

# 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.**

Microorganisms 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 microorganisms.

## Antibiotic resistance

Bacteria can develop resistance to antibiotics and some bacteria have now become resistant to most of the antibiotics available. Examples of resistant bacteria are methicillin-resistant *Staphylococcus aureus* (MRSA), multi-drug resistant *Streptococcus pneumoniae*, vancomycin-resistant enterococci (VRE) and multi-drug-resistant *Mycobacterium tuberculosis* (MDR-TB). Infections of these resistant bacteria are very difficult to treat.



## Why is appropriate use of antibiotics important?

Frequent and unnecessary use 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 as a treatment for these kinds of viral illnesses, even though antibiotics do not affect viruses.

Viruses and bacteria are completely different types of microorganisms. When an antibiotic is taken for a viral infection it:

- Has no effect against the viral infection. It will not help a viral infection to get better faster or stop it spreading to others.
- May allow the development of resistant bacteria, meaning that the antibiotic will not be effective when it is really needed. Antibiotic-resistant bacterial infections can result in prolonged illness, the need for more toxic antibiotics and, in some cases, death.
- May cause adverse effects such as stomach upset, diarrhoea, thrush and allergic reactions.

## **Self care**

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

## **Use antibiotics appropriately:**

- Do not put pressure on your doctor to prescribe antibiotics. Remember that most coughs, colds, sore throats and runny noses are caused by viruses, which cannot be killed by antibiotics. Many minor bacterial infections will also clear up on their own and do not require antibiotics.
- Take antibiotics exactly as prescribed. Follow instructions on how many times a day and for how long to take them. Do not stop treatment early if you feel better, as a shortened course of antibiotics may allow partly resistant bacteria to flourish.
- Never share antibiotics with family or friends.
- Do not use antibiotics left over from a previous infection, or old prescriptions for antibiotics, without a doctor's instruction.

## **Protect against the spread of infection:**

- Wash your hands thoroughly with soap and water before eating or handling food, treating a cut or wound or handling contact lenses. If washing facilities are not available, an alcohol based hand sanitiser may be used.
- Wash your hands thoroughly with soap and water after going to the toilet, changing a nappy, blowing your nose, coughing, sneezing, handling food (especially raw meats), handling garbage, gardening or tending to someone who is sick. If washing

facilities are not available, an alcohol based hand sanitiser may be used.

- If washing facilities are not available, an alcohol based hand sanitiser may be used.
- Cover nose and mouth when coughing and sneezing, preferably with the bend of your elbow not your hand.
- Use tissues to wipe or blow your nose and dispose of tissues in rubbish or toilet.
- Do not spit.
- Do not share drink containers or eating utensils.
- Stay at home when feeling unwell and keep your children at home when they are feeling unwell.
- Keep your immunisations and your children's immunisations up-to-date. Immunisations *prevent* infection. The elderly and those with chronic illnesses, in particular, should be immunised against influenza and pneumonia.

### **Use antibacterial and disinfectant cleaning products appropriately:**

Do not use antibacterial, antimicrobial or disinfectant cleaning products (e.g., sponges, soaps, hand wash lotions, surface sprays, household cleaners, garbage bags) unless advised to do so by a health professional. If used frequently, many of these products can contribute to the development of resistant bacteria. In most situations, washing with plain non-bactericidal soap/detergent, rinsing

## **Important**

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



with running water and thorough drying is effective cleaning and is cheaper.

## For more information

### Healthdirect Australia

Phone: 1800 022 222

Website: [www.healthinsite.gov.au](http://www.healthinsite.gov.au)

### National Prescribing Service (NPS)

Website: [www.nps.org.au](http://www.nps.org.au)

### Consumer Medicine Information (CMI)

Your pharmacist can advise on CMI leaflets.

### National Prescribing Service (NPS) Medicines Information

Phone: 1300 MEDICINE (1300 633 424)

Website: [www.nps.org.au](http://www.nps.org.au)

### The Poisons Information Centre

In case of poisoning phone 13 11 26  
from anywhere in Australia.

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

## Related fact cards

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- » *Colds and Flu*
- » *Coughs*
- » *Ear problems*
- » *Sinus Problems*
- » *Travel Health*
- » *Vomiting and diarrhoea*

Your Self Care Pharmacy: