Acellular Pertussis Vaccine: Protecting Against Whooping

Whooping cough, also known as **pertussis**, is a highly contagious respiratory disease caused by the bacterium *Bordetella pertussis*. It is characterized by severe coughing fits that can make it difficult to breathe, and in some cases, it can lead to serious complications, especially in infants and young children. The **acellular pertussis vaccine** is an effective way to protect against this disease.

What is Whooping Cough?

Whooping cough gets its name from the distinctive "whoop" sound that occurs when a person inhales after a coughing fit. Initial symptoms of whooping cough resemble those of the common cold, including:

- Runny nose
- Sneezing
- Mild cough
- Low-grade fever

As the disease progresses, the cough becomes more severe, often leading to long, intense coughing spells that can cause:

- Gasping for breath
- Vomiting
- Fatigue

Whooping cough can be particularly dangerous for infants, leading to serious health complications such as pneumonia, seizures, and in some cases, death.

How Does Whooping Cough Spread?

Whooping cough spreads easily from person to person through respiratory droplets when an infected person coughs or sneezes. Because it is so contagious, it can quickly spread within families and communities, especially among those who are not vaccinated.



Why is the Acellular Pertussis Vaccine Important?

The **acellular pertussis vaccine** is crucial for preventing whooping cough. In South Africa, the vaccine is included in the **Expanded Programme on Immunisation (EPI)** and is recommended for infants and young children. Vaccination helps protect not only the individuals who receive the vaccine but also those around them, especially vulnerable populations like infants who are too young to be fully vaccinated.

The vaccine is often given in combination with vaccines for diphtheria and tetanus, known as the **DTPa** vaccine. It is typically administered in three doses:

- At 6 weeks of age
- At 14 weeks of age
- At 6 months of age A booster dose is then given at around 18 months and again at 6 years of age to ensure continued protection.

How Effective is the Acellular Pertussis Vaccine?

The acellular pertussis vaccine has been shown to be effective at preventing whooping cough. While no vaccine offers 100% protection, it significantly reduces the likelihood of infection and the severity of the disease if a vaccinated person does contract it. The vaccine also contributes to **herd immunity**, which helps protect those who cannot be vaccinated, such as very young infants or people with certain medical conditions.

Is the Vaccine Safe?

Yes, the acellular pertussis vaccine is safe. It has been extensively studied and used around the world. Common side effects are generally mild and can include:

- Soreness at the injection site
- Mild fever
- Irritability or fatigue

These side effects usually resolve quickly. Serious side effects are extremely rare, and the benefits of vaccination far outweigh the risks.

References:

1. South African Department of Health