

SIDS & Vaccines: Table of Evidence

Citation	Methods	Participants	Outcomes
Griffin, M. R., Ray, W. A., Livengood, J. R., & Schaffner, W. (1988). Risk of sudden infant death syndrome after immunization with the diphtheria–tetanus–pertussis vaccine. <i>New England Journal of Medicine</i> , 319(10), 618-623.	Retrospective review from 1974 and 1984. Computerized immunization records from these sources were linked with birth and death certificates to establish the cohort, ascertain the timing of immunization, and identify cases of SIDS.	129,834 children in Tennessee in 4 counties that had received the DPT shot at least once	A multivariate analysis in which they controlled for age, sex, race, year, birth weight, and Medicaid enrollment produced similar results. In this large population of children there was no increase in the risk of SIDS after immunization with the DTP vaccine.
Duszynski, K. M., Pratt, N. L., Lynch, J. W., Berry, J. G., Gold, M. S., & Vaccine Assessment Using Linked Data Working Group. (2019). Use of different combination DTaP vaccines does not increase risk of 30-day infant mortality. A population-based linkage cohort study using administrative data from the Australian Childhood Immunisation Register and the National Death Index. <i>Vaccine</i> , 37(2), 280-288.	Observational nationwide cohort study of the linked population data from the Australian Childhood Immunisation Register and National Death Index to determine whether differences in combination DTaP vaccine types at 2, 4 and 6 months of age were associated with mortality within 30 days of vaccination.	Australian infants administered a combination trivalent, quadrivalent or hexavalent DTaP vaccine (DTaP types) between January 1999 and December 2010 at 2, 4 and 6 months as part of the primary vaccination series. The study population included 2.9, 2.6, & 2.3 million children in the 2, 4 and 6 month vaccine cohorts, respectively.	The rate of 30 day all-cause mortality was low and declined from 127.4 to 59.3 deaths. When compared with trivalent DTaP vaccines, no elevated risk was seen with any quadrivalent or hexavalent DTaP vaccines, for any cohort. Use of routine DTaP combination vaccines with differing disease antigens administered during the first six months of life is not associated with infant mortality.
Eriksen, E. M., Perlman, J. A., Miller, A., Marcy, S. M., Lee, H., Vadheim, C., & Black, S. (2004). Lack of association between hepatitis B birth immunization and neonatal death: a population-based study from VSD project. <i>The Pediatric Infectious Disease Journal</i> , 23(7), 656-662.	Researchers compared the proportions of deaths among birth HBV-vaccinated and unvaccinated newborns and reviewed the causes and circumstances of their deaths.	Birth cohort at Southern and Northern California Kaiser Permanente Health Plans of more than 350,000 live births from 1993 to 1998 and ascertained all deaths occurring under 29 days of age.	There were 1,363 neonatal deaths during the study period. They found no significant difference in the proportion of HBV-vaccinated (31%) and unvaccinated (35%) neonates dying of unexpected causes. There was no causal relationship with the vaccine and infant death.

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Müller-Nordhorn, J., Hettler-Chen, C. M., Keil, T., & Muckelbauer, R. (2015). Association between sudden infant death syndrome and diphtheria-tetanus-pertussis immunisation: an ecological study. <i>BMC pediatrics</i> , 15(1), 1.	The CDC provided the number of cases of SIDS and live births per year. Immunization coverage was based on the US Immunization Survey, the National Health Interview Survey, and the National Immunization Survey. They used sleep data from the National Infant Sleep Position Survey.	The entire infant populations of the USA from 1968-2009, with the cases of SIDS. Vaccine coverage of all U.S. infants from 1968-1985, with 2 surveys: National Health Interview (1991-1993) and National Immunization Survey (1994-2009).	Increased DTP immunization coverage is associated with decreased SIDS mortality. Current recommendations on timely DTP immunisation should be emphasised to prevent not only specific infectious diseases but also potentially SIDS.
Fleming, P. J., Blair, P. S., Platt, M. W., Tripp, J., Smith, I. J., Golding, J., & CESDI SUDI research group. (2001). The UK accelerated immunisation programme and sudden unexpected death in infancy: case-control study. <i>BmJ</i> , 322(7290), 822.	Population based case-control study, February 1993 to March 1996. Parental interviews were conducted for each death and for four controls matched for age, locality, and time of sleep. Immunization status was taken from records held by the parents.	Five regions in England with a population of over 17 million. Immunization details were available for 93% of infants whose deaths were attributed to SIDS; 90% of infants with explained sudden deaths; and 95% of controls.	After all confounding factors were controlled for, immunization uptake was strongly associated with a lower risk of SIDS. In fact, Immunization does not lead to SIDS and the direction of the relation is towards protection rather than risk.
Zhou, W., Pool, V., Iskander, J. K., English-Bullard, R., Ball, R., Wise, R. P. & Braun, M. M. (2003). Surveillance for safety after immunization: VAERS—United States, 1991–2001. <i>MMWR Surveill Summ</i> , 52(1), 1-24.	Population based study on retrospective data on vaccination	307 SIDS cases and 971 controls were examined for vaccination status	SIDS cases were vaccinated less frequently and far later than the controls; showing that vaccination actually prevented SIDS . They also found that there was no increased risk for SIDS for 2 weeks after vaccination.
Institute of Medicine (US) Immunization Safety Review Committee. Immunization Safety Review: Vaccinations and Sudden Unexpected Death in Infancy. Washington, DC: National Academies Press, 2003.	Retrospective study examining vaccination and SIDS for 15 years. Full literature review of all scholarly articles on vaccination and SIDS. Epidemiological studies.	USA National Health Data	The researchers looked at individual and combination doses of these vaccines: diphtheria, tetanus, DTP, the DTwP, the DTap, HepB, Hib and polio and SIDS. There was no evidence that any of these vaccines were the cause of the infant's death.