

Colloidal Silver Minerals

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Silver is one of the single most effective antiviral and bactericidal agents known to man!

Silver *ions* complement the body's natural immune system by providing exceptional protection against pathogenic bacteria, fungi, parasites, and viruses.

What is Colloidal Silver Minerals?

Colloidal Silver Minerals is our company name. We sell Colloidal Silver as a mineral supplement and water purifier to comply with TGA. We pride ourselves on our quality and strive to ensure we supply the best we can possible, beware of the misinformation on the Internet. Do your own research, ask us any questions. We look forward to build a long term relationship with all our customers.

Colloidal Silver is the result of an electromagnetic process that create ionic silver and sub-microscopic particles of silver (in the micron range) at very low currents (as low as our natural energy vibrations) from a larger piece of pure silver into pure distilled water. These particles are held in suspension (Brownian Motion) by the tiny electric charge on each atom also providing electromagnet vibrations for your benefit. As minute particles, the silver can more easily penetrate and travel throughout the body.

The "total silver" content is divided into two forms of silver; ionic silver and silver particles (colloidal). A colloid is a unit of measure with the particle size within a certain range. Particles are clusters of silver atoms. The atoms in a silver particle remain held together by "van der Waals' force" of attraction that causes identical atoms to be attracted to each other. Silver particles do not contribute to the electrical conductivity of solutions that contain them.

Why a Higher PPM Batch of Colloidal Silver Can Be Less Effective Than a Lower PPM Batch!

It should be obvious by now that the more tiny "slices" of silver you have in the same volume of water, the more opportunities you have to kill pathogens, and the greater reach throughout the human body those tiny silver particles will have, due to the simple fact that smaller particles are far more easily absorbed by the body, distributed throughout the body's organs, tissues and cells, and excreted afterwards. So you can have the same amount of silver *by weight*, but by dividing it into finer and finer particles you vastly increase its reach and effectiveness!

It should also be obvious by now that the designation of a higher ppm on a colloidal silver solution does not by itself equate to greater effectiveness. You can have a much lower ppm (i.e., much lower weight of silver in a liter of water), but if that silver is divided many times more finely than a colloidal silver solution carrying a much higher ppm, it is the *lower* ppm solution that will provide you with the greater benefit, rather than the higher!

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This is not double-talk. It may sound counter-intuitive. But it is simple, irrefutable science.

Let's say you have two colloidal silver products: Product number one is 20 ppm (i.e., 20 mg. total weight of silver per liter of water) with silver particles that are .01 microns in size. And product number two is only 10 ppm (i.e., 10 mg. total weight of silver per liter of water) but has silver particles that are .001 microns in size.

The 20 ppm colloidal silver solution obviously has two times more silver by weight than the 10 ppm solution.

But...the silver particles in the 10 ppm colloidal silver solution are 10 times smaller than the silver particles in the 20 ppm solution. So while a one ounce dose of the 20 ppm colloidal silver solution would contain *twice the total silver by weight* than a one ounce dose of the 10 ppm colloidal silver solution, the one ounce dose of 10 ppm would actually contain five times more silver particles!

This means you would get five times more potential anti-microbial killing power, and five times greater absorption and assimilation throughout the body, by taking one ounce of the 10 ppm solution, than you would by taking one ounce of the 20 ppm solution.

It is amazing. But it is absolutely true. And it is a testament to the fact that depending solely upon the "ppm" of a colloidal silver solution to judge its effectiveness is ignorance at best.

As stated by well-known colloidal silver researcher S.E. Foran in his landmark white paper on the therapeutic properties of silver:

Low Silver Concentration With Small Silver Particles (Charged Ions) Work Best

"Although silver has been used for thousands of years as an antimicrobial agent, during the last century there have been a number of suspicions raised about its effectiveness and safety. These concerns, however, have not taken into account the speciations of silver or the oligodynamic actions of this noble metal. The most current research indicates that a silver product must have a low silver concentration and contain small silver particles that are charged (ions) for it to produce the most beneficial effects."

-- S.E. Foran, Therapeutic Properties of Silver: A Historic and Technical Review, Quanta, January 2009

Colloidal Silver works as a catalyst, disabling the enzyme that one-celled bacteria, fungi and viruses use for their metabolism. Because no known disease-causing organism can live in the presence of even minute traces of silver, **Colloidal Silver is effective against more than 650 different disease-causing pathogens. Unlike with antibiotics, resistant strains have never been known to develop.**

(Antibiotics are only effective against about a dozen forms of bacteria and fungi, and never viruses!)

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Colloidal silver is non-toxic, non-addictive and has no side effects (unless abused like any natural substance). The body develops no tolerance. Colloidal Silver cannot cause harm to the liver, kidneys or any other organ in the body.

Silver is safe for pregnant and nursing women and even aids the developing foetus in growth and health as well as easing the mother's delivery and recovery. Water-soluble silver is the perfect natural alternative to synthetic antibiotics and is wonderful for both adults and children of all ages. Colloidal silver is odourless, mostly tasteless, non-stinging, harmless to eyes, contains no free radicals, is harmless to multicellular organisms enzymes and has no reaction with other medications. It improves digestion, aids in the regeneration of damaged cells and tissues, helps prevent colds, flu and organism caused diseases. Normal use of colloidal silver does not harm the beneficial bacteria in our intestines. Therefore, it does not cause an upset stomach or yeast growth commonly seen with traditional pharmaceutical antibiotics.

Silver Used Throughout History

Silver has long had acclaim in wellness from those seeking to maintain a healthy lifestyle. The medicinal benefits of silver have been known for hundreds of years. Here are just a few well known samples...

- The Greeks used silver vessels to keep water and other liquids fresh. The writings of Herodotus, the Greek philosopher and historian, date the use of silver to before the birth of Christ.
- The Roman Empire stored wine in silver urns to prevent spoilage.
- The use of silver is mentioned in ancient Egyptian writings.
- In the Middle Ages, silverware protected the wealthy from the full brunt of the plague.
- Before the advent of modern germicides and antibiotics, it was known that disease-causing pathogens could not survive in the presence of silver. Consequently, silver was used in dish-ware, drinking vessels and eating utensils.
- In particular, the wealthy stored and ate their food from silver vessels to keep bacteria from growing.
- The Chinese emperors and their courts ate with silver chopsticks.
- The Druids have left evidence of their use of silver.
- Settlers in the Australian outback suspend silverware in their water tanks to retard spoilage.
- Pioneers trekking across the American West found that if they placed silver or copper coins in their casks of drinking water, it kept the water safe from bacteria, algae, etc.
- All along the frontier, silver dollars were put in milk to keep it fresh. Some of us remember our grandparents doing the same.

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- Silver leaf was used to combat infection in wounds sustained by troops during World War I.
- Prior to the introduction of antibiotics, Colloidal Silver was used widely in hospitals and has been known as a bactericide for at least 1200 years.
- In the early 1800s, doctors used silver sutures in surgical wounds with very successful results.
- For many years there was a law requiring hospitals to use a silver solution in the eyes of newborn babies to ensure they would not go blind should the mother have gonorrhoea.
- In Ayurvedic medicine, silver is used in small amounts as a tonic, elixir or rejuvenative agent for patients debilitated by age or disease.

How Does It Work?

According to medical journals from around the world, it disables the particular enzyme that all one-celled bacteria, fungi and viruses use for their oxygen metabolism. Colloidal Silver co-mingles with the blood and enters the cells to seek out and destroy harmful organisms. ***It suffocates them in six minutes or less*** after initial contact. This phenomenon was recently demonstrated in tests at UCLA Medical Lab. Trace amounts protect and strengthen the immune system. The pathogen suffocates and dies and is cleared out of the body by the immune, lymphatic and elimination systems.

Unlike pharmaceutical antibiotics which destroy beneficial enzymes, colloidal silver leaves these tissue-cell enzymes intact as they are radically different from the enzymes of primitive single-celled life. Since silver only kills anaerobic (non-oxygen breathing) bacteria, the friendly bacteria in the digestive tract are immune to it because they are aerobic (oxygen breathing). Colloidal silver is absolutely safe for humans, reptiles, plants and all multi-celled living matter.

How does colloidal silver work?

Richard Davies and Samuel Etris of The Silver Institute, in a 1996 monograph entitled *The Development and Functions of Silver in Water Purification and Disease Control*, discuss three mechanisms of deactivation that silver utilises to incapacitate disease causing organisms. They are **Catalytic Oxidation**, **Reaction with Cell Membranes**, and **Binding with the DNA** of disease organisms to prevent unwinding.

Catalytic Oxidation:

Silver, in its atomic state, has the capacity to absorb oxygen and act as a catalyst to bring about oxidation. Atomic (nascent) oxygen absorbed onto the surface of silver ions in solution will readily react with the sulfhydryl (-S-H) groups surrounding the surface of bacteria or viruses to remove the hydrogen atoms (as water), causing the sulfur atoms to form an R-S-S-R bond; blocking respiration and causing the bacteria to expire. Employing a simple catalytic reduction/oxidation reaction, colloidal silver will react with any negative charge presented by the organism's transport

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or membrane proteins and deactivate them.

Reaction with Bacterial Cell Membranes:

There is evidence that silver ions attach to membrane surface radicals of bacteria, impairing cell respiration and blocking its energy transfer system. One explanation is based on the nature of enzyme construction: Specific enzymes are required for a given biochemical activity to take place. Enzyme molecules usually require a specific metallic atom as part of the molecular matrix in order to function. A metal of higher valance can replace a metal of lower valance in the enzyme complex, preventing the enzyme from functioning normally. Silver, with a valance of plus 2, can replace many metals with a lower, or equal valance that exhibit weaker atomic bonding properties.

Binding with DNA:

Studies by C.L. Fox and S.M. Modak with *Pseudomonas aeruginosa*, a tenacious bacteria that is difficult to treat, demonstrated that as much as 12% of silver is taken up by the organism's DNA. While it remains unclear exactly how the silver binds to the DNA without destroying the hydrogen bonds holding the lattice together, it nevertheless prevents the DNA from *unwinding*, an essential step for cellular replication to occur.

Because no known disease-causing organism can live in the presence of even minute traces of silver, Colloidal Silver is effective against more than 650 different disease-causing pathogens.

Unlike with antibiotics, *resistant strains have never been known to develop!*

When Is It Used?

Here is a *small* sample of diseases against which Colloidal Silver has been used successfully:

Acne, allergies, appendicitis, arthritis, blood parasites, bubonic plague, burns, cancer, candida, cholera, chronic fatigue, colds and flu, conjunctivitis, diabetes, gonorrhoea, hay fever, herpes, leprosy, leukaemia, lupus, Lyme disease, malaria, meningitis, parasitic infections both viral and fungal, pneumonia, rheumatism, ringworm, scarlet fever, septic conditions of the eyes, ears, mouth and throat, shingles, skin cancer, staph infections, strep infections, syphilis, toxemia, trenchfoot, all forms of viruses, warts and stomach ulcers.

What Doctor's Say About Silver

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According to experts, no micro-organism ever tested has been able to stay alive for more than six minutes when exposed directly to colloidal silver!

Dr. Harry Margraf, a biochemist and pioneering silver researcher who worked with the late Carl Moyer, M.D., chairman of Washington University's Department of Surgery in the 1970s: **"Silver is the best all-around germ fighter we have."**

Science Digest cites colloidal silver as "...a wonder of modern medicine," and further states **"Antibiotics kill perhaps a half dozen different disease organisms, but silver kills some 650. Resistant strains fail to develop.** Moreover, silver is non-toxic. Colloidal silver, used as an anti-microbial agent, will not create super bugs as antibiotics do."

Alfred Searle, founder of the giant Searle Pharmaceuticals (now Monsanto) stated, **"Applying colloidal silver to human subjects has been done in a large number of cases with astonishingly successful results.** For internal administration ... it has the advantage being rapidly fatal to pathogens without toxic action on its host. It is quite stable." Further information indicates that Colloidal Silver does not cause harmful interactions with other medications or topical treatments.

In laboratory tests with colloidal silver, bacteria, viruses, and fungal organisms are killed within minutes of contact. Larry C. Ford, M.D. of the Department of Obstetrics and Gynecology, UCLA School of Medicine, Centre For The Health Sciences reported in November 1, 1988, "I tested them (the silver solutions) using standard anti-microbial tests for disinfectants. The silver solutions were anti-bacterial for concentrations of 105 organisms per ml of Streptococcus Pyogenes, Staphylococcus Aureus, Neisseria Gonorrhoea, Gardnerella Vaginalis, Salmonella Typhi and other enteric pathogens, and fungicidal for Candida Albicans, Candida Globata and M. Furfur."

Dr. Robert O. Becker, MD, noted biomedical researcher from Syracuse University, and author of *The Body Electric* and *Cross Currents*, recognized a correlation between low silver levels and sickness. He said silver deficiency is responsible for the improper functioning of the immune system. "What we have done is rediscover the fact that silver killed bacteria, which had been known for centuries." In the process of his work, Dr. Becker discovered that he had **wiped out types of bacteria across the board, even those that were resistant to antibiotics.** Regarding the innate ability of metallic silver to control infection, Dr. Becker said: "all of the organisms that we tested were sensitive to the electrically generated silver ion, including some that were resistant to all known antibiotics." On the safety of silver, he said, **"in no case were any undesirable side effects of the silver treatment apparent."**

Dr. Bart Flick of Argentum Medical LLC, another early pioneer in silver medical research, invented FDA approved Silverlon wound contact dressing. "The antimicrobial activity of silver rests upon the interaction of silver with the bacteria's cellular membrane. This interaction can occur through the presence of a **silver ion** in solution or the release of silver in an ionic moiety directly from the surface of metallic silver when a bacterial cell membrane comes in direct contact with the metallic surface."

Dr. Henry Crooks, author of *Use of Colloids in Health Disease*, found that silver in the colloidal state is highly germicidal, quite harmless to humans and absolutely non-toxic. From his bacteriological experiments with silver he concluded, **"I know of no microbe that is not killed**

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in laboratory experiments in six minutes."

Dr. Bjorn Nordenstrom, of the Larolinska Institute, Sweden, has successfully used silver as a component in his cancer treatments for many years.

Dr. Leonard Keene Hirschberg, A. M., M. D. (John Hopkins) states, "Speaking generally, the colloidal metals are especially remarkable for their beneficial action in infective states."

Dr. 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.** We're just beginning to see to what extent silver can relieve suffering."

Peter Lindemann reports in his 1997 article, *Colloidal Silver, A Closer Look*, that a study conducted in part by the Institute of Microbiology in Rome, Italy and published in *Applied and Environmental Microbiology* (Dec. 1992), stated that "Pure electro-colloidal silver out-performed silver nitrate, silver chloride, and silver sulfadiazine as a broad spectrum germicide. For all classes of bacteria, fungus, and mold samples tested, pure electro-colloidal silver worked better, and at much lower concentrations. They concluded that **any additives reduced the effectiveness of the pure silver ion.**"

According to Dr. Evan of Illinois, Kansas **"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 resolved twenty four 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 be a great adjunct to our Candida albicans, Epstein Barr Virus and Chronic Fatigue Syndrome protocols.

What is Ionic Silver?

Ionic Silver is produced as the electrical current passes through one of the silver rods, hydrogen and hydroxide ions are produced making the distilled water slightly conductive just enough to allow the electrical current to flow through the water toward the other silver rod.

As this process gradually accelerates, submicroscopic silver ions are slowly released into the water from one of the silver rods, where they're suspended by a positive electrical charge.

These tiny atomic and molecular particles of silver act as electrolytes, allowing the electrical current to flow even more strongly between the two silver rods, liberating even more silver ions in the process.

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Unlike the metallic form of colloidal silver, these are not tiny particles of bare metal elemental silver. Instead, they're tiny, electrically-charged atomic and molecular particles of silver which is to say, they're silver particles missing an electron.

Physically, the missing electron and the resulting positive electrical charge is the only thing that distinguishes these silver particles from bare metal elemental silver particles.

Indeed, it's that missing electron that allows the tiny silver ions to carry their positive electrical charge, which does two things:

- Makes the silver far more biologically active inside the human body against pathogens, and...
- Makes the silver and far more bio-available (i.e., easier for the body to absorb and utilize).

Simply put, the ionic form of colloidal silver is the most readily bio-available and bio-effective form, which is exactly why it's been the best-selling form of colloidal silver for over 1000 years.

Miscellaneous

What Does the FDA Say? According to the United States Government Food and Drug Administration Colloidal Silver may continue to be marketed and used as it was originally intended. Colloidal Silver exceeds FDA recognized standards for safety. In a September 13, 1991 letter written by Harold Davies, U.S. Food and Drug Administration Consumer Safety Officer stated that FDA has no jurisdiction regarding a pure, mineral element.

What About Pets? Colloidal Silver has many veterinary uses, such as healing burns and infections, and is also an effective treatment against the dreaded canine parvo virus.

In The Garden? You'll also find Colloidal Silver very handy in the garden, against bacterial, fungal, and viral attacks on plants. Simply spray diluted Colloidal Silver on the leaves, and add to soil.

On Vacation? In addition to being the most essential first-aid kit item it can also be used to purify drinking water. Don't go on vacation without it!

Therapeutic Goods Administration - Colloidal silver & related products

Summary

In December 2002, an amendment was made to the Therapeutic Goods (Excluded Goods) Order such that products containing substances like colloidal silver, which make therapeutic claims, are no longer goods excluded from therapeutic goods legislation and must meet the requirements of other therapeutic goods. Colloidal silver products that are used in the purification or treatment of drinking water, and which do not make therapeutic claims, will remain excluded from therapeutic goods legislation.

Background

In 1998, the Complementary Medicines Evaluation Committee (CMEC) was requested to provide advice to the National Drug and Poisons Scheduling Committee (NDPSC) on the efficacy of colloidal silver as a complementary medicine, to assist them in considering the use of the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) in providing safeguards in the use of this substance.

Following an investigation by the Therapeutic Goods Administration (TGA), the CMEC recommended that the NDPSC be advised that there are no current legitimate uses of colloidal silver and that the Surveillance Section of the TGA be requested to investigate the illegal availability of colloidal silver products because of concerns about their significant toxicity. The reasons for the recommendation were that:

- there is little evidence to support therapeutic claims made for colloidal silver products;
- the risk to consumers of silver toxicity outweighs the value of trying an unsubstantiated treatment, and bacterial resistance to silver can occur; and
- efforts should be made to curb the illegal availability of colloidal silver products, which is a significant public health issue.

Ongoing concerns over the safety of colloidal silver led the CMEC to recommend that action be taken by the TGA in regard to the safety risk posed by illegal or potentially illegal products containing colloidal silver. The Surveillance Section of the TGA subsequently advised that it was not able to take any action against colloidal silver products regardless of whether such products make therapeutic claims or not. This is because colloidal silver may be used in the purification or treatment of drinking water and such goods were excluded, by virtue of the Therapeutic Goods (Excluded Goods) Order (the Order), from the requirements of the Therapeutic Goods Act 1989 (the Act).

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The TGA undertook action to change the Order so that all products which may have a use in the purification or treatment of drinking water but which are marketed with therapeutic claims are not excluded from the requirements of the Act.

The TGA consulted with the peak complementary medicine industry bodies, the water quality industry and relevant government agencies that might be affected by the proposed change. There was broad support for the TGA's proposal, with the proviso that the genuine use of colloidal silver for water purification purposes should not become captured under the Act.

A notice was published in the Gazette on 20 December 2002 which removed water purification substances, including colloidal silver, for which therapeutic claims are made from being excluded goods. Given the increased promotion of these products and the associated risk to public health, the change to the Order came into force on the date of gazettal.

The TGA contacted current and potential suppliers of products based on colloidal minerals for which therapeutic claims are made to alert them to the revised regulatory status of such products.

Current situation

As of 20 December 2002, colloidal products which make therapeutic claims are classified as therapeutic goods under the Act. To date, the TGA has not approved any colloidal silver products for use as therapeutic goods in Australia. The TGA will take action to stop the supply of any unapproved colloidal silver products which make therapeutic claims.

Sponsors wishing to market colloidal silver products as therapeutic goods in Australia will need to submit an application, with relevant supporting data, to the TGA. This could be in the form of an application to have colloidal silver approved as a new Listable substance (on the basis of demonstrated safety and quality) or an application to have products containing colloidal silver included on the Australian Register of Therapeutic Goods (on the basis of demonstrated safety, quality and efficacy). As for all such applications, sponsors are encouraged to seek the assistance of a consultant familiar with TGA application processes and requirements.

For further information on this topic please contact the TGA Information Officer by telephone on 1800 020 653 or email to info@tga.gov.au

Updates

- 11 June 2008: Therapeutic Goods (Excluded Goods) Order No. 1 of 2008 revoked and replaced Therapeutic Goods (Excluded Goods) Order No. 1 of 2005.
- 9 November 2005: Therapeutic Goods (Excluded Goods) Order No. 1 of 2005 revoked and replaced Therapeutic Goods (Excluded Goods) Order No. 1 of 2004.

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