

Frequently asked questions: human papilloma virus (HPV), cervix cancer and HPV vaccines

South African HPV Advisory Board

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What is Human Papilloma Virus?

Human papilloma virus (HPV) is a highly contagious viral infection that spreads through skin-to-skin contact. It may affect all areas of the skin but certain types infect both male and female genital areas, including the lining of the vagina and the cervix. It belongs to a family of over 100 types of viruses. Some types of HPV can cause either genital warts or cancer of the cervix, anus or penis.

What is cervix (cervical) cancer?

Cervix cancer starts at the mouth of the womb. It causes a malignant growth that can involve nearby organs such as the bladder and the bowel and may also spread to the rest of the body. Cervix cancer is the most common form of cancer in women in South Africa. It is estimated that one in 26 South African women will develop cervix cancer during their lifetime. More than 6 500 new cases of cervix cancer are diagnosed each year and more than 3 000 deaths a year are due to cervix cancer.

How is HPV implicated in cervical cancer?

If the HPV infection persists in a female, the high risk type of HPV becomes integrated in the cervix cells. Certain cofactors such as smoking, diet, drugs and immune-suppression also play a role. Persistent cervical HPV infection is the single most important risk factor for the development of cervix cancer.

Do all types of HPV cause cancer of the cervix?

The various types of HPV are classified as low or high risk according to their association with cancer. These low risk types are rarely associated with cancer. The high risk types, on the other hand, are more inclined to lead to cancer.

Is HPV infection common?

HPV infection is the most common sexually transmitted infection in the world. About half to three-quarters of sexually active people will have HPV at some stage of their lives.

How is HPV implicated in genital and other skin warts?

Warts caused by certain HPV types are transmitted by direct contact with infected tissue or indirectly by contact with objects containing viral particles.

How is HPV transmitted?

HPV can spread through skin-to-skin and sexual contact and barrier contraceptives such as condoms may not be totally protective. In rare cases, HPV may be passed from a mother to her newborn baby.

How can one protect oneself from getting HPV?

Abstinence is the safest form of protection. Another obvious method to reduce the risk of acquiring an HPV infection is to practise safe sex and to always use a condom during sex. While condoms do not eliminate the risk of infection, the proper and consistent use of them will decrease the risk. Delaying the onset of sexual debut as well as limiting sexual partners also decreases the risk of acquiring HPV infections. In addition to the above, vaccination is highly preventative. Barrier methods are still recommended to prevent other infections not covered by the vaccine, among others, HIV.

What are the symptoms of HPV?

Genital HPV usually has no symptoms unless when it causes genital warts. Genital warts may occur within weeks or months after exposure and sometimes can occur years later. Most people will never know they have HPV as the virus causes symptom-free cell changes in the cervix

that over many years may lead to cancer. On the other hand, an HPV infection can be diagnosed with a Papanicolaou smear (commonly known as a Pap or cervical cytology smear). These tests are designed to pick up abnormal cells caused by HPV infection before it turns into cancer. Other tests can be done to identify the specific HPV types.

What is the role of the newly available HPV vaccines?

Two HPV vaccines are now licensed and available in South Africa.

- * Cervarix™ will protect against infection with high risk types HPV16 and 18 (which cause cervical cancer).
- * Gardasil® will protect against infection with high risk types HPV16 and 18 (which cause cervical cancer) as well as against HPV6 and 11 (which cause anogenital warts).

How does the HPV vaccine work?

The vaccine contains virus-like proteins identified from the most serious types of HPV. It is combined with an inactive substance that stimulates the body to cause a strong immune response. It does not contain any antibiotics or live viruses.

Who should receive the HPV vaccines?

In order to be most effective, the HPV vaccine should be given **before** a female becomes sexually active. The vaccine should be administered to girls aged 9–12. Young women aged 13–18 who have not yet started the vaccine series or who have started but not yet completed the course should also be vaccinated.

Should young boys be vaccinated?

The vaccine is safe for anyone. At this stage the vaccines are not registered for use in males. Furthermore, at present it is not considered cost-effective to vaccinate young boys.

How many doses of HPV vaccine should be given?

A series of three doses of HPV vaccine within a period of six months.

How effective are the HPV vaccines?

Both HPV vaccines have demonstrated a high success rate in preventing cervical cancer precursors (70%). Gardasil® has demonstrated successful prevention of genital warts (90%).

For how long will HPV vaccination last? Is a booster necessary?

Current studies indicate good and lasting protection against HPV for the full duration of the study period which is now almost eight years. Studies are ongoing to determine if a booster dose will be needed.

Is the vaccine safe?

The vaccines have been tested extensively and they are considered extremely safe. The most common side-effect is a brief discomfort at the site of the injection.

Will females who have been previously vaccinated still need to be screened for cervical cancer?

As mentioned, the HPV vaccines do not protect against all types of HPV. Even when someone is vaccinated, it is still possible to become infected with one of the less common types of HPV that the vaccine does not claim to protect against. Therefore, it is important that vaccinated females continue to have some screening such as Pap smears and/or HPV molecular testing.