The Antibiotic Crisis

As I am sitting here writing, my 19-month-old son is down stairs having tubes placed in his ears. He has kept an ear infection off and on for almost a year. We counted up that in a six-month period he has had eight rounds of different antibiotics. I don't think his ears ever cleared up completely. Although I am definitely looking forward to his comfortably sleeping through the night on a regular basis, the main thing we were concerned about was all the medicine he has needed. Antibiotics are definitely NOT a cure all and are in fact becoming less and less effective as time goes on. So much so that the Centers for Disease Control (CDC) and medical professionals everywhere are considering it a crisis. We simply cannot treat infections that once were simple to cure!

The problem is called "antibiotic resistance". We use and often misuse antibiotics so much that the bacteria we are trying to kill are evolving to be able to survive. The problem first showed up in the 1940's, just four years after penicillin began being mass marketed. Back then, simply giving another, stronger medicine was effective. The problem increased steadily and by the 1990's, we were running out of strong enough choices! In 1992 alone, there were 13,300 deaths in the US attributed to infections that could not be treated. Now, there are about 90,000 deaths every year and the number is rising. We are losing the war against an enemy to small to see.

The problem is due to the amazing adaptability of these organisms. When we treat an infection, we kill the majority of the bugs easily, but the stronger ones often survive. The stronger, more resistant bacteria then multiply creating an infection that is harder to treat. Over a period of years, the bacteria have evolved into what are now called "super bugs". For a long time, these infections were most commonly contracted *in the hospital* while patients were there for something else (scary, huh?). More and more often, these infections are showing up in the community. Outbreaks have been associated with athletic teams, military recruits, correctional facilities, and even in day care centers and newborn nurseries.

Several factors have contributed to the problem, mainly overuse or misuse of the drugs. Physicians have often inappropriately given antibiotics for coughs, colds, and the flu, which are caused by viruses, not bacteria. Antibiotics have no effect on viruses, but may be given if an infection is suspected. Antibiotics can be found in many consumer products, particularly hand soap and lotion. Studies show plain old soap to be just as effective as antibacterial in preventing spread of disease, but people keep buying it, so they keep making it. Meanwhile, the bacteria are just getting stronger.

Antibiotics are routinely added to feed for the animals we raise for food as a preventative for disease of the animals. In fact, greater than 50% of the antibiotics used in the US are given to food animals, not because they are sick, but just as a preventative measure. Many think these animals are becoming breeding grounds for "super bugs". Many of the bacteria associated with food poisoning, like Salmonella and E. coli, are now much more resistant to antibiotics than in the past.

There are several things you can do to help. If a doctor gives you an antibiotic, **take all of it** as directed. Stopping early, even if you feel better, can just leave the strong bugs behind. Don't use "left over" antibiotics or take them for just a day or two. Don't demand antibiotics from your doctor, as they may not help with your illness. Wash hand frequently, but there is no need for antibacterial soap. Also be sure to thoroughly wash fruits and vegetables and avoid handling or eating raw meats.

My son came out of surgery fine and seems to be doing well. I hope we don't have to give him any more medicine for a very long time!

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