

## BCG (Bacillus Calmette-Guerin) Vaccination

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Tuberculosis (TB) is a disease caused by bacteria (called *Mycobacterium tuberculosis*). TB of the lungs is the most common form although disease can occur anywhere in the body. Lung TB is spread from person to person when droplets are forced into the air while coughing, sneezing or singing. People in close contact can breathe in these droplets and become infected. Most people who are infected have no symptoms, but a small number of people develop active TB disease, often many years after the original infection. People who are most at risk of being infected are travellers to countries where TB is common, and close contacts of people with lung TB.

### The BCG vaccine

BCG vaccine is a live vaccine that gives variable protection against TB disease. The BCG vaccine does not prevent you from becoming infected with TB if you are exposed to it, but it helps prevent severe or life-threatening TB disease, particularly in young children.

The BCG vaccine can take 3 months to provide protection against TB disease. BCG vaccine should ideally be given 3 months prior to travel to a high TB incidence country.

The vaccine loses its effectiveness over time, usually within 5 to 15 years.

### Children benefit most

In children BCG vaccine may prevent severe forms of TB disease, such as TB in the brain (TB meningitis). The benefit to adults is not as good as other strategies such as preventive therapy in those known to have been infected with TB.

In NSW, BCG vaccine is only recommended for children less than five years who will have prolonged or frequent travel to a high TB incidence country, or newborn children of parents with Hansen's disease (leprosy) or a family history of Hansen's disease.

### Pre-vaccination testing

Children older than 6 months will need a tuberculin skin test (Mantoux test) prior to vaccination. People with a positive tuberculin skin test will not benefit from the vaccine and may develop a severe reaction at the vaccination site.

### Can you receive a BCG vaccination?

Individual assessment is made prior to BCG and a consent form is required to be signed before vaccination. There are some people who may be advised not to have a BCG vaccination, such as those with:

- low immunity
- current illness with fever

### BCG and other live vaccines

People travelling overseas who need to have more than one live vaccine injection before they travel, should either:

- a. have all the live injected vaccines on the same day, or
- b. allow at least 4 weeks between the BCG and other live injected vaccines.

This provides the best opportunity to develop the necessary protection. Live injected vaccines include measles, mumps, rubella, varicella, zoster and yellow fever vaccines. BCG can be given within the 4-week period live vaccines given by mouth (for example oral typhoid or rotavirus).

## Are there any side effects with BCG vaccination?

As with any vaccine, side effects can occur and vary from person to person. Sometimes the vaccination site can become painful, red and swollen. This usually gets better without treatment. Swelling of the glands in the armpit or neck can also occur, which occasionally needs treatment. Very rarely the vaccination can produce widespread BCG infection. This usually only happens in people who have a low immunity including those who are HIV positive, malnourished or have a serious medical condition. In very rare cases, death has occurred.

## What happens after the BCG vaccination?

Following the vaccination, a small red papule (spot) appears within one to three weeks. The papule tends to soften and break down, resulting in a small ulcer in most people. The ulcer may take up to three months to heal, usually leaving a small scar.

### Care for the vaccination site in the following manner

- Allow the vaccination site to heal naturally and keep it clean and dry. Do not use creams or ointments.
- If necessary, apply sterile gauze dressing loosely but do not use sticking plaster, lint or cloth directly over the vaccination site.
- Avoid bumps and scratches to the site.
- Normal activities may be continued such as showering, swimming and sports.

BCG does not completely prevent the risk of TB disease, it is important to be aware of the symptoms of TB disease, such as: persistent cough (more than three weeks), coughing up blood stained sputum, fevers, night sweats, unexplained weight loss and tiredness. These symptoms may occur for many reasons, but if you experience them you should consult your local TB service or family doctor.

For more information or to request a BCG vaccination please visit the NSW Health website:  
[www.health.nsw.gov.au/Infectious/tuberculosis/](http://www.health.nsw.gov.au/Infectious/tuberculosis/)