## What is the aim of this fact box and who is it addressed to?

This fact box addresses people suffering from acute bronchitis. Do you suffer from that and are you wondering whether taking antibiotics would be helpful? This information can help you decide; it presents the results of studies that examined this question.

The fact box might help you weigh up the advantages and disadvantages of treating acute bronchitis with antibiotics. It can contribute to helping you decide whether to take antibiotics for acute bronchitis.

#### What is acute bronchitis?

Acute bronchitis is an inflammation of the respiratory tract that affects the bronchial tubes and is usually caused by viruses and sometimes by bacteria. The symptoms are like the flu or a cold – frequently a high temperature and a cough – and normally last for around 2 weeks [1].

#### What are antibiotics?

Antibiotics are among the most important medicines for treating infectious diseases. However, they are effective only for the treatment of bacteria but not viruses. Antibiotics can have adverse effects on naturally occurring intestinal bacteria.

# What must be observed when treating acute bronchitis with antibiotics?

In the case of acute bronchitis, it is not possible to tell from a physical examination whether the illness was caused by viruses or bacteria. As antibiotics can only help if the illness is caused by bacteria, the treatment of acute bronchitis with antibiotics is controversial [1].

## Are there any alternative forms of treatment?

One alternative is in the first place to wait until the symptoms have cleared up, since acute bronchitis can heal on its own. In principle, other medication such as pain killers, fever-reducing or expectorant medicines can be used in order to ease the symptoms somewhat.

#### Are you suffering from acute bronchitis and are wondering whether taking antibiotics would be helpful?

When you have bronchitis, you suffer from flu-like symptoms such as a high temperature and a cough. Antibiotics would be a possible treatment but are they helpful? To answer this question, studies have been conducted in which people with bronchitis were divided into two groups. One group was treated with antibiotics, the other group received either a placebo or no treatment at all.

The patients were examined at the beginning and again after 2 to 14 days (depending on the study), after which the results of the two groups were compared. The results of the examination after 2 to 14 days are shown below [1].

	Patients treated with antibiotics	Patients with no treatment or with placebo
Can antibiotics be helpful?		
How many patients had a slimy cough?	37 %	37 %
How many patients had a cough?	32 %	51 %
How many patients stated that they felt better?	69 %	69 %
On how many days did the patients feel ill?	5 days	5¹/₂ days
Can negative effects occure? (e.g. side effects)		
How many patients suffered from nausea, sickness, diarrhoea or other symptoms?	23 %	19 %
Resistance to Excessive use of antibiotics can result in resistance to antibiotics. This means that a santibiotics can lose their efficacy for treatment [2]		

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**Summary** 

Using antibiotics led to a difference with regard to coughing and feeling ill because the cough and the feeling of being ill could be relieved through taking antibiotics. Side effects occurred more frequently when antibiotics were taken.

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	Patients treated with antibiotics	Patients with no treatment or with placebo
Can antibiotics be helpful?		
How many patients had a slimy cough?	37 per 100	37 per 100
How many patients had a cough?	32 per 100	51 per 100
How many patients stated that they felt better?	69 per 100	69 per 100
On how many days did the patients feel ill?	5 days	5¹/₂ days
Can negative effects occure? (e.g. side effects)		
How many patients suffered from nausea, sickness, diarrhoea or other symptoms?	23 per 100	19 per 100
Resistance to antibiotics	Excessive use of antibiotics can result in resistance to antibiotics. This means that anti- biotics can lose their efficacy for treatment [2].	
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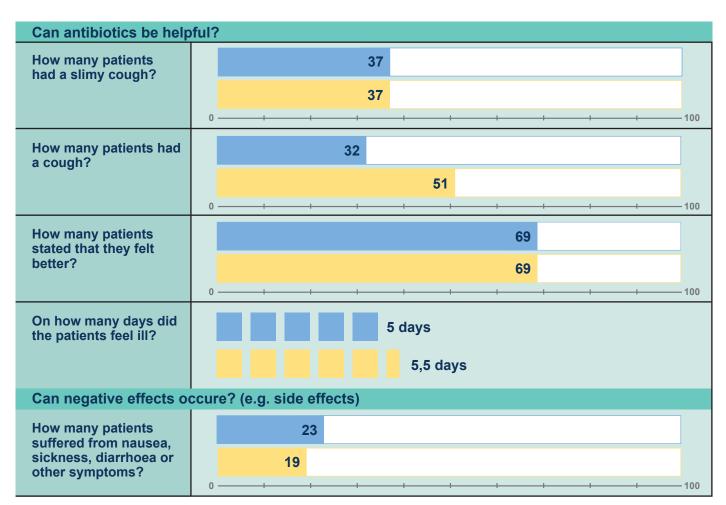
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Resistance to antibiotics

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**Summary** 

Using antibiotics led to a difference with regard to coughing and feeling ill because the cough and the feeling of being ill could be relieved through taking antibiotics. Side effects occurred more frequently when antibiotics were taken.

What else should I consider?

People with a weak immune system (e.g. those who are chronically ill or elderly people) are particularly in danger of getting pneumonia. Therefore, a visit to the doctor may be necessary to rule out pneumonia.

How far can I trust the study results?

The information and figures are based on current research and is at the moment the best state of knowledge. The results are based on studies with around 5,100 participants which were carried out between 1970 and 2013 and all of which have a high quality. Since then, no other studies have been conducted. It is very improbable that further research would change the findings [1]. Study results presented in the form of numbers or figures are always only estimates (statistics). No reliable predictions can be derived from it for individual people.

**Sources** 

Data for this information were taken from the following sources: [1] Smith SM, Fahey T, Smuchy J, et al. Antibiotics for acute bronchitis. Cochrane Databas Syst Rev 2017;6:CD000245. Doi: 10.2002/146551858.CD000245.pun4 [2] Federal Ministry of Health (publisher). Die wichtigsten Begriffe zum Thema Antibiotika-Resistenzen. 2018. Available under: https://www.gundesgesundheitsministerium.de/themen/praevention/antibiotika-resistenzen/die-wichtigsten-begriffe.html

**Fact box funding** 

none

Last update

January 2019

**Updating** 

Currently, the Martin Luther University Halle-Wittenberg is not planning a further update.