

# Childhood Vaccinations

The vaccination schedule of Matilda International Hospital has incorporated the childhood immunisation schedule recommended by Hong Kong's Department of Health. Additionally, our schedule takes into account the requirements of Hong Kong's international community.

*(The major difference between Hong Kong and the majority of western countries is in Hong Kong's requirement of immunisations against Hepatitis B and Tuberculosis. These vaccinations are recommended for all children of school age or younger who have not yet been immunised.)*

## When not to immunise

Most children can be vaccinated if they are well at the time of vaccination. If your child is ill and has a fever, vaccinations are best delayed. Some children should not receive certain vaccinations, or caution is required when:

- there is a severe allergic reaction to eggs
- there have been neonatal problems such as seizures and/or developmental delays
- a child has had a seizure
- there have been severe local or generalised reactions to previous injections

In these circumstances, please discuss vaccination issues with your general practitioner or paediatrician.

## Side Effects

By mobilising the immune system, a vaccination may cause a local or general reaction. Swelling and redness at the injection site and fever may occur and your child may become irritable. Paediatric paracetamol will reduce the fever. In rare cases, a more serious or allergic-type reaction may occur. If you have concerns, please contact your doctor.

## Routine MIH Vaccinations

### **Bacille Calmette-Guerin (BCG) Vaccine**

BCG is the vaccine against tuberculosis which affects the lungs and other organs and is spread by coughing. There is a high incidence of tuberculosis in Hong Kong. The Department of Health recommends that all newborns in Hong Kong, as well as children up to the age of 15 receive this vaccination. The injection may cause local swelling or a small ulcer to form which will slowly heal.

### **Hepatitis B Vaccine (HBV)**

Hepatitis B is an infectious disease transmitted from mother to baby, or via sexual contact, blood transfusion or through wounds. It can be carried for life and may lead to chronic liver disease and liver cancer. Because of the high carrier rate in Asia, all infants in Hong Kong are vaccinated. The vaccination consists of three injections. The vaccination may be given as the '6 in 1' (DTaP, IPV, HiB, HBV) vaccine or on its own.

### **Inactivated Poliovirus Vaccine (IPV)**

Polio is well on the way to becoming "extinct". However there are still some areas, including developed countries, where outbreaks of polio occur. The virus causes paralysis in varying degrees of severity with permanent disability. IPV is most commonly given as combined vaccines (the '6 in 1' vaccine, '5 in 1' vaccine or with DTaP).

### **The Combined Triple Vaccination (DTaP)**

**Diphtheria** is a severe form of throat infection and is mostly seen in areas of poor hygiene. No cases have been reported in Hong Kong in recent years. The injection may cause local swelling and redness, which is self limiting.

**Tetanus** infection causes a severe form of muscle cramp for which there is no effective treatment and which can be lethal. Bacteria are found in soil, dirt and plants, so a repeat tetanus booster may be advisable after cuts or burns. Immunisations rarely cause side-effects and should be repeated every 10 years.

**Pertussis** (whooping cough) causes persistent coughing. In severe cases, the impaired oxygen transport can lead to brain damage. The 'acellular' vaccine induces fewer side-effects.

### **Haemophilus Influenza Type B (HiB) Vaccine**

Haemophilus Influenza Type B is a common cause of childhood meningitis, septicaemia, pneumonia and epiglottitis. It is rare before the age of three months and after four years of age. The protection following vaccination is excellent, and is usually given as a course of 3 vaccinations followed by a booster at 18 months. The vaccination is often given with the combined vaccines (the '6 in 1' vaccine, '5 in 1' vaccine) or it may be given on its own.

*(Note: This vaccine is currently not included in the Department of Health's Childhood Immunisation Programme.)*

### **Measles, Mumps & Rubella (MMR) Vaccine**

These diseases may all be complicated by more serious conditions such as pneumonia, meningitis and congenital deformities. In males, it can lead to orchitis which may result in infertility. The vaccination forms part of the routine immunisation schedule for children and is given after the first year and a booster dose will be given at 18 months.

The vaccination contains a live but inactivated strain of the viruses. Mild swelling of the cheeks, a temperature and a rash may occur seven to 10 days after the inoculation.

Vaccinated children are not contagious to others.



### **Pneumococcal Vaccine (PCV 13)**

*Streptococcus Pneumoniae* (pneumococcus) remains a leading cause of serious illnesses, including bacteraemia, meningitis, pneumonia and a major cause of sinusitis and acute otitis media. The vaccination has proven to be effective in protecting against a range of bacterial infections caused by pneumococcus. The PCV 13 vaccine is recommended in all children up to the age of five.

### **Varicella (Chickenpox) Vaccine**

This chickenpox vaccination is recommended as part of the routine childhood vaccinations. It offers immunity to about 90% of persons who receive the vaccine, and side-effects after a single inoculation are limited to minor forms of chickenpox. The immunity attained after vaccination may not be life-long and some children may still contract a mild form of chickenpox when exposed. It may be given combined with MMR vaccine.

(Note: This vaccination is now included in the Hong Kong Childhood Immunisation Programme, as recommended by the Department of Health)

## **Optional Vaccinations**

### **Hepatitis A Vaccine**

Hepatitis A is a viral infection caused by contaminated food or drinking water, which may cause symptoms of flu and gastroenteritis. Jaundice may also occur. A simple course of two vaccinations can offer immunity for 10 years or longer.

### **Rotavirus Vaccine**

Rotavirus infection which causes protracted diarrhoea, vomiting and fever is common in infants and young children. The vaccination is given in two or three oral doses before the age of six months.

### **Human Papillomavirus (HPV) Vaccine**

The vaccination against HPV protects girls against the virus related to cervical cancer, and protects both girls and boys against genital warts caused by specific HPV types. It is given to individuals from 9 years of age, and is most effective when given before the start of sexual activity and is often recommended at age 11-12 years old.

### **Influenza Vaccine**

This vaccine is recommended for children from the age of 6 months, given annually to protect against seasonal and regional influenza virus which can cause more severe symptoms in young children.

### **Meningococcal ACYW Conjugate Vaccine**

This vaccination protects against four different strains of the meningococcal bacteria that can cause meningitis and blood poisoning (septicaemia): A, C, Y and W. The vaccine course can be started as early as 6 – 12 weeks of age (Nimenrix).

### **Meningococcal Group B Vaccine**

This meningococcal group B vaccine is indicated for active immunisation from 2 months of age and above. It protects against invasive meningococcal disease caused by *Neisseria meningitidis* group B, a common cause of community-acquired bacterial meningitis in children and adults.

### **Japanese Encephalitis (JE) Vaccine**

Japanese encephalitis (JE) is a potentially severe disease and is caused by a virus spread by infected mosquitoes in Asia and the western Pacific. Most infections occur without apparent symptoms or with mild symptoms, for example, fever and headache. The Imojev vaccine is recommended for aged 9 months and above with risk of exposure. For those with ongoing risk, boosters can be given after 12 months.

## **Matilda Baby Vaccination Package**

- HBV
- DTap, IPV, HiB
- MMR
- PCV 13
- Varicella (Chickenpox) vaccine

### **Available as optional vaccinations at extra charge:**

- Hepatitis A vaccine
- Rotavirus vaccine
- Human Papillomavirus (HPV) vaccine
- Influenza vaccine
- Meningococcal ACYW conjugate vaccine
- Meningococcal group B vaccine
- Japanese encephalitis (JE) vaccine

## **Recommended Vaccination Schedule**

Age	Vaccinations
Newborn	BCG, HBV
2 months	6 in 1 (DTaP, IPV, HiB, HBV), PCV 13, Rotavirus*
4 months	5 in 1 (DTaP, IPV, HiB), PCV 13, Rotavirus*
6 months	6 in 1 (DTaP, IPV, HiB, HBV), Rotavirus*
6-12 months	Influenza* (2 doses, 1 month apart)
12-15 months	MMR, PCV 13, Varicella
18 months	5 in 1 booster (DTaP, IPV, HiB), Hepatitis A*, MMRV
24 months	Hepatitis A*
4-6 years	DTaP*, IPV*
11-12 years	Tdap*, IPV*, HPV*

### **Notes**

The Recommended Vaccination Schedule here lists out all the recommended inoculations that will safeguard your child's health.

Please note that this Package covers vaccinations for children from two months up to 18 months of age.

Vaccinations marked with an asterisk (\*) are optional, and are available at extra cost.

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The materials contained here are for general health information only, and are not intended to replace the advice of a doctor. Matilda International Hospital and its medical facilities will not be liable for any decisions the reader makes based on this material.



# 兒童疫苗接種

明德國際醫院的疫苗接種計劃採納了香港衛生署「兒童免疫接種計劃」的建議，亦同時考慮到本地外國社群對兒童疫苗的各项要求。

(香港與大多數西方國家的疫苗接種計劃比較，兩者的主要分別為香港需額外接種乙型肝炎和肺結核疫苗，該建議適用於所有學齡兒童或尚未接種這些疫苗的兒童)

## 什麼時候不可接種

大部分的兒童身體狀況良好時，可適時接種疫苗。假如您的孩子正在生病或發燒，則最好延遲接種疫苗。

在下列情況下，部分兒童不應接種某些疫苗，或接種時需加倍留心：

- 對蛋類出現嚴重的過敏反應
- 曾出現嚴重的初生嬰兒問題，如抽筋和/或發育遲緩
- 孩子曾經有癲癇發作
- 過去接受注射後，身體曾出現嚴重的局部或全身反應

若您的孩子曾有以上的情況發生，請先跟您的家庭醫生或兒科醫生商討有關接種疫苗的事宜。

## 副作用

接種疫苗是要啟動身體的免疫系統，從而產生抗體，因此可能會導致身體出現局部或全身的反應，例如注射部位紅腫、發燒，孩子可能會煩躁不安。「撲熱息痛」藥物有助降低發熱的情況。在極少數的情況下，兒童可能會出現更嚴重或過敏反應。如您有疑慮，請聯絡您的醫生。

## 明德國際醫院慣常使用的疫苗

### 卡介苗 (BCG)

卡介苗是針對肺結核的疫苗。肺結核在港的發病率高，主要影響肺部及其他器官，並透過咳嗽傳播。香港衛生署建議在港出生的初生嬰兒及15歲以下的兒童接種卡介苗。注射後，傷口可能會出現局部腫脹或小潰瘍，但會慢慢癒合。

### 乙型肝炎疫苗 (HBV)

乙型肝炎是一種傳染病，可由母親傳給嬰兒，或透過性接觸、輸血或接觸傷口感染。患者一旦感染，會有風險成為乙型肝炎帶菌者，並可能會導致慢性肝病及肝癌。由於乙型肝炎的帶菌者比率在亞洲高企，所以本港所有嬰兒均建議須接種乙肝疫苗。疫苗包括三次注射，亦可以六合一疫苗的形式進行接種。

### 滅活小兒麻痺疫苗 (IPV)

小兒麻痺症正快將「絕迹」。然而，個別地區（包括已發展國家）依然會爆發小兒麻痺症，並導致不同嚴重程度的身體癱瘓及永久傷殘。IPV通常以五合一或六合一疫苗形式接種。

### 白喉、破傷風、無細胞型百日咳混合疫苗 (DTaP)

白喉是一種嚴重的喉部感染，通常在衛生條件較差的地區出現。香港近年來已沒有出現相關的感染個案。注射後可能出現局部紅腫，但可自行痊癒。

破傷風感染可引致嚴重而無法醫治的肌肉痙攣，嚴重者可以致命。破傷風細菌可在土壤、污垢和植物中找到。切傷或燒傷後或須注射破傷風加強劑。該疫苗的副作用絕少出現，建議每10年重複接種一次。

百日咳會引起持續性咳嗽。對於一些嚴重的個案，患者會出現氧氣輸送不足，可令腦部受損。「無細胞型」百日咳疫苗的副作用相對較少。

### 乙型流感嗜血桿菌疫苗 (HiB)

乙型流感嗜血桿菌是導致兒童患上腦膜炎、敗血症、肺炎和會厭炎的常見原因。三個月以下的嬰兒及四歲以上的兒童都極少會感染乙型流感嗜血桿菌。該疫苗的保護效果非常好：通常會連同白喉、破傷風、無細胞型百日咳的混合疫苗（五合一或六合一疫苗）一起接種；或以單一疫苗接種。

(註：此疫苗不包括在衛生署的兒童免疫接種計劃中)

### 麻疹、流行性腮腺炎、德國麻疹混合疫苗 (MMR)

這些疾病可能會引起肺炎、腦膜炎、先天性畸形和若在青春期受到感染，可引致睪丸炎等併發症，可能影響生育能力。MMR疫苗是兒童常規免疫接種計劃的一部分，於一歲後接種，並在十八個月再注射加強劑。

該疫苗為已滅活的活菌疫苗。接種後七至十天期間，可能臉部會輕微腫脹、或出現發燒和出疹的情況。

已接種疫苗的兒童不會將病毒傳染給其他人。



## 肺炎球菌疫苗 (PCV 13)

肺炎鏈球菌仍是導致一些嚴重疾病如菌血症、腦膜炎、肺炎的主要原因，亦是導致鼻竇炎及中耳炎的主因。

此疫苗已證實能有效預防由肺炎鏈球菌引起的細菌感染。建議幼兒至五歲大的兒童接種此 13 價疫苗。

## 水痘疫苗

水痘疫苗是兒童免疫接種計劃的疫苗之一，九成接種該疫苗的人士身體會產生免疫力，而且單次接種後的副作用輕微。然而，疫苗接種後所產生的免疫力可能不是終生的，部分兒童經接觸病毒後，仍可能會感染較輕微的水痘病症。該疫苗可跟麻疹、流行性腮腺炎、德國麻疹的混合疫苗一同接種。

(註：目前水痘疫苗已包括在衛生署建議的兒童免疫接種計劃內)

## 選擇性疫苗

### 甲型肝炎疫苗

甲型肝炎是由不潔的食物或飲用水引起的病毒感染，並可能會導致流感和腸胃炎症狀，也可導致黃疸。簡單的兩次疫苗接種便可提供 10 年或更長時間的保護。

### 輪狀病毒疫苗

輪狀病毒感染常見於嬰兒及幼童，可導致持續腹瀉、嘔吐和發燒。嬰兒在六個月前，會以兩次或三次口服的形式接種。

### 人類乳頭瘤病毒疫苗 (HPV)

人類乳頭瘤病毒疫苗幫助女童對抗子宮頸癌相關的病毒，以及有助男女童抵禦由多種 HPV 病毒所引起的生殖器疣，適合 9 歲或以上的男女性接種。HPV 疫苗於開始性行為前接種，成效會最佳，故通常會建議兒童早於 11 至 12 歲時接種。

### 流感疫苗

建議 6 個月或以上的兒童每年接種流感疫苗，有助對抗季節性及區域性的流感，及預防可能會導致幼兒出現的嚴重流感症狀。

### 腦膜炎雙球菌疫苗

該疫苗能預防 A、C、Y 及 W 型腦膜炎雙球菌，這些病菌能引發腦膜炎及敗血症。此疫苗可早於 6 至 12 周接種 (Nimenrix)。

### B 型腦膜炎雙球菌疫苗

該 B 型腦膜炎雙球菌疫苗適用於 2 個月或以上的兒童接種，以預防由奈瑟氏菌引起的侵入性 B 型腦膜炎。奈瑟氏菌是兒童和成人於社區感染到的細菌性腦膜炎的常見病因。

### 日本腦炎疫苗

日本腦炎是一種潛在的嚴重疾病，由亞洲和西太平洋受感染的蚊子傳播病毒。大部分受感染人士沒有明顯病徵或症狀輕微，如發燒及頭痛等。

9 個月及以上人士如受感染的機會較高，則建議接種 Imojev 疫苗。對於那些感染風險持續的人士，亦可於 12 個月後接種加強劑。

## 明德兒童疫苗接種組合

- 乙型肝炎疫苗
- 白喉、破傷風、無細胞型百日咳混合疫苗、滅活小兒麻痺疫苗、乙型流感嗜血桿菌疫苗
- 麻疹、流行性腮腺炎、德國麻疹混合疫苗
- 13 價肺炎球菌疫苗
- 水痘疫苗

### 額外收費的自選疫苗：

- 甲型肝炎疫苗
- 輪狀病毒疫苗
- 人類乳頭瘤病毒疫苗 (HPV)
- 流感疫苗
- 腦膜炎雙球菌疫苗
- B 型腦膜炎雙球菌疫苗
- 日本腦炎疫苗

## 建議疫苗接種時間表

年齡	疫苗
新生嬰兒	卡介苗、乙型肝炎疫苗
兩個月	六合一（白喉、破傷風及無細胞型百日咳混合疫苗、滅活小兒麻痺疫苗、乙型流感嗜血桿菌疫苗、乙型肝炎疫苗）、13 價肺炎球菌疫苗、輪狀病毒疫苗*
4 個月	五合一（白喉、破傷風及無細胞型百日咳混合疫苗、滅活小兒麻痺疫苗、乙型流感嗜血桿菌疫苗）、13 價肺炎球菌疫苗、輪狀病毒疫苗*
6 個月	六合一（白喉、破傷風及無細胞型百日咳混合疫苗、滅活小兒麻痺疫苗、乙型流感嗜血桿菌疫苗、乙型肝炎疫苗）、輪狀病毒疫苗*
6-12 個月	流感疫苗*（分 2 次注射，相隔 1 個月）
12-15 個月	麻疹、流行性腮腺炎及德國麻疹混合疫苗、13 價肺炎球菌疫苗、水痘疫苗
18 個月	五合一加強劑（白喉、破傷風及無細胞型百日咳混合疫苗、滅活小兒麻痺疫苗、乙型流感嗜血桿菌疫苗）、甲型肝炎*、麻疹、流行性腮腺炎、德國麻疹疫苗及水痘混合疫苗
24 個月	甲型肝炎*
4-6 歲	白喉、破傷風及無細胞型百日咳混合疫苗*、滅活小兒麻痺疫苗*
11-12 歲	白喉、破傷風及無細胞型百日咳（減量）混合疫苗*、滅活小兒麻痺疫苗*、人類乳頭瘤病毒疫苗*

### 註：

以上建議的疫苗接種時間表列出所有可保護您孩子健康之建議疫苗。明德疫苗接種套餐包括兩個月至 18 個月的兒童接種疫苗。標有 \* 號的疫苗是自選的，須額外收費。

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### 審閱：

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