



ANTIBIOTIC AWARENESS

Antibiotics are medicines used to treat diseases caused by bacteria. Different antibiotics work in different ways. They may kill off the bacteria or prevent it from multiplying. This gives your immune system a chance to fight off the infection. Antibiotics target micro-organisms like bacteria, fungi and some parasites but are ineffective against viruses.

Before the discovery of antibiotics, bacterial infections were very serious and even deadly. Influenza, tuberculosis, pneumonia, meningitis and even strep throat were often fatal diseases.



Brief history

In 1928, Alexander Fleming, a British scientist, made a significant discovery that would change the face of modern medicine. Purely by accident, Fleming, who had returned from holiday to find a messy laboratory, noticed that bacteria which had been left in a small dish had been killed off by penicillium mould growing there. On further investigation, Fleming discovered that the mould released a substance that killed off the bacteria. Fleming named this substance 'penicillin'. This led to further research and the discovery or development of other antibiotics. By the end of World

War II, antibiotics were widely available to the general public. Today there are over 100 different types of antibiotic.



Using antibiotics safely

Your doctor will examine you and take note of the symptoms of your illness before making a diagnosis. If he or she determines that your illness is caused by a bacterial infection, the appropriate antibiotic will be prescribed. In some cases, especially where an infection does not respond to treatment, the doctor will order a blood test to identify the type of bacteria causing the infection.

Once the type of bacteria is identified, the doctor can prescribe the right antibiotic to treat the infection. If you have had major surgery, the doctor may prescribe antibiotic as a 'prophylactic' - to prevent an infection before it starts.

When antibiotics first became available, doctors hailed them as 'wonder drugs'. They were prescribed often and generally overused. Today, doctors are concerned about antibiotic resistance and are not as quick to prescribe antibiotics as they once were. Antibiotic resistance occurs when bacteria change and become 'resistant' to the effect of the antibiotic. While antibiotic resistance does occur naturally, it can be accelerated by the misuse of antibiotics. Antibiotics should not be prescribed or taken when they are not needed.

How to take antibiotics

- The pharmacist will place a sticker on the box or bottle of antibiotic to tell you exactly how to take your medicine. Read this carefully. You may need to take your tablets once, twice or three times daily, before or after food.
- Liquid antibiotic is prescribed for children and may need to be kept in a refrigerator or stored at room temperature. Check the label. Only place the bottle inside



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the fridge if you are told to do so.

- Follow the dosage carefully. Don't take more tablets than prescribed.
- Give your child the correct dosage. 'One medicine measure' is 5ml or one teaspoon. Babies may be prescribed less than 5ml and you must use a dropper to give the correct dosage. Shake the bottle before use.
- You must complete the course of antibiotic prescribed to you – this means that you must take all the tablets in the box or finish the liquid in the bottle. You may feel better quickly, but don't stop taking the medication. If you do, the bacteria may not be killed off completely and you may get sick again.
- Not all bacteria are bad - your gut is colonised by good bacteria that helps your digestive system function correctly. Antibiotics kills both good and bad bacteria. Your doctor may prescribe a 'probiotic', or medication that puts the good bacteria back in your gut. Always take these if prescribed.
- Don't keep tablets over for later use or give your medication to others.
- If you have finished your medication and do not feel better, you must let your doctor know.



Resources

1. <http://www.who.org>
2. <http://www.familydoctor.org>
3. <http://www.webmd.com>
4. <http://www.emedicinehealth.com>
5. <http://www.drugs.com>

Quick Facts

Are antibiotics safe?

Doctors consider antibiotics as safe, provided they are taken by the person they are prescribed for and at the correct dosage.

- If you take medication for other conditions, you must tell your doctor at the appointment as antibiotic may react with other medications.
- Your doctor will ask you if you are allergic to any medication. Some people are allergic to penicillin. If you have had a reaction to antibiotic in the past, you must tell your doctor so another type of antibiotic can be prescribed.
- If you have a reaction to your current antibiotic, inform your doctor immediately. Symptoms include shortness of breath, a rash or swelling of the tongue, face or lips.
- Antibiotics can cause side-effects like a headache, digestive upsets, including stomach cramps and/or diarrhoea or vaginal or oral thrush. Always tell your doctor if you get side-effects from antibiotic.

1 Oral antibiotic

Oral antibiotic may be prescribed in form of tablets or capsules. Narrow-spectrum antibiotics are effective against a few types of bacteria. Broad-spectrum antibiotics are used to treat a number

of different infections and are effective against more types of bacteria.

2 Oral suspension

Antibiotic in liquid form is called an 'oral suspension' and usually prescribed to children. It is manufactured in power form. When you pick up your medication at the dispensary, the pharmacist will mix or 'reconstitute' the powder with distilled water. You will receive the antibiotic as a liquid in a bottle and you must give your child the correct dosage in millilitres (ml). Adults may be prescribed a liquid antibiotic to be taken in one dose. The pharmacist will clearly indicate this on the bottle and tell you how to take the medicine. Do not drink any other liquid antibiotics in this way.

3 Topical antibiotics

These are creams or ointments that are prescribed for bacterial infections of the skin. Antibiotic eye-drops are prescribed for an eye infection caused by bacteria. They may also be prescribed after eye surgery to prevent infection.

4 IV antibiotics

If you are hospitalised with a serious infection, you may get your antibiotic through your IV (intravenous line) or drip. The antibiotic is injected into the IV line and goes directly into your blood stream.