

CHILDHOOD VACCINATIONS

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Annotation: *This article explores the importance of childhood vaccination, its biological basis, and its role in modern medicine. The process of developing immunity through vaccination, its significance in preventing infectious diseases, and its impact on public health are analyzed. In addition, modern vaccine technologies and their effectiveness are discussed.*

Key words: *Vaccination, vaccine, immunity, children's health, prevention, infectious diseases, modern, medicine, immune system, antibodies, epidemiology, public health, viruses, bacteria*

Today, vaccination is considered one of the most effective methods for preventing infectious diseases. Children are particularly vulnerable to infections because their immune systems are not fully developed. Therefore, immunization during childhood plays a crucial role in protecting health.



1. Biological Basis of Vaccination

Vaccination involves introducing weakened or inactive microorganisms into body. This stimulates the immune system and helps it develop specific defense mechanisms.

As a result, the body:

recognizes pathogens

produces antibodies

responds faster to future infections

2. Essential Childhood Vaccines

The most important vaccines for children include:

BCG (tuberculosis)

DTP (diphtheria, tetanus, pertussis)

Polio vaccine

MMR (measles, mumps, rubella)

Hepatitis B vaccine

These vaccines provide protection against serious infectious diseases at an early age.

3. Importance of Vaccination in Children

Childhood vaccination is important because it:

Protects against life-threatening diseases

Reduces the spread of infections

Prevents complications

Contributes to herd immunity

Unvaccinated children pose a risk not only to themselves but also to the community.

Vaccination is an effective preventive measure against controllable infectious diseases and is the main tool for controlling and eliminating sources of infection.



4. Organization of Vaccination

Vaccination is carried out according to a specific schedule based on age. Each vaccine must be administered at the appropriate time.

Proper organization of vaccination:

ensures maximum protection

reduces infection risk

supports proper immune development

Conclusion:

Childhood vaccination is one of the key factors a healthy society. It plays a vital role in preventing diseases, increasing life expectancy, and improving the quality of life. The

importance of vaccination continues to grow in modern medicine. Therefore, ensuring timely immunization for every child is essential.

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