

Whooping cough

Around for at least 400 years, whooping cough is still well and truly with us.

Prof Peter McIntyre gives the lowdown.



Whooping cough is due to a bacterium called *Bordetella pertussis* (or pertussis for short). Most whooping cough symptoms are due to the toxin or poison the bacteria releases rather than the infection itself. This is why the cough can last for a long time – the bug goes away but the toxin hangs around.

What are the symptoms?

The symptoms are variable. Classic symptoms are bouts of coughing going on for several minutes that are so severe the child can't get his breath. This can result in going blue and a 'whoop' at the end the coughing, which is taking a big gulp of air. The cough can be so bad that it can cause vomiting at the end of it, rupture small blood vessels in the front of the eye or even fracture a rib. However, in very young babies, the first sign may be just stopping breathing.

How is it spread?

The whooping cough bug is spread mainly by coughing or very close contact. Very young babies or people who get whooping cough and are completely unimmunised can transmit more easily and for longer.

How common is it in infants and young children?

It is hard to be sure how common whooping cough really is because it doesn't necessarily show up in tests and there are lots of other causes of severe coughing. The best test, especially in infants and young children, requires a swab from the back of the nose. If your child develops a cough after being in contact with someone who has had proven whooping cough, then he probably has it too. Severe cases requiring hospitalisation are uncommon, but there are still about 400–500 babies under one year of age hospitalised each year in Australia.

Why are babies at increased risk?

Babies are at increased risk because the immunity transferred from the mother is not very good and doesn't last long. This means that until your baby has had at least two of the vaccines containing pertussis, he is unprotected.

How is it treated?

There is no effective treatment once it has developed into a definite cough. It usually takes about two weeks between contact with someone who has the bug and getting a cough (which is due to the toxin, not the bug). During that time, certain types of antibiotics (your GP can advise which ones) can possibly get rid of the bug and prevent or lessen the symptoms.

How can it be prevented?

Pertussis can only be prevented by vaccination. The 'six in one' vaccine given at two, four and six months of age includes pertussis, and there is another booster given at four years of age. Antibiotics are usually given too late to make any difference. The vaccine works by giving protection against the toxin (which causes coughing and other symptoms) but it may not prevent getting infected by the bug. This means the vaccine is most effective at preventing the most severe symptoms but less effective at preventing a cough.

The good news is that when a cough does develop in an immunised child, it is much more likely to be relatively mild and short-lived when compared with unimmunised children, where severe coughing can last for more than two months. Immunity wears off, so adults can develop severe pertussis. But the good news is that adults can also be immunised (with a

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different vaccine from children) and this also greatly reduces the chance of developing a cough and passing the pertussis bug on to vulnerable babies. 🦋

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