

Common TB vaccine associated with lower lung cancer rates

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(HealthDay)—Childhood vaccination with the bacille Calmette-Guérin

(BCG) vaccine is associated with a reduced risk for lung cancer, according to a study published online Sept. 25 in *JAMA Network Open*.

Nicholas T. Usher, from the Uniformed Services University of the Health Sciences in Bethesda, Maryland, and colleagues conducted a 60-year follow-up of a clinical trial to examine whether BCG vaccination is associated with [cancer rates](#) in a secondary analysis of a BCG vaccine trial. The original study included 2,963 American Indian and Alaska Native schoolchildren younger than 20 years who were assigned to a single intradermal injection of the BCG vaccine or saline placebo.

The researchers found that total mortality was 44 and 41 percent in the placebo and BCG groups, respectively. There was no significant difference between the groups in the overall rate of cancer diagnosis (hazard ratio, 0.82; 95% CI, 0.66-1.02), including the rates of diagnosis for lymphoma and leukemia. When controlling for sex, region, alcohol overuse, smoking, and tuberculosis, the rate of [lung cancer](#) was significantly lower in BCG vaccine versus placebo recipients (18.2 versus 45.4 cases per 100,000 person-years; hazard ratio, 0.38; 95% CI, 0.20-0.74; P = .005).

"The mechanism of this observed protection is unknown, but the association is large and scientifically plausible; we favor trained immunity as a hypothesis," the authors write.

One author disclosed [financial ties](#) to the [pharmaceutical industry](#), and another author disclosed receiving at-cost vaccine supplies from the Japan BCG Laboratory.

More information: [Abstract/Full Text](#)

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