



UK Health
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Human papillomavirus (HPV) vaccination

Addressing the myths – factsheet for health professionals

Is the HPV vaccine new?

No, the HPV vaccine is not new, it's been used in the UK since 2008 and more than 10 million doses have been given. It's used in over 80 countries including the US, Australia, Canada, and most of Western Europe, and more than 80 million people have been vaccinated worldwide. In 2022 the HPV vaccine changed from Gardasil to Gardasil® 9 and this HPV vaccine is also given in several other countries.

Are many parents refusing the vaccine?

No. The vast majority of parents choose to accept the HPV vaccine for their children. Most women aged 15 to 27 years in England have now been given the vaccine.

Should the vaccine be given to young people at an older age?

No. Vaccination at a younger age is more effective at preventing HPV infection. So the best time to be vaccinated is between 12 and 14 years.

Will safe sex protect young people from HPV?

No. HPV can spread by skin to skin contact. Condoms do not completely prevent the risk of infection.

How do we know that the HPV vaccine works?

In England, we have already seen a significant decrease in infections with the 2 main HPV types that can cause cancer (types 16 and 18).

We have also shown declines – probably due to cross-protection – in 3 other HPV types linked to cancer (types 31, 33 and 45).

We expect to see even greater declines in these types (and types 52 and 58) following the implementation of Gardasil® 9.

The number of precancerous lesions in the cervix has already fallen by over 70% since the programme began in Scotland. We have also seen large declines in the number of genital warts in young people.

A study published in The Lancet in 2021 found that cervical cancer rates in England were 87% lower in young women who had been eligible for HPV vaccination when they were aged 12 to 13 years, compared to similar young women born a few years earlier who had not been offered vaccination, clearly showing the programme is preventing cervical cancers.

Are side effects more frequently reported after HPV than for other vaccines?

No. To date, the number of reports to the Medicines and Healthcare Products Regulatory Agency (MHRA) of suspected side effects for HPV vaccines is not unusual. The overwhelming majority relate to mild conditions commonly seen when you vaccinate teenagers (for example injection site reactions such as redness, pain, swelling; headache, nausea, fatigue; immediate faints due to needle phobia).

The UK programme has already contributed to preventing deaths from cervical cancer. We expect it to eventually prevent hundreds of cancer deaths every year.

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Does the vaccine cause serious long-term illnesses?

No. When large numbers of people are vaccinated, it's not surprising that some people go on to develop illnesses some time after vaccination – that does not mean that the vaccine caused the illness.

It's easy to understand why the family might blame the vaccine, particularly if the onset of illness is poorly defined. In 2016, Danish researchers showed that girls who reported illnesses from the HPV vaccine were more likely to have seen the doctor in the period before vaccination. This suggests that some of these conditions may have already been developing before vaccination.

A number of authorities, including the Centers for Disease Control and Prevention in the US, the World Health Organization, and the European Medicines Agency have looked carefully at all the cases that have been reported and concluded that there is no credible evidence of a link between HPV vaccine and a range of chronic illnesses.

Do HPV vaccines cause premature ovarian failure?

Premature ovarian failure is rare but occurs naturally in adolescent girls. The number of cases reported does not exceed what might be expected in the absence of vaccination.

Do we need more research into the link between vaccine and chronic illness?

No. In 2013, the MHRA conducted a large study in the UK which showed no link between HPV vaccine and illnesses such as chronic fatigue syndrome and fibromyalgia.

Over the past few years several studies based in different countries have found no evidence of a link between the HPV vaccine and a range of serious and chronic illnesses (see below).

The product insert mentions a number of serious and chronic conditions – including death – does that mean that the vaccine causes these conditions?

No. Although the US package insert lists a range of reported illnesses, these are included regardless of any established link with the vaccine. Similarly, in the spirit of openness, the EU product insert also mentions conditions reported after vaccination across the world – even in isolated cases – but this does not mean that the vaccine was responsible. To read the product insert go to: www.medicines.org.uk/emc/product/7330/pil

Extensive reviews of vaccine safety have concluded that evidence does not support a link between HPV vaccine and the development of a range of chronic illnesses.

Further information

www.gov.uk/government/collections/immunisation#human-papillomavirus-hpv

NHS website

www.nhs.uk/conditions/vaccinations/pages/hpv-human-papillomavirus-vaccine.aspx

The HPV vaccine: beating cervical cancer – questions and answers

www.gov.uk/government/publications/the-hpv-vaccine-beating-cervical-cancer-questions-and-answers

Jo's Trust

www.jostrust.org.uk/about-cervical-cancer

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