

Information on school vaccinations for parents and students



Department of
Health and Social Affairs

in cooperation with Lungenliga Aargau

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Pro Impfstoff eine Zeile, alle Komponenten mit X markieren

Basisimpfungen (Stand 2007)

Impfstoff	Datum	Diphtherie / Tetanus	Keuchhusten / Pertussis	Polio	MMR	MMRV	Stempel / Unterschrift
Booster Polio dTpa-IPV	18. OKT. 2016	X	X	X	X	X	Schularzt
Polio MMR	18. OKT. 2016	X	X	X	X	X	Schularzt



Dear parents and carers
Dear students

In cooperation with school doctors and the cantonal medical service (Department of Health and Social Affairs for the Canton of Aargau), the vaccination service carries out vaccinations at all state schools within Aargau at two-yearly intervals. These cover students in years 1 and 2 of primary school and years 1 and 2 of secondary school. The vaccination team uses your child's vaccination certificate to find out which catch-up or booster vaccinations are required in line with the Swiss vaccination recommendations issued by the Federal Office of Public Health (FOPH) and recommends that these be administered as part of the school vaccination programme or subsequently by your family's GP or paediatrician.

If your child is suffering from a chronic illness or an immune deficiency or has experienced severe reactions or complications during a previous immunisation, we would recommend that you discuss the planned vaccinations with your GP or paediatrician. The vaccination service will carry out the immunisation only with your consent.

All vaccines are free of Thiomersal (mercury). Children with allergies can also be vaccinated without restrictions. Within the school vaccination campaign, vaccinations are provided free of charge for the given for the five conditions shown here.

Kind regards
LUNGENLIGA AARGAU Vaccination Service

Diphtheria – tetanus – Pertussis (whooping cough) – polio (DTPa – IPV)

Booster vaccination for students in years 1 and 2 of primary school (5th dose)

The school vaccinations against polio have been stopped and replaced by a vaccine which is included in the combination vaccination for diphtheria-tetanus-whooping cough. The four vaccines (DTPa-IPV) against these diseases are combined within a pre-filled syringe and are administered by an injection into the upper arm.

Diphtheria – tetanus – whooping cough (dTpa)

Booster vaccination for students in years 1 and 2 of secondary school (6th dose).

Young people who have not received a fifth dose of the polio and whooping cough vaccine should also be given a booster dose in years 1 to 2 of secondary school (dTpa – IPV).

Measles –mumps – rubella (MMR)

For the best possible protection against measles, mumps and rubella (German measles), two doses of the vaccine are necessary, which should generally be administered between the ages of 12 and 24 months. Catch-up vaccines can, however, be given at any time.

The vaccination team will recommend such a catch up vaccination when required. The three vaccines (MMR) are combined within an ampoule and are also injected into the upper arm (on the opposite side). This vaccination is not permitted during pregnancy.

HPV (human papilloma viruses) – hepatitis B

The HPV (human papilloma viruses) and hepatitis B vaccinations are also offered by the vaccination service. These are administered as part of a separate vaccination campaign. You will be notified about this at the appropriate time.

Other vaccinations / vaccinations for high-risk groups

In special situations and/or for high-risk groups, vaccinations are recommended for chicken pox (varicella), meningococcal conditions, tick-borne encephalitis (TBE), hepatitis A, or influenza (flu).

You should ask your paediatrician or GP about this as these vaccinations cannot be offered by the vaccination service. We would ask you to give your child your completed consent form together with his or her original vaccination certificate and/or a current printout of the electronic vaccination certificate.

The vaccination team should be informed of any acute conditions prior to vaccination.

To vaccinate – yes or no?

Some parents and children feel rather queasy when thinking about receiving a vaccine jab. Nonetheless, the principle of immunisation is one of the triumphs of medicine and helps prevent number of severe illnesses. What happens in the body in response to vaccinations? And how exactly do vaccinations work?

Topping up the body's defences

The principle behind vaccinations is a common-sense one and applies to all immunisations – whether for children or adults, at home or for travel. The body's own monitoring and defence system – the immune system – is constantly rendering any pathogens that have entered the body harmless. In response to vaccination, the immune system is tricked into responding to a particular infection (such as polio). As a result, the body's natural defences are topped up against the relevant pathogenic agents. If, later on, there is the threat of a genuine infection, then the immune system is prepared and able to prevent the disease in good time. To some degree, vaccination involves a process of "gentle familiarisation" with the infectious agents in contrast to a genuine "attack" by the actual disease. In the latter case, the immune system runs the risk of being overburdened, as a result of which dangerous complications can arise within the body.

Training for the immune system

Vaccination helps the immune system to make specific preparations for very

quickly responding to a particular pathogenic agent in the future. To enable this, either the entire pathogen or certain of its components are processed to become a vaccine. As soon as the vaccine is administered, phagocytes – literally "devouring cells" – absorb the foreign matter. The phagocytes then present the foreign matter with special defensive cells that are responsible for strategically identifying and removing foreign bodies. As only a very small amount of the foreign matter is introduced with the vaccine, the immune system can respond to it without a problem.

The immune system's memory

Following a vaccination, the immunisation will remain effective for months or years. Any vaccinations will provide protection from disease for many years. This is thanks to a quite astonishing characteristic of the immune system: its ability to remember. Certain white blood cells, in fact, are able to remember the properties of the vaccine over the long term. They spread around the whole body and immediately alert the defence system when they become aware of the

pathogenic agent they recognise from the vaccine. Within a very short period, the immune system will now produce large quantities of specific antibodies to get rid of the infectious agent. Repeated doses of the vaccine are partly necessary to help the vaccination become established in the immunological memory.

Vaccines prevent complications

You sometimes hear people say that it's better for a children's development if a natural disease such as measles is allowed to run its course. We could agree with this argument if the disease did not cause any dangerous complications or leave lasting damage. Unfortunately, however, we cannot predict which of those children who naturally catch, for example, measles will develop a severe complication related to the condition. Preventive immunisation will exclude the risk of disease and a progression of the condition that might involve complications.

There's no such thing as 100% protection

In individual cases it is possible that, despite vaccination, a person becomes infected with a particular disease.

With flu vaccinations, for example, this is because the jab only provides protection against illnesses caused by the influenza virus and not against milder flu-like infections that are caused by other viruses and only rarely cause complications. With other diseases too (such as mumps) where very targeted vaccination is pro-

vided, we cannot expect that the protection will be 100% effective. Nonetheless, because such cases occur only rarely, vaccination is still seen as the most effective preventative measure possible.

Immunisation reactions as a positive sign

If reactions occur following vaccination, such as fever, this should not be seen as a sign that the immunisation has accidentally caused rather than prevented an infection.

Other reactions to the vaccine can also occur, such as feeling unwell, tiredness or redness, swelling or pain at the injection site. Even so, there is cause for concern as all these reactions are an indication that the body's immune system is responding to the pretend infection – or in other words is behaving exactly as it should.

Severe reactions such as anaphylactic shock or lasting damage due to the vaccine are so extremely rare for all individual vaccinations that the risk of disease or complication in the non-immunised population is much larger and more significant.

Should we vaccinate then? Yes!

Descriptions of the diseases

Diphtheria

Diphtheria is a bacterial infectious disease that only occurs in humans. The infection is transmitted through droplets in the breath.

The illness begins with a simple sore throat but can rapidly become life-threatening. Within the throat, tough deposits form that block the respiratory tract and make breathing difficult or even impossible.

Certain bacteria responsible for diphtheria secrete a poisonous substance that can damage the cardiac muscles and lead to paralysis and other organ conditions. There is a 10% mortality rate.

Tetanus

People can be infected with tetanus (lockjaw) as a result of just a simple injury (such as a prick or cut). This is because tetanus bacteria are found everywhere, such as in the soil or in road dust. In general, closed wounds that have been deprived of the external supply of oxygen involve a particularly high risk of tetanus. The tetanus pathogens create a poison that is responsible for the typical symptoms.

Painful and dangerous muscle cramps can develop that start in the muscles of the jaw and can spread to the whole body. If the respiratory muscles are

affected, paralysis of those muscles may develop leading to death by suffocation. The mortality rate is 20 to 30%.

Whooping cough

Whooping cough (pertussis) is a severe bacterial disease transmitted in droplets and is very contagious. Nowadays, the disease primarily affects infants and children. As the passive immunity that mothers pass to their newborn child is insufficient, babies will only develop reliable defences by the age of around seven months according to the immunisation programme. Non-immune children and adults can end up transmitting the disease to infants.

Typical symptoms of whooping cough are severe, cramp-like coughing attacks that can persist for weeks and in the severest cases, involving periods of non-breathing, even lead to suffocation. Typical complications include pneumonia, seizures and inflammations of the middle ear. Infants who suffer severe whooping cough frequently have to remain in hospital for weeks at a time.

In developed countries, this disease has a mortality rate of less than one in 1000 among affected infants.

Polio

Polio is transmitted by a virus. For many people, the infection is not accompanied by any symptoms. In approximately 1% of cases, however, severe long-lasting paralysis can develop, often affecting the child's arms and legs. If the respiratory system is affected, the muscles used for breathing can be paralysed, leading to death in 10% of cases.

Measles

Measles is a highly contagious viral condition. It starts off like a common cold, with the patient then developing a high temperature and the characteristic rash and feeling very unwell and tired. In some instances, the illness can take a very severe turn involving pneumonia and inflammation of the brain.

In Switzerland, the rate of all complications (mild to severe) is approximately 15%. Within industrialised countries, the mortality rate among those affected is approximately 3 in 10,000. In developing countries, however, the rate is 100 times higher.



Mumps

Mumps is another viral illness and can lead to complications including meningitis and long-term damage to hearing (mild to severe deafness). In boys or young men, an infection can lead to testicular inflammation in around 25% of cases and potentially cause infertility.

Rubella (German measles)

Rubella is an infectious disease caused by viruses that are transmitted by means of tiny droplets. If a woman who has not been immunised against rubella is infected during the first three months of pregnancy, this will lead to severe foetal damage or deformities in 70% of cases (deafness, heart conditions or brain damage).

Further information

Federal Office of Public Health

www.sichimpfen.ch

Infovac

www.infovac.ch

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