What is TB?

TB is a bacterial infection that can affect almost any part of the body but is most common in the lungs – a form called pulmonary tuberculosis.


What is BCG vaccine?

BCG vaccine is a relatively safe vaccine and is offered to people who are considered to be “a risk” of developing TB in the future. It is given only after ensuring there are no medical reasons to withhold the vaccination from any particular person. Although it is not 100% effective, it will lessen the chances of developing the disease and importantly, is very effective in preventing serious complications of TB in young children. This vaccination is free of charge through Tuberculosis Control Centres located in Brisbane, Rockhampton, Toowoomba, Townsville and Cairns.

TB is relatively rare in Australia now, but in the days when it was common, all children received BCG Vaccine; this is one of the reasons why the number of serious cases of tuberculosis in children has decreased. Population based studies in many countries have shown at least 60% protection against complicated TB disease for vaccinated children.

What does BCG vaccine contain?

BCG vaccine is a dried powder containing bacteria, which are very similar to the organisms which cause TB, but which have been altered so that they produce only a mild localised infection. At the same time, they cause your body to build up immunity to tuberculosis.

What happens when you have BCG vaccine?

After mixing the powder with sterile water, the vaccinator will inject a very small amount into the first layer of skin on the left upper arm using a new, disposable syringe and needle.

In a few days to a few weeks, a small red lump appears at the vaccination site. This lump then turns into a small blister which is soon replaced with a crusty scab. When the scab falls off, a small scar remains. The whole event is usually painless and does not make one feel ill.

Swollen glands may, though rarely, occur near the site of the vaccination, especially in new-born babies. If this happens, you should notify the nurse who gave the vaccination and the site/s should be examined by a doctor or health worker who is experienced in tuberculosis.

If you have ever had TB or a successful BCG vaccination, you become what is known as “tuberculin positive”. This means that if you have a tuberculin test, it produces a reaction and you do not need BCG vaccine.

When should BCG vaccine be used?

As the incidence of the disease in Australia is very low, it is not necessary to use BCG vaccine routinely. BCG is not a useful vaccination for control of tuberculosis in the population. It provides individual protection for selected members of the population. Thus, BCG vaccination may be offered to TB ‘at risk’ persons of any age. However, BCG may lessen the chance of developing active tuberculosis but is particularly useful in preventing serious complications of tuberculosis in children.
**BCG Vaccination**

**BCG vaccine is currently recommended in Queensland for the following people:**

- New-born babies over 2500gms (5lbs) in weight (unless otherwise discussed Tuberculosis Control Centre medical officer) of:
  - Indigenous Australians
  - Migrant parents from countries with high incidence of TB (e.g. SE Asia, India, Africa, South America, Middle East, Pacific Islands, and some European countries),
  - Parents who will be travelling to or having household visitors from countries with high incidence of TB
  - A parent with leprosy (a very rare disease in Australia).
- Children and adults who will travel or live in countries or communities where tuberculosis is common or who have frequent visits from persons from countries or communities with high incidence of TB.
- Children and adults who are in contact with a person with active tuberculosis and who:-
  - have a negative Mantoux reaction to a Mantoux test done three months after the diagnosis was made or
  - three months after the last contact with that person
- Children and adolescents, who are in contact with a person with TB, but have no evidence of infection, if the person with TB has disease resistant to standard treatment or, if the child or adolescent could not take the appropriate prophylactic antibiotic, if they became infected.
- Health care workers and other occupations considered to be high risk for drug resistant tuberculosis.

If you answer “Yes” to any of the following questions, or have doubts, please discuss with the nurse before giving consent for your vaccination.

- Have you ever had tuberculosis or are you currently being treated for tuberculosis?
- Have you had contact with anyone diagnosed as suffering from tuberculosis?
- Are you pregnant?
- Are you currently taking antibiotics?
- Are you currently suffering from a viral illness or have a fever?
- Do you have skin conditions e.g. eczema or dermatitis or keloid (severe) scars?
- Have you been diagnosed with HIV or are you in a high risk group but have not been tested for HIV?
- Have you received another live vaccine within the last four (4) weeks i.e. Measles, Mumps and Rubella, Yellow Fever, Rotavirus or Chicken pox vaccine, Typhoid tablets?
- Do you have any malignant conditions (e.g. Leukaemia, Lymphoma, and Hodgkin’s disease)?
- Are you receiving any oral or injectable steroid medications or other immune-suppressing treatment or medication which may suppress your immune system e.g. steroids, radium, anti-cancer chemotherapy?
- Have you had a previous BCG vaccination?
- Have you had a positive tuberculin (Mantoux) test result?

**Are there any Side Effects?**

Ill effects from BCG Vaccination are uncommon and usually resolve without any special treatment. However, as with any medical substance, some side effects may occur. These side effects may include rash, fever, local swelling and enlarged lymph glands.

The amount of redness at the site of the injection may vary from person to person. Sometimes, quite a severe reaction may occur with pain and swelling which usually resolves without any treatment. Severe reactions are sometimes accompanied by swelling of the glands in the armpit. Larger scars may be formed after these reactions.

In children with eczema or adults with severe skin conditions, the BCG may spread to involve other areas. Widespread BCG infection can occur, following BCG vaccination but this is rare. When it does occur, it is usually in immuno-suppressed people.

After you have had the vaccination, you will be requested to wait approximately ten minutes before leaving the clinic to ensure observation of any acute complications. You should report to your doctor or nurse at this clinic any problems including rash, shortness of breath etc. that you encounter after receiving the vaccine.
Consent

Information relating to TB and the BCG Vaccination is contained in fact sheets made available to me. The information includes details about the vaccination and risks associated with the vaccination.

I understand that BCG Vaccination will not be administered to me, or my child/minor, if I have informed the Clinic that I, or my child/minor;

- is on any oral or injectable steroid medications or other immune-suppressing treatment such as radium or anti-cancer therapy.
- has any malignant conditions (e.g. Leukaemia, Lymphoma, Hodgkin's Disease).
- am HIV positive, or child/minor of parent(s) who are HIV positive until HIV is excluded in the child/minor.
- has a temperature (fever).
- has a generalised rash or generalised infected dermatitis.
- is taking anti-tuberculous medications.
- am pregnant.
- is receiving other live vaccines. Ideally there should be a four week interval between the BCG vaccine and other live vaccines (such as Measles, Mumps and Rubella, Yellow Fever, Rotavirus and Chicken Pox vaccines and Typhoid tablets).
- am likely to form keloid scar (severe scarring).

After Care Instructions

Ill effects from BCG Vaccination are uncommon. Rash, fever and local swelling usually resolve without any special treatment. Enlarged lymph glands often need treatment.

Note: After BCG vaccination, a small lump will form at the site of the vaccination as early as two (2) days and an ulcer may appear which may last up to two to three months.

- The vaccination site should be kept clean and dry.
- Clean, warm water only should be used to clean the site when necessary.
- Antiseptics, creams or lotions should not be used and the site should not be covered with sticking plaster or similar dressings.
- If a dressing is considered necessary, this should be a dry dressing, with a strip of sticking plaster along two sides, allowing air to circulate.

There should be no feeling of ill health, but if it does occur, please contact one of the Tuberculosis Control Units listed below during office hours.

Further Information

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<th>Location</th>
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<tr>
<td>Metro South Clinical TB Service</td>
<td>3176 4166</td>
<td>Cairns TB Control Unit</td>
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<td>Princess Alexandra Hospital</td>
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<td>Cairns Base Hospital</td>
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<td>(Brisbane)</td>
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<td>Rockville TB Control Unit</td>
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