

Cervical cancer prevention & human papillomavirus (HPV)

What is HPV?

Human papillomaviruses (HPV) are commonly known as wart viruses. Some types infect the genital region, usually via sexual contact. This is very common and about four out of five people are exposed to these viruses at some stage in their life. Infection with some types of HPV can lead on to a range of genital cancers, while others cause visible genital warts. Infection with HPV virus is necessary to develop cervical cancer. Although there are over 100 types of HPV, types 16 and 18 are responsible for around 70% of all cervical cancers. Types 6 and 11 cause approximately 90% of genital warts.

How common is cervical cancer?

Every year in New Zealand around 160 women are diagnosed with cervical cancer and around 60 die from the disease. Many other women have abnormalities in the cells of their cervix which are detected by cervical screening. These require invasive treatment to prevent the development of cancer. In New Zealand cervical cancer is the third most common cause of cancer in women aged 25-44 years. Maori women are almost twice as likely to get cervical cancer and almost three times as likely to die from it compared to non-Maori women. Additional risk factors include: early start of sexual activity, multiple sexual partners, women who don't participate in regular cervical screening and smoking.

How serious is cervical cancer?

Cervical cancer can spread to the bladder, intestines, lungs and liver and is ultimately fatal. Early detection is very important.

How do you catch the virus?

The HPV types that can lead to cervical cancer are spread primarily through sexual contact. Three years after becoming sexually active around two thirds of women have been exposed to HPV (regardless of the number of sexual partners). Most infections resolve without any problems within 2 years. However, about 2% of infections are still present after 5 years. Persistent infection can cause abnormal cervical cell changes and if not diagnosed or treated can lead to cancer.

What are the symptoms of HPV infection?

Some HPV types cause warts and verrucae but do not lead to cancers. Other HPV types cause no obvious infection at the time, but can persist in cells of the genital tract. If left undetected, HPV can lead to cervical cancer as well as other cancers affecting the vulva, vagina, anus, penis, mouth and throat. It takes usually about 10-20 years from infection to the development of cancer.

How do you prevent cervical cancer?

Regular cervical smears and treatment of abnormal cells prevent the majority of cervical cancer. Routine use of condoms can help reduce the spread of HPV infection, but is not fully protective. Immunisation with the HPV vaccine is highly effective in preventing infection with the 2 most common HPV types -

Vaccination against HPV infection.

The vaccine is given as a series of 3 injections over 6 months. It contains 4 HPV types – 2 types which cause around 70% of cervical cancers (HPV types 16 and 18) and 2 types that cause 90% genital warts (HPV types 6 and 11).

How effective is the vaccine against HPV related diseases?

Studies in over 20,000 women show it is 95% effective in preventing serious cervical cell changes caused by HPV types 16 or 18 (and up to 100% effective in women who have not been exposed to those HPV types).

It is most effective when offered at a young age, before the onset of sexual activity. The vaccine will not treat existing HPV infections or their complications.

How long does the HPV vaccination last?

Three doses provide a stable level of protection for at least five years. The vaccine induces a good immune memory and studies indicate that the efficacy of this vaccine is expected to be long-lasting. Studies will continue to monitor the protection the vaccine provides. Booster doses (as required for some other vaccines), are not expected to be needed for the cervical cancer vaccine, but this is being monitored.

Who should get the vaccine?

Girls born from 1 January 1990 are eligible for the HPV Immunisation Programme. The National Immunisation Programme has offered the HPV vaccine to all year 8 girls from 2009.

- Young women born in 1990 and 1991 have until 31 December 2011 to start the HPV immunisation programme.
- Young women born from 1992 onwards have until their 20th birthday to start the HPV immunisation programme.

For details on when and where to get free immunisation contact your local District Health Board.

Why is the HPV vaccine being offered to girls from 12 years old?

The immune response in girls aged 9-15 years is greater than in older girls and women. For best protection girls need to be vaccinated before they are likely to be exposed to HPV; which means before they start having any sexual contact. However, girls who are sexually active may not have been infected with the types of HPV covered by the vaccine and would still benefit from vaccination.

How much does it cost?

The HPV vaccine is free for young women born from 1 January 1990 (see previous page). However, other people who are not eligible for the free vaccine may consider that the benefits are worth purchasing the vaccine. It is licensed for girls and women aged 9-45 years, given ideally before the start of sexual activity. It is also licensed for males aged 9-15 years and prevents genital warts in young men also some male cancers. For those who are not eligible for free vaccination it can be purchased via your general practice or other health centre, who can discuss the cost of the vaccine with you.

Who should seek more advice before having the vaccine?

People with a severe allergy (anaphylaxis) to any component of the vaccine should seek advice before being vaccinated. The vaccine is not recommended for pregnant women.

Is the vaccine safe?

Studies show the HPV vaccine has an excellent safety profile, and is generally well tolerated. Injection site reactions with some pain, redness and swelling are the most common reactions. Headache or fever occur in around 2 per hundred. Fainting can occur, usually caused by anxiety. Severe allergic reactions (anaphylaxis) have been reported in about 3 per million.

It is important to note that women who receive the HPV vaccine must continue cervical screening, as not all cervical cancers will be prevented by the vaccine. As with any vaccine, the HPV vaccine may not provide protection for everyone who is vaccinated. Therefore, if a woman has ever been sexually active, she still needs to have a smear test every three years between the ages of 20 and 70.

HPV	Risks of Infection	Side effects of the vaccine
Human papillomavirus (HPV) is a common sexually transmitted virus and a major cause of cervical cancer.	<ul style="list-style-type: none"> • Infection of partner. • Developing persistent infection. • Some types cause genital warts. • Persistent infection can cause cervical cancer or cancers of the vulva, vagina, anus, penis, mouth and throat. • Pre-cancerous changes in cervical cells requiring invasive treatment. 	<ul style="list-style-type: none"> • Mild to moderate pain and inflammation at injection site – most vaccinees. • Severe pain and swelling at injection site (<3%) • Mild to moderate fever (<1%) • Anaphylaxis (3.2 per million.)

Vaccines are prescription medicines. Talk to your doctor or nurse about the benefits or any risks.