

**Colloidal Silver** - Colloidal Silver is simply solid particles of silver, 1 nm to 1,000 nm in size, suspended in distilled water. The largest allowed colloidal particle of 1,000 nm would contain about 45,000,000,000 atoms or ions of silver. Colloidal Silver has multiple forms. We will focus on the two main forms of Ionic Silver and Colloidal Silver. All other forms are just marketing *SPIN* to convince you theirs is better. It's not.

**Ionic silver** is defined as a concentration of **silver ions** suspended in highly purified water where the majority of the solution is comprised of positively charged silver atoms. When a silver atom loses one or more of its electrons, it is now termed an "ion" of silver and carries a positive charge because the protons of its structure now outnumber the electrons. Protons are positively charged, while electrons are negatively charged. A greater amount of positive elements shifts the charge of the atom (ion) to positive. Ionic silver is denoted in physics and chemistry as (Ag+).

**Colloidal silver** is defined as a concentration of **silver particles**, 1 nm to 1,000 nm in size, suspended in highly purified water where the majority of the solution is non-ionic, pure silver metal, where **there are no other additives**.

Most of the products sold as Colloidal Silver are in essence mostly Ionic Silver, NOT true Colloidal Silver due to the high cost and degree of manufacturing complexity.

True colloidal silver is mostly (50 – 80%) silver particles, the rest being ionic silver.

### **The Ionic Silver VS Colloidal Silver Debate**

**Ionic Silver** – Pathogenic organisms have a net negative charge. A negatively charged pathogen will attract a positively charged silver ion. Thus, the theory goes that silver ions have a more powerful germicidal effect than non-ionic silver atoms. While this sounds straightforward there is one major flaw in this theory, which is the delivery mechanism. In order for the ionic silver to get to the bloodstream, it needs to get past the stomach acid first. Ionic silver becomes worthless as soon as it is swallowed because the silver ions immediately combine with chloride ions to form silver chloride. Silver chloride has no antibacterial properties and is a useless waste product which the body expels. Having said that, Ionic Silver seems to be superior as a topical or external solution. Colloidal Silver particles are more effective for internal use as they remain unaffected by stomach acid.

**Colloidal Silver** - The physical presence of colloidal silver particles near a virus, fungus, bacterium or any other single-celled pathogen disables its oxygen metabolism enzyme. This process suffocates and kills the pathogen. The pathogen is then cleared out of the body. The colloidal silver is then set free again to continue the attack on other pathogens. This creates a strong multiplier effect increasing the effectiveness and impact.

The zeta potential charge keeps the particles uniformly distributed in the colloid and from clumping together. The higher the zeta potential, the less clumping there is.

The key to effective colloidal silver is to have the smallest particle size possible and to have the highest concentration of particles. The smaller the particles, the deeper they are able to penetrate. The more particles there are, the more impact they will make.

**How does Colloidal Silver work?:** Body tissues having 5 parts per million (5ppm) of Colloidal Silver will be free of viruses, fungus, and bacterium. Silver particles are long lived in the body because they do not enter into a reaction, but act catalytically. A catalyst is as a substance that brings about, or causes a reaction or occurrence without itself participating or being consumed. Colloidal Silver acts as a catalyst in disabling a particular enzyme as it transfers oxygen and nutrients through the cell walls of the disease-causing organism. The organism suffocates! The mere proximity of silver will cripple the activity of the particular enzymes of tissue type cells. The unaffected silver colloid will drift on, to repeat the process again and again.

**How can we make Colloidal Silver even more effective?** The main issue with all supplements taken orally is getting past the digestive tract.

## Antibiotics VS Colloidal Silver



Antibiotics kill only 5-6 types of germs. Extensive use of antibiotics has spawned new antibiotic resistant strains called Super Bugs, for which antibiotics have no effect.	Use of Colloidal Silver does not cause new strains to develop. Colloidal Silver is highly effective on Super Bugs.
100,000 to 300,000 reactions a year, of which 30% to 50% are fatal.	No recorded detrimental effects.
Highly effective for specific bacterial diseases only. Some are effective for most bacteria. <b>Has no effect on fungi or viruses.</b>	Highly effective in fungal, bacterial and viral infections.
Zero impact on healing	Accelerates healing
Zero impact on reducing scarring	Reduces scarring
Dosage must be carefully monitored	No known overdose of properly made Colloidal Silver
Requires exact antibiotic to be effective	Knowledge of pathogen is not necessary
Can harm the liver and kidneys	Promotes healing
Antibiotics are consumed during the process. Once a bacterial infection is neutralized, the antibiotic component is also neutralized. Large doses of antibiotics are usually given over several days to help compensate for this design flaw. According to Merck and Robert Wood Johnson of University Hospital, large doses of antibiotics also cause numerous side effects such as wheezing, difficulty breathing, anaphylaxis, skin rash, pale skin and bluish lips and fingernails, upset stomach, diarrhea, nausea, abdominal pain, cramping, vaginal yeast infections, and under severe cases can damage the kidneys, liver, bone marrow and other organs.	Colloidal Silver is a catalyst meaning it is not consumed in the process and is free to continue the attack. Catalysts cause reactions to occur faster and with less energy. There are no known side effects and the body eliminates the Colloidal Silver after about 1 week.
Antibiotics also destroy a variety of the body's essential enzymes leading to other problems needing more "medicine".	Colloidal Silver does not disable or harm the human body's enzymes.

**History of Colloidal Silver:** Silver is a powerful, natural antibiotic that has been used for thousands of years, with no harmful side effects ever observed. Grandparents put a silver dollar or silver spoon in the milk to keep it from spoiling as it sat on the back porch in the summer. The ancient Greeks realized that eating with silver utensils reduced the tendency to get sick. This knowledge was passed on to kings, emperors, sultans and their families and members of their royal courts.

They ate from silver plates, drank from silver cups, used silver utensils and stored their food in silver containers. As a result of this use, silver was ever so slightly rubbed off in their foods.

These royals were called “Blue Bloods” because their skin had a blue tint, due to the accumulation of minute traces of pure metallic silver. The common red blooded folk, however, ate from earthenware dishes with iron utensils and frequently were sick, whilst the royals enjoyed the freedom from infectious disease as early as from birth. There are many historical references on Colloidal Silver. One of the most complete is published in “The Lancet” dated December 12, 1914.

Colloidal Silver was in common use in America from the late 1800s until 1938. It was prescribed for a great variety of diseases and infections. Colloidal Silver was used for just about every ailment as there were no antibiotics available.

The side effects associated with antibiotics and the new Super Bugs that resist antibiotics demand an alternative solution. According to Dr. Richard L Davies, executive director of the Utah Silver Institute, Colloidal Silver is rapidly gaining favor in the medical community. He reported in 1978, “In four years we have described 87 important new medical uses for silver. We’re just beginning to see to what extent silver can relieve suffering and save lives.”

**How Healing Is Accelerated:** Robert O. Becker, MD reported in his book, “The Body Electric” that Colloidal Silver accelerated healing. He and his research colleagues observed that Colloidal Silver accelerates the healing process by over 50%. He goes on to state “Positive Silver kills all types of bacteria because no other single antibiotic worked uniformly against ALL types of bacteria. There are no ions beside silver to burden the tissues. It works against all kinds of bacteria simultaneously and even kills antibiotic resistant strains and fungus infections.”

He goes on to state that the silver ion was doing something more than just killing disease-causing organisms. It was, he observed, facilitating major growth stimulation of injured tissues. When human fibroblast cells, which are common throughout the body, were exposed to silver, they differentiated. That is, they changed into an embryonic general cell, able to multiply at a great rate and then changed into the specialized cells of the organ or tissue that had been injured. Even in patients over the age of 50 years, tissues healed as easily as a child’s tissues.

**Healing crisis:** This is a condition wherein the Colloidal Silver is killing the pathogens faster than the body can eliminate the toxins. Healing Crisis appears like flu like symptoms, aching muscles etc. Should you experience this, just make sure to drink lots of water to lessen the symptoms.

If a person, taking the daily amount, finds that he or she will still occasionally have an infection, one may even quadruple the recommended daily dose. There should be no danger of overdosing; however, very few people ever need four times the recommended daily dose.

**No Drug Interaction with Any Other Medicines or Herbs:** There has never been a reported case of silver/drug interaction of any kind, this means that you can use Colloidal Silver with any pharmaceuticals. The chemical nature of silver is such that once inside the body it simply does not react with anything in the body except germs.

**Kills Resistant Pathogenic Strains:** Overuse of antibiotics have created antibiotic resistant strains. Colloidal Silver is claimed to work relatively fast - from 1 to 6 minutes upon contact - so that the disease causing pathogens have no time to mutate into a resistant strain. In fact, to date no pathogen or strain thereof, has ever been known to mutate and develop resistance to silver in several thousand years of the use of this remarkable substance.

**Argyria:** There has been no allergenic reactions to silver reported in recorded history of the medicinal use of Colloidal Silver. Colloidal Silver does not react chemically within the body.

Having said that, Paul Karason became famous for becoming blue like a Smurf. His condition called Argyria was caused by improperly made Colloidal Silver that he made himself. He used low voltage DC which is very difficult to make Colloidal Silver because of the distilled water's very high impedance. To overcome the high impedance of distilled water, he used high current ripping off large chunks of silver that fall out of suspension and added salt to increase the water's conductivity. The use of salt generates silver chloride which is the cause of Argyria. **Properly made Colloidal Silver does not have any of these side effects.**

**Fungus:** Any fungus is killed within 1 to 6 minutes of contact with silver.

**Viruses - Does colloidal silver kill viruses?:** A single virus will invade a living cell of body tissue, then take over the nucleus of the cell and alter its reproductive mechanism to replicate itself. The newly produced virus then spreads through the bloodstream. The process of converting a living cell into a virus also converts it into a more primitive cell structure. This more primitive form of enzyme is vulnerable to the effect of Colloidal Silver and becomes permanently disabled by simply being near Colloidal Silver. The disabling of the enzyme kills the virus within 1 to 6 minutes of contact. The body will dispose of it as it would any other of the millions of cells that end their usefulness each day.

**CFS, Fibromyalgia and Immune Disorders:** Dr. Evan M., Kansas states "We have had instant success with Colloidal Silver and immune compromised patients. A few examples are: Pink eye (topical) totally resolved in less than six hours; recurrent sinus infections (oral ingestion) resolved in eight days; acute cuticle infections - (topical) - 24 hours. Another major area in which we have improved our clinical results is in the area of bowel detoxification and dysbiosis. The colloidal silver has provided excellent removal of abnormal intestinal bacteria; also it has proved to a great adjunct to our Candida Albicans, Epstein Barr Virus and Chronic Fatigue Syndrome protocols."

**AIDS:** AIDS is caused by a particular type of virus attacking and destroying the body's immune system. Once that virus invaded a cell in the body, the cell will respond in exactly the same way as described before, reverting back to the primitive type structure and enzyme responsible which is promptly crippled by the mere presence of Colloidal Silver. As described earlier, the cell "suffocates" and dies, thus denying the virus to replicate. Colloidal Silver kills the mutated cell, virus and all! Colloidal Silver kills not only present types of viruses, but future forms of any viruses as well. No matter how the virus mutates, it cannot influence and change the way living body cells will respond to its invasion. Colloidal Silver kills all viruses, precluding future mutations as it also kills the virus invaded cell within six minutes, and because of its catalytic nature Colloidal Silver is not affected in the reaction, continuing to kill other single-celled pathogens nearby.

**Cancer:** The mutation of healthy cells into cancer cells occur continuously, even in healthy bodies. Your body's natural immune system, when in balance, usually destroys the newly formed cancer cells in about the same rate as they are created. Furthermore, it is also reported that some types of Cancers are caused by a virus. As we stated before, a high concentration of Colloidal Silver kills viruses on contact.

Dr. Bjorn Nordstorm of Sweden's Karolinska Institute has used silver in his cancer cure methods for many years. He records that he has successfully cured patients who had been diagnosed by other doctors as terminally ill.

Why do we use ionic and colloidal silver in all our products? Because ionic and colloidal silver has been reported to kill 650 known micro-organisms.

Ionic and colloidal silver has been reported to be effective in some capacity on the following: acne, AIDS (Reference 8), allergies, appendicitis, arthritis, athlete's foot, bladder inflammation, blood parasites, blood poisoning, boils, burns, cancer, candida, cholera, colitis, conjunctivitis, cystitis, dermatitis, diabetes, dysentery, eczema, fibrositis, gastritis, gonorrhea, hay fever, herpes, impetigo, indigestion, keratitis, leprosy, leukemia, lupus, lymphangitis, Lyme disease, malaria, meningitis, neurasthenia, parasitic infections: viral, fungal and bacterial pneumonia, pleurisy, prostate, pruritus ani, psoriasis, purulent ophthalmia, rhinitis, rheumatism, ringworm, scarlet fever, septic conditions of the eyes, ears,

mouth, and throat, seborrhea, septicemia, shingles, skin cancer, staphylococcus and streptococcus infections, stomach flu, syphilis, thyroid, tuberculosis, tonsillitis, toxemia, trachoma, all forms of virus, warts, whooping cough, yeast infection, stomach ulcer, canine parovirus and other veterinary uses, and fungal and viral attacks on plants.

## References

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- [Ions, Atoms and Charged Particles By Francis S. Key and George Maass, PhD](#)
- [Mechanisms of Silver Nanoparticle Release, Transformation and Toxicity: A Critical Review of Current Knowledge and Recommendations for Future Studies and Applications](#)
- [Silver Nanoparticles: No Threat to the Environment by George J. Maass, Ph.D.](#)
- [Henry Crooks - "Use of Colloids in Health and Disease." Colloidal silver has proven particularly effective in cases of intestinal troubles. Dr. Henry Crooks found that "silver in the colloidal state is highly germicidal, quite harmless to humans and absolutely non-toxic. Rather than in a chemical compound, the silver in the colloidal state may be applied in a much more concentrated form, with correspondingly better results. All virus, fungus, bacterium, streptococcus, staphylococcus, and other pathogenic organisms are killed in three or four minutes upon contact. There are no side effects whatsoever from the highest concentrations."](#)
- [Robert Becker - "The Body Electric" recognized a correlation between low silver levels and sickness. He said the silver deficiency was responsible for the improper functioning of the immune system. Dr. Becker's experiments conclude that silver works on the full spectrum of pathogens without any side effects or damage to any part of the body. He also states that the silver was doing something more than killing disease organisms. It was also causing major growth stimulation of injured tissues. Burn patients and elderly patients noticed more rapid healing. He discovered that all cancer cells change back to normal cells. All strains of pathogens resistant to other antibiotics are killed by colloidal silver. Yet at that time he couldn't find a silver supplement on the market.](#)
- ["Silver, Our Mightiest Germ Fighter" ScienceDigest, March 1978 - As an antibiotic, colloidal silver kills over 650 disease causing organisms, and resistant strains fail to develop. Silver is the best all-around germ fighter we have and is absolutely non-toxic! Doctors report that, taken internally, it works against syphilis, cholera, malaria, diabetes and severe burns. Richard L. Davies, executive director of the Silver Institute which monitors silver technology in 37 countries, reports: "In four years we've described 87 important new medical uses for silver."](#)
- The FDA has stated that because colloidal silver is accepted as a pre-1938 medication, it may continue to be marketed. Letter, 13 September 1991, received from consumer safety officer Harold Davis, U.S. Food and Drug Administration.
- "Colloidal Preparations of Silver in Pharmacy," British Medical Journal, February 1923: " - Pure Silver is entirely non-irritant. In tests at very high concentrations, it has been shown repeatedly that the rapidly exerted disinfectant action is of considerable therapeutic value."
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