



# Why is the schedule the way it is?

Vaccines are timed to protect children

## Why do children receive so many vaccines in the first two years?

**The timing of each dose of every vaccine given to babies and children is carefully chosen.** It takes many years of careful research to work out the right time to give each vaccine. Independent experts gather information to help them make their recommendations. They consider which diseases Australian children are likely to be exposed to; how serious the diseases can be for children at different ages; which vaccines are safest and most effective; how many doses are needed to provide full protection; and the age at which the vaccines will give the best protection.



## What happens if I delay or leave out certain vaccines?

**Delaying vaccination is not recommended. When vaccination is delayed or spaced out, children are unprotected for longer than they need to be** and often at an age when disease is most common or most serious. Spacing out vaccines means that a child will need to have more vaccination appointments. Researchers have found that visiting the doctor for one needle is just as stressful for children as visiting the doctor for two needles at once.<sup>1</sup>

## Are the diseases still around anyway?

Some of the diseases children are vaccinated against, like whooping cough and flu, are still common amongst children living in Australia. Others, like measles, are less common in Australia but are more common in countries nearby, so we vaccinate children to protect them from diseases that can be brought here by travellers. Some of the diseases we vaccinate children against, like polio, have become very rare because vaccination has stopped them from spreading. We still vaccinate Australian children against these diseases so that they won't be able to come back.

## Why has the recommended vaccination schedule changed since I had my last baby?

Recommended vaccination schedules change over time for a number of reasons. When new vaccines become available they can be added to the schedule to protect children from a disease it hasn't been possible to protect them from before. New "combination vaccines" (developed after careful research) reduce the number of needles children need to get because they protect children against more than one disease with a single needle. When a vaccine is improved or a safer, more effective or less expensive vaccine is developed, fewer doses may be needed or they may be needed at different ages. Booster doses are sometimes added to the schedule to strengthen the protective effect of a vaccine.

## Why is the recommended vaccination schedule different in other countries?

Patterns of disease, strains of viruses or bacteria, medical care, available vaccines and their cost are different in other countries. Medical experts and health economists consider all of the available information about children and diseases in their countries, and decide which vaccines should be given to children at what ages. In Australia, medical experts and health economists from a variety of independent advisory groups decide which vaccines should be provided to children living in Australia.<sup>2</sup> Careful consideration of medical science, the cost of the vaccines and the safety of our children inform these recommendations.

### About us

This fast fact sheet has been developed to help doctors and nurses to answer parents' questions about vaccinations by a group of researchers called the SARAH Collaboration. It was written by Nina Berry PhD and Julie Leask PhD from the University of Sydney, Margie Danchin PhD from the University of Melbourne, Tom Snelling PhD from the Telethon Kids Institute, and Kristine Macartney MD and Melina Georgousakis PhD from NCIRS. SARAH is funded by the Australian Government Department of Health.

### Further reading

[www.ovg.ox.ac.uk/vaccination-schedules-other-countries](http://www.ovg.ox.ac.uk/vaccination-schedules-other-countries)

[www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/about-immunisation](http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/about-immunisation)

### References

1. Ramsay, DS and Lewis, M. Developmental change in infant cortisol and behavioral response to inoculation. *Child Development* 1994;65:1491-1502.
2. Nolan, T. The Australian model of immunization advice and vaccine funding. *Vaccine* 2010; 28 Suppl 1:A76-83.

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