

## **Colloidal Silver Nanoparticles Non-Toxic to Animals Even at 5,000 PPM!**

*In their zeal to restrict the use of antimicrobial silver in consumer products, the radical anti-silver environmentalists keep screaming from the rooftops that silver nanoparticles are so dangerously toxic, even exposure to minor levels will harm little critters in the environment, setting off a cascade that will destroy wildlife and constitute a grave threat to the environment.*

*But more and more emerging clinical research demonstrates that antimicrobial silver – including colloidal silver nanoparticles -- pose little-to-no threat to wildlife whatsoever. Indeed, in a brand new clinical study even when mice were exposed to a whopping 5,000 ppm colloidal silver nanoparticles for several days at a time, there were no toxic effects whatsoever.*

*Here's information about the most recent studies the radical anti-silver environmentalist hope you'll never see...*

Hi, Steve Barwick here,

Several weeks ago in an article titled *New Research: Silver Nanoparticles Not Toxic*, I wrote about a brand new 2012 clinical study published in the prestigious journal *Nanotoxicology*...

...in which researchers tested silver nanoparticles on adult guinea pigs for genotoxicity, acute oral and dermal toxicity, eye and dermal irritation and corrosion, and skin sensitization.

In these animal tests, the researchers found there were no abnormal signs or mortality from oral doses of 2,000 ppm nanosilver – an astonishingly high concentration of nanosilver for a small animal like a guinea pig.

What's more, when the animals were sacrificed and examined microscopically, there was no toxicity found, nor harm to the integrity of the cell's genetic material. Nor was there any acute eye or dermal irritation or corrosion when the silver nanoparticles were tested in the eyes and on the skin of the animals.

This was an acute study, meaning the research was conducted for only a short duration. But it did demonstrate that short-term exposure to even excessively high concentrations of nanosilver caused basically no harm to the animals tested.

## Another New Study

Now in another new animal study published in June 2011 in the *Journal of Veterinary Medical Science*, even *higher* doses of silver nanoparticles were used, this time on small mice.

And guess what? Once again, researchers found no significant harm to the little critters whatsoever.

Indeed, this time concentrations of *5,000 ppm* colloidal silver nanoparticles were used. Keep in mind that on average, most humans use between 5 ppm to 10 ppm colloidal silver. Tiny mice being given a whopping 5,000 ppm colloidal silver nanoparticles would be the rough equivalent of a human using 1,000,000 (yes, one *million*) ppm colloidal silver!

And once again, these excessively high levels of nanosilver produced neither mortality nor acute toxic signs in the mice throughout the 24-hour and 72-hour observation periods.

After the mice were sacrificed and examined, the researchers concluded:

*“In the hematological analysis, there was no significant difference between mice treated with AgNPs and controls. Blood chemistry analysis also showed no differences in any of the parameter examined. There was neither any gross lesion nor histopathological change observed in various organs.”*

In other words, these unbelievably high concentrations of silver nanoparticles didn't cause any internal problems whatsoever.

What's more, the researchers stated, *“Percentage of body weight gain of the mice showed no significant difference between control and treatment groups.”* In other words, there was no loss of appetite, weight or other abnormal signs that might indicate a toxic reaction.

The researchers also concluded, *“In acute eye irritation and corrosion study, no mortality and toxic signs were observed when various doses of colloidal AgNPs were instilled in guinea pig eyes during 72 hr observation period. However, the instillation of AgNPs at 5,000 ppm produced transient eye irritation during early 24 hr observation time.”*

So apparently there was a little bit of eye irritation when the researchers used 5,000 ppm colloidal silver nanoparticles directly into the eyes of the poor little mice. But the irritation was “transient,” i.e., it was only temporary, disappearing after 48 hours!

Finally, the researchers concluded:

*“Nor was any gross abnormality noted in the skins of the guinea pigs exposed to various doses of colloidal AgNPs. In addition, no significant AgNPs exposure relating to dermal tissue changes was observed microscopically.*

*In summary, these findings of all toxicity tests in this study suggest that colloidal AgNPs could be relatively safe when administered to oral, eye and skin of the animal models for short periods of time.”*

## **Bye, Bye Enviro Hyperbole!**

Studies like these continue to refute the shrill contentions of the radical anti-silver environmentalists who claim that exposure to even low levels of antimicrobial silver have the potential to wreak havoc on little critters and other wildlife in the environment.

Of course, for millennia the environment has contained literally millions of *tons* of nanosilver in the form of trace mineral silver that exists naturally. Indeed, it has only recently been discovered by researchers that [Mother Nature appears to make her own nanosilver](#), and is indeed the world's most prolific manufacturer of nanosilver.

And of course none of this silver has ever harmed wildlife or caused any kind of environment catastrophe. Indeed, the case could be made that Mother Nature uses nanosilver to keep infectious microorganisms from growing out-of-control in the environment.

So truth be told, the *real* agenda of the radical anti-silver environmentalists has nothing whatsoever to do with protecting wildlife or the environment. Instead, their entire agenda seems to be to strip consumers of the one safe, *natural* protection against infectious microorganisms and disease that Big Pharma can't control.

After all, for years these same environmental groups that now oppose the use of antimicrobial silver in consumer products have been taking millions of dollars in contributions from charitable foundations set up by Big Pharma.

And as you know, Big Pharma hates antimicrobial silver with a passion. Indeed, it sees silver as the *one* substance that alleviate the spread of infectious disease and ultimately destroy sales of its increasingly more expensive prescription antibiotic drugs.

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