

COLLOIDAL SILVER INFO - LET'S CUT THROUGH THE BS

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colWhere does the information presented here come from?

The inventor of our colloidal generator, who has researched and worked with electro-generated products since 1988, has guided me through the misinformation and led me to what seems to be the most reliable and consistent information. This info comes mostly from scientists and researchers without a product to sell. My goal is to provide real and truthful information without any bs.

Are all colloidal silver products equal?

No. Of fifteen colloidal silver product samples tested only one was found to be near acceptable. This is the findings of Ronald J. Gibbs, director of Colliodal Science at the University of Delaware, author of “Silver Colliods-Do they work?”

What is colloidal silver?

The word "colloid" refers to particles suspended in solution. In colloidal silver these "particles" are silver and the suspension medium would ideally be pure water. The best form of Colloidal Silver consists of nothing more than pure water and silver particles. Unfortunately some very sophisticated looking websites promote the false idea that a colloidal system (colloid) does not include ions yet the International Union of Pure and Applied Chemistry (The definitive authority on all matters of chemistry) clearly refer to the Colloidal Ion in the Definition and Classification of Colloids.

What is “true colloidal silver”?

The term, "true colloidal silver” is a marketing ploy, a complete sham and deception to convince the scientifically unsophisticated to buy into the purchase of only their product out of hundreds available. The term "colloidal silver" is an umbrella term covering many different types of liquid antimicrobial silver products, such as:

Ionic silver – extremely small, positively charged atoms or molecules of silver in a colloidal suspension

Metallic silver – bare metal silver particles averaging 100 nm or larger, in a colloidal suspension

Nanosilver – bare metal silver particles averaging less than 100 nm in size, in a colloidal suspension

Mild Silver Protein – bare metal particles of silver complexed with denatured protein such as casein, in a colloidal suspension

Silver Citrate – ionic silver complexed with citric acid, in a colloidal suspension

While there are some pretty big differences between each of these forms of colloidal silver, the main thing to remember is that they're all "colloidal" in nature.

A silver ion is the silver atom that lost an electron, and therefore positively charged.

A silver nanoparticle is a cluster of a few silver atoms. For example, a silver nanoparticle of about 1 nanometer in diameter may contain about 50 atoms of silver.

Does particle size matter?

Yes. The most important characteristic of an effective Colloidal Silver product is the size of its silver particles. Small particles are a must and an ion is the smallest particle of an element.

Why is there so much debate about ionic and particulate colloidal silver?

There is considerable discussion and controversy regarding whether ionic silver or particulate (colloidal) silver is more efficacious. This has been discussed on the silver-list by many of the members; some of them having chemistry and/or medical backgrounds. It is claimed by MesoSilver that colloids are more effective at killing pathogens. Their product is about 90% colloidal while most ionic/colloidal silver is typically 75-95% ionic. They claim that ionic silver is converted to silver chloride in the stomach by coming in contact with hydrochloric acid, thereby becoming ineffective.

The company Natural Immunogenics, manufacturer of Argentyn 23 claims the ionic portion is more effective at killing pathogens. Their product is about 95% ionic. In order to resolve the dispute Natural Immunogenics performed kill studies using a controlled comparison that diluted both MesoSilver and Argentyn 23 with hydrochloric acid to neutralize the ions in MesoSilver. Then the two were diluted to 20 PPM each so the comparison would have validity. They then combined the

remaining fractions of Mesosilver and Argentyn with two strains of Staphylococcus Aureus. The dilutions were placed on petri plates and graded as to their effectiveness in killing the pathogens.

Please see the test results here. Look near the bottom right side of the report for the in vitro kill rates. This should resolve the issue. It seems clear the ionic portion is more effective at killing pathogens.

Also see <http://www.hydrosolinfo.com/index.php> for considerably more information regarding ionic and colloidal silver.

It should be noted that the silver water produced with our generator is approximately 85-98+% ionic and the balance is colloidal. So, no matter who you think is right, the water contains enough of each form of silver to be effective.

Do silver ions combine with chloride ions and form silver chloride?

Ionic Silver does not "magically" transform into silver chloride. In order for silver chloride to form there must be chloride ions present. In pure H₂O there are no chloride ions, therefore Colloidal Silver produced using pure water and pure silver will contain no silver chloride. If impurities are present in the water used in the manufacture of Colloidal Silver many silver compounds may be formed such as Silver Chloride, Silver Fluoride, Silver Bromide, Silver Iodide, etc. It is imperative that pure water be used in the manufacture of quality Colloidal Silver to prevent these compounds from forming. The presence of these compounds in a Colloidal Silver product will most likely be seen as discolouration.

There will most certainly be some formation of AgCl upon the ingestion of ionic silver due to the large amounts of chloride ions available within the stomach. There has been much thought given to the concept that this reaction may be part of what makes colloidal silver effective. At any rate there is no research that I am aware of that indicates that the formation of AgCl detracts from the beneficial properties of silver nor is there any evidence that it is excreted any more rapidly or differently than elemental silver. AgCl is nontoxic.

What colour should colloidal silver be?

Colloidal Silver should be colourless. Ionic silver particles are too small to refract light. If a colloidal silver product is yellow or dark it is a result of the silver particles being too large or the presence of an unwanted substance. Professor

Ronald J Gibbs, director of the Center for Colloidal Science at the University of Delaware between 1981-2000, reported that all of the highest quality colloidal silver products were colourless.

Professor Ronald J Gibbs is known as the most respected author ever to have written about Colloidal Silver, and was the director of the Center for Colloidal Science at the University of Delaware for nearly 20 years. His body of work includes over 85 reviewed journal articles and 5 technical reports. He edited 14 books and presented lectures at 61 national and international meetings. In his excellent book Silver Colloids - do they work? Professor Gibbs tells us on page 25 that a Colloidal Silver with any colour is "not acceptable" and goes on to state "The highest quality colloidal silver products tested were all colourless".

Ironically some manufactures of Colloidal Silver who lean heavily upon Professor Gibbs research for the production and marketing of their product, often times even quoting his book Silver Colloids - Do They Work?, will also claim that colourless Colloidal Silver is ineffective. This would certainly seem an inexcusable contradiction in light of the fact that Professor Gibbs expressly states that all high quality Colloidal Silver is colourless.

What about parts per million (ppm)?

Probably the most misunderstood concept in regards to Colloidal Silver is parts per million (PPM). Higher ppm does not equate to a more effective product. Even marketers of "Particulate Colloidal Silver" include ionic silver when calculating parts per million of total silver concentration. PPM of colloidal silver needs to be understood in its entirety. PPM means parts per million. By definition 1 PPM is 1 milligram of silver deposited in 1 liter of water (1,000 ml) (1,000,000 mg). If one were to ingest that 1 mg. piece of silver, it would not do much good. If you were to divide that 1 mg. into 1,000,000 particles of silver, it would then have much more efficacy because it takes one particle of silver to disable 1 pathogen. The silver is now 1,000,000 times better than 1 piece of silver even though by definition it is still only 1 PPM. If one were to further divide the 1 mg piece of silver into 100,000,000 particles, it would be very beneficial indeed. And so as the silver is more finely divided the PPM by definition remains the same.

So, what really counts is not how many PPM the silver is but how many particles the silver has been divided into, That is why it isn't necessary to have high PPM but it IS important to divide the silver as finely as possible. To see how small the

silver can be divided by our colloidal silver generators, please look at the electron microscope photos. It is not better to try to take high PPM colloidal silver but to take CS that is properly made. If you think more silver is necessary, just take more of better made low PPM colloidal silver and you will be further ahead than if you took poorly made, high PPM colloidal silver.

Another factor is the form silver is in. Up to 98% of the silver in our colloidal silver is ionic. Ionic silver is like sugar or salt dissolved into the water. It is invisible and can only be sensed with a test meter such as the PWT we sell. Ionic silver is conductive whereas colloidal silver is not. Colloids are like small ball bearings floating around in the water and separated from each other by what is called Brownian Motion. They carry no electrical charge. The ions are silver atoms missing one electron in the outer shell and therefore are positive in charge. The ionic portion is evenly dispersed like dissolved sugar or salt.

The generator determines the shutoff point by measuring the ionic water conductivity.

If the colloidal silver is properly made it will be crystal clear. This is because the particles are too small to reflect any light. If it shows any colour, the particles are too large. The first colour seen is yellow. As the particle size increases other colours such as red, green, blue, brown or black may be seen. Any colour seen will indicate CS that is not very good.

Effects on Friendly Bacteria

When taken orally ionic colloidal silver is absorbed readily and doses of an ounce or less of 10 to 25 ppm concentration is unlikely to reach the gut or even the stomach. When taken orally most of the silver is directly absorbed into the bloodstream sublingually. It is unlikely that any ionic silver will have the opportunity to migrate into the small or large intestine where intestinal bacteria normally dominate. However, in the case of a known intestinal infection, enemas or colonics of colloidal silver could be utilized to directly expose the infection to the sterilizing benefit of colloidal silver. Consumption of colloidal silver on a daily basis would significantly reduce the incidence of infection. The ability to do this safely could be a powerful preventive health measure to enhance the lives of millions of people susceptible to chronic infections. In this case probiotic such as kefir or yogurt is a good idea. Only use properly prepared ionic colloidal silver that contains 99.999% pure silver with no binding agents, stabilizers or proteins.

Does colloidal silver need to be stored in a glass bottle?

While some manufacturers insist that their product be stored in only dark glass bottles, this is not the case for a quality colloidal silver. This requirement pertains only to protein fortified and unstable products. The man who invented the colloidal silver generator that we use 35 years ago says: "If properly made, CS is NOT light sensitive and can be stored in clear glass."

Another reputable maker of CS says:

"While some manufacturers insist that their product be stored in only dark glass bottles, this is not the case for a quality colloidal silver. This requirement pertains only to protein fortified and unstable products."

Silvermedicine.org says:

"It is a wise practice to store colloidal silver in a UV protected glass container. However, most practitioners agree that a high quality solution will be fine in any glass container. Many people store their colloidal silver in plastic and report no problems. Periodically, check a stored batch of colloidal silver for "fallout" on the sides and the bottom of the container. In fact, it is interesting to store a "good" batch in a see through glass container, and observe any changes occurring over time. This will give one a strong indication on the quality of the colloidal silver being produced. After setting "overnight" the completed batch should either maintain it's clear color, or have a slightly yellow tone. However, please keep in mind that if needed, the colloidal silver can be used immediately after production."

How can real raw food offer a high quality colloidal silver at such low prices?

A better question might be why do other manufacturers charge so much for their colloidal silver? Our aim is to provide the highest quality supplements available at a fair and reasonable price. We want to be the supplier that we would want to deal with.

Colloidal silver won't turn you blue.

Silver turning a person blue is known as argyria, a very rare condition that is caused by consuming improperly made silver solutions that contain too many silver particles that are too large in size and impurities. Ionic silver or colloidal silver solutions made with distilled water are safe to ingest, and you're not going to be taking industrial amounts.

Colloidal silver is a liquid suspension of silver atoms in ion-less distilled water that can be highly effective against bacteria, viruses, and fungal organisms, even those

that have become resistant to antibiotics. The particles of silver are small enough to penetrate and destroy pathogens, bacteria, fungal spores, parasites, and viruses on a cellular level.

Silver has been used for over three thousand years as an antimicrobial, for infections (internally and topically), for preserving foods and liquids, and medicinally. There are no known side effects of taking colloidal silver correctly—meaning in small doses and not for extended periods of time. After you take it, 99 percent of the silver leaves the body in twenty-four hours; all is cleared by 48 hours.