Antibiotic-Resistant Disease Killing Humans And Swine

The antibiotic-resistant bacteria Extended Spectrum Beta Lactamase (ESBL) is killing both people and swine in Denmark.

Health officials said the bacteria is being transmitted to humans through pigs. The increased use of antibiotics in agriculture may be behind the spread of the resistant strain.

What are ESBLs?

Extended-Spectrum Beta-Lactamases (ESBLs) are actually enzymes produced by certain types of bacteria, which renders the bacteria resistant to the antibiotics commonly used to treat them.

ESBLs were first discovered in the mid-1980s. At the time they were mostly found in the Klebsiella species of bacteria, in hospital intensive care units. Until recently, few people were affected by these mutated bacteria and it didn't appear to be a major growing concern.

That has changed, however. According to the British Health Protection Agency (HPA), a new class of ESBL (called CTX-M enzymes) has emerged, which are now being widely detected among E.Coli bacteria. These ESBL-producing E. Coli are resistant to penicillins and cephalosporins, and are becoming more frequent in urinary tract infections.

Other species of bacteria that can now produce ESBLs include:

K. pneumoniae
Salmonella
Proteus mirabilis
Pseudomonas aeruginosa
The Problem is Worse Than You Think!

According to a study published October 2007 in the Journal of the American Medical Association (JAMA), there were close to 100,000 cases of invasive methicillin-resistant Staphylococcus aureus (MRSA) infections in the United States in 2005, which lead to more than 18,600 deaths.

To put that number into perspective, HIV/AIDS killed 17,000 people that year.

Antibiotic-resistant disease IS a major man-made problem.

This was the study that propelled MRSA into the news last year, combined with a number of school outbreaks that took place around the same time. Discussions focused largely on reducing medical over-use of antibiotics, and proper hygiene such as washing your hands with soap and water to reduce the spread of infectious disease.

But little has been said about the rampant over-use of antibiotics in agriculture, which is a MAJOR source of human antibiotic consumption, and hence increased antibiotic resistance.

Agriculture as a Source of Antibiotic Resistance

Both MRSA and ESBL are being traced back to animals raised for food production, especially pigs.

These animals are often fed antibiotics at low doses for disease prevention and growth promotion. Animals receiving antibiotics in their feed gain 4 to 5 percent more body weight than animals that do not receive antibiotics, but the price is high for you, the end consumer, because this practice also creates the perfect conditions for antibiotic resistance to flourish.

Denmark's health officials claim they're unsure of how farmers and veterinarians, who have not consumed infected meat, are becoming infected. However, according to research cited on Johns Hopkins website, the main reservoir of these organisms is in the lower digestive tract, and they can persist within the gastrointestinal tract for months. So perhaps the answer doesn't have to be all that complicated.

So, the meat industry practice of using antibiotics is indeed a driving force behind the development of antibiotic resistance in a now wide variety of

bacteria that cause human disease.

The long stalemate on this issue constitutes a struggle between strong science and bad politics. The FDA finally banned the use of fluoroquinolones - a widely used class of antimicrobials -- from agricultural use August 1997, but not without the Bayer Corporation kicking and screaming in vehement opposition. After all, antibiotics for livestock use is big business. It constitutes about 70 percent of ALL antibiotic use! They couldn't replace that market with human consumers even if they tried.

Other Agricultural Sources of Antibiotics

Another heavily tainted meat product you should stay away from is conventionally raised chicken. A 2006 study published in the Journal of Infectious Diseases found that bacteria from conventional chicken and from people who ate the chicken became resistant to Synercid, a strong antibiotic used to treat antibiotic-resistant bacteria. In essence, it can cause resistance to the last lines of defense currently available in the modern medicine cabinet.

It also found that it was rare to find resistant bacteria among antibiotic-free chicken, while the majority of bacterial isolates from conventional poultry were resistant.

But, the ramifications of using antibiotics in agriculture don't end there. Antibiotics filter down through the food chain in sometimes non-suspecting ways.

Antibiotics are also being transferred, via manure, into your food supply.

A 2007 study in the Journal of Environmental Quality looked at whether food crops will accumulate antibiotics from soil covered with antibiotic-containing manure.

In a greenhouse setting, corn, lettuce and potatoes were grown on soil that contained hog manure with a commonly used veterinary antibiotic added.

The antibiotics were absorbed by all three crops, into both their leaves and tissue. Meanwhile, the antibiotics also transferred to the potato tubers, suggesting that root crops like carrots, radishes and potatoes may be particularly at risk of antibiotic accumulation.

These findings unfortunately also have implications for organic farmers, who often use manure as their main source of fertilizer. And, as it stands, manure that contains antibiotics is still allowed under the organic label.

How to Avoid Excessive Antibiotic Exposure

So how can you ensure that the food you feed to yourself and your family is pure and healthy?

Apart from growing it yourself, your best option is to get to know a local farmer near you -- one who uses non-toxic farming methods. If you live in an urban area, there are increasing numbers of community-supported agriculture programs available that give you access to healthy, locally grown foods even if you live in the heart of the city.

If you are looking for a safer alternative to commercially raised beef please be sure to check out grass-fed beef. Grass-fed cattle are not routinely fed antibiotics. They may occasionally receive them for an infection, but that would be the rare exception, and even then they are only used for a few days.

About the Author

"Natural" is best, organic superior, and to learn how you can undo the negative effects already suffered you, visit www.healthyweightworks.com
Source: www.isnare.com