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Common colds: Wait before trying antibiotics?



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There is a widespread belief that antibiotics help against all infections. These medicines are therefore often used in children and adults for simple colds, sore throats and middle ear infections, even though they cannot usually help very much. This is because these conditions are usually caused by viruses, and the body usually gets them under control without help within a week. Antibiotics don't work against viruses - they are only effective against bacteria.

Even though it is widely known that antibiotics do not help much with colds, a lot of people still leave the doctor's surgery with a prescription for antibiotics when they have a cold. This is not only a waste of money: antibiotics also have adverse effects such as diarrhoea, nausea, rashes and vaginal thrush. What is more, if antibiotics are used too much, bacteria may become resistant (unresponsive) to them. If this happens, many medical conditions can no longer be treated as successfully as they used to be. You can read more about the safe use of antibiotics here (URL: <http://www.informedhealthonline.org/index.468.en.html>).

Antibiotics as a safety net: Having a prescription – waiting before picking them up

Researchers have therefore looked at ways to reduce the unnecessary use of antibiotics, without denying people the medications they might need. One idea is this: to get a prescription for antibiotics, but with the advice from their doctor not to use it straight away. Waiting for a day or two might mean that the infection gets better by itself. If it does not get better, then they can still get the antibiotics from the pharmacy and start using them.

To see whether this strategy works, researchers from the Cochrane Collaboration (an international network of researchers) looked for randomised controlled trials in this area. These are studies that have strictly comparable groups of participants. You can read about how and why such trials are done here (URL: <http://www.gesundheitsinformation.de/evidence-based-medicine.61.en.html>).

The researchers found ten trials altogether in which the participants - about half of which were children - were divided into different groups. In one group, the patients were advised to take the antibiotics straight away. Another group was advised to start taking them 48 hours later at the earliest, or not take them at all.

The results showed that there was hardly any benefit from taking antibiotics straight away to treat a simple cold. For children who had sore throats or middle ear infections, pain and fever went away a bit sooner. For coughs and colds, though, taking the antibiotics early did not speed up recovery. About half of the children who waited did not need to use antibiotics at all in the end. That meant that they avoided the risk of adverse effects. This strategy hardly affected how satisfied the patients were.

You can read more about colds, their prevention and treatment [here](http://www.gesundheitsinformation.de/respiratory-tract-infections) (URL: <http://www.gesundheitsinformation.de/respiratory-tract-infections>).

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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 summarise and analyse the results of scientific research on the benefits and harms of treatments and other health care interventions. This helps medical professionals and people who are affected by the medical condition to weigh up the pros and cons. 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.gesundheitsinformation.de/evidence-based-medicine.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.

Spurling GKP, Del Mar CB, Dooley L, Foxlee R. Delayed antibiotics for respiratory infections. *Cochrane Database of Systematic Reviews* 2010, Issue 1. [Cochrane summary (URL: <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD004417/frame.html>)]

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

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