

Thimerosal in Vaccines

Leslie K. Ball, MD

Douglas Pratt, MD

Robert Ball, MD, MPH

U.S. Licensed Vaccines Containing Thimerosal (cont.)

- ◆ Hepatitis B
- ◆ Influenza
- ◆ Japanese encephalitis
- ◆ Meningococcal A/C/Y/W-135
- ◆ Pneumococcal
- ◆ Rabies
- ◆ Engerix, Recombivax B
- ◆ A/EI
- ◆ JE-VAX
- ◆ Menomune (CLJ)
- ◆ Pnu-Immune
- ◆ RABIE-VAX, MBPI

Note: Products containing thimerosal in multidose vials also contain Thimerosal in single dose vials

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Thimerosal-free U.S. Licensed Vaccines

- ◆ DTaP
- ◆ Hib
- ◆ Hib-Hep B
- ◆ Pneumococcal
- ◆ IPV
- ◆ Infanrix
- ◆ ActHIB, PedvaxHIB (liq)
- ◆ Comvax
- ◆ PNEUMOVAX
- ◆ All

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No US Licensed Thimerosal-free Products

- ◆ DTwP
- ◆ DT
- ◆ Td
- ◆ TT
- ◆ Influenza
- ◆ Hep B alone

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Maximum Potential Ethyl Mercury Exposure from Thimerosal in Vaccines

Country	Up to 1 yr	Up to 2 yrs
Austria	165 µg	225 µg
Belgium	200 µg	275 µg
Denmark*	0	0
Finland	75 µg	100 µg
France	188 µg	250 µg
USA	188 µg	237 µg

* Other countries with 0 mg max. exposure: Ireland, Netherlands, Sweden

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Mercury Exposure Assessment

- ◆ Suggested limits intake of organic mercury
 - PTWI adult: 3.3 µg/kg/wk
 - PTWI pregnant woman: 0.67 µg/kg/wk
 - Child to 12 mo: 200-230 µg total
- ◆ Total daily intake from expected exposures:
 - adults: 6.7 µg/day (food) + 3.8-21 µg from dental amalgams
 - Children: 80-100 µg methyl mercury/1st yr (food); thus intake organic mercury from other sources should be <120-130 µg during 1st yr

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Thimerosal Toxicity: Gaps in Knowledge

- Preclinical data
 - ◆ reproductive toxicology
 - ◆ developmental toxicity
 - ◆ biotransformation of thimerosal following IM or SC administration
 - ◆ sensitization studies
- Human data
 - ◆ Blood/urine Hg levels pre/post vaccination
 - Keyserling: Banked sera (retrospective)
 - Stoll: Longitudinal study preterm/term infants (prospective)

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