

Asymptomatic carriage of *M. pneumoniae* common in children

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The bacterium *M. pneumoniae* is carried at high rates in the upper respiratory tracts of healthy children and usual diagnostic tests cannot differentiate between such asymptomatic carriage and actual respiratory tract infection, according to a study by Dutch researchers published in this week's *PLOS Medicine*.

These findings are important as they suggest that clinicians may need to reconsider the clinical significance of a positive test result for the presence of this [bacterium](#).

The researchers, led by Annemarie van Rossum from Erasmus MC–Sophia in Rotterdam, The Netherlands, reached these conclusions by comparing the [upper respiratory tract](#) swabs and blood culture results taken from 321 children (aged 3 months to 16 years) admitted to hospital with a [respiratory tract infection](#) with those from 405 healthy children undergoing an elective surgical procedure.

The authors found that the prevalence of *M. pneumoniae* (as measured using PCR tests) did not differ between the asymptomatic group and the symptomatic group, with a prevalence of 21.2% and 16.2% respectively. There was also no difference in prevalence when diagnosed using blood tests. In addition, a high rate of other bacteria and viruses was found in both asymptomatic and symptomatic children.

The authors also report a wide variation in asymptomatic carriage of *M. pneumoniae* ranging from 3% during the spring of 2009 to 58% during

the summer of 2010. And in 21 children from the asymptomatic group who participated in a follow up study, 15 (71%) tested negative within one month and in the symptomatic group, 19 of 22 children (86%) tested negative after the first visit.

The authors say: "Although our study has limitations, such as a single study site and limited sample size, our data indicate that the presence of *M. pneumoniae* in the upper respiratory tract is common in asymptomatic children."

They continue: "The current [diagnostic tests](#) for *M. pneumoniae* are unable to differentiate between asymptomatic carriage and symptomatic infection."

The authors add: "Therefore, clinicians may need to readdress the clinical significance of a positive test result."

More information: Spuesens EBM, Fraaij PLA, Visser EG, Hoogenboezem T, Hop WCJ, et al. (2013) Carriage of Mycoplasma pneumoniae in the Upper Respiratory Tract of Symptomatic and Asymptomatic Children: An Observational Study. PLoS Med 10(5): e1001444. [doi:10.1371/journal.pmed.1001444](https://doi.org/10.1371/journal.pmed.1001444)

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