



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

[Home](#) | [Current Issue](#) | [AAP Policy](#) | [eArchives](#) | [Supplements](#) | [Topic Collections](#) | [Subscribe](#) | [Contact Us](#)

[Search](#) [Advanced Search](#)

MY PEDIATRICS

[Log In](#)
[Join/Subscribe](#)
[Manage My Account](#)
[Renew My Subscription](#)
[RSS Feeds](#)

INSTITUTIONS

[Manage My Account](#)
[Activate My Subscriptions](#)

AUTHORS

[Author Guidelines](#)
[Editorial Policies](#)
[Submit and Track My Manuscript](#)

JOURNAL INFORMATION

[About the Journal](#)

Published online January 26, 2009

PEDIATRICS Vol. 123 No. 2 February 2009, pp. 475-482 (doi:10.1542/peds.2008-0795)

ARTICLE

Neuropsychological Performance 10 Years After Immunization in Infancy With Thimerosal-Containing Vaccines

Alberto Eugenio Tozzi, MD^a, Patrizia Bisiacchi, PhD^b,
Vincenza Tarantino, PhD^b, Barbara De Mei, DSociol^c,
Lidia D'Elia, DPsychol^c, Flavia Chiarotti, DStat^c and
Stefania Salmaso, DBiol^c

^a Epidemiology Unit, Bambino Gesù Hospital, Rome, Italy

^b Department of General Psychology, University of Padua, Padua, Italy

^c National Health Institute, Rome, Italy

OBJECTIVE. Thimerosal, a mercury compound used as a preservative in vaccines administered during infancy, has been suspected to affect neuropsychological development. We compared the neuropsychological performance, 10 years after vaccination, of 2 groups of children exposed randomly to different amounts of thimerosal through immunization.

This Article

- ▶ [Full Text](#)
- ▶ [Full Text \(PDF\)](#)
- ▶ [Submit a response](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me when eLetters are posted](#)
- ▶ [Alert me if a correction is posted](#)

Services

- ▶ [E-mail this article to a friend](#)
- ▶ [Similar articles in this journal](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Add to My File Cabinet](#)
- ▶ [Download to citation manager](#)
- ▶ [© Get Permissions](#)

Citing Articles

- ▶ [Citing Articles via CrossRef](#)

Google Scholar

Editorial Board
For News Media
For Advertisers

SERVICES

Permissions
Reprints

RELATED RESOURCES

AAP Journals
PedJobs.org

GET PEDIATRICS
EMAIL ALERTS

SIGN UP NOW FREE

METHODS. Children who were enrolled in an efficacy trial of pertussis vaccines in 1992–1993 were contacted in 2003. Two groups of children were identified, according to thimerosal content in vaccines assigned randomly in the first year of life (cumulative ethylmercury intake of 62.5 or 137.5 µg), and were compared with respect to neuropsychological outcomes. Eleven standardized neuropsychological tests, for a total of 24 outcomes, were administered to children during school hours. Mean scores of neuropsychological tests in the domains of memory and learning, attention, executive functions, visuospatial functions, language, and motor skills were compared according to thimerosal exposure and gender. Standard regression coefficients obtained through multivariate linear regression analyses were used as a measure of effect.

RESULTS. Nearly 70% of the invited subjects participated in the neuropsychological assessment (N = 1403). Among the 24 neuropsychological outcomes that were evaluated, only 2 were significantly associated with thimerosal exposure. Girls with higher thimerosal intake had lower mean scores in the finger-tapping test with the dominant hand and in the Boston Naming Test.

- ▶ [Articles by Tozzi, A. E.](#)
- ▶ [Articles by Salmaso, S.](#)

PubMed

- ▶ [Articles by Tozzi, A. E.](#)
- ▶ [Articles by Salmaso, S.](#)

Related Collections

- ▶ [Infectious Disease & Immunity](#)



American Academy of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™



2009 © Copyright American Academy of Pediatrics. All rights reserved.
American Academy of Pediatrics, 141 Northwest Point Blvd., Elk Grove Village, IL, 847-434-4000

[Contact AAP](#) | [Privacy Statement](#) | [About](#)

[Click here for faster international access](#)