

Human Papilloma Virus (HPV) & HPV Vaccination

About HPV

Human papillomavirus (HPV) is a virus that can cause skin warts, genital warts, and some forms of cancer.

HPV infection is caused by a group of over 100 different types of HPV; more than 40 of these are known to infect the cervix, and approximately 15 are known to cause cervical cancer. The HPV types are classified as being high or low risk for causing cervical cancer.

HPV infection is the underlying cause of abnormal cervical smears. Certain strains of HPV known as High Risk HPV are responsible for almost all cases of cervical cancer.

Almost everyone who is or has been sexually active will get infected with the HPV virus at some point in their lifetime. It has been estimated that 75 to 80 percent of sexually active adults will acquire at least one genital HPV infection before the age of 50. It is more common in young people, but no age is exempt. By building natural immunity, in time most people will clear the virus from their system.

The butterfly effect suggests that an initial small event **can snowball** into something much bigger. So lies the case with HPV infection. One needs to have had sex with just one person who in turn may have slept with another person, unaware that they have an HPV infection which causes this highly contagious infection to spread. Most people have no symptoms from the HPV infection and clear it on their own.

However, for some people, the virus remains dormant in the body and if it is High Risk HPV, it can cause changes in the neck of the womb (cervix) known as dyskaryosis (low or high grade changes) and precancerous cells may develop (Cervical Intraepithelial Neoplasia CIN 1,2,3) which over several years may turn into cervical cancer in a small minority over several years.

It is usually not possible to trace the source of the HPV infection, as it may have been lying silent for several years before any symptoms are experienced.

Cervical cancer is the second most common cause of cancer in women all over the world. It is also the most common cancer in women under the age of 35. Types 16 and 18 are strains of high risk HPV responsible for 70% of all cervical cancers while low risk HPV strains can cause genital warts.

Apart from cervical cancer, high risk HPV can also cause vaginal and vulval cancers in

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women as well as head and neck cancers, penile and anal cancers, especially in men who smoke and drink alcohol in excess.

Women and men who are sexually active do need to be aware of the correlation between HPV infection and cancer as there is help available. The good news is that cervical cancer is mostly preventable.

FAQs

Is there any way to prevent getting HPV infection?

There is no blood test for diagnosing HPV and there is no treatment for HPV.

Abstinence is the only way of completely avoiding HPV infection. However, this is not practical advice.

Human papillomavirus (HPV) is a virus that is spread by skin-to-skin contact, including sexual contact.

Using condoms every time can significantly reduce one's risk of getting HPV infection as well as other sexually transmitted diseases such as chlamydia and HIV. Condoms, however, cannot completely eliminate catching HPV infection as the virus is present on the skin of the genital areas and in the mouth as well. So oral sex, anal intercourse, open mouth kissing as well as vaginal intercourse all increase the chance of getting HPV infection as does having multiple partners.

Stopping smoking has several health benefits but can also help reduce the risk of HPV progressing to cancer and in eliminating the virus from your body quicker. Excess alcohol should also be avoided.

Lowered immunity also lowers one's chance of quickly clearing the HPV infection.

However, it must be stressed that anyone can get HPV infection so taking precautions and reducing risk factors is sensible.

Can I get rid of HPV infection through medication?

Once you have HPV, it is not possible to get rid of it with medicines or other treatments? Most people who are infected with HPV have no signs or symptoms, and in most cases never

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develop any problems caused by HPV.

What about HPV vaccination?

The HPV vaccine is very good at preventing the types of HPV infection that can cause cervical and vaginal cancer in women. It might lower the risk of other types of cancer and genital warts, too.

The HPV vaccination programme is very safe and highly effective, protecting against the main strains of HPV that cause majority of cervical cancer cases. It also offers protection against those viruses that cause genital warts. This programme has been available to all young girls at ages of 12-13 (year 8) in the UK so that they are protected by the time they are sexually active.

From September 2019, the first dose of the HPV vaccine will be routinely offered to girls and boys aged 12 and 13 in school Year 8. The vaccine is given in two injections spaced 6 – 12 months apart. It is important to have both doses for full protection, which is thought to last at least 10 years and probably much longer. If vaccine doses are missed, it is important to speak to a qualified health professional as soon as possible. Vaccination is now available on the NHS up to their 25th birthday. For those who were eligible but missed the initial rounds.

It is sensible to consider the HPV vaccine, even if the woman or man is above the age of 18 and even if already sexually active. It still has benefit for a woman to have the vaccine up to the age of 45 years, even if she is known to already have an HPV infection. This is even more important if the woman is not in a stable sexual relationship. The decision to vaccinate should be individualised and discussed with an appropriate health professional.

People above the age of 15 need three doses as they do not respond as well to 2 doses as younger people do. The second and third doses are given one to two and six months after the first injection. Your health professional should be able to guide you regarding the details of the vaccine.

Three vaccines (Gardasil, Gardasil-9, and Cervarix) are available to prevent infection with types of HPV known to cause cervical cancer. Gardasil and Gardasil-9 also prevent infection with the two HPV types (9 and 11) that cause 90 percent of genital warts. The three vaccines protect against different types of HPV:

- Gardasil-9 helps to prevent infection with nine HPV types (6, 11, 16, 18, 31, 33, 45, 52,

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and 58). This is available privately.

- Gardasil helps to prevent infection with four HPV types (6, 11, 16, and 18). This is the vaccine currently used on the NHS.
- Cervarix helps to prevent infection with HPV types 16 and 18.

The HPV vaccine may cause mild redness, tenderness, or swelling near the injection site. The vaccine is not currently recommended during pregnancy, although there are no known risks to a foetus if the vaccine is given inadvertently.

It is important to remember that the HPV vaccine does not prevent other sexually transmitted infections such as HIV, herpes, chlamydia, and gonorrhoea. It is therefore important to practice safe sex by using barrier contraception (condoms) every single time.

If I have the HPV vaccine, do I still have to have cervical smears?

It's very important to have regular smears from the age of 25. If you test negative to High Risk HPV, your risk of cervical cancer over the next 3 years is negligible.

Smears don't diagnose cancer but by detecting changes in the cells, can guide doctors to offer the right treatment well before cancer develops. The NHS offers smears between the ages of 25-65 years, unless there is a medical reason to do them more frequently.

Sadly, 1 in 3 women between 25-29 years don't attend their smear tests. Self-testing is accurate and is an area that is being developed to try and target those women who don't come forward for routine cervical smear testing because they find these tests intrusive or don't have the time to go to their doctor.

Why should I not start having smears earlier than 25 years?

There is no scientific evidence that having smears early is helpful, and it may be harmful leading to unnecessary treatment and anxiety. Most young women will have HPV infection which will clear itself over time and changes in the cervix usually take several years to develop.

Cervical cancer is extremely rare in women under the age of 25 with just 2.6 cases per 100,000 women so unless there is a medical reason, for example persistent bleeding after sex or erratic bleeding that cannot be explained, cervical smears before the age of 25 is not really in your interest.

If I have a high risk HPV infection, does it mean I will get cervical cancer?

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No, it doesn't at all. It means you will need closer follow up (see Colposcopy leaflet) and more frequent smears and some women will need treatment to remove the abnormal cells from the neck of the womb (cervical LLETZ procedure)

In 10 to 20 percent of women, however, HPV infection does not go away. In this situation, there is a greater chance of developing cervical pre-cancer and then cancer. It usually takes, on average, 20 to 25 years for a new HPV infection to cause cervical cancer.

For this reason, it's important to get regular smears to detect any cervical abnormalities early, before cancer develops. Regular smears for all women over 25 will reduce the risk of getting cervical cancer by 80-90%.

Should I tell my partner that I have an HPV infection?

It is not possible to advise regarding this as there is no treatment or method of testing for genital HPV in men or testing for HPV infection in the mouth or throat. Practising safe sex is always the best way forward as condoms can help in preventing transmission and reinfection. However, in a stable relationship, immunity develops to the particular strain you have, and reinfection is unlikely.

I've been on the contraceptive pill for 12 years, but I've heard that being on it a long time can increase your risk of cancer. Should I stop taking it?

It's important to stress that the pill is not associated with an overall increased risk of cancer. Taking the pill for at least four years reduces the risk of ovarian, endometrial and colon cancer for women, compared with non-users. There's some evidence to suggest women on the pill for more than 10 years have a four times higher risk of cervical cancer, but that said, the absolute increase in risk is very low and your overall risk is extremely small.

The benefits of taking the pill generally outweigh the risks for most women. You could discuss with your doctor to help you consider another form of contraception, such as the coil or implant. What is important, is that you don't stop the pill suddenly and run the risk of an unwanted pregnancy.

Ensure you have regular smears. For all women over 25, whether they use the pill or not, having regular smears as per the NHS protocol, will reduce the risk of getting cervical cancer by 80-90%. The risk of developing cervical precancerous changes and contracting HPV in the future can be reduced by always using condoms, not smoking, and considering

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obtaining the HPV vaccination.

I often get pelvic pain and shooting pains in my cervix. I've read that cervical cancer can't cause pain until the late stages, but should I be concerned?

It's quite normal to have occasional low tummy or pelvic pain and even shooting pains in your vagina and cervix. These are not really signs of cervical cancer. It is however true that cervical cancer does not usually cause pain until a late stage.

However, the most important way you can reduce your risk of cervical cancer is by attending for your regular smear checks. You should also seek advice from a doctor if you are having bleeding after sex or erratic bleeding between your periods.

I've noticed a bit of bloody discharge after sex and between periods. It's never very much, but should I get checked out?

Post Coital Bleeding (PCB) (see leaflet) is something you should not ignore. Seek medical advice from

your doctor or your local sexual health clinic. This will allow for a detailed history and examination. You may also be offered a smear if you're aged between 25-65 and haven't had one recently. There are several causes of bleeding between periods or after sex, including infection, polyps, atrophic vaginitis, vaginal tears and cervical ectropion (see leaflet). In some situations, bleeding after sex can be a sign of cancer. If you've had regular clear smears though, it's highly unlikely this is the cause, but if you're concerned, see your doctor.

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Updated January 2020