11 Vaccinations and Illnesses

What is Vaccination?

A preparation employing a weakened form of a pathogenic organism (weakened bacteria or virus) is called a 'vaccine' and 'vaccination' is a preventive practice to develop a resistance (immunity) against a specific disease by injecting this vaccine into the body. Illnesses, which vaccinations attempt to prevent, are dangerously contagious and spread every year or are pathogenic organisms that are always present and have the potential of spreading even if they may not be presently active.

In order to protect our children, it is necessary to conduct an active childhood vaccination program. Therefore, it is very important to fully understand both the benefits and possible side effects of childhood vaccination.

Effectiveness of Vaccinations

Even when children are vaccinated not all will receive sufficient effects of the vaccinations. The effects of vaccinations gradually wear off with the passage of time. Therefore, some children may develop the illness even after being vaccinated. Even in such cases, the illness will be milder with lower chances of developing complications than a case where no vaccination was given.

Types of Vaccinations

There are basically two types of vaccinations: regular vaccinations and optional vaccinations.

1. Regular vaccinations

B.C.G.
Oral polio
DPT (Diphtheria, Pertussis, Tetanus)
DT (Diphtheria, Tetanus)
Measles
Rubella
Japanese encephalitis
Influenza (65 yers or older)

2. Optional vaccinations

Mumps
Chicken pox/Varicella
Influenza (about 1 yers or older)
Hepatitis B

※ These are current schedule at this time (2005/6/30)

Intervals Between Vaccinations

After receiving a vaccination, the following waiting periods should normally be observed before receiving another vaccination: in the case of a Live Virus Vaccine, an interval of at least 27 days is required; in the case of Inactivated Vaccine and Toxoid, an interval of at least 6 days is required.

Live Virus Vaccine

A live Virus Vaccine employs a weakened form of toxicity of a pathogenic organism. As this vaccine employs a live virus, the virus will multiply in the body, and after approximately 1 month a resistance (immunity) will develop in the body against the specific illness.

B.C.G.
Rubella
Mumps
Oral polio
Measles
Chicken pox/Varicella Rubella

Inactivated Vaccine

Inactivated Vaccine employs a portion of a dead (inactivated) pathogenic organism. As the organism is not living, it will not multiply in the body. Repeating the vaccination periodically will enable the body to remember the type of pathogenic organism and to develop a resistance (immunity) against the specific illness.

Pertussis in DPT
Japanese encephalitis
Influenza
Hepatitis B

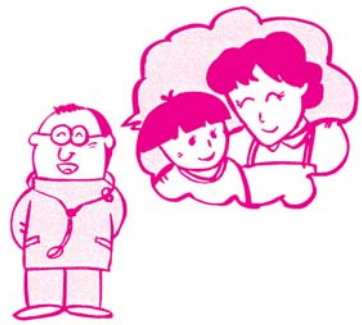
Toxoids

Toxoids employ bacteria in which the toxicity has been detoxified (neutralized). Like the Inactivated Vaccine, Toxoids will not multiply in the body as they are not living. Repeating the vaccination at times will enable the body to remember the types of pathogenic organisms and to develop resistance (immunities) against the specific illnesses.

Diphtheria, Tetanus in DPT
DT (Diphtheria, Tetanus)

Precautions Before Receiving a Vaccination

1. The scheduled vaccination should be fully understood beforehand (by the guardian).
2. The guardian should watch the child carefully for any signs of illness on the day of the vaccination.
3. Enter details in the preliminary examination chart.
4. Be sure not to forget the vaccination ticket and mother/child record book.



Precautions After Receiving a Vaccination

1. Care must be taken concerning the condition of the child for 30 minutes after receiving the vaccination. If any changes are seen, contact the doctor as soon as possible.
2. The child may take a bath on the day of the vaccination.
3. Avoid any intense physical activity on the day of the vaccination.
4. Watch for side effects of the vaccination.

Side effects of Inactivated Vaccines may appear approximately 24 hours after the vaccination, and those of Live Virus Vaccines may appear approximately 2-3 weeks after the vaccination.

People who Must Take Caution When Receiving Vaccinations

People who must not receive vaccinations:

1. People who have higher body temperatures than usual.
2. People with acute illnesses requiring them to take medications.
3. People who have experienced severe allergic reactions from the same (type of) vaccination as the scheduled one.
4. Pregnant women (in cases of inoculation of live virus vaccines).
5. People who are judged by a doctor as unable to receive the vaccination.

People who must consult with a doctor thoroughly when receiving vaccinations:

1. People who are receiving medical treatments for chronic diseases, such as heart disease, kidney disease and blood disease or (underdeveloped people. — I don't understand this expression !)
2. People who had fevers, rashes or allergic reactions, such as hives. within two days of their last vaccinations.
3. People who have experienced convulsions (spasms).
4. People with abnormal (weak) immune systems who easily contract illnesses.
5. People who are allergic to the component(s) of the vaccine.

List of Regular (Routine) Vaccinations

Type of vaccination		People required under law	Normal vaccination age	Vaccination frequency	Minimum interval between vaccinations
B.C.G. (tuberculosis)		0 to under 6 months old	3 to under 6 months old	Once	27 days
Polio (acute infantile paralysis)		3 months to under 7 1/2 years old	3 months to 1 1/2 years old	Twice separated by 6 week or more	27 days
DPT: Diphtheria, Pertussis, Tetanus	1st period initial	3 months to under 7 1/2 years old	3 months to 1 year old	3 times separated by 3 to 8 weeks	6 days
	Addi-tional 1st period		12 months to 1 1/2 years after 1st period vaccination (3 times)	Once	
	2nd period	Diphtheria, Tetanus 11 and 12 years old	6th year elementary school	Once	
Measles		12 months to under 7 1/2 years old	12 months to 15 months old	Once	27 days
Rubella		12 months to under 7 1/2 years old	12 months to 3 years old	Once	27 days
Japanese encepha-litis	1st period initial	6 months to under 7 1/2 years old	3 years old	Twice separated by 1 to 4 weeks	6 days
	1st period additional		4 years old A year after the initial vaccination for the 1st period	Once	
	2nd period	9 to under 13 years old	4th year elementary school	Once	
	3rd period	14 to under 16 years old (no longer required)	2nd year junior high school	Once	
Influenza		65 years or older	65 years or older	Once	6 days

List of Optional Vaccinations

Type of vaccination	Normal vaccination age	Frequency of vaccination	Minimum interval between vaccinations
Mumps	1 year or older	Once	27 days
Chicken pox/ Varicella	1 year or older	Once	27 days
Influenza	about 1 year or older	Twice separated by a 4- to 6-week period	6 days
Hepatitis B	Common prevention of hepatitis B infection At any age	After the initial injection, the 2nd followed at 1 month and 3rd followed at 5 or 6 months Once each time, a total of 3 times	6 days
	Prevention of Mother-to-child transmission At age of 2, 3 and 5 months	Once each time, a total of 3 times	6 days

※These are current schedule at this time (2005/6/30)

※The 3rd period for the Japanese Encephalitis vaccination will no longer be required in near future

※Measles vaccination and Rubella vaccination will be combined and given as one vaccination

Vaccinations and Illness

Polio

Illness to prevent : Polio (acute infantile paralysis)

In the past, polio spread throughout Japan although at present it does not occur within the country. Polio, however, continue to spread repeatedly in the Asian regions outside Japan. If this illness is contracted, cold-like symptoms such as fever will appear, followed by headaches, nausea, vomiting and palsy.

In some cases, the effects of palsy may remain permanently and death may also occur due to dyspnea (difficulty with breathing).

Type of vaccine : Live Virus Vaccine

Normal age and frequency of the vaccination :

3 months to 1 1/2 years old; vaccinating twice separated by a 6-week or more period.

Side effects :

One out of one million people experiences palsy.

Furthermore, a pproximately one person annually becomes infected with the polio virus and experiences palsy after coming in contact with the feces of an infant who has recently received the polio vaccination.

Minimum interval between vaccinations : 27 days

B.C.G.

Illness to prevent : Tuberculosis

Although tuberculosis was a very common illness in Japan in the past, today the number of cases has signihicaully decreased.

However, quite a few new cases still appear every year and therefore, we cannot be careless. In particular, small children are not only in danger of lung tuberculosis but also tuberculosis of the entire body or TB meningitis, which may develop serious sequelae.

Type of vaccine : Live Bacteria Vaccine

Standard age to get vaccinated : 3 to under 6 months.

Normal reaction to B.C.G. vaccine :

About 10 days after the B.C.G. vaccine, some small red spots appear at the injection site and gradually grow in size.

Such a reaction is peaks in 1 to 2 months after the injection. Sometimes ulcer and pus occur at the injection site. In 3 to 4 moths, they will heal by forming a scar.

Side effects :

3 months after the injection there is still pus, or the healed site has developed pus again.

Swollen lymph nodes in the armpit can be seen 1 to 3 months after the injection. They will naturally disappear in 2 to 3 months.

Precautions :

General reaction occurs in about 10 days, but some may occur within 10 days after the injection.

This is called "Koch's phenomenon". There is red swelling or pus at the injection site, which will heal in 2 to 4 weeks.

Though this process is not a harmful reaction, it is also necessary to see the doctor soon for the examination and consultation.

Interval to the next vaccinations : 27 days

DPT

Illness to prevent : Diphtheria, Pertussis (whooping cough), Tetanus

Diphtheria

If this illness is contracted, symptoms such as fever, sore throat and coughing will occur and if they become severe, death may occur through suffocation. After 2-3 weeks, this illness may interfere with heart and nerve functions.

Pertussis (whooping cough)

Pertussis begins with cold-like symptoms and then leads to a persistent, severe cough. Once an infected person starts coughing, he/she will not be able to stop for a while and when taking a breath a whistling sound will be heard. Small babies are particulaly in danger of developing cyanosis, convulsions (spasms), encephalitis, and death may occur in some cases.

Tetanus

The tetanus germ lives in soil; therefore, this germ infects the body through wounds. If this illness is contracted, the child may be unable to open his/her mouth, may have convulsions (spasms), and death may occur in some cases.

Type of vaccine : Inactivated Vaccine, Toxoid

Normal age and frequency of the vaccination :

Period 1 : 3 months to 1 year old; a total of three times and each time is to be separated by a 3-to 8-week period. One additional vaccination 1 to 1 1/2 years later.

Period 2 : At 11 and 12 years old; once (DT).

Side effects :

Slight swelling often occurs after receiving the injection. Some people may experience swelling of the entire arm. Three to four out of one hundred people may experience fever within 24 hours after the injections; however, there is no need to be concerned.

Minimum interval between vaccinations : 6 days

DT (Diphtheria, Tetanus)

Illness to prevent : DT (Diphtheria, Tetanus)

Diphtheria

If this illness is contracted, symptoms such as fever, sore throat and coughing will occur and if they become severe, death may occur through suffocation. After 2-3 weeks, this illness may interfere with heart and nerve functions.

Tetanus

Tetanus germ lives in soil; therefore germ infects the body through the wounds. If this illness is contracted, the child may be unable to open his/her mouth, have convulsions (spasms), and death may occur in some cases.

Type of vaccine : Toxoid

Normal age and frequency of the vaccination :

Period 1 : 3 months to 1 year old; twice separated by a 4-to 6-week period. One additional vaccination 1 to 1 1/2 years later.

Period 2 : At 11 and 12 years old; once.

Side effects :

Slight swelling often occurs after receiving the injection. Some people may experience swelling of the entire arm. Furthermore, three to four out of one hundred people may experience fever within 24 hours after the injection. However, there is no need to be concerned.

Minimum interval between vaccinations : 6 days

Note (s) :

People who have already had pertussis should be vaccinated with DT (Diphtheria, Tetanus) instead.