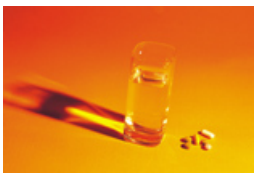


**informedhealthonline.org**

INDEPENDENT, OBJECTIVE AND EVIDENCE-BASED

## Common colds: Is it better to take antibiotics or not?



It does not make sense to use antibiotics for simple colds. These drugs have no proven benefit, and can have adverse effects.

**It does not make sense to use antibiotics for simple colds. These drugs have no proven benefit, and can have adverse effects.**

The common cold is usually caused by viruses. Because antibiotics only work against bacteria, and not viruses, you can usually expect no benefit from these medications for a cold. Sometimes when someone has a cold, a bacterial infection also sets in. In that case, taking antibiotics beforehand would have a benefit if they were able prevent that infection.

To try to be clearer about the advantages and disadvantages of treating colds with antibiotics, researchers from the Cochrane Collaboration – an international research network – specifically looked for trials that not only included the benefits, but also adverse effects of antibiotics. They found 11 trials altogether, which generally included otherwise healthy adults and children.

## **Antibiotics cannot end a cold more quickly**

The researchers found that antibiotics have no proven benefit in simple colds. Participants who took antibiotics had a cold that lasted about as long as it did for the participants who took dummy tablets (placebo). This means that it is particularly important to consider the adverse effects. It can be concluded from the trials that, on average, between 8 and 9 out of every 100 people who took antibiotics had an adverse effect. These were usually diarrhea or other gastrointestinal symptoms like nausea. Other common adverse effects of antibiotics are skin rashes and vaginal thrush.

There were, however, two groups of people who could benefit from antibiotics for the cold. The first are people whose colds have been going on for more than one week. The second group are people with greenish-yellow nasal mucus, a sign that they also have a bacterial infection.

With almost as many people getting adverse effects as experiencing a benefit, these findings do not support the widespread use of antibiotics for common colds. Many experts argue that antibiotics should only be used when they have clear benefits anyway. They are concerned that overuse in minor illnesses could make bacteria resistant so that antibiotics will no longer be as effective when used for treating serious conditions. You can read about the safe use of antibiotics [here](http://www.informedhealthonline.org/index.571.56.en.html) (URL: <http://www.informedhealthonline.org/index.571.56.en.html>)

You can read more about the common cold, as well as its prevention and treatment, [here](http://www.informedhealthonline.org/index.382.56.en.html) (URL: <http://www.informedhealthonline.org/index.382.56.en.html>)

*Author: Institute for Quality and Efficiency in Health Care (IQWiG)*

## Glossary

### antibiotics

Antibiotics are medicines that can be used for bacterial and some fungal infections. Antibiotics do not work against viruses. Well-known antibiotics include penicillin, tetracycline and chloramphenicol.

### bacteria

Bacteria are micro-organisms that, unlike viruses, can exist on their own. Viruses, on the other hand, can only exist inside a living cell. Most bacteria are not harmful to people, and some are actually beneficial. Bowel bacteria support bowel health. However if they get into the urinary system, they can cause an infection there. Doctors prescribe antibiotics for illnesses where bacteria need to be stopped or killed off. Immunisation is also possible against some bacterial infections, such as diphtheria, tetanus or whooping cough.

### Cochrane Collaboration

The Cochrane Collaboration is an international network of thousands of researchers and others. They work together in teams called Cochrane Review Groups to answer questions about health care by doing systematic reviews of evidence. To achieve this, the members of the Collaboration have developed systems and methods for systematically finding and analysing the results of trials of health care interventions. The goal of the Cochrane Collaboration is to help patients, health care practitioners and others make more informed decisions about health care. You can read more about the Cochrane Collaboration at their website.

### infection

In medicine, we speak of an infection when a person has caught a germ (an infectious agent). This germ can be a bacterium, a virus, a fungus or a worm. The germ multiplies and then either spreads throughout the body or only attacks one particular organ. As long as there are no signs of a disease, this is called an asymptomatic infection. When the body shows a reaction to the germ in the form of symptoms, this is called a symptomatic infection (an infectious disease). The period between the moment the germs enter the body and the moment the first symptoms of the disease appear, is called the incubation period. It may last a few hours or days, or even many years. An infection does not necessarily have to lead to the onset of a disease.

## Sources

IQWiG health information is based on research in the international literature. We identify the most scientifically reliable knowledge currently available, particularly so-called “systematic reviews”. These summarize and analyze the results of scientific research on the benefits and harms of treatments and other health care interventions. You can read more about systematic reviews and why these can provide the most trustworthy evidence about the state of knowledge here (URL: <http://www.informedhealthonline.org/index.61.en.html>) . The authors of the major systematic reviews on which our information is based are always approached to help us ensure the medical and scientific accuracy of our products.

Arroll B, Kenealy T. Antibiotics for the common cold and acute purulent rhinitis. *Cochrane Database of Systematic Reviews*: Version 2010, Issue 2. CD000247 [PubMed summary (URL: <http://www.ncbi.nlm.nih.gov/pubmed/16034850>) ]

## **The German Institute for Quality and Efficiency in Health Care (IQWiG)**

The German Institute for Quality and Efficiency in Health Care (IQWiG) was established by legislation to provide evaluations of the effectiveness, quality and efficiency of healthcare services. This includes the assessment of medicines as well as the publication of health information for consumers and patients.

## **Evidence basis of our health information**

Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at [\*\*www.informedhealthonline.org\*\*](http://www.informedhealthonline.org)

## **Disclaimer**

This information was prepared and published by the German Institute for Quality and Efficiency in Health Care (IQWiG). It is based on the evidence and other scientific literature available at the time of publication. The information is intended for the use of patients in Germany. It is not intended to for use to diagnose illnesses and the information is not intended to substitute for medical advice.