

# On-Time Vaccine Receipt in the First Year Does Not Adversely Affect Neuropsychological Outcomes

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## **Summary:**

This article describes a study that looked at specific health differences in children who received all their shots on time in their first year of life and children who received shots late or not at all. The health differences studied in this article included 42 neuropsychological outcomes. Neurological outcomes are diseases or conditions that affect the nervous system and mental functions such as language, memory, and emotion. The children who were studied were ages 7-10 when they study was completed. Authors found that children who received all their shots on time did not have any more of the studied outcomes

## **Article Details:**

Authors chose this study because many parents are concerned that getting many shots when their baby is young can be too much or overwhelm the baby's immune system and cause damage. Because of these fears, many parents ask to have their baby's shots spaced out, or skip some. This can be dangerous, because these baby's will be vulnerable to the diseases that the shots would have prevented.

In order to study whether parents' concerns about receiving all the recommended shots were \_\_\_\_\_ the authors of this study compared the neuropsychological outcomes of 1,047 children who were ages 7-10, born between 1993-1997. The children were split into two groups. One group of 491 children were considered "up-to-date" at age 1. This means they had at least 2 hepatitis B shots, 3 DTP, 3 hib, and 2 polio vaccines – the recommended series in 1993-1997 – by their first birthday AND had them all within 30 days of when they were recommended. The other group of 546 children were considered to have "untimely" vaccination, which means they did not get all their shots or they did not get them on time.

All children were tested for 42 specific neuropsychological outcomes. Tests evaluated their speech and language, verbal memory, abilities (such as knowing words and letters), fine motor skills, spatial skills, attention and executive functioning tasks, ability to control behavior, tics, and general intelligence. A first analysis compared the two groups of children. It found that children who had received all their vaccines on time were no more likely to have any of the adverse neuropsychological outcomes tested for, than children who receive their vaccines late, or who skipped vaccines.

Based on these findings, the authors concluded that this was strong evidence that getting all recommended shots in the first year of life does not result in negative outcomes, relating to nervous system and mental functions such as language, memory, and emotion.