

Tuberculosis vaccine might help reduce eczema in infants

August 24 2021



Credit: Unsplash/CC0 Public Domain

A century-old tuberculosis vaccine could help reduce the incidence of eczema in high-risk infants due to its beneficial off-target effects, according to a new MCRI-led allergy study.

Bacille Calmette-Guérin (BCG), a vaccine used in Australia until the 1980s to prevent tuberculosis, had been tested in a trial to see if it can reduce the rate of allergies and infections in [infants](#).

The initial findings, which were published in the journal *Allergy*, showed that the BCG vaccine had a modest beneficial effect in preventing [eczema](#) in high-risk infants. At this stage, however, the authors noted there is [insufficient evidence](#) to recommend neonatal BCG vaccination for all infants to prevent eczema in the first year of life.

The benefit was greater in infants with two atopic parents, meaning those who have hay fever, asthma or eczema. In these infants, a single dose of BCG soon after birth reduced the incidence of eczema by 25%.

Chief investigators Professor Nigel Curtis, Dr. Laure Pittet, and Dr. Nicole Messina undertook this research as part of the [Melbourne Infant Study: BCG for Allergy and Infection Reduction \(MIS BAIR\)](#).

MIS BAIR is a randomized controlled trial to assess the effect of neonatal BCG vaccination on clinical allergy and [infection](#) outcomes over the first five years of life.

The study is based on the idea that BCG vaccination stimulates the immune system so that it is better at fighting infections and less prone to allergies.

The 1272 babies enrolled in this study were randomly allocated, shortly after birth, into one of two groups—one which received the BCG vaccine and the other one which did not.

Researchers followed each MIS BAIR baby until they were about one year old, looking at measures of infection, food [allergy](#) and eczema.

The MIS BAIR team are continuing to follow these babies over their first five years of life and are also looking at the effect of BCG on respiratory tract infections, allergies and asthma.

More information: Laure F. Pittet et al, Prevention of infant eczema by neonatal bacille Calmette-Guérin vaccination: The MIS BAIR randomized controlled trial, *Allergy* (2021). [DOI: 10.1111/all.15022](https://doi.org/10.1111/all.15022)

Provided by Murdoch Children's Research Institute

Citation: Tuberculosis vaccine might help reduce eczema in infants (2021, August 24) retrieved 18 April 2024 from <https://medicalxpress.com/news/2021-08-tuberculosis-vaccine-eczema-infants.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.