

## False positivity of tuberculin skin test among BCG-vaccinated recipient in Taiwan

BCG, or bacille Calmette-Guerin, is a vaccine for tuberculosis (TB) disease, and used in many countries to prevent childhood tuberculous meningitis and miliary TB. However, BCG is not generally recommended for use in low TB-prevalent countries (e.g., United States). A BCG-vaccinated person might have a positive reactivity to tuberculin skin test (TST). This positive reactivity indicates either infection with *Mycobacterium tuberculosis* or reaction due to prior BCG vaccination. Furthermore, the size of a TST reaction in a BCG-vaccinated person is not a factor in determining whether the reaction is caused by latent tuberculosis infection (LTBI) or the prior BCG vaccination.

For a person with positive TST reaction, real TB infection will be more likely if:

- BCG was vaccinated many years ago (the effect of neonatal BCG on TST gradually declines over the first 7 years of life); or
- has previous history of exposure to other persons diagnosed with TB during infectious period; or
- born or stayed in a highly-prevalent countries.

BCG vaccination program has been carried out in Taiwan since 1951 and virtually more than 98% of the population were covered by BCG vaccination before primary school, according to the national statistics. With the implementation and strengthening of national TB program, the incidence of TB in Taiwan declined gradually in the past decade. We strongly suggest that one may consider the following factors before demand a person, from Taiwan with a positive TST reactivity, to receive LTBI treatment.

- X-ray findings
- History of exposure to a person with infectious TB

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