

Antibiotics – the Disadvantages

Undoubtedly, antibiotics have revolutionised modern medicine and countless lives have been saved, thanks to their use.

But in the fifty years or so since Alexander Fleming discovered penicillin, the first of the antibiotics, they have become one of the most abused substances in modern medicine. What used to be reserved for life-threatening illnesses is now routinely handed out for minor complaints or even when one is merely suspected. At one time, antibiotic use was thought to cause a minor reaction like a tummy upset in only one patient in twenty. A growing body of informed opinion now believes that repeated courses of antibiotics can so disturb a person's internal ecology that they can trigger ME or even cancer.

Many studies in the medical literature of the past twenty years

have revealed a massive and incorrect over-use of antibiotics. An audit in the USA (1981) claimed that in half of all cases where they were prescribed, either they were not warranted or the doctor prescribed the wrong drug, or the wrong dosage. A similar situation was found by two UK studies where **two thirds of prescribed antibiotics were deemed to have been inappropriate.**

In the overwhelming majority of cases antibiotics are prescribed for conditions they cannot treat. Dr John Masefield, an allergy specialist, believes that, in three out of four instances, antibiotics are used as placebos for such things as colds. The next most common use of antibiotics (about 25%) is for childhood middle ear infections. Although these infections, known as otitis media, are usually self-resolving, the rationale has always been to use the antibiotics as a "just in case" measure, in case meningitis or mastoiditis develops.

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In most cases when doctors aren't sure which bug they are treating, they will resort to the "scatter gun" approach with a 'broad spectrum' antibiotic. Unlike narrow spectrum they blast out all manner of bacteria, good or bad. Imipenem, for instance, has been applauded because it kills 98% of all germs – twice as many as penicillin.

The British National Formulary describes many potentially crippling side effects of antibiotics: **Tetracyclines** can permanently stain a child's teeth yellow, decrease levels of Calcium, iron and magnesium and can cause psoriasis. **Anti-inflammatories** decrease vitamin C, vitamin D, folic acid,

calcium, magnesium, potassium, selenium and zinc.

Neomycin can cause liver malfunction.

Generally, they disrupt the ecology of the intestine by killing beneficial gut bacteria and allowing other organisms to grow in the gut. The 'good' bacteria manufacture vitamin K, five B-vitamins and folic acid. When these are destroyed, deficiency may occur.

Specific functions are performed by 'friendly' bacteria, by which play a role in metabolising vitamins and other nutrients.

A big worry is that repeated courses of antibiotics appear seriously to disturb immune system function. We also don't know the long term effects on the current generation of children, who receive many courses of antibiotics before they even reach their teens.

Sally Bundy of the HCSG, claims that her group sees a definite correlation between antibiotic use and hyperactivity among children.

Repeated courses of antibiotics only encourage the development of supergerms in the body, which will resist treatment from the antibiotics so that, when it is really needed, the drug won't work. This kind of "transfer resistance" can also effect the population at large, as it has with staphylococcus and gonorrhoeal infections. I don't need to spell out the MRSA problem in hospitals.....

It is worth bearing in mind that antibiotics, like other drugs, are rarely, if ever, tested on people who may eventually use them such as pregnant mums and young children. Usually they are tried out on young medical or other students who find the money very useful. It is hardly surprising that these strapping, healthy young things don't suffer too many side effects.

If your child is prescribed an antibiotic, take time to discuss with your doctor (hopefully one that you trust and respect) why he or she thinks it is needed. Unless the situation is life threatening, insist on a test to prove that the problem is

bacterial. Again, unless the situation is life threatening, it may be better to let the child's own defence mechanism wipe out the infection anyway. Many benign infections will clear up by themselves - and the immune system may benefit as a result. A study of 1300 children, published in the BMJ, showed that children who contracted at least two colds in the first twelve months of life are half as likely to develop asthma, allergies and wheezing tendencies later on, than those who don't. This is because, by being exposed to germs, children build up a stronger immunity.

Antibiotics are life-saving drugs. With so much adverse publicity concerning their over-use, it is hardly surprising that some doctors are becoming less inclined to "dish them out like Smarties". But not all. **It is highly advisable, in the light of the risks already described, to restrict their use to life-threatening illnesses, when the benefits are clearly worth the risks.**