

Pertussis – More Than Just a Whooping Cough



What is Whooping Cough?^{1,2}

Whooping cough (*Bordetella pertussis*; “pertussis”) is a highly contagious, bacterial, upper respiratory infection, often identified by the distinct, high-pitched “whooping” sound induced with episodes of coughing. While whooping cough is commonly considered a pediatric concern, pertussis can also infect adults, who can transmit the infection to more susceptible children.

With a recent decrease in vaccination rates, the CDC reports troubling trends:

“The United States is beginning to return to pre-pandemic patterns where more than 10,000 [whooping cough] cases are typically reported each year. It’s likely mitigation measures used during the pandemic (e.g., masking, remote learning) lowered transmission of pertussis.

In 2024, reported cases of pertussis increased across the United States, indicating a return to more typical trends. Preliminary data show that more than five times as many cases have been reported as of week 39, reported on September 28, 2024, compared to the same time in 2023.”

What Does Whooping Cough Look Like?³

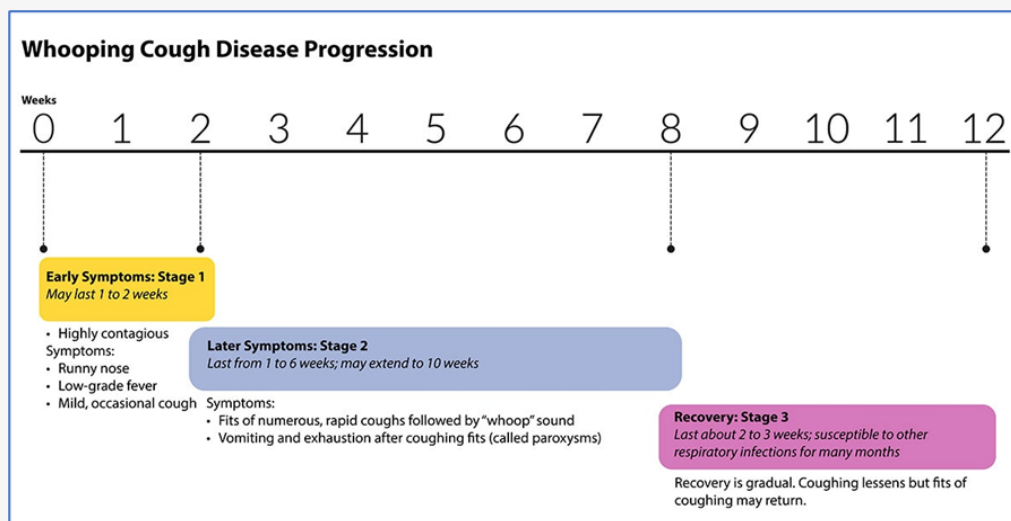
- High-pitched, “whooping” sound after coughing episodes
- Low-grade fever
- Runny nose
- **Difficulty breathing**
- Interrupted sleep due to coughing
- Fatigue

Whooping cough can be **hard to initially detect due to its prolonged incubation time and mild onset**. Pertussis infections can last anywhere from 1 to 6 weeks, and even up to 10 weeks in severe cases. Symptoms typically present 5-10 days after the first exposure, consisting of mild symptoms such as low-grade fever, runny nose, and occasional cough. However, as the bacteria begins to replicate within the body, symptoms can quickly become severe. If left untreated, individuals risk developing complications such as apnea, pneumonia, convulsions, and even death.



Who is at Increased Risk?¹

Infants younger than 1 year old are at the greatest risk of developing whooping cough and suffering severe complications. However, individuals at any age with chronic respiratory-related conditions (e.g., asthma) and those who are immunocompromised are also at increased risk of contracting the infection.



Whooping Cough Disease Progression. Centers for Disease Control and Prevention. April 2, 2024.

How can Whooping Cough be Prevented?^{4,5,6}

Whooping cough spreads through transmission of respiratory droplets in the air after a person coughs or sneezes. Simple measures such as staying home when sick, wearing a mask, and practicing good hand hygiene are all effective ways to help reduce the spread of whooping cough. However, vaccination remains the best proactive strategy to mitigate the infection risk to yourself and others.

There are two available vaccines to protect against whooping cough:

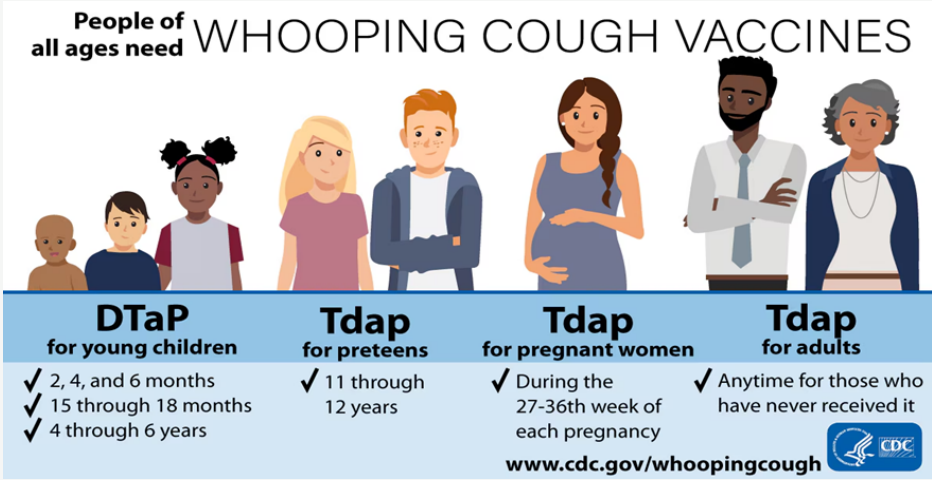
1. **DTaP** (Daptacel[®] and Infanrix[®])
2. **Tdap** (Adacel[®] and Boostrix[®])


These are combination vaccines. The letters within these vaccines indicate a specific pathogen they protect against. The “D/d” stands for diphtheria, which can cause infection in the upper respiratory tract, damaging healthy respiratory tissue. The “T” stands for tetanus, which can cause complications such as muscle stiffness, lockjaw, and seizures. Finally, the “P” stands for pertussis, or whooping cough. Capitalization of these letters indicate the strength of the vaccine component, with DTaP used to **provide** initial immunity for young children, while Tdap is used to **boost** the immunity after previous vaccination with DTaP.

Which Vaccine Do I Need?⁴

Vaccination with either DTaP or Tdap depends on an individual's age.

- DTaP is a routine vaccination series for young children 2 months to 6 years of age.
- Preteens, 11-12 years of age, are to receive one dose of Tdap to boost immunity after previously receiving DTaP when they were younger.
- After 12 years of age, it is recommended that individuals receive Tdap every 10 years to sustain immunity.
- For women who are pregnant, the CDC recommends **one dose of Tdap during the 27th – 36th week of each pregnancy** for both maternal and fetal protection.



DTaP for young children	Tdap for preteens	Tdap for pregnant women	Tdap for adults
<ul style="list-style-type: none"> ✓ 2, 4, and 6 months ✓ 15 through 18 months ✓ 4 through 6 years 	<ul style="list-style-type: none"> ✓ 11 through 12 years 	<ul style="list-style-type: none"> ✓ During the 27-36th week of each pregnancy 	<ul style="list-style-type: none"> ✓ Anytime for those who have never received it
www.cdc.gov/whoopingcough 			

While vaccination for whooping cough is routine in children and adolescents, the recent increase in infection rate underscores the importance of vaccination and infection control measures in the adult population. Given the risks to children and immunocompromised individuals, vaccinating against whooping cough in adults who have never received the vaccine or who have gone 10+ years without a booster may be prudent. Speak with one of our Consultant Pharmacists today to see if your residents are eligible for vaccination.

Resources:

1. [About Whooping Cough. Whooping Cough \(Pertussis\). CDC.gov. April 2024.](#)
2. [Pertussis Surveillance and Trends. Whooping Cough \(Pertussis\). CDC.gov. August 2024.](#)
3. [Symptoms of Whooping Cough. Whooping Cough \(Pertussis\). CDC.gov. April 2024.](#)
4. [Whooping Cough Vaccination. Whooping Cough \(Pertussis\). CDC.gov. June 2024.](#)
5. [About Diphtheria. Diphtheria. CDC.gov. February 2024.](#)
6. [About Tetanus. Tetanus. CDC.gov. August 2024.](#)