

# BCG Vaccine

## Information for Health Professionals



This resource explains who should and shouldn't have the BCG vaccine, when the vaccine should be given, and who can give the vaccine. It also describes the vaccine's efficacy and possible side effects. See the back page for sources of more information about tuberculosis (TB) and the BCG vaccine.

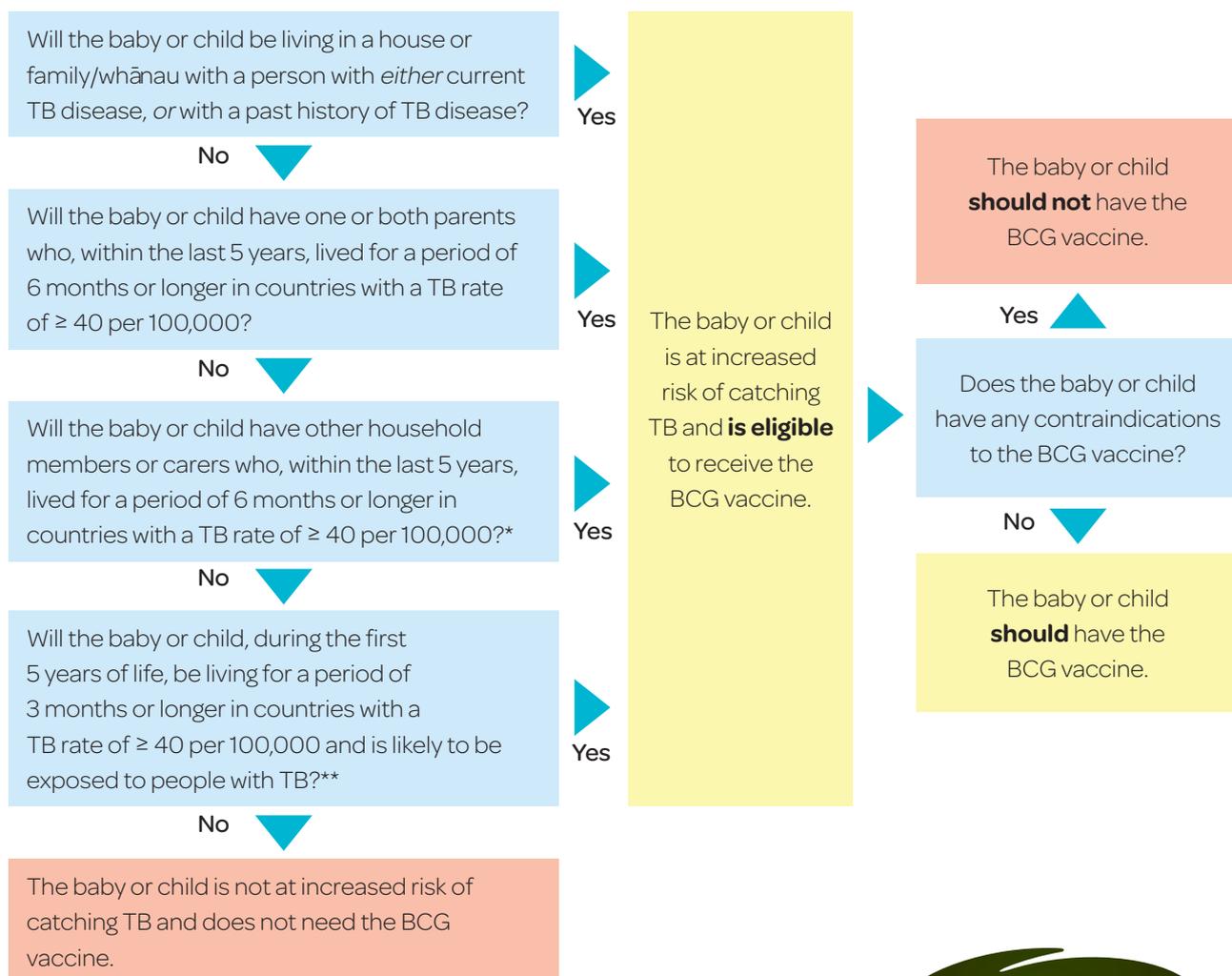
### Please Note:

- You should screen all women during pregnancy to assess whether their baby is at increased risk of catching TB.
- The BCG vaccine is free for all babies and children aged less than 5 years who are at increased risk of catching TB.

### Who should have the BCG vaccine?

Use the flowchart below to assess whether the baby or child is at increased risk of catching TB, and whether they should have the BCG vaccine.

See Appendix 8 of the *Immunisation Handbook* for a list of countries with TB rates of  $\geq 40$  per 100,000 and the back page for a list of contraindications to the BCG vaccine.



\* Household members would include regular visitors from high TB incidence countries who come to live in the household for prolonged periods – a baby or child in such a household would be eligible for the BCG vaccine if such prolonged periods were likely to add up to 6 months or longer over a 5-year period.

\*\* A baby or child is eligible for the BCG vaccine if they are likely to stay in a high TB incidence country for prolonged periods during their first 5 years of life and be exposed to people with TB, if such periods were likely to add up to 3 months or longer.



their best protection

## BCG vaccine contraindications

The BCG vaccine should not be given to babies or children:

- receiving corticosteroids or other immune-suppressive treatment, including radiotherapy
- suffering from malignant conditions such as lymphoma, leukaemia, Hodgkin's disease or other tumours of the reticulo-endothelial system
- in whom an immune compromising disease is known or suspected, such as individuals with hypogammaglobulinaemia\*
- known or suspected to be infected with HIV, including neonates with suspected HIV infection (ie, if the mother has HIV\*\*)
- with a positive Mantoux test or who have a positive Interferon Gamma Release Assay (IGRA)
- with a significant fever
- with generalised septic skin conditions (for eczema, choose a site free from lesions)
- living in a household where a possible case of active TB is being investigated. (The baby or child can receive the BCG vaccine if testing confirms they are not already infected with TB.)

### NOTES:

\* Primary immune deficiencies in children are often not detected until after the first few weeks of life (ie, after the BCG vaccine is given). A family history of immune deficiency should be sought and, if present, discussed with a paediatrician before vaccination.

\*\* Neonates whose mothers have HIV infection **must not** be given BCG (or any other live vaccine) until the baby has been shown to be HIV negative, which can only be confirmed at 12–18 months of age. Discuss with the child's paediatrician prior to vaccinating.

## More information

### For Health Professionals

- The Ministry of Health – [www.health.govt.nz](http://www.health.govt.nz)
  - the Tuberculosis chapter and Appendix 8 of the *Immunisation Handbook*
  - *Guidelines for Tuberculosis Control in New Zealand 2010*
  - the Tuberculosis chapter of the *Communicable Diseases Control Manual*.
- Your local Medical Officer of Health, gazetted BCG vaccinator or public health service.
- The Immunisation Advisory Centre – [www.immune.org.nz](http://www.immune.org.nz) or 0800 IMMUNE (0800 466 863).

## When to give BCG vaccine

- Neonates should receive the BCG vaccine before they leave hospital, or as soon as possible following discharge from hospital.
- If the baby or child missed vaccination at birth, they can be vaccinated anytime up to five years of age. If older than six months of age, a pre-vaccine Mantoux test is required to detect if the baby or child is already infected with TB.

## Who can give the BCG vaccine?

Only gazetted BCG vaccinators are able to administer the BCG vaccine. Contact your local public health service to find out who your local gazetted vaccinators are, and the requirements for becoming gazetted.

## BCG vaccine efficacy

While the BCG vaccine does not prevent TB infection, it does help protect against severe or disseminated forms of childhood TB, particularly miliary and meningeal disease. Evidence suggests that the BCG vaccine is less effective in older children and adults. Therefore, the BCG vaccine is recommended and funded for those babies and children less than five years of age who are at increased risk of TB.

## Expected responses and adverse events

Most babies and children develop local reactions to the BCG vaccine, followed by healing and scar formation within three months. Many develop low-grade adenitis that can take several months to resolve. Refer to the *Immunisation Handbook* for rarer complications. Report adverse events to the Centre for Adverse Reactions Monitoring (CARM; online reporting at <http://otago.ac.nz/carm>).

### For Parents, Family and Whānau

- BCG vaccine information for parents (Code HE2205; plus community language translations) – available from [www.health.govt.nz](http://www.health.govt.nz) or the Authorised Provider at your DHB.
- Ministry of Health – [www.health.govt.nz/tuberculosis](http://www.health.govt.nz/tuberculosis)