

Silver Makes 26 Antibiotic Drugs Work Better Against Pathogens

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Go figure. Here's another new clinical study proving that the infection-fighting qualities of Big Pharma's failing antibiotic drugs can be dramatically improved if a little bit of silver is added.

In fact, in this study, 26 different antibiotic drugs were tested against three common and dangerous infectious microorganisms, and they all worked better against the microbes when silver was added. Here's the story no one else is reporting...

Hi, Steve Barwick here, for The Silver Edge...

I've written a number of times in the past about the remarkable ability of silver to dramatically enhance the infection-fighting qualities of prescription antibiotic drugs.

Now, a brand new clinical study published in the science journal *Molecules* in December 2015 confirms the previous studies, demonstrating that silver nanoparticles "are suitable candidates for use in combinations with traditional antibiotics in order to improve their antibacterial action."

Dramatically Improved Action Against Pathogens

The study, which you can see at this link, is titled (get ready for a mouthful) "Strong and Nonspecific Synergistic Antibacterial Efficiency of Antibiotics Combined with Silver Nanoparticles at Very Low Concentrations Showing No Cytotoxic Effect."

In the study, researchers used antibiotic drugs in combination with silver nanoparticles, and found dramatically improved action against pathogens.

The researchers studied the synergistic effects of combinations of silver nanoparticles with a variety of antibiotic drugs against the following infectious microorganisms: *Escherichia coli*, *Pseudomonas aeruginosa* and *Staphylococcus aureus*. The tested antibiotics included:

Ampicillin	Vancomycin
Ampicillion/Sulbactam	Aztreonam
Piperacillin	Gentamicin
Piperacillin/tazobactam	Tetracycline
Penicillin	Amikacin
Oxacillion	Chloramphenicol
Cefazolin	Erythromycin
Cefuroxime	Clindamycin
Cefepime	Oxolinic acid
Cefoperazone	Ofloxacin
Ceftazidime	Ciprofloxacin
Meropenem	Co-trimoxazole
Teicoplanin	Colistin

The researchers found that "strong synergistic effects were shown for all tested antibiotics combined with silver nanoparticles at very low concentrations of both antibiotics and silver nanoparticles."

In other words, combining the silver particles with antibiotic drugs allowed the researchers to use very low concentrations of both – levels well below what the individual antibiotic drugs would normally have to be used at – and still achieve improved effectiveness against the pathogens.

According to the researchers:

"... a very low amount of silver is needed for effective antibacterial action of the antibiotics, which represents an important finding for potential medical applications due to the negligible cytotoxic effect of silver nanoparticles towards human cells at these concentration levels."

The study authors concluded, "The antibacterial activity of the tested antibiotics increased markedly when combined with silver nanoparticles... the synergistic effect of antibiotics combined with silver nanoparticles was proved at very low concentrations showing no cytotoxic effect on mammalian cells."

So not only did the silver dramatically improve the ability of the antibiotic drugs to kill the pathogens, but it caused no harm to cells and tissues.

Finally, the researchers also pointed out that when a drug-resistant form of *e. coli* was tested, the antibiotic drug ampicillin was restored to full effectiveness against the pathogen simply by adding silver nanoparticles. They wrote:

"Moreover, restoration of the susceptibility of a resistant *Escherichia coli* strain to ampicillin was observed when ampicillin was combined with silver nanoparticles."

New Silver-Based Drug? Or Colloidal Silver?

This is the third major study to have come out in recent years verifying the dramatic positive effects of adding small amounts of silver to antibiotic drugs.