

Bronchitis Can Be of Bacterial Cause

Whenever the word 'bacteria' is mentioned, most people will think about it negatively. The truth is there are bad bacteria as well as good bacteria. Bad bacteria often cause illnesses or diseases; and the good ones help in keeping the body healthy.

Did you know that the largest class of all creatures on earth is bacteria? They are single cells that eat and reproduce. Of all infecting agents, the bacteria are the most common cause of hospitalized illnesses and infections, especially in developing countries. Most short term illnesses are caused by bacteria, but with the right antibiotic, it can easily be stopped.

Most illnesses are caused by bacteria and viruses. In the case of bronchitis, it is most commonly caused by viruses which bring about acute or chronic bronchitis. Bacteria though can also cause bronchitis, but cases like this are not that common. Bronchitis is the irritation and inflammation of the respiratory passages. If you're experiencing persistent cough, perhaps you need to consult a doctor because you might have bronchitis. Although this is just a mild to moderate illness, it needs proper treatment to avoid any complications and secondary bacterial infections.

If bronchitis is caused by bacteria, the treatment will include antibiotic use. There are a lot of bacteria that cause illnesses and diseases. Bronchitis is a very common disease among children and adults. *Mycoplasma pneumoniae* is said to cause bronchitis. It is a minute bacterium that belongs to Mollicutes class. Unlike other bacteria that have cell walls, this organism doesn't have any. It is composed of a membrane that incorporates compounds. Antibiotics, particularly the beta-lactam, and penicillin disrupts cell walls; and so it can't be used to treat *mycoplasma pneumoniae* since it lacks a cell wall.

These bacteria thrive as parasites just like viruses; they are not free-living. It has genomes with 816 kbs and proteome that are fully characterized. *M. pneumoniae* uses a distinctive genetic code like mitochondria and is unable to make essential compounds because it doesn't have cellular machinery. *M. pneumoniae* spreads through droplet transmission in the respiratory system. Once it is attached to the host organism, the bacteria extract nutrients and grow. It also reproduces through binary fission. The respiratory tract is the usual attachment site of these bacteria.

If your bronchitis is caused by *M. pneumoniae*, it can be easily identified because of the slow progression of the symptoms, blood test on cold-hemagglutinins with positive result, lacks bacteria in sputum sample (gram stained), and lacks blood agar growth.

The effective medications for this type of bacteria are macrolide antibiotics and quinolones (both second generation). Bronchitis caused by these bacteria is

usually mild. Others experience moderate symptoms.

When bacterial infection occurs in a person with bronchitis, it is usually treated with antibiotics and should take the medication prescribed. The infection will return if the antibiotic is stopped. A lot of people stop antibiotics when they feel better; but this should not be done because the bacterial infection will just come back. You have to strictly follow what the doctor prescribed to kill all existing bacteria and prevent the disease from coming back.

Antibiotics used are usually:

- trimethoprim or sulfamethoxazole
- azithromycin
- clarithromycin
- for children: amoxicillin

Bacteria are life forms, and in order to stay alive, it performs chemical processes. They manufacture structural elements, digest nutrients, assimilate, and replicate themselves. They multiply and at the same time guard themselves against hostile elements. Antibiotics are able to hinder such processes to occur, thereby killing the bacteria.

Bad bacteria are a lot like poisons and acids. The body has its own defenses and when the bacterium irritates the system, it can go overboard. In this manner, the bacteria and host tissues are attacked, which is not that good so careful attention and medication must be given to patients with bacterial infections. Illnesses and diseases are here to stay. And perhaps the lifestyle of many people has something to do with their getting sick. All individuals must live a healthy and clean lifestyle. With all medical costs soaring high nowadays, no one would want to get sick. So the best way is to eat plenty of fruits and vegetables, and other healthy foods. And if you do have symptoms of bronchitis, make sure that you consult your doctor immediately.