

# A fifth of children visiting their doctor with a persistent cough could have whooping cough

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Whooping cough has been found in a fifth of UK school age children visiting their doctor with a persistent cough, even though most have been fully vaccinated, finds a study published in *BMJ* today.

Before the preschool [pertussis](#) booster vaccination had been introduced in the UK in 2001, evidence of recent pertussis infection could be found in nearly 40% of school age [children](#) who presented in primary care with a persistent cough.

These findings will help to inform consideration of the need for an adolescent booster vaccination in the UK.

Whooping cough (pertussis) is a highly transmissible infection which can cause symptoms such as coughing, vomiting and whooping. However, [whooping cough](#) can lead to serious complications in unvaccinated infants.

In the UK, children receive a primary course of pertussis vaccinations at two, three and four months of age, with a further preschool pertussis booster vaccination three years after completing the primary course.

Evidence suggests that pertussis infection is rising in adolescents and adults, but an adolescent booster vaccination has so far not been introduced in the UK.

To help inform these discussions, a team of researchers led by Kay

Wang at the University of Oxford set out to find whether pertussis is still an important cause of persistent cough among school age children even after the introduction of the preschool booster.

Between November 2010 and December 2012, they recruited 279 children aged five to 15 years who visited their family doctor with a persistent cough of two to eight weeks' duration. The doctors were in 22 general practices in the Thames Valley.

Evidence of recent pertussis infection was confirmed by laboratory testing of oral fluid and cough frequency was monitored over 24 hours using a wearable automated device in six children with confirmed infection.

A total of 56 (20%) children had evidence of recent pertussis infection, including 39 (18%) of 215 children who had been fully vaccinated.

The risk of pertussis was more than three times higher in children given the preschool pertussis booster vaccination more than seven years before visiting their doctor with persistent cough compared with those given the booster more recently.

The risk of pertussis was similar between children who received the five or three component preschool booster vaccine. Four of six children in whom cough frequency was measured coughed more than 400 times in 24 hours.

"Pertussis can still be found in a fifth of [school age](#) children who present in primary care with persistent cough and can cause clinically significant cough in fully vaccinated children," say the authors. "These findings will help to inform consideration of the need for an adolescent pertussis booster vaccination in the UK," they conclude.

Provided by British Medical Journal

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