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Measles vaccination: infants from six months to under 12 months of age travelling overseas

In some circumstances, measles vaccination should be considered for this age group

[Measles](#) is one of the most contagious infections and is preventable by vaccination. The World Health Organization (WHO) highlights the rapid spread of measles around the world and reiterates the importance of measles vaccination for everyone over six months of age travelling to areas where measles is circulating [1].

In the UK infants are routinely offered the first dose of measles vaccine (MMR) at one year old (on or within the month following the first birthday) and the second dose before school entry, normally at age three years and four months [2].

Infants from six months to under 12 months travelling from the UK to countries where measles is reported

Infants born to mothers who are considered immune to measles before their pregnancy (i.e. either following natural measles infection or through measles vaccination) receive some protection from their mother as they develop in the womb. This immunity is temporary and wanes through the first year after birth; waning may be more rapid in populations not regularly exposed to natural measles, where natural 'boosting' cannot occur [3].

Public Health England recommends that infants from six months of age travelling to measles [endemic areas with a high incidence of measles](#) or to an area where there is a current outbreak [see below], who are likely to be mixing with the local population, should receive MMR [2].

Where the vaccine has been given before one year of age, immunisation with two further doses of MMR should be given at the recommended ages [2].

Endemic (with a high incidence of measles) or outbreak countries

Measles is described as 'endemic' where there is continuous transmission (measles is reported commonly) in a defined geographical area through a 12-month period [4]. Many countries in the world have been successful at interrupting the circulation of measles; this is known as [measles elimination](#) [4]. However, everywhere remains vulnerable to the importation of measles, and re-introduction of measles can occur in countries classified as having 'eliminated' status, or in countries that have not reported measles for a long period of time.

Most countries provide the WHO with monthly updates on the number of suspected and confirmed measles cases reported.

NaTHNaC may report situations/measles outbreaks that are unusual or unexpected on our [Outbreak Surveillance Database](#), but will not routinely report measles.

Advice for travellers

All travellers should ensure they are up to date with the UK immunisation schedule. In the case of measles, vaccination can be considered for infants from six months of age travelling to countries where the disease occurs commonly or when there is an outbreak.

If your child has not yet had the MMR vaccine, and is over six months of age and under 12 months of age at the time of travel, you should discuss with your GP or travel health provider whether MMR vaccination is appropriate.

If your child is given their MMR vaccine before their first birthday, it is important that they go on to have the two routine MMR doses offered in the UK at the recommended times.

Advice for health professionals

MMR given to an infant aged between six and under 12 months is considered a supplementary dose and is not part of the routine UK schedule; two further doses, given at the times recommended in the UK immunisation schedule, should be offered additionally [2].

Children aged 12 months and older, who are travelling and have received one dose of MMR at the routine age should have the second dose brought forward to at least one month after the first. If the child is under 18 months of age when the second dose is given, then the routine pre-school dose (a third dose) should be given in order to ensure full protection [2].

The WHO provides measles data which will be useful when advising parents of infants between six and under 12 months.

- [Regional Summary of Reported Measles Cases](#) [a spreadsheet which downloads to your computer – see notes that follow].

WHO measles surveillance data provided in this resource are listed by WHO Region and the number of measles cases is given for each month. There can be a delay in reporting and case numbers should generally be considered an underestimate [5].

Data for 30 European Union/European Economic Area (EU/EEA) countries is available separately.

- [Monthly Measles and Rubella Monitoring Report](#) [6].

Comparing the incidence rate, where available, of the country to be visited with that of the UK can be useful when considering whether measles vaccination is appropriate for the infant travelling. Information on the [UK measles elimination indicators and status](#) is available from Public Health England.

Resources

- [ECDC Surveillance and disease data for measles](#)
- [Public Health England. Measles: guidance, data and analysis](#)
- [WHO. Measles and rubella surveillance data](#)
- [WHO. Measles vaccines: WHO position paper. April 2017](#)

References

1. [World Health Organization. New measles surveillance data. 12 August 2019.](#) [Accessed 18 November 2019]

2. [Public Health England. Measles. Ch 21. In: Immunisation against infectious disease.](#) July 2013 [Accessed 18 November 2019]
3. Guerra FM, Crowcroft N S, Friedman L et al. Waning of measles maternal antibody in infants in measles elimination settings – A systematic literature review. *Vaccine* 36 (2018). 1248-1255
4. [World Health Organization. Framework for eliminating measles and rubella.](#) *Wkly Epid Rec* 2013 March 1;88 (9):89-90 [Accessed 18 November 2019]
5. [World Health Organization. Measles and rubella surveillance data](#) [Accessed 18 November 2019]
6. [European Centre for Disease Prevention and Control. Monthly measles and rubella monitoring reports](#) [Accessed 18 November 2019]