

Disease information

Diphtheria

Diphtheria is an acute illness caused by bacteria, which are found in the mouth, throat and nose of infected people. Diphtheria can be spread by coughing, or by contact with articles soiled by infected persons.

Diphtheria causes swelling and the growth of a thin layer of tissue on the inside of the throat. This can cause difficulty in swallowing, breathlessness, and may cause suffocation.

Toxins produced by the bacteria can spread throughout the body and effect your nerves and heart, causing paralysis and heart failure. Diphtheria can be fatal.

Diphtheria has almost been eradicated in Australia, but occasional outbreaks occur in unimmunised individuals. There is very little chance of acquiring 'natural' immunity, protection against diphtheria is achieved by active immunisation.

Diphtheria immunisation is to be part of the standard childhood vaccination given at 2,4 and 6 months and 4-5 years. Boosters can also be given to adults.

HIB - Haemophilus influenzae type b

Hib was the most frequent cause of life threatening infection in children under five years of age before the introduction of Hib vaccines. Despite its name, it is not related in any way to influenza ("the flu"). It may cause infection of the membranes covering the brain (meningitis), swelling in the throat which can block breathing (epiglottitis), pneumonia, joint infection or infection of the tissue under the skin, usually on the face (cellulitis). Both meningitis and epiglottitis can develop quickly and if left untreated, can rapidly cause death.

Immunisation for HIB involves a vaccine at 2, 4, 6, 12 and 18 months of age.

Measles

Measles is a serious, highly contagious viral illness which causes fever, rash, runny nose, cough and conjunctivitis. Complications following measles can be very dangerous, and pneumonia occurs in 4% of cases. Approximately one child in every 2,000 who contract measles will develop inflammation of the brain (encephalitis). For every 10 children who contracts measles encephalitis, one will die and up to four will have permanent brain damage.

Measles has caused more deaths in Australia in the past 15 years than diphtheria, pertussis and rubella combined. A very serious but rare illness called subacute sclerosing panencephalitis (SSPE) can occur in children several years after a measles infection. SSPE is a disease, which rapidly destroys the brain

and always results in death. SSPE develops in between one and five of every 100,000 cases of measles.

Immunisation for measles involves vaccines at 12 months of age, and between 10 and 16 years of age.

Meningococcal

What is meningococcal disease?

It is a serious but uncommon disease caused by bacteria that begins like 'flu and can become quickly life-threatening. It can cause inflammation of the lining around the brain and spinal cord (meningitis) and blood poisoning (septicaemia). *Early detection and treatment is very important in successfully treating this disease.*

What are the signs of meningococcal disease?

It starts like the 'flu, followed by any of the signs listed below. *Not everyone will have all these signs. These symptoms will not necessarily be present in this order.*

<u>Sign</u>	<u>Meningitis</u>	<u>Septicaemia</u>
Rash	YES	YES
<i>Begins as pinpoint red dots that soon turn into a purple blotchy rash</i>		
Fever	YES	YES
Vomiting	YES	YES
Rapid breathing	-	YES
Joint/muscle pain	YES	YES
Stiff neck	YES	-
<i>Not always stiff neck in young children</i>		
Drowsiness/confusion/coma	YES	YES
Headache/dislike for bright lights	YES	-
Irritability	YES	YES
Fits	YES	-
High pitched cry in infants	YES	-
Bulging fontanelle in infants	YES	-

Hunter Area & NSW

The risk of meningococcal infection is low, however, parents should be alert to the signs and symptoms, as described above. In the past, there have been significantly more cases of Group B (60% of cases) in Hunter and NSW. No vaccine is available for Group B. Group C accounts for about 30% of the 15-20 cases each year.

What vaccines are there in Australia to protect against meningococcal disease, and how often do I need to immunise my child or myself?

Three vaccines suitable for children < 2 years of age are licensed in Australia.

Mencevax & Menomune - protects against 4 of the 13 strains A,C,W135, and Y of meningococcal disease. **Not suitable for children < 2 years of age.**

Requires a booster each 3-5 years. **Meningitec, Neis-Vac C and Menjugate** vaccines - protect against 1 of the 13 strains - Group C meningococcal disease only. Suitable for infants, children and adults. No boosters required.

Parents who immunise their child with any of the above vaccines must continue to be alert to symptoms and seek early treatment.

Mumps

Mumps is a viral disease, which causes fever, headache and inflammation of the salivary glands. Occasionally it causes an infection of the membranes covering the brain (meningitis) but permanent effects are rare. In as many as five per 1,000 patients it can cause inflammation of the brain (encephalitis). Mumps can also cause permanent deafness.

About one in five adolescent or adult males who contract mumps, develops painful inflammation and swelling of the testicles. While the person with this condition usually recovers completely, on a rare occasion it may cause infertility.

Immunisation for mumps involves vaccines at 12 months of age, and between 10 and 16 years of age.

Pertussis

Pertussis or whooping cough is a highly contagious disease caused by bacteria and is spread by coughing or sneezing. Whooping cough affects the air passages and can cause difficulty in breathing. Severe coughing spasms occur and between these spasms, the child grasps for breath causing a characteristic "whoop" sound. Not all children get the "whoop" and vomiting often follows a coughing spasm. The cough may last for months.

Whooping cough is most serious in babies under 12 months of age, often requiring admission to hospital. Complications include haemorrhage, convulsions, pneumonia, coma, inflammation of the brain, permanent brain damage and long-term lung damage. Around one in every 200 children under six months of age who catches pertussis will die.

Whooping cough kills.

Immunisation for Pertussis involves a vaccine at 2, 4, 6 and 18 months of age.

Polio

Polio is a virus, which may cause mild symptoms or very severe illness. Polio is a gastrointestinal virus which, causes fever, vomiting and muscle stiffness, and can affect the nerves and cause permanent crippling. Polio can paralyse the breathing and swallowing muscles, leading to death. Between 2% and 10% of

people with polio die from it and about half of all patients who survive suffer permanent paralysis.

Following the introduction of polio vaccines there has been a dramatic decrease in polio infection. Since 1986, no cases of polio have been reported in Australia. It is essential that all Australian children are immunised against polio, even though cases do not occur here. Because there are thousands of polio cases in Asia and Africa these have the possibility of being imported into Australia, the virus will establish if both children and adults are not immunised.

Immunisation against polio is recommended for infants from 2 months of age. The primary course consists of 3 separate doses of 2 drops of vaccine. An interval of 2 months between each dose is recommended.

Rubella

Rubella, which used to be called German Measles, is usually a mild disease of childhood but can also affect teenagers and adults. The usual symptoms of rubella are a slight fever, swollen glands, joint pain and a rash which appears on the face and neck and lasts for two or three days. Recovery from rubella is always speedy and complete.

The most dangerous form is congenital rubella, where infection during the first 20 weeks of pregnancy can result in devastating abnormalities in the newborn baby. Deafness, blindness, heart defects and mental retardation can occur. Rubella is highly contagious. The best way to protect expectant mother and their babies from rubella is to make sure all women have been immunised before they become pregnant, and to immunise all children to stop the spread of infection.

Immunisation for rubella involves vaccines at 12 months of age, and once again between the age of 10 to 16 years.

Tetanus

Tetanus is often a fatal disease caused by the toxin produced by bacteria present in soil, dust and manure. You do not catch Tetanus from other people. Rather, the bacteria enter the body through a wound, which may be as small and insignificant as a pinprick.

Tetanus attacks the nervous system, causing severe muscle spasms, first felt in the neck and jaw muscles (lockjaw). The effects spread, causing breathing difficulties, painful convulsions and abnormal heart rhythms. Tetanus is a fatal disease, causes of death result from respiratory failure, hypertension, hypotension or cardiac arrhythmia.

Because of immunisation, tetanus is now rare in children in Australia but it still occurs in adults who have never been immunised against it or have not had their boosters.

Effective protection against tetanus is provided by active immunisation, and is the only certain protection. A complete course of vaccination provides protection for many years.

Immunisation for tetanus should occur at 2, 4, 6 and 18 months of age, and again 4-5 years of age prior to school entry and prior to leaving school (15 – 19 years of age). Adults should receive diphtheria and tetanus boosters every 10 years.

Immunisation is FREE at the Maitland Council immunisation Clinics. Clinic times and locations can be found on this website.