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PREVENTION OF SIDE EFFECTS OF VACCINATION

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ABSTRACT

Like all medicines, vaccines can also cause adverse reactions. However, they are not unusual and usually pass quickly. Severe side effects, complications and damage to health as a result of vaccination occur very rarely. Here you will learn what to do if there are suspected side effects. By the side reaction of vaccination, they mean the normal reaction of the body to the introduction of a foreign pathogen protein. Therefore, these reactions should not be considered in the context of negative consequences comparable to the transferred or tolerated disease.

A vaccine is a medical or veterinary drug designed to create immunity to infectious diseases. The vaccine is made from weakened or killed microorganisms, products of their vital activity or from their antigens obtained by genetic engineering or chemical means. To reveal their effectiveness, preventive vaccines cause certain reactions in the body: in this way, the vaccine shows the immune system how to fight a viral or bacterial infection. In some cases, mild reactions may occur after vaccination, such as pain at the injection site, fatigue, headache or muscle pain. As a rule, after a couple of days the symptoms completely disappear, and this is a sign that the immune system reacts to the vaccine and produces antibodies. Important: if there are no reactions to vaccination or only mild reactions occur, this does not mean that vaccination is less effective or protection is worse. Studies show that even in people who have no complaints after preventive vaccination, the effectiveness of vaccines against the severe course of the disease is about 90 percent.

According to the Law on Medicines, side effects when used as intended are harmful and unintended reactions to medicines intended for human use. Serious side effects include side effects that are fatal or life-threatening, require hospitalization or prolongation of hospital treatment, lead to permanent or severe disability, the appearance of congenital anomalies or malformations.

In some cases, minor painful sensations may be felt in the area of the injection site – the pain goes away 1-3 days after the injection. If a bruise appears at the injection site, this is not an adverse reaction, but the result of the vessels being touched during the injection. The bruise resolves on its own within 1-2 weeks after the injection. The temperature may also rise

or decrease for a short time, and a feeling of general malaise may appear. Other reactions of the body to vaccination are not observed so often. After vaccination, doctors leave the patient under the supervision of a specialist or other medical professionals for 15-30 minutes – this is done so that doctors can provide prompt medical assistance in case of rare side effects of vaccination, including an immediate type of reaction – anaphylactic shock. It can be triggered by one of the components of the vaccine. Rare side effects include acute allergic reactions. Fortunately, they are extremely rare, in several people per million vaccinated. Therefore, before vaccination, it is recommended to undergo an examination and get advice from a cardiologist and a neurologist. People with a tendency to allergies should be especially careful.

As a rule, they occur in the first three days after vaccination, manifested by local or general fever, itching at the injection site, chills, asthenia, myalgia, headache and general malaise. They are safe for health and are much easier to tolerate, compared with the effects on the cardiovascular system and respiratory organs. After the second injection, side effects do not always appear. But doctors note that the risk of these reactions after the second administration of the vaccine is significantly higher than after the first one – this is due to the fact that only innate immunity reacts to the first dose of the vaccine, while the body's immune response to the second one increases, causing certain adverse reactions. In any case, adverse reactions after the second dose of vaccination are natural and indicate the normal formation of immunity in humans. As a rule, they are manifested by: general malaise, pain in the arm, an increase in local or general temperature. It is not recommended to wet the injection site for three days, it is worth refusing to visit the bath and sauna. Also during this period, it is necessary to avoid physical exertion. One of the side effects is an increase in temperature to 38 degrees. In this case, doctors recommend taking paracetamol.

If the patient has adverse reactions to vaccination in the form of fever, headache, chills or inflammation, anti–inflammatory and painkillers based on ibuprofen or paracetamol can be taken to relieve the condition. These drugs have a positive effect, eliminating unpleasant symptoms for a person, while they do not have a negative effect on the effectiveness of the vaccine.

Vaccines are used to prevent a wide range of infectious diseases. Today, more than 70 species of bacteria, viruses, protozoa and fungi are known to be pathogens of serious human diseases. Vaccines against some of these pathogens are already available, in addition, work is underway to create vaccines to protect against other bacteria and viruses. With the help of vaccination, smallpox has been eliminated on earth. The number of measles diseases among children has significantly decreased (previously up to 30% of babies who fell ill at the age of died from it up to 3 years old). Modern vaccines against polio, measles, diphtheria, rubella, mumps, hepatitis A and B almost completely eliminate these diseases. Today, more than 50 vaccines are used in general medical and veterinary practice. It is impossible to eradicate some infections and vaccinate all children in the world with existing vaccines. We need new vaccines or their modifications that would significantly simplify the vaccination calendar. International Vaccination Program for Children it makes the necessary efforts for this. Ideally, I would like to get vaccines that would be administered orally in the first months of life, would provide lifelong immunity after one or two doses, would be less reactogenic and more thermally stable than existing ones. It takes decades to solve these global challenges, but some

achievements are already evident (in particular, the development of combined vaccines that simplify the vaccination calendar). You can take the above drugs only if there are side effects of vaccination. It is strictly not recommended to use it as a prophylaxis before injection. Also, you should not use any other means that have an effect on the nervous and immune system. Vaccination has a positive effect on the rapid formation of immunity against the disease. After the first dose of the vaccine is administered, the body's immune response to specific foreign proteins and the specified type of virus is formed. In most cases, the first dose of the vaccine provides a level of immune protection of 20-50% of the maximum. After the vaccination, did you or your loved one have any side effects of vaccination? Do you want to eliminate them? Don't panic! Most of these manifestations are a normal reaction of the body to a foreign protein injected. Such a reaction is an indicator of the formation of an immune response and a natural form of manifestation during vaccination. To prevent side effects from the vaccine, you need to follow the doctor's instructions, do not contact water for three days and take medications only after consulting a doctor.

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