

Bacteria: Not Always as Gross as You Think

We've probably all heard of antibacterial soaps and cleansers – but what are bacteria, and are these special measures really necessary?

Scientists define bacteria as “large unicellular microorganisms.” This means bacteria are tiny living creatures that can only be seen with the help of a microscope. Bacteria grow in virtually every habitat on earth – freshwater, saltwater, air, soil, and also in other living organisms. A typical gram of soil will have 40 million bacterial cells in it, and a milliliter of fresh water has around a million bacterial cells.

In the human body, “good” bacteria perform some very important functions. Certain bacteria, for example, aid in the digestion process. Outside the human body, good bacteria are also needed to process certain foods. For example, cheese, yoghurt, sourdough bread, wine, beer, and cider are all made possible through the actions of bacteria.

Then, there are the bad ones. Certain bacteria are responsible for such dangerous diseases as cholera, syphilis, anthrax, leprosy, and bubonic plague. The most common fatal bacteria cause respiratory diseases, which are responsible for killing two million people around the world every year.

The first medicine for treating bacterial infections, penicillin, was developed by a Scottish scientist, Alexander Fleming, in 1928. This miracle drug has saved tens or even hundreds of millions of lives over the years. In the ensuing eight decades, numerous other types of “antibiotics” – medicines that fight infections caused by bacteria – have also been developed.

An emerging problem with antibiotics today is that they are being overused; that is, they are prescribed even for mild ailments that a person could fight off with his or her natural immune system. What happens when antibiotics are overused is that the bacteria themselves develop a resistance to the drugs. Build a better mousetrap, and you create a better mouse. Come up with stronger medications, and you stimulate bacteria to grow stronger and become resistant to medications.

The federal Centers for Disease Control and Prevention (CDC) have issued some markedly strong warnings about the overuse of antibiotics and the resulting emergence of resistant bacteria. According to the CDC, “antibiotic resistance is one of the world’s most pressing health problems.” The organization recommends that people take steps not to worsen the problem by:

- Not using antibiotics for colds or flues. In fact, antibiotics will not cure these infections, they will not prevent other people from getting sick, and they will not help you feel better. They may even have harmful side effects.

- Trust your healthcare provider. If she says antibiotics aren't needed, then don't insist on using them.
- Do not take antibiotics prescribed for someone else. The wrong medicine could cause your condition to worsen.
- If you do need an antibiotic, take it as prescribed. Do not skip doses, since this gives the bacteria you are fighting a chance to multiply.

For more information on the safe use of antibiotics to fight bacteria, you can visit the CDC website pages in Spanish at <http://www.cdc.gov/drugresistance/community/antibioticos.htm>. The CDC also has a bilingual toll-free phone number: (800) 232-4636.

And, what about those antibacterial soaps and washes you can find in every supermarket? The jury is still out, but more and more medical experts are recommending that you not use these products. The problems: They don't really help much with fighting bacteria, they can kill good bacteria too, and they can stimulate resistance.

© 2016 La Mano Amiga