

## Influenza Vaccination (Flu Jab) for Children with Diabetes

Influenza (flu) is an infectious disease caused by the flu virus.

A flu infection may lead to severe illness requiring hospitalisation, need for intensive care and sometimes even death. Based on information obtained from the United States' Centers for Disease Control and Prevention (CDC), every year millions get infected, hundreds of thousands of people are hospitalised and thousands to tens of thousands pass on from flu-related courses. In Singapore, influenza accounts for around 1500 hospitalisations per year and was estimated to cause up to 600 deaths annually in a previous study. Apart from medical complications, catching flu would also mean missing out on responsibilities, such as school or work, for the duration of illness.

Flu is exceptionally dangerous for children with underlying chronic medical problems, such as lung disease, heart disease, kidney disease or diabetes. Additionally, children with diabetes are particularly prone to complications with flu. This may include:

- Worsened sugar control which can lead to a crisis (diabetic ketoacidosis)
- Higher risk of severe organ dysfunction
- Higher need for hospitalisation or intensive care
- Higher risk of death

In order to reduce the risks above, flu vaccination is highly recommended.

**The CDC, World Health Organization, American Diabetes Association and Ministry of Health, Singapore recommends the flu vaccination for all children with diabetes.**

### **Influenza Vaccination (Flu Jab)**

The most common flu jab used in Singapore is the quadrivalent inactivated influenza vaccine. "Quadrivalent" refers to the design of the vaccine which protects against four of the most common flu strains – two influenza A viruses and two influenza B viruses. The vaccine is commonly given as an intramuscular injection (injected into the muscle).

It can be given to any child 6 months old and above. For children between 6 months to 8 years old, two doses should be given 4 weeks apart to provide adequate protection for that season, if they are receiving the vaccine for the first time. For children aged 9 years and above, and those who have already received at least two doses of the vaccine, one dose is generally sufficient annually. In seasons where there is a rapid change in the type of flu virus circulating, your doctor may recommend a second flu jab after 6 months.

Getting a flu jab can help to reduce the:

- Risk of catching flu
- Severity of illness, including risk of severe complications and death, in those who do catch the flu
- Risk of flu-related hospitalisation
- Transmission of flu to protect vulnerable individuals in the surrounding (e.g. elderly, those with a weaker immune system)

### **Side Effects of Influenza Vaccination**

In general, the influenza vaccine is safe and well tolerated in all age groups.

However, common side effects include:

- Soreness, redness or swelling over the injection site
- Low grade fever
- Body ache or headaches

Most of these symptoms usually go away within 2 to 3 days. Your child may take paracetamol to help relieve the discomfort or fever if he/she is not allergic to it.

Occasionally, some may experience certain rare side effects such as:

- Severe allergic reaction (anaphylaxis)  
*This can happen within minutes to a few hours of the vaccination. Symptoms include swelling of the lips, eyes, tongue and face, difficulty breathing, and itchy rashes over the body. If your child experiences any of these symptoms, seek medical attention immediately.*
- Guillain-Barre syndrome  
*This is a rare condition where the immune system affects the nerves of the body. This can lead to muscle weakness which can affect the breathing muscles in severe cases. The overall risk is very low, with 1 additional case for every 1 million flu vaccine doses administered. The risk tends to be higher in individuals aged 50 years or older.*

### **Contraindications to the Influenza Vaccine**

If your child has a history of severe allergic reaction to flu jabs or Guillain-Barre syndrome, please consult your doctor before proceeding with the flu jab.

Note: Egg allergy is not a contraindication for the flu vaccine. If your child had a previous severe allergic reaction to eggs, discuss this with your doctor. They may advise for the vaccine to be given in a supervised setting with a healthcare provider that can recognise and manage severe allergic reactions.

## **Useful Links**

### **National University Hospital**

Influenza in children: [https://www.nuh.com.sg/Health-Information/Diseases-Conditions/Pages/Influenza-A---H1N1-\(Children\).aspx](https://www.nuh.com.sg/Health-Information/Diseases-Conditions/Pages/Influenza-A---H1N1-(Children).aspx)

### **Health Hub**

Influenza Vaccine: <https://www.healthhub.sg/a-z/medications/367/Influenza-Vaccine>

### **National Centre for Infectious Diseases**

Influenza: <https://www.ncid.sg/Health-Professionals/Diseases-and-Conditions/Pages/Influenza.aspx>

### **United States Centers for Disease Control and Prevention (CDC)**

Influenza: <https://www.cdc.gov/flu/about/index.html>

Key Facts About Flu Vaccines: <https://www.cdc.gov/flu/prevent/keyfacts.htm>