

HPV vaccine could prevent over 100,000 cancers

Estimates suggest that the HPV vaccine programme could prevent over 64,000 cervical cancers and nearly 50,000 non-cervical cancers by 2058.



From September 2019, boys in school year 8 will be offered the free Human Papilloma Virus (HPV) vaccine for the first time.

Worldwide, about 5% of all cancers are linked to the HPV virus. This includes cervical, penile, anal and genital cancers and some cancers of the head and neck – all of which the vaccine helps to protect against. Cervical cancer is currently the most common cancer in women under 35, killing around 850 women each year. HPV is thought to be responsible for over 99% of cervical cancers, as well as 90% of anal, about 70% of vaginal and vulvar cancers and more than 60% of penile cancers.

Modelling produced by the University of Warwick estimates that by 2058 in the UK the HPV vaccine currently being used may have prevented up to 64,138 HPV-related cervical cancers and 49,649 other HPV-related cancers. This would be 50 years after the introduction of the HPV vaccination programme, when people who were vaccinated as teenagers have reached the age groups that they would typically be affected by HPV-related cancers.

Head of Immunisation at Public Health England (PHE) Dr Mary Ramsay said:

This universal programme offers us the opportunity to make HPV-related diseases a thing of the past and build on the success of the girls' programme.

Offering the vaccine to boys will not only protect them but will also prevent more cases of HPV-related cancers in girls and reduce the overall burden of these cancers in both men and women in the future.

I encourage all parents of eligible boys and girls to make sure they take up the offer for this potentially life-saving vaccine.

It's important not to delay vaccination, as the vaccine may be less effective as adolescents get older.

Public Health Minister Seema Kennedy said:

The success of the HPV vaccine programme for girls is clear and by extending it to boys we will go a step further to help us prevent more cases of HPV-related cancer every year.

Through our world-leading vaccination programme, we have already saved millions of lives and prevented countless cases of terrible diseases. Experts predict that we could be on our way toward eliminating cervical cancer for good.

Programmes like this are at the heart of our work to help people live longer, healthier lives through the NHS Long Term Plan and I would encourage everyone who is eligible to take up this potentially life-saving vaccine.

National Cancer Director at NHS England Cally Palmer said:

By extending the HPV vaccine to boys, the NHS is taking an important step forward in our fight to prevent cancer – more people will be better protected, and the vaccine could help to eliminate cervical cancer in this country.

Cancer survival is now at an all-time high, and the NHS Long Term Plan will save even more lives through enhanced screening and early diagnosis programmes to catch cancers sooner when they can be treated best.

Girls have been offered the human papilloma virus (HPV) vaccine free from the NHS since 2008. So far, 10 million doses of HPV vaccine have been given to young women in this country meaning over 80% of women aged 15 to 24 have received the vaccine.

Since the introduction of HPV vaccination, infections of some types of HPV (HPV 16/18) in 16 to 21 year old women have reduced by 86% in England. A Scottish study also showed that the vaccine has reduced pre-cancerous cervical disease in women by up to 71%. Similarly, diagnoses of genital warts have declined by 90% in 15 to 17 year old girls and 70% in 15 to 17 year old boys due to the HPV vaccine.

Parents of girls and boys aged 12 and 13 should look out for information from their children's school about the vaccine and timings for the jab. If they

miss out on the vaccination for any reason they should talk to their school nurse or immunisation team about getting the vaccine at a later date.

More information about HPV vaccination for [parents and their children is available online](#).

HPV vaccine

The first dose of the HPV vaccine will be offered to boys and girls aged 12 and 13 in year 8. The second dose can be given anytime between 6 to 24 months after. Two doses are needed to be fully protected.

Girls and boys who have their first vaccination after the age of 15 will need to have 3 doses.

Older boys (those currently aged 13 to 18) will not be offered the vaccine on a 'catch-up' basis.

The human papilloma virus (HPV) vaccine currently used in the NHS vaccination programme is called Gardasil. Prior to September 2012, a vaccine called Cervarix was used.

Studies have already shown that the vaccine protects against HPV infection for at least 10 years, although experts expect protection to last for much longer and may be lifelong.

Extensive reviews of HPV vaccine safety have been undertaken by various independent health bodies/authorities worldwide including the EMA, CDC, WHO and the Commission on Human Medicines (CHM). These have concluded that the HPV vaccine is safe and effective.

HPV

Human papilloma virus (HPV) is the name for a group of viruses that affect your skin and the moist membranes lining your body. Examples of this include your cervix, anus or mouth and throat.

There are more than 100 types of HPV. Around 40 types of HPV infection can affect the genital area.

Genital HPV infections are common and highly contagious. They're spread during sexual activity.

Infection with some types of genital HPV can cause:

- genital warts – the most common viral sexually transmitted infection (STI) in England
- abnormal tissue growth and other changes to cells within the cervix – this can sometimes lead to cervical cancer

HPV can also cause a number of different types of cancers, such as:

- anal cancer

- cancer of the penis
- some types of head and neck cancer

Other types of HPV infection can cause minor problems, such as warts and verrucas.

HPV-related cancers prevented estimates

The estimates produced by the University of Warwick are based on a comparison between there being no HPV vaccination programme and the girls programme starting in 2008 with the addition of boys in 2017.

All estimates are based on the use of the bivalent (2 strains of HPV) for the first 4 years of the programme and then the quadrivalent (4 strains of HPV) vaccine for the whole period (2008 to 2058).

The estimates provided are the total reductions in cancer from 2008 to 2058 in the UK due to vaccination and breakdown as follows:

Girls

- cervical cancer 64,138
- anal cancer 6,874
- vulva cancer 4,138
- vaginal cancer 959
- oropharyngeal cancer 8,681

Boys

- anal cancer 4,124
- penile cancer 3,433
- oropharyngeal cancer 21,395

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