

Several studies have looked at the safety of giving children more than one vaccine at the same time:

- [A UK study from 2011](#) looked at the safety of giving the MMR vaccine, the Hib/MenC vaccine, and the 7-valent PCV (pneumococcal vaccine) to 12-13 month old babies. This was before the MenB vaccine was introduced, and the UK has also now changed to the 13-valent PCV. In summary, this research found no difference in side effects or immune response when these three vaccines were given separately or together.
- [A European study published in 2013](#) assessed the MenB vaccine when given alongside the 6-in-1 vaccine, a pneumococcal vaccine and a MenC vaccine. The study found that giving the MenB vaccine together with other vaccines did increase the risk of fever and local tenderness at the injection sites. However there was no effect on the vaccines' ability to stimulate an immune response.
- [Addressing Parents' Concerns: do multiple vaccines overwhelm or weaken the infant's immune system?](#) is a review from 2002 of the effect of multiple vaccines on the child's immune system.
- Gray, J. Rotavirus vaccines: safety, efficacy and public health impact. *J Intern Med* 2011;**270**: 206–214 (2011) <https://www.ncbi.nlm.nih.gov/pubmed/21668823>
- Omenaca F, Sarlangue J, Szenborn L *et al*,.(2012) Safety, reactogenicity and immunogenicity of the human rotavirus vaccine in preterm European Infants: a randomized phase IIIb study. *Pediatr Infect Dis J*. May;31(5):487-93 <https://www.ncbi.nlm.nih.gov/pubmed/22228231>

Studies reviewing the safety of vaccines used in pregnancy

- A review of studies on the safety of flu vaccine in pregnancy concluded that inactivated flu vaccine can be safely and effectively administered during any trimester of pregnancy and that no study to date has demonstrated an increased risk of either maternal complications or adverse fetal outcomes associated with inactivated influenza vaccine. Review by Tamma PD, Ault KA, del RioCet al. (2009) Safety of influenza vaccination during pregnancy . *Am J.Obstet.Gynaecol.*201 (6): 547 – 52. <https://www.ncbi.nlm.nih.gov/pubmed/19850275>
- Based on a large study of nearly 18,000 vaccinated women, the Medicines and Healthcare Products Regulatory Agency, found no safety concerns relating to pertussis vaccination in pregnancy with similar rates of normal, healthy births in vaccinated and in unvaccinated women. Donegan K, King B, Bryan P, *et al* (2014). Safety of pertussis vaccination in pregnant women in UK: observational study. *BMJ*. <https://www.bmj.com/content/349/bmj.g4219>

Please note this is a limited list further information can be found at

<https://www.cdc.gov/vaccinesafety/concerns/multiple-vaccines-immunity.html>

<http://nationalacademies.org/hmd/reports/2002/immunization-safety-review-multiple-immunizations-and-immune-dysfunction.aspx>