

## Common Causes of Pneumonia: Children (4 Weeks - 18 Years)

Pneumonia is an acute or chronic lung condition defined as inflammation of the alveoli or filling of the alveoli with fluid. It is usually caused by bacteria, fungi, viruses and sometimes by physical and chemical irritants. It typically presents with fever, chest congestion, difficulty breathing, cough and sputum. In children ages 4 weeks to 18 years, common causes include viruses and bacteria such as respiratory syncytial virus (RSV), Mycoplasma, Chlamydia and Streptococcus pneumoniae.



PLAY PICMONIC

### Runts May Cough Chunky Sputum

#### Runt Coughing Chunky Sputum

The mnemonic "Runts May Cough Chunky Sputum" will help you remember RSV, Mycoplasma, Chlamydia trachomatis, Chlamydia pneumoniae and S. pneumoniae as the microorganisms that can cause pneumonia in children.

### RSV (Viruses)

#### Super RV-Virus

Respiratory syncytial virus is in the paramyxovirus family of enveloped, single stranded, negative sense, linear, nonsegmented RNA viruses that have a helical capsid. Although usually mild, RSV can cause more serious infections in premature infants, which may present with high fever, rapid breathing.

### Mycoplasma

#### Mic-plasma

Also known as walking pneumonia, the bacterium Mycoplasma causes an atypical pneumonia. Unlike typical pneumonia, this form lasts longer, lacks sputum and has extra-pulmonary symptoms. There are frequent outbreaks of Mycoplasma pneumonia in people living in close quarters, such as military recruits and in prisons. This bacteria is one of the common causes of pneumonia in individuals ages 4 weeks to 65 years.

### Chlamydia pneumoniae

#### Clam Nude-Mona

Spread through aerosols, this bacteria causing an atypical pneumonia. Patients present with a short lived fever, and cough with little sputum production that may persist for several weeks.

### Chlamydia trachomatis

#### Chlamydia-clam and Tacoma-truck

Infants who contract serovars D-K of the pathogen when passing through the birth canal may develop pneumonia with a characteristic staccato cough. The D-K serovars also cause neonatal conjunctivitis.

### Streptococcus pneumoniae

#### Stripper Nude-Mona

This gram positive, lancet shaped, alpha hemolytic, optochin sensitive, bile soluble, diplococci presents as a typical pneumonia except for the identifying symptom of rusty colored sputum. It is one of the common causes of pneumonia in everyone >4 weeks of age.