

Perspective

## Benefits of Penicillin and Their Effects on Human Health

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## DESCRIPTION

Alexander Fleming, a professor of bacteriology in London, is credited with discovering penicillin in 1928. When he returned from vacation, he began to clean up his messy lab and found that several petri dishes containing staphylococcal bacteria were contaminated with mold. Fleming obtained an extract from a mold, named its active ingredient "penicillin", and discovered that the extract killed many types of harmful bacteria.

Penicillin is an antibiotic that belongs to a larger family of drugs known as beta-lactam antibiotics. Penicillin works by attaching to a molecule in the bacterial wall called peptidoglycan. When the bacterium divides, penicillin prevents the cell wall proteins from reassembling properly, causing the bacterial cell to rupture and quickly die. Natural penicillin is obtained directly from the P. chrysogenum fungus. There are two natural penicillins. A semisynthetic penicillin is P. chrysogenum. There are four classes of semi-synthetic penicillins, including commonly prescribed antibiotics such as amoxicillin and ampicillin. Penicillin resistance has been known since the 1960s, when scientists began developing the first semi-synthetic penicillin drugs to treat a wider range of bacterial infections. Penicillin resistance occurs when antibiotic-resistant bacterial mutants pass through a population. Penicillin is very effective when used correctly. Nevertheless, medicines may not be effective in eliminating infections. In such cases, antibiotic susceptibility testing (also called antibiotic susceptibility testing) can be used to determine whether a person's infection responds to penicillin.

Penicillin V potassium is used to treat certain infections caused by bacteria, including pneumonia and other respiratory infections, scarlet fever, and ear, skin, gum, mouth, and throat infections. It is also used to prevent recurrence of rheumatic fever (a serious condition that develops after a sore throat or scarlet fever infection and causes swollen heart valves and other symptoms) belong to class. It works by killing bacteria. Antibiotics such as penicillin V potassium do not work against colds, flu, or other viral infections. Taking antibiotics when you don't need them increases the risk of later infections that are resistant to antibiotic treatment. Penicillin V potassium is available as tablets and as an oral solution (liquid) taken by mouth. For the treatment of infections, it is usually taken every 6 hours (4 times a day) or every 8 hours (3 times a day). For prophylaxis of rheumatic fever, usually take twice a day. The duration of treatment depends on the type of infection. Take Penicillin V Potassium at about the same time each day. Follow the directions on your prescription label carefully and ask your doctor or pharmacist to clarify any areas you do not understand. Take penicillin V potassium as directed. Do not take more or less, or more often than directed by your doctor.

Shake the oral solution well before each use so that the medicine is evenly mixed. Continue taking Penicillin V Potassium until the end of your prescription, even if you feel better. Do not stop taking Penicillin V Potassium without talking to your doctor. If you stop taking penicillin V potassium too soon or miss a dose, the infection may not be fully treated and the bacteria may become resistant to the antibiotic.

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