



The HPV vaccine

Beating cervical cancer

An information sheet for
girls and their parents on
the HPV vaccine



This information sheet on HPV vaccine supports the leaflet provided through schools.

It is intended to provide more detail on the HPV vaccine that protects girls from cervical cancer.

More information can be found at **www.nhs.uk/hpv**

Having the HPV vaccine will help protect girls from getting cervical cancer

Cervical cancer

Cervical cancer affects the cervix – the entrance to the womb (see *Figure 1*). This cancer is caused by the human papillomavirus or HPV, spread from one person to another during sexual activity. There are over 100 types of human papillomavirus but only 13 of these are known to cause cervical cancer and just two – types 16 and 18 – cause over 70% of cases (see *Figure 2*).

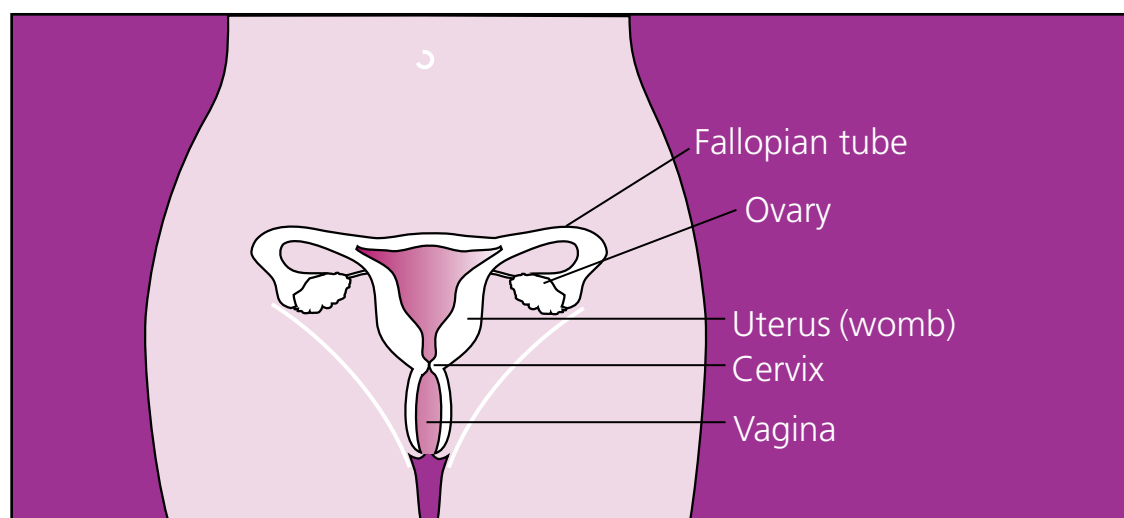
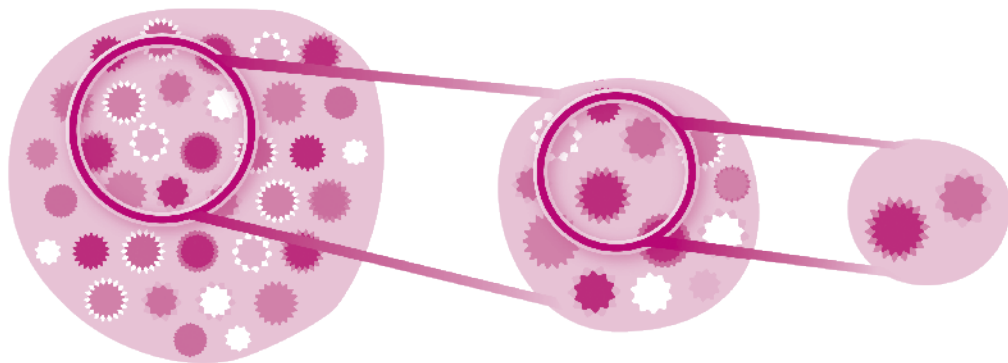


Figure 1 The cervix is the entrance to the womb

The HPV vaccine is being offered to protect against cervical cancer. Cervical cancer is the most common cancer among women under the age of 35. In the UK, around 3000 cases of cervical cancer are diagnosed every year and about 900 women die from it, almost all in older women who were unable to benefit from the vaccination programme.



There are over 100 types of human papillomavirus

More than a dozen of these cause cervical cancer...

...and two of these types – 16 and 18 – cause over 70% of the cases of cervical cancer

Figure 2 Diagram showing the human papillomavirus types that cause cervical cancer

How the virus causes cancer

The virus infects the cervix and in most women the body clears the infection naturally. The virus can stay for several years without causing any harm. Then, and for no apparent reason, it may start to cause damage. Cervical screening can detect these changes which, if found early enough, can be treated to prevent cancer developing. If they are left untreated, cancer can develop.

The HPV vaccine

The vaccine currently used in the NHS vaccination programme (Gardasil) stops the body being infected by the two human papillomaviruses that cause over 70% of cervical cancers. These viruses can also cause other genital and some head and neck cancers. The HPV vaccine also protects against two types of HPV that cause about 90% of genital wart infections.

The HPV vaccine has been used for many years and tens of millions of girls have been vaccinated and all the indications are that high levels of protection last for many years. The duration of protection will continue to be monitored carefully.

The difference that the HPV vaccine has made so far

The UK HPV immunisation programme started in 2008. There is already evidence from Australia, Denmark, Scotland and England that the vaccine is making a difference. There has been a large drop in the rates of infection with the two main cancer-causing HPV types in women and men. The UK programme is expected to eventually prevent hundreds of deaths from cervical cancer every year. As it can take many years for the cancer to develop after infection then the overall benefit of the programme will take some time to be evaluated.

Vaccinating girls against HPV will protect boys too

The purpose of the national HPV vaccination programme is to protect girls and women against cervical cancer. By protecting all girls against the two most common causes of cervical cancer eventually there will be fewer viruses circulating and so the risk of boys coming into contact with these viruses, and passing them on, will decrease. The number of genital wart infections in the UK has already fallen in both girls and boys due to the vaccination programme. Boys will also benefit from protection against HPV-related genital and head and neck cancers.

Having the vaccine reduces the risk of getting cervical cancer by over 70%

The HPV vaccine and other sexually transmitted infections

The vaccine currently used in the NHS vaccination programme (Gardasil) also protects against two types of HPV that cause about 90% of the cases of genital warts. HPV vaccination does not protect against other infections spread during sex, such as chlamydia, nor will it stop girls getting pregnant, so it's still very important that safer sex messages are given at the appropriate time.

We have already seen a big decline in the number of young people attending GUM clinics with genital warts.

Girls will be offered the vaccine when they are in year 8/9 as the vaccine is most effective when given to younger girls

All girls aged 12 to 13 years should be offered the first HPV vaccination when they are in school year 8.

HPV is very common and is caught through being sexually intimate or having sex with another person who already has the infection. Both men and women can become infected with this virus. It is recommended that girls routinely have the vaccination at 12 to 13 years of age to make sure they are protected well before they start having sex. If a girl is sexually active, she may have already caught HPV. However, as it won't be known whether she has been infected, nor which virus type she has been infected with, she should still have the vaccine as she may still be able to benefit from it.

All girls will still need to have smear tests when they are older

In the UK, women over the age of 25 are regularly tested (screened) to see if they have any signs of HPV infection. This will show as changes to the lining of the cervix that could lead in some cases, to cancer. These regular tests are called 'smear tests' (cervical screening).

The vaccine protects against the two types of virus that cause most cervical cancer but it doesn't protect against all HPV viruses, so:

It is still important to have regular cervical screening once eligible

Two doses of HPV vaccine are required

It is important that girls receive two doses of HPV vaccine to get the best protection. The second injection will be offered 6 to 12 months after the first. Girls will be informed when their second dose is due by their school.

Since the HPV vaccination programme started in the UK in 2008, the vaccine has proved to be very effective. Studies have shown that two doses of the HPV vaccine will provide excellent, long-lasting protection for young girls and so from September 2014, the HPV vaccination programme in the UK has consisted of two doses of vaccine.

An extra dose is required in older girls

If the first dose of HPV vaccine has not been given by the time a girl is 15 years old she will need three doses to be fully protected. This is because the response to two doses in older girls is not quite as good. The second dose should be given around a month after the first dose, and the third given around six months after the first dose. If a girl has missed out she should speak to the school immunisation team or GP/ practice nurse about making an appointment as soon as possible.

You will be informed when the vaccination will be given at school

The school should inform you when the vaccine will be given and provide you with an information leaflet and possibly a permission form. It is important that the form is signed and returned to the school before the vaccination is due.

GP surgeries will be informed about the vaccination

Information about the HPV vaccination will be sent to GP surgeries so the girls' health records can be updated.

Side effects

Like most vaccines, the side effects of the HPV vaccination are quite mild. Soreness, swelling and redness in the arm are common but wear off in a couple of days. Other side effects such as raised temperature, sickness, itching, rash, and pain in the injected arm were reported in fewer than one in ten but more than one in 100 people.

More serious side effects are extremely rare. The vaccine has passed the strict safety standards for use in the UK and has been shown to be very safe. Millions of doses of vaccine have already been given to girls in the UK and around the world. As with all vaccines, any reports of side effects are closely monitored and reviewed.

A full list of reported adverse reactions can be found in the [patient information leaflet](#) (PIL).

Girls who have allergies or other illnesses can still have the HPV vaccination

Food intolerances, asthma, eczema, hay fever, and allergies generally do not prevent someone from having this vaccine. If you have any concerns about this, speak to your nurse or doctor.

What to do if a girl is off school on the day of the vaccination

Girls who miss either one of the HPV vaccine doses should speak to the school immunisation team or GP/practice nurse about making another appointment as soon as possible. It's important to have both doses.

What to do if girls don't want to have the vaccination

No vaccinations are compulsory. HPV vaccination is recommended for the reasons given above. Having the vaccination now will protect against cervical cancer in the future. Girls who are unsure should speak to the school immunisation team or GP/ practice nurse for more information.

What to do if a girl wants the vaccination but her parents don't want her to have it

She should discuss this with her parents and the school immunisation team or GP/ practice nurse to get more information. The decision is legally hers as long as she understands the issues involved in agreeing to have the vaccine.

Having the vaccination protects girls from the most common cause of cervical cancer.

Girls on medication can have HPV vaccine

There is no evidence that the HPV vaccine reduces the effectiveness of any medication including the contraceptive pill.

Girls with weakened immune systems should have three doses of HPV vaccine

Girls whose immune systems are affected through medication or long-term conditions can have the vaccine but it may not work as well for them. The two-dose schedule has not been used in girls who have conditions that reduce the effectiveness of their immune system. For this reason these girls should receive three doses of the HPV vaccine within a 6 month period.

The HPV vaccine is not recommended for pregnant woman

There is no known risk associated with giving HPV vaccine during pregnancy. HPV vaccine is an inactivated vaccine, which means that it doesn't contain any live organisms, and so cannot cause infection in either the mother or her baby. However, as a precaution, HPV vaccine is not recommended in pregnancy. This is not because of any specific safety concerns with giving HPV vaccine during pregnancy but because there is limited information on using the vaccine in pregnant women.

If a woman finds out she is pregnant after she has received HPV vaccine, she should discuss this with her GP. Experience so far shows that there is no known risk to her or her baby and there is no reason to believe that the pregnancy cannot continue safely. Once the woman has completed her pregnancy, she can finish the full course of HPV vaccine.

More information

A complete list of ingredients for the vaccine is given in the Patient Information Leaflet (PIL): www.medicines.org.uk/emc/medicine/19033/pil/gardasil and the Summary of Product Characteristics (SPC): www.medicines.org.uk/emc/medicine/19016/SPC/gardasil/





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