



Antibiotics



Antibiotics are medicines used to treat infections caused by bacteria. Unfortunately many bacteria have become resistant to commonly used antibiotics and infections caused by these resistant bacteria are difficult to treat. Wise use of antibiotics can help to slow the development of antibiotic resistance.

Micro-organisms that cause infections in the human body include bacteria, viruses, fungi and parasites. Antibiotics interfere with the growth and function of bacteria, but do not affect viruses or other micro-organisms.

Antibiotic resistance

Bacteria can develop resistance to antibiotics and inappropriate use of antibiotics has led to the development of some bacteria that are now resistant to most of the antibiotics available. Examples of resistant bacteria are methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE). Infections with these resistant bacteria are very difficult to treat.

Why is appropriate use of antibiotics important?

Inappropriate use and overuse of antibiotics increases the development of bacteria that are resistant to antibiotics. Bacterial resistance to available antibiotics is increasing and we face the possibility of a future without effective antibiotics.

While antibiotics are effective against bacteria and should be used to treat bacterial infections, they are not effective against viral infections such as the common cold, most sore throats, most sinus infections, most coughs, acute bronchitis and the 'flu'. Unfortunately, every year in Australia millions of prescriptions for antibiotics are written for these kinds of viral illnesses, even though antibiotics do not affect viruses.

Viruses and bacteria are completely different types of micro-organisms. If an antibiotic is taken for a viral infection it:



- Has no effect against the viral infection; and
- Increases the chance of an antibiotic-resistant bacterial infection developing at a later time.

If an antibiotic-resistant bacterial infection develops this may result in more visits to the doctor, prolonged illness, the need for more toxic drugs or even, in some cases, death.

Self care

There are a number of simple things that you can do to help reduce the threat of antibiotic resistance:

- Remember that most coughs, colds, sore throats and runny noses are caused by viruses, not by bacteria. Antibiotics only work against bacteria
- Do not use antibiotics remaining from old prescriptions without a doctor's instruction.
- Never share antibiotics with family or friends.



- If you are prescribed antibiotics, follow the directions and make sure you finish the course, even if you feel better. If you do not, some partly resistant bacteria may remain and multiply. The infection may return a few weeks later, this time requiring more complicated treatment, and you may have contributed to the antibiotic resistance problem
- Learn ways of daily living that protect against infection and spread of infection (e.g., wash your hands thoroughly before eating or handling food and after going to the toilet, cough or sneeze into tissues and stay at home when ill)
- Make sure your immunisations and your children's immunisations are up-to-date. Immunisations *prevent* infection. The elderly and those with chronic illnesses, in particular, should seek immunisation against influenza and pneumonia.

Remember, antibiotic resistance can affect us all. Help limit the development of antibiotic resistance by working with your doctor and pharmacist to use antibiotics appropriately.

Related fact cards

- *Childhood Immunisation*
- *Colds and Flu*
- *Sinus problems*

For more information

HealthInsite – website www.healthinsite.gov.au

National Prescribing Service (NPS) – 'Common colds need common sense' campaign, website www.nps.org.au

Consumer Medicine Information (CMI) leaflets – your pharmacist can advise on availability.

NPS Medicines Line – phone 1300 888 763 Monday to Friday, 9am to 6pm EST.

The Poisons Information Centre – in case of poisoning phone 131 126 from anywhere in Australia.

Pharmacy Self Care Support – phone 1300 369 772 and ask for the Pharmacy Self Care Field Officer.

Pharmacists are medicines experts. Ask a pharmacist for advice when choosing a medicine.

Your **Self Care** Pharmacist

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