

Immunisation

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This article explains the National Immunisation Schedule and Special Programme vaccines that people with Down syndrome can have for free and other vaccines that they or their parents can consider purchasing privately. Information about Outreach Immunisation Services is also provided.

The National Immunisation Schedule

It is important for babies, children, adolescents and adults with Down syndrome to receive the free National Immunisation Schedule vaccines when they are due.

The first immunisations are six weeks after baby is born, even if they arrived early, followed by immunisations at three months and five months old. These immunisations protect against tetanus, diphtheria, whooping cough, polio, hepatitis B, *Haemophilus influenzae* type b (Hib) and pneumococcal diseases.

When children are 15 months old they have immunisations to boost their protection against Hib and pneumococcal diseases and their first immunisation to protect against measles, mumps and rubella. Then when they are four years old they have an immunisation to boost their protection against tetanus, diphtheria, whooping cough and polio, and their second measles, mumps and rubella immunisation.

All adolescents have an immunisation at 11 years old to boost their protection against tetanus, diphtheria and whooping cough and girls have immunisations at 12 years old to protect against

human papillomavirus. The adolescent immunisations are given through a school programme or their doctor.

Adults have immunisations to boost their protection against tetanus and diphtheria at 45 years and 65 years old. The vaccine is free but they may have to pay for the nurse or doctor to give the immunisation.

People with some medical conditions and everyone 65 years or older can have a free immunisation every year to protect them against influenza (flu).

What is special about people with Down syndrome and immunisation

People with Down syndrome are more likely to get respiratory tract infections.^{1,2} They are also more likely for these infections to affect the lower respiratory tract and cause pneumonia, bronchiolitis and croup. The infection may be more severe and it can take longer to recover.¹

Immunisations are available to protect against some of the bacteria and viruses that cause respiratory illnesses such as *Streptococcus pneumoniae* (pneumococcal), *Haemophilus influenzae* type b (Hib) and influenza (flu).

Babies and children less than five years old

In addition to the standard Schedule immunisations that include protection against Hib infections babies and children less than five years old with Down syndrome are eligible for the High Risk Pneumococcal Immunisation

Programme. At six weeks, three months, five months and 15 months old they receive a pneumococcal immunisation that protects against 13 types of *Streptococcus pneumoniae* (Prevenar 13[®]) instead of the standard immunisation that protects against 10 types (Synflorix[®]).

Then at two years and five years old they receive extra pneumococcal immunisations that protect against 23 types of *Streptococcus pneumoniae* (Pneumovax[®] 23). Although Pneumovax[®] 23 covers more types of pneumococcal bacteria than Prevenar 13[®] it doesn't work very well in children less than two years old.

Babies from six months old, children, adolescents and adults
Annual influenza (flu) immunisation is recommended.³

Down syndrome is not included in the Influenza Kit list of conditions qualifying for free influenza immunisation.³ However; many people with Down syndrome have medical conditions that may qualify for free flu vaccination. Examples of how a person with Down syndrome could qualify for free influenza immunisation include:

- They have a weakened immune system (immune suppression),
- They are a child between six months and five years old and have been hospitalised for a respiratory illness or, in their doctor's opinion, have a history of significant respiratory illness,
- They were born with a heart problem.

Check with your doctor or nurse, or telephone the Immunisation

Advisory Centre on 0800 IMMUNE (0800 466 863) to discuss how people may be eligible for free influenza immunisation.

People living in residential/supported accommodation

People living in group accommodation, e.g. boarding school, university hostels, residential and supported accommodation, may also have a higher risk of illness caused by *Neisseria meningitidis* (meningococcal disease). In New Zealand, vaccines to protect against this disease have to be purchased privately through your doctor. You, your doctor or nurse can telephone the Immunisation Advisory Centre for free on 0800 IMMUNE (0800 466 863) or visit the website www.immune.org.nz to find out more about the meningococcal vaccines available and discuss which vaccine might be right for you or your child.

Other immunisations worth considering

Immunisations to protect against rotavirus (an illness with severe vomiting and diarrhoea) and chickenpox can be purchased privately through your doctor.

Rotavirus

Protection against severe rotavirus infection may be particularly important if your baby has problems feeding or with their gastrointestinal (digestive) system. Babies need to have their first oral rotavirus immunisation before they are 14 weeks old and their second oral immunisation before 24 weeks old.

Chickenpox

Although most healthy children with chickenpox will feel miserable and itchy for a week or so and recover, some will develop serious complications and may need to be admitted to hospital. The rash can

also aggravate skin conditions such as eczema which is more common in people with Down syndrome. The chickenpox vaccine can be given from nine months old.

The Immunisation Advisory Centre website has fact sheets on these diseases and the immunisations that protect against them. You can also call 0800 IMMUNE for more information.

Outreach Immunisation Services

There are many reasons why parents find it difficult to take their baby or child to the doctor to receive National Immunisation Schedule and High Risk Pneumococcal Immunisation Programme vaccines.

Most District Health Boards operate Outreach Immunisation Services where an immunisation nurse visits the child at home or assistance with transport is provided for the child to go to an immunisation clinic or their doctor. You can make contact with Outreach Immunisation Services through the National Immunisation Register office run by your District Health Board. A list of District Health Boards is available on the Ministry of Health website under NZ health system/District health boards.

Key points:

- Immunise your child on-time.
 - National Immunisation Schedule vaccines are due at 6 weeks, 3 months, 5 months, 15 months, 4 years, 11 years and, for girls, at 12 years old.
 - Additional High Risk Pneumococcal Immunisation Programme vaccines are due at 2 years and 5 years old.
- Babies and children less than five years old with Down syndrome are eligible for the High Risk

Pneumococcal Immunisation Programme.

- They receive Prevenar 13® instead of the standard pneumococcal immunisation (Synflorix®)
- They receive Pneumovax® 23 at 2 and 5 years old.
 - Check that your child is receiving Prevenar 13® instead of Synflorix® at 6 weeks, 3 months, 5 months and 15 months old.
 - Contact your practice nurse about immunisation with Pneumovax® 23 when your child is 2 and 5 years old.
- It is recommended that babies aged 6 months and over, children, adolescents and adults with Down syndrome have an influenza immunisation every year.
- Outreach Immunisation Services are provided by most District Health Boards.
- You or your doctor or nurse can telephone 0800 IMMUNE (0800 466 863) for free information about immunisation or visit the Immunisation Advisory Centre website www.immune.org.nz.

References

1. Ram G, Chinen J. Infections and immunodeficiency in Down syndrome. *Clin Exp Allergy*. 2011;164(1):9-16.
2. American Academy of Pediatrics. Health supervision for children with Down syndrome. *Pediatrics*. 2011;182(2):393-406.
3. National Influenza Specialist Group. Everything you need to know about influenza 2013. Wellington: Ministry of Health; 2013.