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HPV vaccine - Information for girls

You will find this text in the form of a leaflet for you to print out and use here:

**Leaflet: HPV vaccine – Information for girls (URL: [http://www.gesundheitsinformation.de/flyer\\_hpv\\_impfung\\_en.dov](http://www.gesundheitsinformation.de/flyer_hpv_impfung_en.dov) (PDF))**



You may have already heard about the vaccines that could protect girls against cervical cancer. Perhaps you are wondering whether to have the vaccine yourself. We have put together information to help you and your parents with this decision.

## What is the HPV vaccine?

The HPV vaccine protects against certain viruses belonging to the group of so-called human papillomaviruses (HPV). These viruses are very common and are nearly always harmless. They can be spread through sexual contact. You are almost certain to be exposed to these viruses in the next few years of your life: it is estimated that 80-90% of all sexually active women will have an HPV infection at some point in their lives.

## What does HPV have to do with cancer?

Human papillomaviruses play a critical role in the development of cervical cancer. The cervix is the end or opening of the uterus (womb) high up inside the vagina. Cancer of the cervix is a rare but serious disease.

Two types of HPV – HPV 16 und 18 – are responsible for most cases of cervical cancer. Other types of HPV can cause genital warts.

## What happens if I get an HPV infection?

HPV infections very rarely lead to serious problems: the immune system usually fights and destroys the viruses. But sometimes the immune system is not able to destroy the viruses and the infection stays in the skin or membranes. Infected tissue may change over time, eventually leading to the development of pre-cancerous changes.

But it is important to know that pre-cancerous changes only develop into cancer in 12-15% of all women. Surgery is often done to remove the pre-cancerous tissue.

## What does the HPV vaccine do?

There are two vaccines in Germany that are used to protect against the main cancer-causing HPV 16 and HPV 18 viruses. One is called “Cervarix” and the other is called “Gardasil” or “Silgard”. Both of them can halve the risk of pre-cancerous changes that are caused by these viruses.

For example, in the Gardasil trials, the risk of pre-cancerous changes was about 2-3% in women between the ages of 15 and 26 who had not been vaccinated. Women who had been vaccinated had a risk of about 1-2%.

It is assumed that the vaccine works better in younger girls who have not been infected with HPV – but researchers disagree about the estimates of possible benefit. It is also not known how long the protective effect lasts and whether women will need a booster vaccine. Further research has to be done to be more certain about all these issues.

“Gardasil” or “Silgard” also protects against types of HPV that can cause genital warts. The trials found that 4% of women who did not have the vaccine had genital warts, compared to only 1% of women who had the vaccine.

## What does the vaccine involve and what should I be aware of?

If you choose to have the vaccination, your doctor will give you a total of 3 injections in your upper arm within six months.

Many girls report skin redness and pain at the site of injection immediately after having the vaccine. Some also have a fever. Less common problems include indigestion, headaches, tiredness or muscle ache. There is also a risk of fainting soon after the vaccination, so you should not get up too quickly after having the shot.

Regulatory authorities are monitoring the situation to see whether other, less common adverse effects are reported. You will find more information about the advantages and disadvantages of the vaccine on our website.

## Who can be vaccinated?

Since March 2007, the relevant authorities in Germany have recommended that all girls between the ages of 12 and 17 should be vaccinated against HPV. The German statutory health insurance funds pay for girls in this age group to have the vaccine.

## What else should I know?

The vaccine does not replace regular Pap tests for the detection of cervical cancer in women over 20. It also does not protect you against other sexually transmitted infections. So it is still very important to protect yourself with condoms if you are sexually active – even if you have been vaccinated.

## Did you know:

Smoking increases your risk of cervical cancer and several other kinds of cancer. Quitting smoking, or not starting in the first place, is one of the best things you can do for your health.

You will find detailed information about the HPV vaccine here (URL: <http://www.gesundheitsinformation.de/hpv-vaccine.352.56.en.html>)

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## Glossary

### infection

In medicine, we speak of an infection when a person has caught a germ (an infectious agent). This germ can be a bacterium, a virus, a fungus or a worm. The germ multiplies and then either spreads throughout the body or only attacks one particular organ. As long as there are no signs of a disease, this is called an asymptomatic infection. When the body shows a reaction to the germ in the form of symptoms, this is called a symptomatic infection (an infectious disease). The period between the moment the germs enter the body and the moment the first symptoms of the disease appear, is called the incubation period. It may last a few hours or days, or even many years. An infection does not necessarily have to lead to the onset of a disease.

### vaccination

Vaccination involves stimulating the body's production of antibodies to a particular virus or bacteria, so that the person has increased resistance if they are exposed to the real infection. A vaccine aims to launch the body's defence system, without actually causing the disease. Depending on the vaccine, it could take some time after vaccination to develop immunity. With most vaccines, more than one vaccination is needed. Sometimes the immunity from a vaccine lessens over time. That means there are some types of vaccination that need be repeated after a few years to stay active. There are several types of vaccines. Some vaccines are "inactivated" or "killed", which means that even though they are made from a virus, for example, no "live" part of the virus remains. That means the vaccine itself cannot cause infection. Other vaccines are "live attenuated vaccines". This means that the virus has been made so much less infective than the real virus, that it should not be able to cause symptoms.

### immune system

The immune system is the body's defense system and its task is to protect the body against germs or degenerated cells (like cancer cells). The immune system is very complex and has not been understood in every detail yet. There are two components: the cellular immune defense (for example "scavenger cells" and "killer cells") and the complement system ("antibodies", for example).

**Sources**

## **The German Institute for Quality and Efficiency in Health Care (IQWiG)**

The German Institute for Quality and Efficiency in Health Care (IQWiG) was established by legislation to provide evaluations of the effectiveness, quality and efficiency of healthcare services. This includes the assessment of medicines as well as the publication of health information for consumers and patients.

## **Evidence basis of our health information**

Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at [\*\*www.informedhealthonline.org\*\*](http://www.informedhealthonline.org)

## **Disclaimer**

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