Vaccination for Tomorrow
Immunization for Healthy Tomorrow

영어

A vaccination story you need to know for your children

First, complete vaccinations at the recommended time in accordance with the schedule.

Second, make sure to get vaccinations only after the pre-vaccination screening by a doctor.

Third, check the vaccination record of your children through the Nurijip, online vaccination aid app (https://nip.kdca.go.kr).

- If the vaccination record cannot be found in the system, request electronic registration of the vaccination records of your child to the clinic that administered the vaccination.
- The immunization book is intended to help parents/guardians have their children to get immunization at the recommended time. When the vaccination information (vaccine no., vaccine manufacturer name, etc.) is omitted, the vaccination cannot be subjectively confirmed and therefore the certificate of vaccination cannot be issued.

Fourth, if any adverse reactions occur after the vaccination, report to the nearest public health center or the Internet website, and have a doctor's examination.

Fifth, if you are returning to Korea after being vaccinated overseas, have 'the vaccination certificate' issued in English and visit the nearest public health center to request registration.

KDCA
Korea Disease Control and Prevention Agency

Vaccination Management Department of the Korea Disease Control and Prevention Agency
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Immunization Inquiry (KDCA Call Center 1339)

2024

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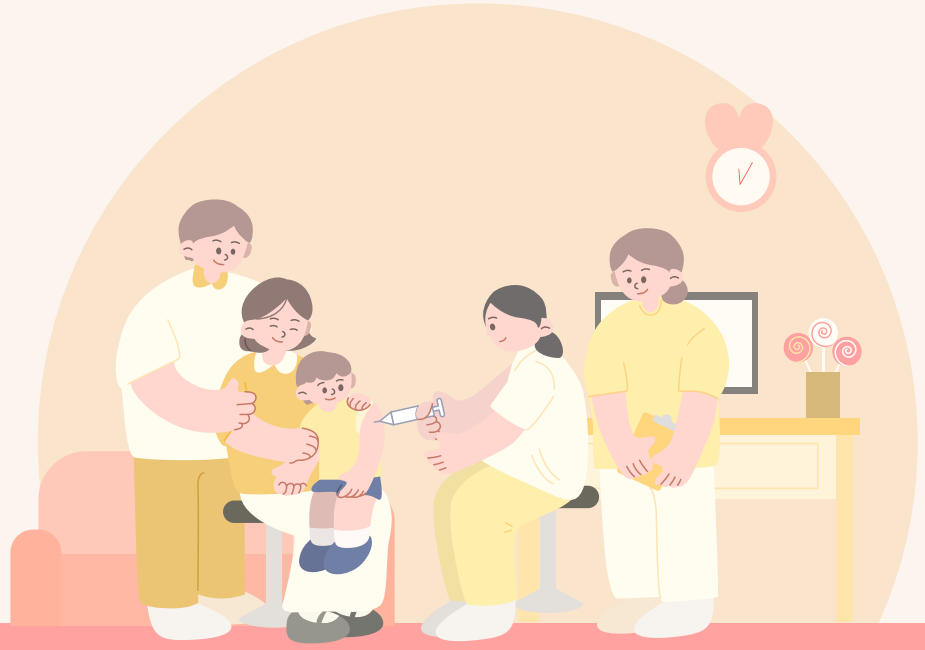

KDCA
Korea Disease Control and Prevention Agency

2024

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CHAPTER

Vaccination Overview

What is Vaccination?

Vaccination is the most effective way to protect children against infectious diseases.

Immunity is the ability of the immune system to recognize and eliminate pathogens that cause diseases and protect our body from infectious diseases.
Immunity is classified into active and passive immunity depending on how it is acquired.

Active Immunity

Active Immunity refers to the ability to create immunity against pathogens by stimulating the human body's immune system and active immunity is acquired through the development of infectious diseases or immunizations and is mostly permanent.

Passive Immunity

Passive Immunity is an ability that can be acquired by injecting antibodies made in animal surrogates or humans. Passive immunity can prevent infections for a certain period of time but is temporary. Antibodies disappear through a period of weeks or months and the immunity eventually disappears.

Transplacental passive antibodies are inherited by a fetus from the mother through immunoglobulin.

The preventive ability of passive immunity is temporary, therefore immunization is important to acquire sufficient immunity against diseases.

Roles of Vaccines

- When being infected with diseases our body makes antibodies as the immune system reacts to the pathogens in the body, but it is dangerous and can be fatal.
- Vaccines are made by attenuating or killing the toxins in viruses or germs, which are the causes of infectious diseases, but vaccination generates antibodies in human bodies as if being exposed to diseases.

General Principles of Vaccination

To achieve the best result through vaccination, the following general principles shall be observed.

Vaccinate according to the recommended schedule.

Most vaccines can be given at the same time with other childhood vaccines.

- However, if more than two different types of live-attenuated vaccines are administered at the same time or cannot be administered at the same time, a four-week interval is recommended.

In general, most vaccines may be used interchangeably, regardless of their manufacturer.

Please note that the following vaccines are not recommended for cross inoculation due to a lack of immunogenicity and safety data.

- Please note that the following vaccines are not recommended for cross inoculation due to a lack of immunogenicity and safety data.
- DTaP Vaccine and DTaP combined vaccine (three routine vaccinations shall be administered with the same manufacturer')
- Inactivated Japanese Encephalitis vaccine and live-attenuated vaccines and between live-attenuated vaccines are interchangeable.
- Pneumococcus PCV 10 (Synflorix) and PCV 13 (Prevenar 13)
- Human Papilloma Virus (HPV) Vaccine: Bivalent (Cervarix) and quadrivalent (Gardasil) and 9-valent (Gardasil 9)
- Rotavirus Vaccine: Human Rotavirus Vaccine (Rotarix), Human-Bovine Reassortant Rotavirus Vaccine (RotaTeq)

For the vaccinations which require multiple administrations, a delay in the schedule does not reduce the prevention effects; however, early administration requires precautions as it could lead to less effectiveness as it lowers antibody development.

- Starting from the beginning or additional administration is not necessary for a delay in the vaccination schedule in general, but consultation with a doctor is required for the follow-up administration schedule.
- Vaccination is recommended if the previous vaccination records are unknown, as it is considered to have a risk of infection.

In the case of injecting antibody-containing blood products, such as immunoglobulin or the receiving of a blood transfusion, live-attenuated vaccines require a delay in administration after consulting with a doctor prior to the vaccination.

Vaccination Types for Children

Vaccines recommended for children and vaccine-preventable diseases are as follows:

Categories	Abbreviations	Vaccines
National Vaccination	HepB	Hepatitis B
	BCG (intradermal)	Tuberculosis
	DTaP	Diphtheria, Tetanus, Pertussis
	Tdap	Tetanus, Diphtheria, Pertussis
	Td	Tetanus, Diphtheria
	IPV	Polio
	DTaP-IPV	Diphtheria, Tetanus, Pertussis, and Polio
	DTaP-IPV/Hib	Diphtheria, Tetanus, Pertussis, Polio, and Haemophilus Influenzae Type B
	Hib	Haemophilus Influenzae Type B
	PCV	Pneumococcus
	RV1	Human Attenuated Rotavirus Vaccine
	RV5	Human-Bovine Reassortant Rotavirus Vaccine
	MMR	Measles, Mumps, Rubella
	VAR	Varicella
	HepA	Hepatitis A
	IJEV	Inactivated Japanese Encephalitis Vaccine
	LJEV	Live-attenuated Japanese Encephalitis Vaccine
	HPV	Human Papilloma Virus
	IIV	Influenza
Other Vaccination	BCG(percutaneous)	Tuberculosis

- **National Vaccination:** Mandatory vaccination recommended by the government (the government establishes standards and methodologies for vaccine -preventable diseases and vaccination according to the Infectious Disease Prevention and Control Act)

  * Refer to page 00 of the National Immunization Program for Children for more details.

- **Other Vaccinations:** paid immunizations available at private medical institutions for infectious diseases other than mandatory national vaccination programs.

  * The names of the vaccines distributed in Korea can be checked at the Vaccination Guides → Searching for Vaccinations → Vaccines Used in Korea

Vaccination Precautions by Step

Step 1. Before Vaccination

- Bring the child's vaccination records and toys the child likes.
- Do not scare the child and tell them frankly that "it will sting for a moment but, you will feel fine in few seconds".
- Read the vaccination information, check the child's health status, and fill in the "pre-screening sheet" at the clinic.

Step 2. During Vaccination

- Let the child sit on the parent's lap and hold safely while distracting the child to make the child feel at ease.
- Gently stroke the child and make eye contact while talking and smiling.
- Give the child the toys to make the child assured.
- Help the child to take a deep breath slowly.

Step 3. After Vaccination

- Assure the child that the vaccination is over.
- Hug or stroke the child gently, or breastfeed the baby.
- Gently talk to the child and praise or play with the child.
- Be mindful of adverse reactions after vaccination, and remain at the hospital/clinic for 20 to 30 minutes after vaccination to observe for possible adverse reactions to the vaccination
- Consult with the doctor regarding the follow-up vaccination schedule.

  * 'The follow-up vaccination schedule will be reminded through text message when you agree with the notification on the pre-screening sheet, check whether your phone number is correctly registered.

Step 4. Returning Home

- Mark the follow-up vaccination schedule on the calendar.
- Cool down the injection site with a cold wet towel if it swells up, turns red, or aches.
- Observe for a few days, and consult a physician if any unusual symptoms occur

How to Hold the Child Comfortably During Vaccination

Hold the child comfortably and safely as shown in the picture for safe vaccination.

Infants and Toddlers

1. A parent has the child sit on the lap.
2. Put the child's arm across the parent's back and put the parent's arm around the child's body.
3. Hold the other arm of the child with the parent's arm and hand.
4. Put the child's legs between the parent's thighs with support or the parent's the other arm.

School Children

1. Have the child sit on the parent's laps or stand in front of the parent.
2. Hold the child with the parent's arms and hands.
3. Hold the child's legs tightly between the parent's thighs.

Vaccination Prohibitions and Precautions

Vaccination prohibitions refer to the situations where vaccination is prohibited and precautions refer to the situations where vaccinations should be delayed or require precaution.

Permanent Prohibitions of Vaccination

- In the event of the occurrence of severe allergic reaction (anaphylaxis) against the vaccine ingredient or after a previous vaccination, the vaccine in question is contraindicated.
- In the event of the occurrence of encephalopathy without known a cause within 7 days of administration of the pertussis vaccine or the vaccine that contains pertussis ingredients
- In the event of the occurrence of severe combined immunodeficiency or intussusception, rotavirus vaccine is prohibited

Administer whooping cough vaccine with caution if:

- Guillain-Barre syndrome has appeared within 6 weeks of inoculation with vaccine containing tetanus toxoid
- Subject exhibits West Syndrome, uncontrolled epilepsy, progressive encephalopathy or other progressive or unstable neurological illnesses
- Previous Arthus reaction after inoculation with vaccine containing tetanus or diphtheria toxoid

Temporary prohibitions of vaccination with an attenuated live vaccine

- Lowered immunity

Temporary precautions of vaccination

- Administer all vaccines with caution for moderate or severe acute stage patients
- In the event of having recently been administered antibody-containing blood products such as immunoglobulin and those receiving a blood transfusion, exercise caution with the immunization schedule with the live-attenuated vaccines containing MMR and varicella
- Administer rotavirus vaccine with caution to patients with chronic gastrointestinal illness and immune-compromised patients, except for patients with severe combined immunodeficiency (Rotavirus vaccine is contraindicated for severe combined immunodeficiency)
- Newborns from mothers administered biological response modifiers (Infliximab, etc.) during pregnancy may not be administered live vaccines such as BCG and rotavirus until 12 months (1st birthday) after birth

※ Cases that vaccination is not prohibited

In general, in the following situations, vaccination is not prohibited. Vaccinate after consulting with the doctor.

- Slight acute disease (mild fever, flu, upper respiratory tract infection, cold, and mild diarrhea)
- Being exposed to diseases or recovering
- If there is a pregnant woman or immune deficient person in the family
- Prematurely born
- Nursing mother or infant
- Allergic to substances other than vaccine ingredients
- Non-anaphylactic allergic reaction to a vaccine ingredient
- Family history of adverse reaction unrelated to immune deficiency
- Family history of convulsions or SIDS

Sudden Infant Death Syndrome Prevention Guidelines

Sudden Infant Death Syndrome or SIDS refers to the sudden death of an infant younger than 12 months old without a known cause even after the execution of an on-site examination, a history search, and a follow-up examination (autopsy), etc.

Factors that increase the risk of SID

- Sleeping on tummy or sideways
- Being born prematurely
- 2-4 months after birth
- Excessive warming
- After suffering a fever causing diseases
- Sharing bedding with family
- Cold season
- Parents' smoking

Four Safety Rules to Prevent SIDS

1. Proper Sleep Position

- Put your baby to sleep on his/her back.
- Use a separate bed or blanket when sharing the room with your baby.

2. Use Proper Bedding

- Use a flat mat or blanket.
- Spread out a thin sheet and fix all corners to the mattress or blanket.
- Fix a blanket under both armpits of the baby,

3. Pleasant Environment

- Avoid overheating.
- Get rid of any objects your baby can pull on and play with such as big pillows, cushion, cloth, etc.

4. Safe Feeding

- Breastfeeding reduces the risks of infection.
- Make sure your baby burps after feeding and before sleeping.
- Do not put your baby to bed while feeding.

Adverse Reactions to Vaccination

- The vaccines used for the national immunization are all proven safe through the screening by the Ministry of Food and Drug Safety. However, extremely rare adverse reactions are unavoidable according to immunity and or personal characteristics like other medicine or medical supplies.
- Adverse reactions after vaccination can be divided into minor reactions, systemic reactions. and allergic reactions. Potential reactions after vaccination are mostly mild symptoms, such as hardening, swelling, reddening or fever of an injection area, and will disappear in a few days.

What to do with the adverse reaction?

- Parents should observe for severe allergic reactions, a high fever, or extraordinary behavioral changes after the vaccination.

  * Allergic reactions include rash, a swollen face or neck, an infrequent pulse, and dyspnea, which will occur within several minutes after the vaccination.

- If such symptoms continue or other systemic abnormal reactions occur, please consult with the doctor and report to the nearest public health center or our official website (https://nip.kdca.go.kr)at the "Adverse Reaction Report".

National Vaccination Injury Compensation Program

- The government will deliberate the causality of the adverse reactions and compensate the treatment cost.

  ※ For more details, please contact the medical institution or public health center where the vaccine was administered and visit the website (https://nip.kdca.go.kr).

이상반응 신고방법

개인정보 수집 및 이용에 대한 안내

1. **개인정보 수집·이용 목적**
   - 예방접종 후 이상반응 신고
2. **수집하려는 개인정보의 항목**
   - 필수항목: 이름, 성별, 생년월일, 주소
   - 민감정보: 임신여부, 접종백신, 접종일, 이상반응일, 이상반응 신고일, 이상반응 종류

· 위 개인정보 및 민감정보 수집 및 이용에 ○ 동의합니다. ○ 동의하지 않습니다.

신고하시는 분의 인적사항을 기록해 주시기 바랍니다.

이름	
연락처	) 02-523-1234
피접종자와의 관계	◉ 보호자 ○ 본인 ○ 기타
	주소 검색

National Vaccination Program

Vaccinations are fully subsidized by the government to prevent infectious diseases in children.

National Vaccination Program for Children

Target Group: children up to age 12

- Tuberculosis (BCG, intradermal) for children under 59 months old (but, for children over 3 months, provided only when TST negative)
- Hib, PCV: subsidized only for children up to 59 months
  ※ Vaccination not recommended for persons age 5 and older
- Hepatitis A: children born after January 1st, 2012
  ※ Contact the nearest public health center or designated medical clinic for more details on vaccine subsidization eligibility

Program details: Full subsidization of costs for mandatory vaccines

Types of Vaccines Supported: 18 in total

- Hepatitis B(HepB)
- Tuberculosis (BCG, intradermal)
- Diphtheria/Tetanus/Pertussis(DTaP)
- Tetanus/Diphtheria/Pertussis(Tdap)
- Tetanus/Diphtheria (Td)
- Polio (IPV)
- Diphtheria/Tetanus/Pertussis/Polio (DTaP-IPV)
- Diphtheria/Tetanus/Pertussis/Haemophilus Influenzae Type B (DTaP-IPV/Hib)
- Haemophilus Influenzae Type B(Hib)
- Pneumococcus
- Rotavirus(RV)
- Measles/Mumps/Rubella(MMR)
- Varicella(VAR)
- Hepatitis A(HepA)
- Inactivated Japanese Encephalitis Vaccine (IJEV)
- Live-attenuated Japanese Encephalitis Vaccine (LJEV)
- Human Papilloma Virus (HPV)
- Influenza (IIV)

※ For the infectious diseases which have a risk of infecting fetus or children, adults (guardians) who are not yet immunized for the infectious diseases should have a vaccination after consulting with the doctor according to the vaccination schedule.

Where to get Vaccinated: Nearest Medical Institution or Public Health Center

※ You can find the designated medical institutions from the Immunization Assistance website (https://nip.kdca.go.kr), or the website of your city, province, gu or public health center.
※ Since the types of vaccines that can be administered may differ, parents (guardians) need to check for availability before the visit.
※ Public health centers operated by some local governments may not be offering vaccination; please check before visiting.

Finding Designated Medical Institution for Immunization and Vaccination Availability

- 'Go to the 'Immunization Assistance website → Select 'Children's National Vaccination Support Program' under 'Find designated medical institution for national immunization program' in middle of screen → Enter your region (city, province and ward/county), enter name of vaccine and medical institution, then search → View information on available vaccines and administering medical institutions

Immunization Preparation

- Bring the documents that can confirm the personal information of your child for accurate immunization (resident registration number, name, etc.), and immunization note is preferred.

In case the birth registration is postponed for more than 1 month for unavoidable reasons,
Free-of-charge vaccinations are possible when receiving the management number from the public health center.

New born un-registered children within 30 days of birth

- Free-of-charge vaccination is possible when registering the new born's information (date of birth and gender) along with the mother's information (name and resident registration number when filling in the pre-vaccination checklist.
  * In case of registering the data of a guardian other than the birth mother, the vaccination records might not be integrated with the birth registration of the child. In principle, the mother's information shall be registered, but if a guardian's information, other than the mother, may be registered for unavoidable reasons.
  ※ The vaccination records are automatically integrated under the child's resident registration number after birth registration.

Foreigner who could not register a birth within 1 month after birth or does not have an alien registration number

- Free-of-charge vaccinations are possible at the nearest public health center or designated medical institution by getting a temporary registration number for vaccinations at the public health center using the guardian's ID.
  ※ The vaccination records should be requested at the public health center if the birth is registered or an alien registration number is issued after vaccination.

How to Get Temporary Registration Number for Vaccination

1. A guardian visits the nearest public health center with his/her ID and applies for the issuance of a temporary registration number for the child's vaccination.
   - Parent Priority: 1. Mother, 2. Father, 3. Others
2. The registration number can be issued on the day of application if it is not duplicated

※ Contact the nearest public health center to change the personal information for the vaccination management registration at the Integrated Immunization Management System.

Perinatal Hepatitis B Infection Prevention Program

Perinatal Hepatitis B infection refers to a disease where a newborn is infected with by being exposed to the mother's blood or body fluids which contain the Hepatitis B virus before or after birth so that Hepatitis B virus is passed to the newborn.
90% of the infected grown-ups fully recover without any complications, but 90 % of infected newborns become chronic virus carriers who could develop fulminant hepatic failure, liver cirrhosis, or liver cancer.
All costs for prevention of perinatal Hepatitis B infection of a newborn whose mother has Hepatitis B are fully covered by the government
* From 29th week of pregnancy to 1 week after birth

Recipients: babies born from mothers who are positive for Hepatitis B surface antigen (HBsAg) or e-antigen (HBeAg)

※ Mothers who test positive for HBsAg or HBeAg during pregnancy or within 7 days after giving birth

Details: Full subsidization of costs for : ① immunoglobulin, ② Hepatitis B vaccination, and ③ antigen and antibody assays

※ Routine Hepatitis B vaccinations (dose 1–3), re-vaccination, and re-examination fee according to the follow-up antigen and antibody examination result (3 doses maximum)

Immunization provider: Designated medical institution or public health center near you

※ See the Immunization Assistance website (https://nip.kdca.go.kr) or the website of your city, gun, gu or public health center for information on immunization providers.

※ Public health centers operated by some local governments may not be offering vaccination; please check before visiting.

National HPV immunization program

Human papilloma virus (HPV) vaccination can prevent cervical cancer, anogenital cancer and head & neck cancer whose main cause* is HPV infection.
* 90% of cervical cancer and 70% of anogenital cancer and oropharyngeal cancer is caused by HPV infection
To maximize the effectiveness of the HPV vaccine, it is important to complete immunization prior to sexual activity, which is the most common cause of HPV infection.
Adolescent females age 12 and above are undergoing major physical and emotional changes. Professional health consultation is provided together with HPV vaccination services to help young girls develop into healthy women.

Subjects

- Girls aged 12 to 17
- Low-income women aged 18 to 26 (eligibility depends on income bracket as determined according to income standards*

  * Basic livelihood security recipients and low-income persons (50% or less of standard median income) according to the National Basic Living Security Act

Details

- (All) Human papillomavirus (HPV) infection vaccination

  ※ Free vaccination twice to three times depending on the age at first vaccination round

- Health counseling on growth and development during puberty and menstruation is provided at vaccination for girls of age 12

Supported Vaccines: Gardasil (HPV4), Cervarix (HPV2)

※ Except for Gardasil 9

Immunization provider: Designated medical institution or public health center near you

※ See the Immunization Assistance website (https://nip.kdca.go.kr) or the website of your city, gun, gu or public health center for information on immunization providers.

※ Public health centers operated by some local governments may not be offering vaccination; please check before visiting.

National Influenza Vaccination Program

Influenza vaccination is provided for free to prevent influenza from occurring and spreading in a local community for children and the adolescents spending much time in a group as well as the elderly and pregnant women, the high risk group with high complication possibility in case of influenza infection.

Subjects: Children of 6 months to 13 years, the elderly of 65 or older, pregnant women

※ For the detailed criteria for subjects, please contact your nearest health center or designated medical institution.

Description: Influenza vaccination once

※ When children less than 9 years old have the first influenza vaccination, they have to be vaccinated twice at the interval of at least 4 weeks.

※ For more details on free vaccination period or vaccination criteria, please contact your nearest health center or designated medical institution.

Immunization provider: Designated medical institution or public health center near you

※ See the Immunization Assistance website (https://nip.kdca.go.kr) or the website of your city, gun, gu or public health center for information on immunization providers.

※ Public health centers operated by some local governments may not be offering vaccination; please check before visiting.

Vaccination Records Confirmation Program for Elementary and Middle School Entry

The program aims to check the vaccination history of children who are entering elementary or middle school and recommend vaccinations to unvaccinated children to prevent the children from getting infected at school and to protect the health of all school children.

* 「Infectious Disease Control And Prevention Act」 Article 31 (Ascertainment as to Completion of Vaccination), 「School Health Act」 Article 10 (Inspection of Completion of Vaccination)

Subjects: All children entering elementary school and middle school in current year

Vaccinations to be confirmed:

- (Elementary School) 4 types of vaccinations required for the children of age 4 to 6
  ※ Dose 5 of DTaP, Dose 4 of IPV, Dose 2 of MMR, and Japanese Encephalitis (Dose 4 of inactivated vaccine or Dose 2 of a live attenuated vaccine(Dose 4 of DTaP-IPV is same as dose 5 of DTaP and dose 4 of IPV)
- (Middle School) 3 types of vaccination s required for children of age 11 to 12
  ※ Dose 6 of Tdap (or Td), Japanese Encephalitis (dose 5 inactivated vaccine or dose 2 live-attenuated vaccine, Dose 1 HPV (only for girls)

Students with a completed vaccination record on the Immunization Assistance website are not required to submit a <Vaccination Certificate> to their school

Those who are prohibited from vaccination should request the medical institution that provides diagnosis to register the cause of prohibition in the system.

Those who are prohibited from vaccination:

- Those showing anaphylaxis (severe allergy) reaction to vaccine ingredients after the previous vaccination
- Those who develop encephalitis with unknown cause within 7 days after the administration of the pertussis vaccination

Recall/Remind Service for Vaccination Schedule and Delay

Caregivers are sent test message notifications of their child's next vaccination date. Text message notifications are also sent if a child is 1 month or longer behind the standard vaccination schedule.

※ Infectious Disease Control and Prevention Act, Article 24 (Mandatory Vaccination), and Enforcement Decree Of The Infectious Disease Control And Prevention Act, Article 21-2 (Personal Information of Persons Eligible for Vaccination)

How to Use

- Provide a correct telephone number when filling in the 'pre-vaccination checklist' and agree with the receiving SMS messages to get remind/recall message regarding the next vaccination.

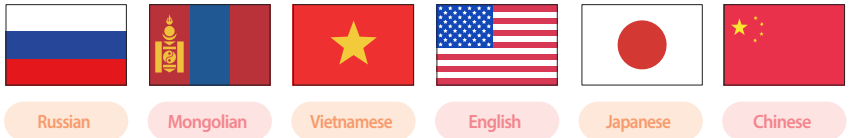
Agreement on the personal information treatment for the vaccination process	Self (legal representative, guardian) ☑
I agree with receiving SMS messages regarding the next routine vaccination schedule and its completion. * If you do not agree, you will not receive the information that you do not agree upon.	☑ Yes ☐ No

* You can request an information change at the nearest public health center or the medical institution that administered the vaccination when your telephone number is changed or you want to check and change whether to accept the SMS notices or not. It is also available through
* Check your telephone number registration at the nearest public health center or the medical institution you visited for the vaccination if you agree with the SMS notice, but did not receive the notice.

Application for Multi-language SMS Messages Notice Service

- If you wish to receive this information in your native language, please inform the medical institution providing immunization. You will receive text message notices in both Korean and your native language.
- When choosing your language, register the mobile phone number of your child's other caregiver to receive 'next vaccination date' information at the given mobile phone number as well.

Languages in Service for SMS Notice



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CHAPTER 2

Immunization Information by Vaccine Type

Hepatitis B

Vaccination Subject and Schedule for Hepatitis B

Vaccination Subject and Schedule of Hepatitis B

- Eligibility : All newborn babies and infants
- Recommended Immunization Schedule

Hepatitis B	**Immediately after birth**	**1 mo.**	**6 mo.**
	1st dose (routine)	2nd dose (routine)	3rd dose (routine)

Precautions with vaccination in the following cases: (Consult the doctor)

- Vaccination is allowed for the children with mild diseases, such as the flu, but it would be better to postpone the immunization until recovery in case of having a moderate or severe disease.

Immunization is prohibited in the following cases:

- In case of a person showing anaphylaxis (severe allergy) reaction after a previous Hepatitis B vaccination
- In the case of a person showing anaphylaxis (severe allergy) reaction to the Hepatitis B vaccination.

Necessity for Antibody Test after Hepatitis B Vaccination

- The test is not needed to check whether antibodies are generated after the vaccination of healthy adults or children.
  - Your antibody titer will reach its maximum at 1 to 3 months after the third round of the hepatitis B vaccine and will gradually decrease with the passage of time, but you will continue to have immunity. Antibody testing and additional inoculation according to antibody test results are not recommended for healthy children or adults.
- However, the following high-risk groups need to have an antibody test after three doses of vaccination:
  - Family member of Hepatitis B virus carrier
  - Patients who have frequent transplantations of blood products (e.g.: hemophilia, aplastic anemia, leukemia, etc.)
  - Patients who receive hemodialysis or peritoneal dialysis
  - Persons addicted to injection drugs
  - Medical staff (in case of repeated exposures to contaminated secretions from Hepatitis B patients or those with the virus)
  - Inmates and staff at institutions and detention facilities (e.g.: physically disabled persons, prisoners and detainees, etc.)
  - Groups at high risk of exposure to sexually transmitted diseases
  - Persons who have sexual contact with Hepatitis B virus carriers
  - A newborn from a Hepatitis C positive mother
  - Immune deficient person, such as HIV infected patients and persons with hepatitis C
  - Persons with diabetes or chronic liver disease

Safety and Adverse Reactions after Hepatitis B Vaccination

Safety of the Hepatitis B Vaccination.

- The Hepatitis B vaccination could cause adverse reactions, such as severe allergic reactions, but those are very rare and most of the time slight temporary symptoms improve in days.
- Localized adverse reactions: Pain, swelling and induration(hardening) in the injection area, etc.
- Systemic adverse reactions: Fever, fatigue, nausea, arthralgia, skin rash

Infectious Disease Information on Hepatitis B

What is Hepatitis B?

- Hepatitis B can cause acute or chronic liver infection caused by the Hepatitis B virus.
- In the case of being infected with the Hepatitis B virus as a newborn baby, the baby can become a chronic Hepatitis B virus carrier.
- The symptoms shown among children and adults include mainly a loss of appetite, fatigue, diarrhea, nausea, and jaundice. Most infections are recovered, except for 5~10%, which become chronic Hepatitis B patients.
- 1 out of 4 chronic Hepatitis B patients will develop chronic hepatitis, hepatocirrhosis, liver cancer, etc. therefore prevention is of the utmost importance.

Spread of Hepatitis B Virus:

- Through blood or secretion of an infected person
  - Through mucous membrane, contaminated blood, secretion (ex.: blood transfusion, use of contaminated syringes, blood dialysis, invasive examinations, etc.)
  - Perinatal infection from Hepatitis B positive mother to a newborn
  - Sexual contact with a Hepatitis B virus carrier

※ Hepatitis B is not transmitted through daily activities (sneezing, coughing, hugging, food sharing, breastfeeding, etc.)

Tuberculosis

Tuberculosis Immunization Subject and Schedule

TB Immunization Subjects and Schedule

- Eligibility : For All infants and toddlers up to 4 weeks old
- Recommended immunization schedule: 1 dose after 4 weeks from birth

Precautions needed in the following cases: (Consult the doctor)

- Being born prematurely or having a severe disease which requires hospitalization (postpone the immunization until being discharged from the hospital)
  ※ Postpone the immunization until the disease has improved in case of having a moderate or severe acute stage disease. Go by the schedule if the child has mild disease, such as an upper respiratory tract infection.
- For newborns from mothers administered biological response modifiers (Infliximab, etc.) during pregnancy, do not vaccinate until 12 months (1st birthday) after birth.

Vaccination is prohibited in the following cases:

- Immune deficient people such as those with congenital immunodeficiency syndrome, HIV infection, leukemia, or lymphoma
- Immune-suppressed person due to steroid treatment, anticancer treatment, and radiation therapy
- Having a burn or severe skin conditions on the area to be injected

Normal Progress after BCG Intradermal Vaccination

Times after vaccination	Description
Right after Vaccination	The injection area swells up and goes down within 10-15 minutes ❶.
1-2 weeks	No specific symptoms.
2-4 weeks	A red spot appears on the injection area and creates a small bud which becomes bigger and solidified❷. After the solid area becomes softer making a pus pocket. You can find a lump in the armpit or the neck lymph nodes, but treatment is unnecessary unless it develops into pyrolytic lymphadenitis. It disappears in months but can last up to 1 year.
4 – 6 weeks	Pus comes out of the skin and creates an ulcer.
6-9 weeks	The ulcer is healed and scab forms over it. Pus comes out if pressing on the scab but gradually does not come out later❸.
9-12 weeks	The scab comes off leaving a 2-3 mm wide cicatrix❹.
	

Safety and Adverse Reactions of TB Vaccinations

Safety of TB Vaccinations

- BCG vaccines rarely generate severe adverse reactions. However, it can cause adverse reactions, such as severe allergic reactions and local reactions such as lymphadenitis.

What are the possible adverse reactions after tuberculosis vaccination?

- Local adverse reactions : Localized lymphadenitis, abscesses, ulcers, keloid, koch phenomenon etc.
- Systemic adverse reactions : Very rarely BCG osteitis, osteomyelitis, disseminated BCG infection, etc.

Infectious Disease Information for TB

What is TB?

- Tuberculosis is a disease caused by bacteria that is spread through the air from person to person. It mainly affects the lungs but can develop in any organ.
- In the case of having respiratory tuberculosis, in which tuberculosis bacteria is discovered in sputum (phlegm), it is highly infectious but is rarely infectious if being found in other organs.
- TB bacillus infections show no symptoms as latent tuberculosis, but 510 % develop TB.
- It is more likely to have TB in younger children infected with TB bacillus and disseminated TB or Tuberculous meningitis has a high lethality rate.

Spread of TB

- Mainly transmitted through coughing or sneezing of TB patients. TB bacillus in the respiratory secretions primarily passes the infectious disease.

Diphtheria, tetanus, and acellular pertussis vaccine (DTaP)

DTaP Immunization Subjects and Schedule

DTaP Immunization Subjects and Schedule

- Eligibility : For all infants and toddlers
- Recommended Immunization Schedule

	2 mo.	4 mo.	6 mo.	15-18mo. Mos	4-6 Years
DTaP	1st dose (routine)	2nd dose (routine)	3rd dose (routine)	4th dose (follow-up)	5th dose (follow-up)

Precautions with the immunization in the following cases: (consult the doctor)

- Guillain-Barre syndrome has appeared within 6 weeks of inoculation with vaccine containing tetanus toxoid
- Subject exhibits West Syndrome, uncontrolled epilepsy, progressive encephalopathy or other progressive or unstable neurological illnesses
- Previous Arthus reaction after inoculation with vaccine containing tetanus or diphtheria toxoid

※ Postpone immunization until the disease is improved in the case of a moderate or severe acute stage disease and go by the schedule if the child has mild disease, such as an upper respiratory tract infection.

Vaccination is prohibited in the following cases.:

- In the case of showing anaphylaxis (severe allergy) reaction after the previous DTaP vaccination
- In the case of showing anaphylaxis (severe allergy) reaction to DTaP vaccination ingredients
- Cases exhibiting acute encephalitis of unknown cause within 7 days of previous vaccination including pertussis (ex. Loss of consciousness, reduced level of consciousness, sustained convulsions)

Combined Vaccine containing DTaP: DTaP-IPV, DTaP-IPV/Hib, DTaP-IPV-HepB-Hib

- The combination vaccine DTaP-IPV/Hib and DTaP-IPV-HepB-Hib has been assessed to show similar effectiveness with the separate administration of DTaP-IPV combined vaccine, the Hib vaccine and hepatitis B vaccine along with similarity in terms of safety and adverse reactions, both local and systemic including pain, redness, and fever in the injection area.
- The administration of the combined vaccines can reduce the number of vaccinations from 9 to 3.
- The combined vaccine of DTaP-IPV, which contains DTaP, can be administered in three doses of the routine immunization (2, 4, 6 mos) and follow-up immunization (age 4 to 6)

※ The approval for the follow-up vaccination can differ by manufacturer, which needs to be confirmed before the vaccination.

※ Follow-up immunization (age 4 to 6) is the same as for DTaP (5th dose) and IPV (4th dose)

- The combination vaccine of DTaP-IPV-HepB-Hib and DTaP-IPV/Hib, which contains DTaP, can be administered in three doses of the routine immunization (2, 4, 6 mo.).

* The mixed vaccine for DTaP-IPV-HepB-Hib is not subject to the national vaccination program.

Safety and Adverse Reactions of DTaP Vaccination

Safety of DTaP Vaccination

- The DTaP vaccination could cause adverse reactions such as severe allergic reactions, but the risk from adverse reactions is far less than the risk of getting Diphtheria, Tetanus, and Pertussis.

What are the possible adverse reactions after DTaP vaccination?

- Localized adverse reactions: redness, swelling, pain, abscess in the injection area, rarely Arthus reaction, etc.

  * Severe pain and swelling from shoulder to the elbow, increased frequency with more doses
- Systemic adverse reactions:
  - fever, whining, headache, fatigue, body rash, etc.
  - (very rare) high fever of over 39℃, agitation of more than three hours, brachial plexitis, anaphylaxis (severe allergy), etc.

    * Brachial plexitis refers to an infection on the fasciculus coming from the spinal cord to the arms, it shows the symptom of muscular weakness accompanied with severe pain.

Infectious Disease Information on Diphtheria/Tetanus/Pertussis

What is Diphtheria?

- Diphtheria is an infection caused by a bacterium in the throat and tonsils. It can lead to difficulty breathing, heart failure, paralysis, and even death.

Spread of Diphtheria

- Transmitted through contact with the bacteria discharged from the respiratory system or skin lesion.

〈A membrane covering the throat of Diphtheria infected child〉

What is Tetanus?

- Tetanus is a serious disease caused by a bacterial toxin that affects our nervous system, leading to stiffness in the muscles. Tetanus can interfere with your ability to swallow and breathe, can paralyze your body, and threaten your life.

Spread of Tetanus

- The bacteria exist in the environment such as in soils and can be transmitted through a contaminated injury.

〈Tetanus infected child〉

What is Pertussis?

- The bacteria Bordetella pertussis causes respiratory inflammation and a paroxysmal cough and those symptoms can last for weeks.
- It can also cause complications such as pneumonia, convulsion, and brain damage, and even lead to death.

Spread of Pertussis

- Mainly through the respiratory system, such as cough or sneeze from a person.

〈The infected child having difficulty in breathing due to its characteristic whooping cough〉

Polio

Vaccination Subjects and Schedule of Polio

Vaccination Subjects and Schedule of Polio

- Eligibility : For all infants and toddlers
- Recommended Immunization Schedule

	2 mo.	4 mo.	6 mo.	4-6 Years
Polio	1st dose (routine)	2nd dose (routine)	3rd dose (routine)	4th dose (follow-up)

Precaution with vaccination in the following cases: (Consult the doctor)

- The vaccination is allowed for the children with mild diseases such as the flu, but it would be better to postpone the immunization until recovery in case of moderate or severe stage diseases.

Vaccination is prohibited in the following cases:

- In the case of showing anaphylaxis (severe allergy) reaction after the previous IPV vaccination
- In case of showing anaphylaxis (severe allergy) reaction to IPV vaccination ingredients (eg. neomycin, streptomycin, polymyxin B, etc.)

Combined Vaccine containing IPV: DTaP-IPV, DTaP-IPV/Hib, DTaP-IPV-HepB-Hib

- The combination vaccine containing IPV, DTaP-IPV/Hib and DTaP-IPV-HepB-Hib has been assessed to show similar effectiveness with the separate administration of DTaP-IPV combined vaccine, Hib vaccine and hepatitis B vaccine along with similarity in terms of safety and adverse reactions.
- The DTaP-IPV combined vaccine which contains IPV can be administered in three doses of the routine immunization (2, 4, 6 mo.) and a follow-up immunization (4 – 6 years)

  ※ The approval for follow-up vaccinations can differ by manufacturer, which needs to be confirmed before vaccination.

  ※ Follow-up immunization (age 4 to 6) is the same as for DTaP (5th dose) and IPV (4th dose)

- The DTaP-IPV/Hib combined vaccine which contains IPV can be administered in three doses of the routine immunization (2, 4, 6 mo.).

  * DTaP-IPV-HepB-Hib combined vaccine is not supported by National Vaccination Program.

Safety and Adverse Reactions of Poliomyelitis Vaccination

Safety of Poliomyelitis Vaccination

- Inactivated polio vaccines for injection have rarely been reported to cause severe reactions, and could have symptoms of pain and swelling in the injection area like other vaccines, but the symptoms are mild most of the time.

What are the possible adverse reactions after polio vaccination?

- Localized adverse reactions: Redness,induration (hardening), pressure pain in the injection area
- Systemic adverse reactions: very rarely in persons with hypersensitivity to streptomycin, neomycin, polymyxin B, etc.

Infectious Disease Information of Poliomyelitis

What is Poliomyelitis?

- The polio infection does not develop symptoms in most of the cases, but some develop poliomyelitis or meningitis and rarely paralytic poliomyelitis, which paralyzes the arms and legs.
- The paralytic poliomyelitis could lead to permanent disability and paralysis of the respiratory muscles, which could lead to death.

〈 Leg muscle atrophy caused by polio 〉

Spread of Poliomyelitis

- The virus is transmitted by person-to-person mainly through the fecal-oral route.

Occurrence and Prevention of Polio

- No case of polio has been reported since 1984 in Korea, but occurrences are reported in Afghanistan, Pakistan, and Nigeria.
- It is recommended to complete the vaccination in accordance with the immunization schedule to prevent polio in case of having a travel plan to a polio-infected area.

Haemophilus Influenza B

Hib Vaccination Subjects and Schedule

Hib Vaccination Subjects and Schedule

- Eligibility : For all infants and toddlers
- Recommended Immunization Schedule

Hib	2 mo.	4 mo.	6 mo.	12-15 ,mo.
	1st dose (routine)	2nd dose (routine)	3rd dose (routine)	4th dose (follow-up)

* Not recommended for healthy children over 5 years (60 months after birth) old in general

Precaution with vaccination in the following cases: (Consult the doctor)

- The vaccination is allowed for the children with mild diseases such as the flu, but it would be better to postpone the immunization until recovery in case of moderate or severe stage diseases.

Vaccination is prohibited in the following cases:

- In case of a person showing anaphylaxis (severe allergy) reaction after the previous Hib vaccination
- In case of a person showing anaphylaxis (severe allergy) reaction to Hib vaccination ingredients

Combined Vaccine containing Hib: DTaP-IPV/Hib and DTaP-IPV-HepB-Hib

- DTaP-IPV/Hib and DTaP-IPV-HepB-Hib, which are combination vaccines containing Hib, have been assessed to show similar effectiveness with the separate administration of DTaP-IPV combined vaccine, Hib vaccine and hepatitis B vaccine along with similarity in terms of safety and adverse reactions, both local and systemic including pain, redness, and fever in the injection area.
- The combination vaccines DTaP-IPV/Hib and DTaP-IPV-HepB-Hib containing Hib can be administered for three doses of the routine immunization (2, 4, 6 mo.).

  * The mixed vaccine DTaP-IPV-HepB-Hib is not subject to the national vaccination program.

Safety and Adverse Reactions of Hib Vaccination

Safety of Hib Vaccination

- The Hib vaccination could cause adverse reactions, such as severe allergic reactions, but those are very rare and most of the time slight temporary symptoms improve in days.

What are the possible adverse reactions after Hib vaccination?

- Localized adverse reactions: Swelling, redness, pain in the injection area
- Systemic adverse reactions: Rarely fever, agitation and very rarely anaphylaxis (severe allergy), etc.

Infectious Disease Information of Haemophilus Influenza

What is Haemophilus influenza?

- Haemophilus Influenza was argued by some to be the cause of Influenza.
- Two major categories of H. influenza were defined: the unencapsulated strains and the encapsulated strains. The six generally recognized types of encapsulated H. influenza are: a, b, c, d, e, and f. 95 % of invasive diseases caused by influenza among young children are caused by Hib. Haemophilus Influenza type b.
- Hib causes invasive infectious diseases such as meningitis, epiglottitis, pneumonia, arthritis, and cellulitis and occurs mainly among children under 5 years of age.

  ※ It is not recommended for children over 5 years of age in general, however, the vaccination is required for those with a higher risk of Invasive Hib infection. Consult the doctor for immunization.

  * Cases with high risk of invasive HiB infection: persons with sickle cell disease, functional or anatomical asplenia due to splenectomy, etc., immunodeficiency (especially IgG2 subtype deficiency), compromised immune function due to chemotherapy, etc. or initial factor complement deficiency, and hematopoietic stem cell transplantation recipients

Spread of Haemophilus Influenza Type B

- Mainly infected with droplets secreted through a cough or sneeze.

Pneumococcus infection

Pneumococcus Vaccination Subject and Schedule

Pneumococcus Vaccination Subject and Schedule

- Pneumococcal conjugate vaccine(PCV)
  - Eligibility : For all infants and toddlers
  - Recommended Immunization Schedule:

Vaccine type	2 mo.	4 mo.	6 mo.	12-15 mo.
PCV10	1st dose (routine)	2nd dose (routine)	3rd dose (routine)	4th dose (follow-up)
PCV13				

※ Interchange between PCV10 and PCV 13 vaccines is not recommended.

※ In general, vaccination is not recommended for healthy children over 5 years of age (60 months after birth).

- Pneumococcal polysaccharide vaccine(PPSV)
  - Children over 2 years of age -64 years who have a high risk of having a pneumococcus infection
  - The elderly- over 65 years of age

Precautions with vaccination in the following cases: (Consult the doctor)

- Vaccination is allowed for the children with mild diseases such as the flu, but it would be better to postpone the immunization until recovery in case of moderate or severe stage diseases.

Immunization is prohibited in the following cases:

- In case of a person showing anaphylaxis (severe allergy) reaction after the previous pneumococcus vaccination
- In case of a person showing anaphylaxis (severe allergy) reaction to pneumococcus vaccination ingredients

Pneumococcus Vaccine Types and Prevention Effect

- Pneumococcal conjugate vaccine (Pneumococcal conjugate vaccine, PCV)
  - There are PCV10 and PCV 13, and both are effective in preventing invasive diseases, such as bacteremia, meningitis, and acute middle ear infections caused by serotypes included in the two vaccines (1, 4, 5, 6B, 7F, 9V, 14, 18C, 19F, 24F).

Vaccine Type	Serotypes contained in the vaccine
PCV10	10 types (1, 4, 5, 6B, 7F, 9V, 14, 18C, 19F, 23F)
PCV13	13 types (1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, 23F)

- PCV10 and PCV13 vaccines are not recommended to be used interchangeably, therefore routine and follow-up vaccinations for the children under 2 shall use the same vaccines manufactured by the same manufacturer.
- In general, healthy children over 5 years of age (60 months after birth) are not recommended to have PCV vaccinations but can be considered for those with a higher risk of pneumococcus infection. Consult the doctor for vaccination.

  * High risk of pneumococcus infection:
  - (Normal immunity)- chronic heart disease, chronic lung disorder, diabetes, cerebrospinal fluid leak, cochlear implant, chronic liver diseases
  - (Functional asplenia or anatomic asplenia)-, sickle cell anemia, hemoglobinism, asplenia, or spleen function disorder
  - (Lowered Immunity)- HIV, chronic renal failure, diseases that require immunosuppressant or radiation therapy (malignant tumor, leukemia, lymphoma, Hodgkin disease) or solid organ transplant, congenital immunodeficiency diseases (B-cell or T-cell deficiency, complement deficiency, phagocytic disorders)
- Pneumococcal Polysaccharide Vaccine
  - It is effective in preventing invasive diseases that are caused by 23 serotypes contained in the vaccine.

Vaccine Type	Serotypes contained in the vaccine
PPSV23	23 Types (1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F, 33F)

  - PPSV 23 is recommended for adults aged 65 years and older, and persons aged 2 – 64 years who are vaccinated against pneumococcus and have a high risk of of pneumococcus infection.

Safety and Adverse Reactions of Pneumococcus Vaccination

Safety of Pneumococcus Vaccination

- The Pneumococcus vaccination could cause adverse reactions such as severe allergic reactions, but those are very rare and most of the time slight temporary symptoms improve in days.

What are the possible adverse reactions after pneumococcus vaccination?

- Localized adverse reactions: pain, swelling, and redness in the injection area, etc.

  * Frequency of localized adverse reaction is higher for polysaccharide vaccines (30-50%) than for protein conjugated vaccine (10-20%); frequency of adverse reaction is reported to increase with the number of inoculations.
- Systemic adverse reactions: fever, muscle pain, etc.

Infectious Disease Information of Pneumococcus

What is Pneumococcus?

- Pneumococcus (Streptococcus pneumonia) is one of the main causes of invasive infections, such as acute middle ear infections, pneumonia, meningitis, etc.
- Until now, around 90 different types of serotypes have been known and all can cause diseases. However, around 10 out of them make up 60% of the cases for invasive pneumococcosis.
- The serotypes which make the main cause for the invasive penumococcosis can differ by location and age.
- Invasive penumococcosis is most frequent among infants, toddlers, children, and the elderly over 65 years of age, but vaccination decreases the incidence rate.

Spread of Pneumococcus

- It spreads mainly through respiratory nasal mucus (droplets) from one person to another.

Rotavirus infection

Rotavirus infection vaccination eligibility and recommended immunization schedule

Eligibility for rotavirus infection vaccination and recommended immunization schedule

- Eligibility : Infants of 2 to 6 months after birth
- Recommended immunization schedule

Vaccine	2 months after birth	4 months after birth	6 months after birth
Rotateq (RV5)	1st dose	2nd dose	3rd dose
Rotarix	1st dose	2nd dose	

※ 1st inoculation may occur at week 6 after birth, and at 14 weeks and 6 days after biurth at latest
※ Minimum time between inoculations is 4 weeks
※ Complete inoculation by 8 months and 0 days after birth

Consult with the following prior to inoculation in the following cases

- Prematurely born infants
  ※ Infants past 6 weeks after birth and in a medically stable state may be inoculated at or after discharge from the neonatal unit.
- Persons with reduced immune function, severe gastroenteritis, acute illness or existing chronic gastrointestinal disease should defer inoculation until recovered. Please consult with your physician.
- Newborns from mothers administered biological response modifiers (Infliximab, etc.) during pregnancy may not be vaccinated until 12 months (1st birthday) after birth.

vaccination is prohibited for the following cases:

- Persons with anaphylaxis (severe allergy) reaction to rotavirus vaccine ingredients
- Persons having had anaphylaxis (severe allergy) reaction to rotavirus vaccine in the past
- Severe combined immunodeficiency
- Persons with a history of intussusception

Oral vaccines used in Korea : Rotateq and Rotarix

- There is no preference between the two types of rotavirus vaccine; do not start vaccination later than 15 weeks and 0 days after birth
- No data exists on cross-vaccination between Rotateq and Rotarix; inoculate using vaccines from the same manufacturer whenever possible.
- Avoid delays in immunization due to inevitable causes such as lack of information on the type of vaccine used in the previous dose or discontinuation in supply of the vaccine.
  - In the above cases, complete immunization using the vaccine currently available. If Rotateq has been used at least once, or the previously administered vaccine is unknown, the total number of inoculations should be 3 (complete immunization by no later than 8 months and 0 days after birth in this case as well).

Rotavirus infection vaccination – Safety and adverse reactions

Safety of rovatirus infection vaccination

- Slightly increased risk of intussusception is reported within 7 days of first inoculation, but this risk is 5 to 10 times less than the risk of intussusception due to other vaccines (RRV-TV), and vaccination is recommended as the benefits from inoculation greatly outweigh the risks. No severe adverse reactions due to rotavirus vaccine have been reported.

Possible adverse reactions after rotavirus infection vaccination

- Adverse reactions
  - Possible fever, diarrhea and vomiting, but mild in most cases
  - Very rarely intussusception

Information on rotavirus infection

About rotavirus

- Rotavirus is among the most common causes of severe gastroenteritis in infants and toddlers around the world. Symptoms such as vomiting, diarrhea, fever and stomach ache appear in affected patients.

Infection pathway of rotavirus

- Rotavirus is spread through the fecal-oral route. In most cases, rotavirus is spread through direct or indirect human contact, ingesting of water or food contaminated with fecal matter, or through contaminated furniture or toys, etc.

Symptoms of gastroenteritis due to rotavirus infection

- Symptoms such as vomiting, diarrhea and fever occur after a dormancy period of about 2 days. 50 to 60% of all patients exhibit all of fever, vomiting and diarrhea symptoms, and 1/3 of patients have a fver of 39℃ of higher. Fever and vomiting symptoms usually improve after 2 days.
  - Diarrhea symptoms sustain for 5 to 7 days. Stool is water in consistency, and no blood or white blood cells are observed.
- Most children are repeatedly infected by rotavirus at least once, suffering the most severe gastroenteritis during the first infection. Due to immune defenses acquired at the fist infection, symptoms are mild or absent at the next infection. Newborns have immunity through antibodies transferred through the placenta, therefore newborns infected exhibit no symptoms or mild symptoms.

Measles/Mumps/Rubella

MMR Immunization Subjects and Schedule

MMR Immunization Subjects and Schedule

- Eligibility : For all infants and toddlers
- Recommended Immunization Schedule:

	12-15 mo.	4 – 6 years
MMR	1st dose	2nd dose

Precautions with immunization in the following cases: (Consult the doctor)

- A person with severe or severe acute stage diseases
- Within a certain amount of time for a person after the injection of blood products containing antibodies such as immunoglobulin or a blood transfusion

※ Vaccination is allowed as scheduled for the children with mild diseases such as an upper respiratory tract infection, but it would be better to postpone immunization until recovery in case of having moderate or severe acute diseases.

The immunization is prohibited for the following cases:

- In case of a person having anaphylaxis (severe allergic reactions) to the previous MMR vaccination
- In case of a person having anaphylaxis (severe allergic) reactions to the MMR vaccine ingredient (ex. gelatin, neomycin, etc.)
- Pregnant, lowered immunity, and immunodeficient persons

Safety and Adverse Reaction of MMR Vaccinations

Safety of MMR Vaccination

- The MMR vaccination could cause adverse reactions, such as severe allergic reactions but those are very rare and most of the time symptoms which improve in days.

What are the possible adverse reactions to the MMR vaccination?

- Frequent adverse reactions: Fever, rash, bubononcus, arthralgia, etc.
- Rare adverse reactions: Arthralgia, arthritis, thrombocytopenia, etc.

  Rarely central nervous system abnormality symptoms (aseptic meningitis, etc.)

Infectious Disease Information of MMR

What is Measles?

- Measles is a highly contagious virus that starts with flu-like symptoms, such as a runny nose, cough, and pink eyes but develops a rash all over the body with a high fever.
- Complications such as middle ear infections and pneumonia frequently occur and 1 – 2 out of 1,000 measles patients suffer severe aftereffects, such as encephalitis, which can lead to death.

〈Rashes from measles infection〉

Spread of Measles

- Measles is spread through droplets of secretion or the contaminated objects with secretion from the nose or throat.

What is Mumps?

- Mumps is a contagious disease that shows the symptoms of a fever, headache, and the swelling of salivary glands under the ears.
- Its complications include meningitis or encephalitis, hearing loss, inflammation of one or both testicles, ovaritis, pancreatitis, and rarely death.

〈Symptoms of Mumps〉

Spread of Mumps

- It spreads through droplets or contact with saliva.

What is Rubella?

- Rubella is a contagious virus that causes low-grade fever, rash, and lymphadenitis and can be accompanied by arthritis symptoms as complications.
- If a pregnant woman is infected with rubella virus, she could have a miscarriage or the fetus will be born with congenital malformations.

〈Congenital rubella syndrome〉

Spread of Rubella

- Rubella can be transmitted by droplets or can be passed to an unborn baby by a mother during pregnancy.

Varicella

Subjects and Schedule of Varicella Vaccination

Subjects and Schedule of Varicella Vaccination

- Eligibility : For all infants and toddlers
- Recommended Immunization Schedule: 1 dose 12-15 months after birth

Precautions with immunization in the following cases: (Consult the doctor)

- Severe or severe acute stage diseases
- Within a certain amount of time of a person after the injection of blood products containing antibodies such as immunoglobulin and blood transfusion.
- In case of a person taking aspirin

※ The vaccination is allowed as scheduled for children with mild diseases such as upper respiratory tract infection, but it would be better to postpone immunization until the recovery of moderate or severe acute diseases.

The immunization is prohibited for the following cases:

- In case of a person having had a severe allergic reaction (anaphylaxis) after the previous varicella vaccination
- In case of a person having anaphylaxis (severe allergic) reactions to the varicella vaccine ingredient (ex. gelatin, neomycin, etc.)
- Pregnancy, lowered immunity and immunodeficient persons

Safety and Adverse Reactions to Varicella Vaccination

Safety of Varicella Vaccination

- The varicella vaccination could cause adverse reactions, such as severe allergic reactions, but those are very rare and most of the time symptoms improve in days.

What are the possible adverse reactions after the varicella vaccination?

- Localized adverse reactions : Pain, redness and swelling, etc. in the injection area
- Systemic adverse reactions : Fever, chickenpox-like rashes, herpes zoster, very rarely anaphylaxis (severe allergy) etc.

Infectious Disease Information of Varicella

What is Varicella?

〈 Varicella blisters 〉

- Varicella is a highly contagious disease caused by the initial infection with varicella-zoster virus. The disease results in a characteristic skin rash.
- It causes itching, blister-like rash spreading all over the head, face, torso, and limbs sometimes accompanied by tiredness and fever.
- After suffering varicella, herpes zoster with pain could develop.

Spread of Varicella

- Varicella spreads easily from one person to another through droplets of an infected person or direct contact with skin blisters.

If infected by varicella:

- In the case of being diagnosed with chickenpox, the child should stop going to school to prevent the spread of the disease until all the skin lesions are covered with callouses.

Hepatitis A

Hepatitis A Vaccination Subjects and Schedule

Hepatitis A Vaccination Subjects and Schedule

- Eligibility : All infants and toddlers
- Recommended Immunization Schedule:

Hepatitis A	12 – 23 mo.
	Second dose (at least 6 months after the 1st dose)

* Administer first dose at 12 to 23 months after birth; administer second dose after not less than 6 months after 1st dose (interval between doses may vary according to manufacturer)

Precautions with the vaccination in the following cases: (Consult the doctor)

- The vaccination is allowed for mild diseases such as the flu, but it would be better to postpone the immunization until recovery in case of moderate or severe diseases.

The vaccination is prohibited in the following cases:

- In the case of a person having had severe allergic reaction (anaphylaxis) after the previous Hepatitis A vaccination.
- In the case of a person having anaphylaxis (severe allergy) reaction to the Hepatitis vaccine ingredients.

Safety and Adverse Reaction of Hepatitis A Vaccination

Safety of Hepatitis A Vaccination

- The Hepatitis A vaccination could cause adverse reactions, such as a severe allergic reaction, but it is very rare, and mild adverse reactions are temporary and improve in days. The adverse reaction to the vaccination is far less risky than the complications caused by a Hepatitis A infection.

What are the possible adverse reactions to Hepatitis A vaccination?

- Local adverse reaction: pain, redness and swelling in the injection area
- Systemic adverse reaction: feebleness, fatigue, mild fever, rarely anaphylaxis (severe allergy), etc.

Infectious Disease Information of Hepatitis A

What is Hepatitis A

- Hepatitis A is an acute liver disease caused by the Hepatitis A virus.
- Hepatitis A has the symptoms of fever, feebleness, loss of appetite, nausea, stomachache, and jaundice which lasts for less than 2 months, however, if it lasts more than 6 months or redevelops the infected can develop fulminant hepatic failure.
- The occurrence of the symptoms is related to age and 70% of the children aged less than 6 years old do not have any symptoms but jaundice is most common among other symptoms. However, adolescents and adults have the symptoms most of the time and 40~ 70% are accompanied by jaundice.

Spread of Hepatitis A

- The Hepatitis A Virus can spread through the feces of the Hepatitis A patients, direct contact with the patient, or even through drinking contaminated drinking water or eating contaminated food.

Japanese Encephalitis

Japanese Encephalitis Immunization Subjects and Schedule

Japanese Encephalitis Immunization Subjects and Schedule

- Eligibility : For all infants and toddlers
- Recommended Immunization Schedule

Vaccine type	12-23 mo.	24-35 mo.	6 years	12 years
Inactivated*	1st – 2nd dose (routine)	3rd dose (follow-up)	4th dose (follow-up)	5th dose (follow-up)
Live-attenuated**	1st dose (routine)	2nd dose (routine)	-	-

Precaution with the immunization in the following cases: (Consult the doctor)

- <Inactivated Vaccine>
  - Moderate or severe acute stage diseases
- <Live-attenuated Vaccine>
  - Moderate or severe acute stage diseases
  - Within a certain amount of time after the injection of blood products containing antibodies such as immunoglobulin and blood transfusion.

※ The vaccination is allowed as scheduled for the children with mild diseases, such as an upper respiratory tract infection, but it would be better to postpone immunization until the recovery in case of moderate or severe acute stage diseases.

The vaccination is prohibited in the following cases:

- <Inactivated Vaccines>
  - In case of a person having had severe allergic reaction (anaphylaxis) after the previous Japanese Encephalitis vaccination
  - In case of a person having severe allergic reaction (anaphylaxis) to Japanese Encephalitis vaccine ingredients
- <Live-attenuated Vaccines>
  - In case of a person having anaphylaxis(severe allergic) reaction after the previous Japanese Encephalitis vaccine
  - In case of a person having anaphylaxis(severe allergic) reaction to a Japanese Encephalitis vaccine ingredient s
  - Pregnancy, problems with the immune system
- Types of Japanese B Encephalitis Vaccinations
  - Inactivated Vaccine: pathogens are cultured and deactivated with heat or chemicals to be produced as a vaccine.
  - Live-attenuated vaccine: live Japanese Encephalitis virus is attenuated and produced as a vaccine.

Vaccine Type		Vaccine Name
Inactivated Japanese encephalitis vaccine, IJEV	Derived from vero cell*	Greencross Cell-cultured Japanese Encephalitis Vaccine Injection Boryung Cell-culture Japanese encephalitis vaccine
Live-attenuated Japanese encephalitis vaccine, LJEV	Derived from hamster kidney cell*	CD JEVAX
	Derived from Chimeric Vero Cell	Imojev

* Supported by the National Immunization Program.

※ Heterologous vaccination with live-attenuated vaccines and inactivated vaccines is not recommended. This is also true between live-attenuated vaccines.

Safety and Adverse Reactions of Japanese Encephalitis Vaccination.

Safety of Japanese Encephalitis Vaccination

- The Japanese Encephalitis Vaccination could cause adverse reactions, such as severe allergic reactions, which are very rare. The adverse reaction to the vaccination is far severe than the complications caused by the Japanese Encephalitis.

What are the possible adverse reactions to Japanese Encephalitis vaccination?

- < Inactivated Vaccine>
  - Localized adverse reactions: pain, redness, and swelling in the injection area and hyperesophoria
  - Systemic adverse reactions: Fever, headache, fatigue, chills, muscle pain, hypersensitivity, very rarely anaphylaxis (severe allergy), etc.
- <Live-Attenuated Vaccine>
  - Localized adverse reactions: pain, redness, and swelling in the injection area, etc.
  - Systemic adverse reaction: fever, agitation, cough, rash, nausea, very rarely anaphylaxis (severe allergy), etc.

Infectious Disease Information of Japanese Encephalitis

What is Japanese Encephalitis?

- Japanese Encephalitis is an infectious disease transmitted by 'Culex tritaeniorhynchus' infected with the Japanese Encephalitis virus.
- 1 out of 250 infected show clinical manifestations as well as mild diseases, such as acute encephalitis, nonpyrogenic meningitis, or atypical recessive disorders.

Spread of Japanese Encephalitis

- When getting bitten by 'Culex tritaeniorhynchus' infected with the Japanese Encephalitis Virus.

How to avoid mosquito bites:

- Install screens or mosquito nets at home.
- Refrain from outdoor activities at night and exercise caution not to get a mosquito bite when outdoor activities are unavoidable (wear long sleeves and long pants)
- Puddle or rain pools nearby where mosquitoes might inhabit shall be disinfected.

Tetanus/Diptheria/Pertussis

Tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine, adsorbed, Tdap / Tetanus and diphtheria toxoids adsorbed, Td

Tdap/Td Immunization Subjects and Schedule

Tdap/Td Immunization Subjects and Schedule

- Eligibility : For all young children
- Recommended Immunization Schedule: 1 dose of Tdap vaccine for children aged 11-12 years old
  - ※ Tdap vaccine to be administered at age of 11-12 years and Tdap of or Td vaccine to be administered as a follow-up vaccination every 10 years
    (For those who are prohibited from vaccinations (ap) including Pertussis, the Td vaccine can be administered as an alternative)
  - ※ 1 dose of Tdap vaccination for the children aged 7 – 10 years with an incomplete DTaP Immunization history and follow-up Tdap vaccine can be administered to the children aged 11 – 12 years.

Precautions with vaccination in the following cases: (Consult the doctor)

- The vaccination is allowed for children with mild diseases such as the flu, but it would be better to postpone the immunization until recovery in case of moderate or severe diseases.

Vaccination is prohibited in the following cases:

- In case of a person showing anaphylaxis (severe allergy) reaction after the previous Tdap/Td vaccination
- In case of a person showing anaphylaxis (severe allergy) reaction to Tdap/Td vaccination ingredients
- Cases exhibiting acute encephalitis of unknown cause within 7 days of previous vaccination including pertussis (ex. Loss of consciousness, reduced level of consciousness, sustained convulsions)

Why are Tdap or Td vaccinations needed?

- The DTaP vaccine is administered to young children to prevent Diphtheria, Tetanus, and Pertussis, but the antibody amount decreases down to the unpreventable level after several years and the vaccination requires follow-up vaccinations.
- As a follow-up vaccination, Tdap vaccine is to be administered at an age of 11 – 12 years along with Td or Tdap vaccine at an interval of 10 years afterward (For those who are prohibited from vaccination (ap) including Pertussis, Td vaccine can be administered as an alternative)
  - ※ The Tdap vaccine is a new type of the existing Td (Prevention of Tetanus/Diphtheria) vaccine combined with an additional Pertussis vaccine.

Safety and Adverse Reactions of Tdap/Td Vaccinations

Safety of Tdap/Td Immunization

- The Tdap or Td vaccination could cause adverse reactions such as severe allergic reactions, but those are very rare and most of the time slight temporary symptoms improve in days.

What are the possible adverse reactions after Tdap/Td vaccination?

- Local adverse reactions: Redness, swelling, pain, abscess in the injection area, rarely Arthus reaction, etc.
  * Severe pain and swelling from shoulder to the elbow, increased frequency with more doses
- Systemic adverse reactions: Headache, fatigue, digestive symptoms, fever, lymphadenitis, headache, rash, neurological adverse reaction, etc.

Infectious Disease Information of Tetanus/ Diphtheria/ Pertussis

What is Tetanus?

〈Tetanus infected child〉

- Tetanus is a serious disease caused by a bacterial toxin that affects our nervous system, leading to stiffness in the muscles. Tetanus can interfere with your ability to open your mouth or swallow and breathe, can paralyze your body, and threaten your life.

Spread of Tetanus

- The bacteria exist in the environment, such as soils, and can be transmitted through a contaminated injury.

What is Diphtheria?

〈A membrane covering the throat of Diphtheria infected child〉

- Diphtheria is an infection caused by the bacterium in the throat and tonsils. It can lead to difficulty breathing, heart failure, paralysis, and even death.

Spread of Diphtheria

- Transmitted through contact with the bacteria discharged from the respiratory system or skin lesions.

What is Pertussis?

〈The infected child having difficulty in breathing due to its characteristic whooping cough〉

- The bacteria Bordetella pertussis causes respiratory inflammation and a paroxysmal cough and those symptoms can last for weeks.
- It can also cause complications such as pneumonia, convulsion, and brain damage, and even lead to death.

Spread of Pertussis

- Mainly through the respiratory system, such as a cough or sneeze from a person.

Human Papillomavirus Vaccine(HPV)

HPV Vaccination Subjects and Schedule

HPV Vaccination Subjects and Schedule

- Eligibility : Ages 9 to 45
- Recommended Immunization Schedule

Vaccine Type	Age at first vaccination round	Number of vaccinations	Vaccination schedule
HPV2, HPV4, HPV9	9 – 14 years	2 doses	0, 6~12 months
HPV2	15 – 25 years	3 doses	0, 1, 6 months
HPV4	15 – 26 years	3 doses	0, 2, 6 months
HPV9	15 – 45 years (female) 15 – 26 years (male)	3 doses	0, 2, 6 months

※ Information regarding the national vaccination program's targets, vaccination timing, supported vaccines, and designated medical institutions can be verified at the Vaccination Assistant website (https://nip.kdca.go.kr) or the local health center's website.

If you fall under the following circumstances, caution is needed during vaccination. Please consult with a doctor.

- For persons with moderate to severe acute illness, Inoculation may be deferred until the patient improves; for persons with mild illness such as upper respiratory tract infection, inoculation may be carried out as scheduled.

The vaccination is prohibited in the following cases:

- Persons having had severe allergic reaction (anaphylaxis) to previous HPV inoculation
- Persons with severe allergic reaction (anaphylaxis) to HPV vaccine ingredients

Safety and Adverse Reaction of HPV Vaccination

Safety of HPV vaccination

- The HPV vaccine may very rarely cause adverse reactions such as severe allergic reaction. Most adverse reactions are mild and are temporary, and improve within a few days. The effect of preventing future cervical cancer or precancerous lesions of the cervix (benefits)* outweigh the risk of adverse reaction due to vaccination.

  * HPV vaccination exhibits high prevention (<90%) against high-risk HPV 16 and 18 infection, cervical carcinoma in situ (phase 0 cancer) associated with vaccine type, and certival adenocarcinoma in situ.

- To prevent injury from temporary loss of consciousness (fainting), receive the vaccine while seated or lying down. Stay at the hospital/clinic for 20 to 30 minutes after inoculation and observe for adverse reaction before returning home.

Possible adverse reactions after HPC vaccination

- Localized adverse reactions : Pain at the injection site, swelling, redness, etc.

  * Pain at the injection site is reported relatively commonly (about 80% of cases), and about 6% of cases report pain that interferes with daily activity. Most cases recover within a few days without particular treatment.

- Systemic reactions : Fever, nausea, muscle aches, fainting, very rarely anaphylaxis (severe allergic reaction), etc.

Infectious Disease Information of HPV

What is HPV?

- The highly infectious pathogen is sexually transmitted and infects the skin or genital mucosa and can develop genital warts and related cancers (cervical cancer, vulvar cancer, anal cancer, head, and neck cancer, etc.) and intraepithelial neoplasia in both men and women.
- The majority of the infections are symptomless and naturally disappear in 1-2 years, but 5-10% causes continuous infections, which will develop cancer-causing risk factors over several or tens of years.
- HPV can be divided into high-risk genotype, which is highly likely to cause cancer and a low-risk genotype, which rarely causes cancer. Type 16 and 18 are among the high-risk types and account for 70 % of cervical cancer associated with HPV.

  * Cervical cancer can develop by genotype infection which is not included in the vaccine even after the HPV vaccination, therefore women should have a cervical cancer test on a regular basis.

- Cervical cancer and cervical intraepithelial neoplasia make up the majority of diseases caused by HPV infection. Korea has upwards of 3,000 cervical cancer patients every year and around 900 deaths.

How human papillomavirus is spread

- HPV is spread through sexual contact with an HPV-infected person, through tiny lacerations on the surface of the skin.

Influenza

Influenza Vaccination Subjects and Schedule

Influenza Vaccination Subjects and Immunization Schedule

- Eligibility : For all children over 6 months
- Recommended Immunization Schedule

Age	Vaccination Records (more than 2 doses)	
	Yes	No
6 mo. from birth up to 9 yrs*	1st dose	2nd doses (4week interval)
9 yrs and older	1 dose	

*Two doses might be necessary according to the period of the epidemic, check with the public health center or medical institution for the vaccination schedule every season.

Children from 6 months up to 13 years, pregnant women, and the elderly (over 65 years of age) can have an influenza vaccination at no cost at public health centers or designated medical institutions during the program period.

※ The designated medical institutions can be found on the website (https://nip.kdca.go.kr) or public health center guidebooks.

Precautions are needed for vaccination in the following cases: (Consult the doctor)

- Those who experienced Guillain-Barre syndrome within 6 weeks after an Influenza vaccination.
- Moderate or severe acute stage disease patients (avoid vaccination until the symptoms improve)

Vaccinations are prohibited in the following cases:

- Infants under 6 months old
- Children who experienced severe (fatal) allergic reactions after a previous Influenza vaccination
- Children who have a serious allergic reaction to Influenza vaccine ingredients

※ In case of experiencing the symptoms such as reaction to eggs, dizziness, and continued vomiting and get treatment such as epinephrine, The vaccination is allowed at a medical clinic which can diagnose and treat severe allergic reactions. (However, the vaccination is prohibited when showing severe anaphylactic reaction to eggs.)

*Persons having severe allergic reaction or anaphylaxis to eggs may be inoculated with cell culture influenza vaccine

Safety and Adverse Reactions of the Influenza Vaccination

Safety of Influenza Vaccination

- The most frequently occurring adverse reactions to inactivated influenza vaccines include a localized reaction. 15-20 % of vaccinations cause a rash or pain in the injection area, which will disappear 1-2 days most of the time.

Possible adverse reactions after influenza vaccination

- Local adverse reaction: rash and pain in the injection area
- Systemic adverse reaction: fever, muscle ache, allergic reaction to egg protein, etc.

Infectious Disease Information of Influenza

What is influenza?

- Known as the 'flu', the Influenza virus can be transmitted through the respiratory system (nose, throat, bronchial tubes, lung, etc.).
- The Influenza virus can be discharged in the air through the virus carrier's cough, sneeze, or talking and can be contagious to others.
- Influenza could cause severe symptoms that can cause other viruses and have fatal complications (pneumonia, etc.)

Spread of Influenza

- When acute influenza patients cough or sneezes, droplets from the respiratory system spread the virus.
- Air infection is plausible within a populated group in a closed space.

Symptoms of Influenza Virus Infection

- Along with general symptoms such as a sudden fever, muscle aches, headache, etc. respiratory symptoms, such as a sore throat and cough appear and are accompanied by a runny or stuffy nose, chest pain, eye pain, a stomachache, and vomiting.
- Systemic symptoms last for 2-3 days in general and rarely 5 days. The recovery is fast, but symptoms such as lethargy, fatigue, and coughing could last for weeks.

How to Check Child's Vaccination History

See below for instructions on viewing your child's immunization records on the KDCA's system:

※ Infectious Disease Control and Prevention Act, Article 28 (Keeping and Reporting of Vaccination Records) and Article 33-4 (Establishment and Operation of Integrated Vaccination Management System)

1 ≫ Check from the Immunization Assistance website (https://nip.kdca.go.kr)

① Parents sign on the website (https://nip.kdca.go.kr)' and register the parent's resident registration number at the menu 'change member information -> add information'.

② Register the child's information at the 'register the child's information (name, resident registration number, etc.) and click on the menu 'search for vaccination history -> view vaccination history' to check the child's vaccination history

※ If you cannot see your child's vaccination history on the Immunization Assistance website, please request the medical institution providing vaccination to register your child's history electronically.

2 ≫ Issue the certificate of vaccination from the website at no cost.

① First, sign into the Immunization Assistance website and register the child's information.

② Choose between Korean/English documents at the e-service menu and click on the 'certificate issuance' button.

③ Choose the reason for the issuance after checking the vaccination certificate and click on the issue button to issue the certificate of vaccination.

3 ≫ Check with the medical institution or public health center which administered the vaccination.

① Pay a visit to the medical institution or public health center which administered the vaccination and check the child's vaccination history after having the parent's identification confirmed.

Vaccination Q&A

Q 1. Can a written vaccination record be registered in the system?

A Written vaccination records are intended to help caregivers manage their children's vaccination records and lack important information, such as the vaccine number, the manufacturer name, etc. Therefore, it cannot be registered in the system due to uncertainty with the information. If a vaccination is not registered in the system, a request to the medical clinic which administered the vaccination must be made.

Q 2. Is re-vaccination necessary if the vaccination records cannot be checked after vaccination was completed.

A If the vaccination records cannot be located, it is recommended to get a vaccination again. In general, re-vaccination does not create abnormality in the immune system nor does it increase adverse reactions. However, as the times of vaccination can be changed in the case of re-vaccination, consult the doctor before vaccination.

Q 3. What is the vaccination schedule after returning from abroad?

A The vaccination schedule could vary depending on the country's disease mechanical characteristics, therefore follow the schedule recommended by the country you will continue to live in. Request the system registration at the nearest public health center of the English vaccination certificate and have the documents signed or sealed and issued by the medical institution which administered the vaccinations, to avoid unnecessary and redundant vaccinations.

Q 4. If the vaccination schedule is missed, does it need to be restarted from the beginning?

A The delayed schedule does not need to be started from the beginning. But it is recommended to get a vaccination as scheduled due to the risk of getting diseases from the delay.

Q 5. The injection area is red and swollen. What can I do about it?

A Pain, hardness, swelling and redness of the injection site may occur after vaccination, but most cases recover naturally. Observe carefully for a few days and consult a physician if symptoms worsen or persist.

Vaccination Q&A

Q 6. Is it true that too many vaccines can cause negative side effects on the immune system?

A The vaccination uses a small part of our bodily immunity system to create antibodies, therefore it strengthens immunity not burden the system.

Q 7. Is it true that vaccines cause diseases such as autism?

A According to scientific research, it has not been proved that vaccines cause autism, other behavioral disorders, or SIDS.

Q 8. Is it true that Thimerosal and Aluminum contained in the vaccine are dangerous?

A The additives contained in the vaccines magnify the effectiveness of the vaccines, but only a small amount of it is used to prevent contamination, and no proof has been found that any of those additives are dangerous. In addition, the vaccines that are currently used do not contain Thimerosal.

Q 9. Is it true that vaccines do not go through sufficient clinical trials in their development stage?

A Much research needs to be conducted on the safety of the vaccines in its developmental stage. It has to pass the multiple clinical trials before coming to the market and research continues regarding side-effects and efficacy, etc. even after the vaccine gains approval for use.

Q 10. Is it true that the risk of vaccinations is greater than the risk of infectious diseases?

A The risk of getting severe adverse side-effects from vaccination is far smaller than the risk of death from the diseases or having complications by not having a vaccination. Infectious diseases can come back when the local community has lower levels of immunity.

Q 11. Is it safe to administer multiple vaccines at the same time on the same day?

A Most vaccines can be administered at the same time on the same day and it would save your hospital visits and help your child be less stressed-out.

Vaccination Q&A

Q 12. Is vaccination not allowed if the child has atopic dermatitis or an allergy?

A It is still safe to vaccinate the child if the child has severe atopic dermatitis, and it is not prohibited when the child has an allergy to other than the ingredients of the vaccine to be administered.

Q 13. Is vaccination not allowed if the child has a cough, runny nose, or mild fever?

A It is safe to vaccinate the child as scheduled if the child has slight flu symptoms, such as cough and runny nose, middle ear infection or stomachache, or a mild fever of lower than 38℃. However, if the symptoms are more severe, consult the doctor.

Q 14. If the child has adverse reactions to vaccination, such as mild fever or pain, is the next vaccination allowed?

A It is not prohibited to have a vaccination when a child has slight adverse reactions, such as a mild fever or pain in the injection area. However, it is prohibited to use the vaccine when the child develops a severe allergic reaction to the certain vaccine ingredients (anaphylactic reaction). Consult the doctor.

Q 15. If the actual date of birth does not match the resident registration number due to unavoidable reasons, does this cause any problem for vaccinations?

A The minimum age and the minimum interval between vaccinations are required by vaccines in order to acquire sufficient immunity against infectious diseases.

The vaccination schedule is decided based on the actual date of birth. If it does not match the resident registration number, visit the nearest public health center with the document that proves the actual date of birth of a child to request for the correction.

Korea, where children is healthy

Korea Disease Control and Prevention Agency, KDCA | KMA Korean Medical Association | Special Committee on Immunization

Standard Vaccination Schedule (2024)

	Target infectious disease	Vaccine type and method	Round	At birth	Within 4 weeks	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19 to 23 months	24 to 35 months	Age 4	Age 6	Age 11	Age 12
National vaccinations	Hepatitis B	HepB	3	HepB 1st round		HepB 2nd round			HepB 3rd round									
	Tuberculosis	BCG(피내용) BCG(intradermal)	1		BCG 1st round													
	Diphtheria Tetanus Whooping cough	DTaP	5				DTaP 1st round	DTaP 2nd round	DTaP 3rd round		DTaP 4th round				DTaP 5th round			
		Tdap/Td	1														dap/Td 6th round	
	Polio	IPV	4				IPV 1st round	IPV 2nd round	IPV 3rd round						IPV 4th round			
	Type B haemophilus influenza	Hib	4				Hib 1st round	Hib 2nd round	Hib 3rd round	Hib 4th round								
	Pneumococcal infection	PCV	4				PCV 1st round	PCV 2nd round	PCV 3rd round	PCV 4th round								
		PPSV	–											Vaccination only for high-risk groups				
	Rotavirus infection	RV1	2				RV 1st round	RV 2nd round										
		RV5	3				RV 1st round	RV 2nd round	RV 3rd round									
	Measles Mumps Rubella	MMR	2							MMR 1st round					MMR 2nd round			
	Varicella	VAR	1							VAR 1st round								
	Hepatitis a	HepA	2							HepA 1st and 2nd round								
	Japanese encephalitis	IJEV	5							IJEV 1st and 2nd round				IJEV 3rd round		IJEV 4th round		IJEV 5th round
		LJEV	2							LJEV 1st round				LJEV 2nd round				
	Human papillomavirus infection	HPV	2														HPV 1st and 2nd round	
	Influenza	IIV	–						Annual IIV inoculation									

- National vaccinations: Mandatory vaccination recommended by the state. The state prescribes infectious diseases subject to vaccination, sets standards and methods for vaccination, and provides vaccination funding and subsidization based on the “Infectious Case Control and Prevention Act.”

- Other vaccinations: Private medical institutions offer paid vaccinations for infectious diseases other than designated infectious diseases and infectious diseases subject to national vaccination.

- Depending on your DTaP, IPV and Hib vaccine schedule, you may receive the DTaP–IPV (diphtheria, tetanus, whooping cough and polio) or DTaP–IPV/Hib (diphtheria, tetanus, whooping cough, polio and type b hemophilus influenza) vaccine