into the genital skin, near the warts. It can result in very painful erosions so it is not recommended for routine treatment of warts and should not be used in pregnancy. It is not currently licensed in NZ.
- **Cidofovir** is a newly developed antiviral drug that is being investigated for treatment of genital warts.

### ***Genital warts & cancer***

The HPV types that cause external visible warts (HPV Types 6 and 11) rarely cause cancer. Other HPV types (most often Types 16, 18, 31, 33 and 35) are less common in visible warts but are strongly associated with [penile](#) and [vulvar](#) intra-epithelial neoplasia (pre-cancerous changes) and squamous cell carcinoma (SCC) of the genital area especially cervical cancer and less frequently invasive [vulvar cancer](#).

However, only a very small percentage of those infected will develop genital cancer. This is because HPV infection is only one factor in the process; cigarette smoking and the immune system are also important.

Cervical smears, as recommended in the National Cervical Screening guidelines, detect early abnormalities of the cervix, which can then be treated. If these abnormalities were ignored over a long period, they could progress to cancer.

The new **Cervical Cancer Vaccine** is suitable for females between the age of 9 and 26 years. It gives good protection against most cancer causing types of HPV. This helps prevent the vast majority of cervical cancers. It also gives good protection against most strains of genital warts. It is best to get the vaccine before the woman becomes sexually active and so giving it to girls around the age of 10 to 12 years old is ideal. You need 3 doses over 6 months. Phone The Solas Dermatology and Laser Clinic about more details, prices and or you want to make an appointment for the vaccine.

**Genital warts images**

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