

Vaccination: yes or no

Bc. Ivana Matulová

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Univerzita Tomáše Bati ve Zlíně
Fakulta managementu a ekonomiky

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Introduction

Vaccination is not new in the world. The company has managed to eradicate some diseases completely and reduce morbidity to a minimum in some. It does not cause complications other than with any other treatment. However, the problem may arise if diseases that do not occur here for a long time break out again, but then the controversy over vaccination will be completely useless.

1. History of vaccination

The word Vaccination comes from the Latin word vacca, meaning cow. Edward Jenner, who was the first to successfully develop a vaccine, considered cowpox to be smallpox on the cow. When looking at medical interventions accomplished by humans, vaccination and sanitation seemed to have saved more lives and improved the public health the most.

Until the end of the 18th century, apart from wars and natural disasters, they were the most common cause of death and thus significantly shortened human life.

The widespread introduction of vaccination and the targeted use of antibiotic treatment in the 20th century have doubled people's life expectancy.

Vaccines can be divided into four classes based on the antigen used in their preparatio. Most of the antiviral vaccines in use today consist either of live attenuated or inactivated viruses.

2. Vaccination and the immune system

During vaccination, an antigen, a substance that triggers an immune system response, is introduced into the vaccinated organism. The goal is for the vaccinated organism to produce antibodies that should act as protection against the disease. The vaccinated individual should therefore be immune to the disease. However, no vaccine provides 100% protection. Each vaccine carries the risk of side effects.

The current composition of vaccines that are registered in our country and the method of their administration are mainly focused on the production of systemic antibodies. Immunization is almost always performed as a dose of the basic vaccination schedule and no revaccination doses. The basic vaccination schedule consists of one (live attenuated vaccine) or two to three doses of a vaccine, such as an inactivated, toroidal recombinant vaccine. These are usually given in the basic schedule: the first dose on day 0, the second dose 4-6 weeks after the first, the third dose is given 6 months after the first dose. The aim of the vaccine is to elicit an immune response in the immune system in individuals who have not responded to a previous dose of the vaccine.

Vaccination with live attenuated vaccines, such as the combined live vaccine against rubella and mumps, no longer requires proper revaccination, as it leaves lifelong protection for most vaccinees.

The vaccine is sensitive to environmental factors, such as the presence of UV radiation and elevated temperature.

2.1 Vaccine, immunization and vaccination

Terms such as vaccination and immunization are very often confused, not only with the train but also with the professional public. Vaccination is the process of introducing a vaccine into the human body. Immunization is, in essence, the creation of a non-specific and specific immune response in the human body to a vaccine antigen, an adjuvant means other components of the vaccine.

3. Legislation

Regular compulsory vaccinations in the Czech Republic are defined in the Public Health Protection Act. According to this law, medical facilities are obliged to carry out regular, special and extraordinary vaccinations, vaccinations in case of accidents and injuries.

If parents do not choose to refrain from regular vaccinations, they run the risk of sanctions. However, there are few parents who do not want to have their child vaccinated against infectious diseases.

Vaccination is not compulsory in Europe, but parents cannot put an unvaccinated child in a pre-school and school. The emphasis in the world on providing information to parents is much greater, so they have the opportunity to discuss in more depth the benefits of vaccination, post-vaccination reactions and possible consequences by a doctor or educated medical staff.

4. Negative reverse

To compare people's attitudes towards vaccination and their general knowledge of vaccines. A comparison will be made between those who work and study in a medical field and others.

Parents do not have the right to refuse regular vaccinations provided by law. Those who do not want to vaccinate the child, they need to sign a negative reverse with the doctor or write a written statement, which must be delivered to the attending physician. The statement states that parents continue to refuse to vaccinate their child after being informed of the child's health, benefits, importance, reactions and consequences of regular vaccinations. If the parents refuse to sign this declaration, it is necessary to make an entry in the medical records. The doctor can contact the competent social and legal protection authority of the child, stating that the parents are not fulfilling their obligations in the care of the child's health.

5. Payment of vaccination

Regular vaccinations in childhood are fully covered by the budget of the Ministry of Health and they are not covered by the budget of health insurance companies (unlike other European countries). These include vaccinations against tuberculosis, diphtheria, tetanus, viral hepatitis B, rubella, mumps, polio, cough, hemophilic infections and measles. Current legislation allows parents to choose another vaccine, such as one that is administered differently than conventional or feels side effects after administration. However, parents have to pay for these vaccines in full.

As part of prevention programs, health insurance companies include in their insurance plans for some above-standard vaccinations. Some contribute to vaccinations in children and adolescents. The insurance plans of health insurance companies change frequently, it is necessary to check this on the health insurance company's website or directly at the insurance company's branch.

6. Education of children and adults

A survey was conducted on the knowledge and opinions about vaccination. The target group was adult people which should have completed all their vaccinations and have an opinion towards their children's health.

Education is an integral part of preparation before vaccination. Education is one of the nurse's core competencies, including vaccination.

This preparation cannot completely rid the child of fear and anxiety, but it can help them find their own strength to cope with this situation and strengthen own self-confidence. If children have no idea about vaccination, they are surprised and do not want to cooperate. Before we start working with a child, we have to have the consent of the parents or the child's entourage.

Parents should be informed of the side effects and the post-vaccination schedule.

Parents need to be instructed how to behave in the event of post-vaccination reactions, have some knowledge and have to know when they can seeking medical attention. Therefore, the nurse's patient and tactful approach to providing information and explaining the importance of vaccination is a matter of course. It is necessary to give to parents time for questions and discussion, to provide them with materials and support.

7. Be vaccinated or not

Being unvaccinated in a group of vaccinated individuals is selfish. It is such a hiding behind collective immunity. However, no one realizes that if vaccination falls below a certain percentage, diseases that have not occurred for a long time or occur exceptionally may recur. Every child has the right to the best possible health care and we also provide it with vaccinations.

However, the analysis of Vaccination expert Marek Petráš, based on death statistics, does not only concern tuberculosis. He took into account the eight most common infectious diseases that had once raged here and which had been almost eradicated or rapidly reduced by vaccination. Therefore, if we add polio, diphtheria, whooping cough, measles, mumps, rubella and tetanus, we will get over one million possible victims. severe health consequences such as deafness, loss of fertility, fetal damage, nervous system damage In recent years, there has been an increased incidence of measles in the Czech Republic due to lower vaccination coverage of the population. Some parents are increasingly negative about vaccination. However, they do not realize that vaccination protects the population from serious infectious diseases for a long time. Thanks to vaccination, some deadly diseases have been virtually eradicated from the world. Vaccines against the worst diseases are given as soon as possible to reduce the time of possible infection. Nevertheless, doubts about the safety of vaccination have been increasing recently. The risks involved in vaccinating children are very low. These are mostly errors in the production of the vaccine or incorrect previous diagnosis of immunodeficient patients. Society is mainly influenced by false articles and intimidating information spreading through the mass media. It is easy to believe such articles and succumb to unwarranted panic

Of course, vaccination carries various risks. Have you ever read the package leaflet for freely available painkillers? To antibiotics? They contain a very long list of side effects. So why are we taking them? It's clear. Because we want to be healthy. But for most of us, we only want to be healthy when we are sick. Prevention does not directly concern us, because we are not interested when we are not sick. And are there serious reactions? They exist, but very rarely. There are reactions such as swelling, redness, itching or pain. The propaganda that vaccination causes autism, for example, has been refuted by a scientific study.

Summary

Diseases no longer occur because we are vaccinating. There is no need to look for complex scientific evidence. All you have to do is find out which country has the vaccination rate and how many new diseases occur in that country. And yes, it is true that even those who are vaccinated sometimes get sick. The difference, however, is that the disease has a milder course.

Unfortunately, no conspiracy theorist is responsible for his views. Most people who are against vaccination do not have the necessary education, do not understand the biochemical and immune reactions in the body, and do not even know the chemical structure of vaccines and the way they work in the body. It should be noted that it is pharmacists, doctors, public health professionals, but also the ministry and the government, who are responsible for vaccines and vaccinations.

Source

World Health Organization. Global Health Observatory Data Repository. (cited July 19, 2015)
[Apps.who.int/gho/data/view.main.81100?lang=en](https://apps.who.int/gho/data/view.main.81100?lang=en)

Moss WJ. Measles control and the prospect of eradication. *Curr Top Microbiol Immunol.* 2009,330:173-189

<http://www.euro.who.int/csrf/don/06-may-2019-measles-euro/en/>

<http://www.helt.govt.nz/your-health/conditions-and-treatments/diseases-and-illnesses/measles/2019-20-measles-outbreak-information>

http://www.euro.who.int/_data/assets/pdf_file/-0007/276379/fatsheet-Measles-en.pdf

<http://ynetnews.com/articles/0,7340,L-5002890,00.html>

<http://www.unicef.org/eca/stories/protecting-children-against-measles-romania>

<https://www.elsevier.es/en-revista-allergologia-et-immunopathologia-105-articulo-vaccination-yes-or-no-13070600>