The reader will be able to...

- list three ways pertussis is transmitted
- describe three stages of the disease
- recall who is at risk for developing pertussis
- explain three ways to prevent the transmission of pertussis
Whooping cough, also known as pertussis, is a serious and highly contagious infection. It is named after the “whoop” sound children and adults make when they try to breathe in during or after a severe coughing spell. The coughing spell can make it hard to breathe, eat and sleep. Pertussis was considered a childhood infection, but both adolescents and adults are at risk for infection. It is estimated that up to one million cases of pertussis may occur every year in the United States, across all age groups.
Pertussis, is a highly contagious disease that involves the respiratory tract.

It is caused by a bacteria called *Bordetella pertussis* or *B. parpertussis*.

The bacteria can be found in the mouth, nose and throat of an infected person.

The incubated period is about 7 to 14 days.

Symptoms of pertussis start about 1 to 2 weeks after exposure to the bacteria.
Pertussis can be found in the mouth, nose and throat of an infected person.

The disease is spread through close contact with an infected person who talks, sneezes or coughs.

Touching fluid from the nose or mouth of an infected person, then touching your eyes, nose or mouth can infect you.

People are MOST contagious during the first 2 to 3 weeks of infection, often before the beginning of severe coughing spells.

The period between exposure to the bacteria and onset of illness is usually 7 to 10 days but may be as long as 21 days.

In general, people are at greater risk of developing pertussis if they are within three feet of someone with pertussis for at least 10 hours a week.
Who develops Pertussis...

- **ANYONE** of any age
- Teenagers and adults account for more than half of reported cases
- Cases in school age children continue to increase
- Older children and adults usually have **LESS** severe illness, but they can still spread the infection to infants and younger children
- Un-immunized or partially immunized infants and children
Stage 1: Cold Like Symptoms

- Sneezing
- Runny nose
- Mild coughing
- Watery eyes
- May have a mild fever for several days to 2 weeks
Stage 2: Cold Like Symptoms Fade

- Cough gets worse (dry, hacking to bursts of uncontrollable, violent coughing)
- Coughing episodes make it temporarily impossible to take a breath due to the intensity and repetition of coughing
- After coughing the person may take sudden gasps of air through airways that are narrowed and inflamed. This will cause the sound of a whooping noise
- Vomiting and severe exhaustion may follow a coughing spell
- The person’s face or lips may look blue due to lack of oxygen
- The cough is often worse at night
- Between coughing episodes, the person often appears normal
- Most SERIOUS stage of the disease, usually lasts 2 to 4 weeks or longer

Sound of child with Pertussis  [www.whoopingcough.net/cough-child-muchwhooping.wav](http://www.whoopingcough.net/cough-child-muchwhooping.wav)
Symptoms...

- **Stage 3: Improvement**
  - Person will gain strength and improve
  - Cough may become louder and sound worse
  - Coughing spells may occur off and on for weeks to months and may flare up with a cold or other upper respiratory illness
  - This stage may last longer in people who have NEVER received pertussis vaccine
How long can a person spread the disease...

- Pertussis is most infectious early in the illness.
- People who have pertussis but have completed five days of antibiotics can no longer spread the bacteria.
- People who have the disease but do not take antibiotics can spread the disease during the first three weeks they are coughing.
Testing for Pertussis…

- Nasal passages are swabbed
- The material on the swab is then examined in the lab for the presence of the pertussis bacteria
Treatment...

- Can be treated with antibiotics, but treatment may not cure the symptoms

- Antibiotics will reduce the spread of the bacteria to others

- Antibiotics lessen the symptoms if given during the early stages of illness

- When antibiotics are started later in the illness, the damage of pertussis is already done and the cough will last till the lungs heal

- Pertussis bacteria die off naturally after three weeks of coughing. If antibiotics are not started within that time, they are no longer recommended
Complication of Pertussis...

- Pertussis in infants is often severe
- Infants are more likely than older children or adults to develop complications
- The most common complication is bacterial pneumonia
- Rare complications include: seizures, inflammation of the brain and death
Vaccines...

- There are two pertussis vaccines (DTaP & Tdap)
- Both vaccines are given in combination with tetanus and diphtheria
- Age determines which vaccine a person should receive
DTaP Vaccine...

- Is given to children up to 7 years of age
- Children should receive vaccines at
  - 2 months of age
  - 4 months of age
  - 6 months of age
  - 12-15 months of age
  - 4 to 6 years of age
Tdap Vaccine...

- Is given to people aged 10 - 64 years of age
  
  ● Adolescents 11-12 years of age should receive Tdap instead of Td(tetanus/diphtheria) before they start middle school
  
  ● Adolescents 13-18 years of age should receive Tdap if they have not received a Td booster within the last 5 years
  
  ● Adults should receive a ONE time Tdap in place of the Td (tetanus/diphtheria) boosters especially if they care for infants less than 12 months of age.

Children who have completed some or all of the recommended vaccinations for pertussis may still develop the disease but, will have milder symptoms
Prevent Pertussis…

- Avoid contact with others who are coughing or otherwise ill
- Wash hands often
- Stay home if ill
- Cover cough with a tissue or cough into your sleeve
- Seek medical attention if you develop pertussis-like symptoms or have been exposed to someone with pertussis
Hand Washing...

1. Wet hands
2. Use soap
3. Lather, rub Sing Happy Birthday twice (15-20 seconds)
4. Rinse
5. Towel or air dry hands
6. Turn off water with towel or sleeve

Source: City of Ottawa
Cover Your Cough...

Cover your mouth and nose with a tissue when you cough or sneeze **or** cough or sneeze into your upper sleeve, not your hands.

Put your used tissue in the waste basket.

Then Wash Your Hands

Wash with soap and water **or** clean with alcohol-based hand cleaner.

Courtesy: Minnesota Department of Health
Resources...

- Indiana State Department of Health
- Minnesota Department of Health
- National Association of Pediatric Nurse Practitioners
- New York State Department of Health
- WebMD

PRESS ‘ESC’ KEY TO END PRESENTATION