

# Safe Use of Antibiotics

## Frequently Asked Questions

1. What are antibiotics? Can they treat all types of infections?

Antibiotics are drugs for treating bacterial infections. There are different types of antibiotics for treating different bacterial infections.

Antibiotics do not work for viral infections, such as cold and influenza (flu). (For more information about the management of a cold or the flu, please refer to Q10, Q11 and Q12)

2. What is the difference between bacteria and viruses?

Bacteria are tiny organisms that can reproduce independently. On the other hand, viruses are even much smaller than bacteria that can only reproduce inside living cells. Bacteria and viruses have different properties and may cause different diseases which respond to different types of drugs. Indeed, most cases of upper respiratory tract infections are caused by viruses which do not need antibiotics. The following table shows some examples of bacteria and viruses and the diseases they cause:

Germs		Disease example(s)
Bacteria	<i>Escherichia coli (E.coli)</i>	Urinary tract infection Diarrhoeal diseases
	<i>Streptococcus pneumoniae</i>	Chest infection Middle ear infection
	<i>Staphylococcus aureus</i>	Skin and soft tissue infection
Viruses	Rhinovirus	Cold
	Influenza virus, e.g. H1N1, H3N2	Influenza
	Varicella-zoster virus	Chickenpox
	Enterovirus	Hand, foot and mouth disease

3. Are antibiotics miracle anti-inflammatory drugs that cure all kinds of inflammation?

No. Antibiotics are drugs for treating bacterial infections whereas anti-inflammatory drug is a general name referring to a group of drugs

which can reduce inflammation and relieve pain, such as non-steroidal anti-inflammatory drugs like aspirin and their actions are different from that of antibiotics. If you have query about the drugs you are taking, you should consult your doctor.

4. Are there any risks in taking antibiotics?

Yes. Antibiotics, like any other drugs, may cause side effects and allergic reactions. When antibiotics are taken to wipe out bacteria causing the disease, they also affect the normal bacteria flora and predispose you to acquire more resistant bacteria, which may make treatment and control of subsequent infections difficult. Therefore, the doctors will consider individual circumstances and balance the treatment benefits against risks before making prescription. To protect your health, follow your doctor's instructions when taking antibiotics.

5. What are the side effects of taking antibiotics?

Each antibiotic has its own specific side effects. In general, some people may experience side effects such as nausea, vomiting, constipation or diarrhoea, and headache when they are taking antibiotics. If the side effects persist or worsen, you should consult your doctor.

Some people may also develop allergic reactions such as rash, itchiness or breathlessness after taking antibiotics. If this should occur, consult your doctor immediately. If drug allergy is confirmed, you should tell the doctor about your history of drug allergy in your future consultations.

6. What is drug resistance?

Drug resistance occurs when the bacteria change in ways to become resistant to the antibiotics which they are previously sensitive to, i.e. the previous effective treatment is no longer capable of controlling the same infection. When the bacteria become resistant to most antibiotics, they are referred to as "superbugs".

7. Can antibiotic resistant bacteria affect us?

Yes. This is a major concern because infections due to antibiotic resistant bacteria are very difficult to treat. In severe cases, it may be fatal. This type of infection can spread to the others and impose huge

threats to community and population health.

8. When I need to take antibiotics, what can I do to prevent the emergence of antibiotic resistant bacteria?

Inappropriate and irrational use of antibiotics provides favourable conditions for resistant microorganisms to emerge and spread. Hence, the following points must be followed carefully when you are taking antibiotics:

- Only take antibiotics prescribed by your doctor
- Follow the health professionals' instruction on taking the antibiotics
- Enhance personal hygiene while you are taking antibiotics to protect yourself and to prevent the spread of bacteria:
  - Keep hands clean
  - Eat only well-cooked food. Drink only boiled water
  - Disinfect and cover all wounds
  - Wear mask if you have respiratory symptoms like cough, sneeze, runny nose and sore throat
  - Young children having symptoms of infection should minimise contact with other children
- Never share your antibiotics with others

9. How should I keep antibiotics?

Follow instructions on the drug label for proper storage of antibiotics. If fridge storage is specified, store antibiotics in the fresh food compartment but not the frozen deck. If fridge storage is not necessary, store antibiotics in a dark, cool dry place which is out of children's reach.

10. What should I do if I have a cold or the flu?

If you have a cold or the flu, adopt the following measures:

- Have adequate rest and drink plenty of water. If symptoms persist, consult your doctor
- Follow your doctor's advice on the use of drugs
- Do not push your doctor to prescribe antibiotics
- Do not self-medicate antibiotics

11. If I am having a cold and the nasal discharge changes to yellow or green, do I need antibiotics?

It is quite normal for the discharge to become thick and change colour during a cold or the flu. Therefore, change of the appearance of the nasal discharge alone does not justify the use of antibiotics. Always consult your doctor for the use of antibiotics.

12. If I have a fever, do I always need antibiotics?

No. Fever is a common presenting symptom of infection which may or may not be caused by bacterial infection. You should follow your doctor's advice for the use of antibiotics. For the sake of your own health, you should neither push your doctor to prescribe nor self-medicate antibiotics.

13. Are there special precautions for women of child-bearing age or during pregnant to take when taking antibiotics?

Some antibiotics may decrease the efficacy of oral contraceptives, or cause harm to the foetus or infant. Therefore, women should inform their doctors of their contraceptive, pregnancy or breastfeeding status so that appropriate prescriptions could be given.

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