

A Brief History of Silver and Silver Colloids in Medicine

Silver containers and ultra fine grain silver solutions have been used as a medicine and preservative for thousands of years. The reason for this is simply that it works. The Greeks and others used silver vessels for water and other liquids to keep them fresh. Pioneers trekking across the wild west generations ago faced many hardships. Keeping safe drinking water was one of them. Bacteria, algae, etc. found a fertile breeding ground in the wooden water casks that were carried on the wagons. They placed silver and copper coins in the casks to retard the growth of these spoilage organisms. They also put silver dollars in their milk to keep it fresh. Settlers in the Australian outback still suspend silverware in their water tanks to retard spoilage. Silver water purification filters and tablets are manufactured in Switzerland and used by many nations and international airlines. Preventing growth of algae and bacteria in swimming pools is a similar problem that people face today. Electrical ionization units that impregnate the water with silver and copper ions are available today that sanitize the pool water without the harsh effects of chlorine. Silver mesh filters embedded in pottery are used in third-world countries today as a cost-effective method to purify drinking water.

In the past, certain metals have caused serious problems when ingested. The problems with lead and mercury are well documented. However, today we know much more about the properties of the elements and some metals when consumed in the proper quantities are not only beneficial but necessary for good health. Examples of these beneficial elements are zinc, potassium, silver, and others.

In contemporary times, it has been regaining popular among alternative medicine enthusiasts. Silver does indeed have powerful broad-spectrum germicidal and anti-viral properties. It was employed as a germicide and antibiotic before the development of modern antibiotics. After reviewing the literature on the prior usage of colloidal silver in the pre-antibiotic era, it becomes evident that the dosages they used were far in excess of the usual recommended dosages of current over the counter health food products.

Silver was used as a medicine in the late 1800's and early 1900's. Silver, along with other metals was discovered to possess germicidal properties. Silver alone showed both strong germicidal properties and low or no toxicity to humans. Silver in a pure colloidal suspension state has proved to be the most effective form because it lacked the caustic properties of salts (such as silver nitrate), it has demonstrated a high level of activity with very low concentrations, and the very small particle size passes through the body without accumulation.

Medicinal silver compounds were developed in the late 1800's and there was widespread use of silver compounds and colloids prior to 1930. By 1940 there were approximately four dozen different silver compounds on the market being used to treat every known infectious disease. These were available in oral, topical, and in some cases injectable forms.

These different silver preparations were drastically different from each other. Some were true colloids of silver, others were colloids of silver salts or other compounds of silver, many were silver proteins, and some couldn't legitimately be called colloids. The actual silver content also varied widely, with some products containing 30% silver by weight.

The effectiveness of the silver solution or suspension, as an antibacterial, depended on the composition of the product, the initial quality of the product and the time elapsed since manufacture. Consequently, there was a wide variation in their effectiveness and safety.

With some products, skin staining could occur from topical use and, because of the relatively high silver content of some compounds, there was a greater risk of silver toxicity and argyria. None of these products were as effective against bacteria as silver nitrate. However, silver nitrate has potential serious side effects due to its toxicity.

With the discovery of powerful new antibiotics, interest in Silver as an anti-microbial medicine declined. There were at that time no antibiotic resistant strains of disease organisms and there was a lot of excitement over the new wonder drugs. There were also problems with silver based pharmaceuticals. The over use of certain types of protein bound silver compounds caused a discoloration of the skin called argyria and the therapeutic results were variable depending on the age and quality of the preparation.

A correlation (not an explanation) of some of the diverse reported effects and discrepancies in reported effects of colloidal silver can be found by regarding colloidal silver as a Homeopathic substance rather than an antibiotic. In Homeopathy, a substance is "proven" by administering large doses to a group of healthy individuals and observing the symptoms that develop. Then when a patient has the same or similar group of symptoms a highly diluted preparation of the same substance is given to correct the condition. *Simila Similibus Curenteur* is the Homeopathic motto. Illnesses are treated by the "rule of similars."

Colloidal silver is produced by passing a small electrical current through pure silver electrodes, which are submerged in pure distilled water. The colloidal suspension is created when microscopic particles of silver come out of the silver electrodes, pick up an electrical charge from the current, and become evenly suspended throughout the water. The silver does not go into solution with the water but instead floats freely between the water molecules. The amount of silver in suspension is measured in a unit called "Parts-Per-Million" (PPM), which is basically a comparison of silver atoms to water molecules. (For example: 5 ppm equals 5 silver atoms for every one million water molecules). It becomes clear that a very small amount of silver can be highly effective in destroying dangerous microorganisms while at the same time remaining harmless to the body itself.

It so happens that the 1, 5, and 10 PPM colloidal silver products had concentrations of silver in the same range as Homeopathic preparations. The most common complaints treated with colloidal silver appear to be the common cold and flu. The Homeopathic symptom profile for silver corresponds to many of the common symptoms of colds and flu.

Homeopathy was developed over 200 years ago in Europe by physicians who did not have access to modern scientific tools. They believed in a concept that today would be called "energy medicine". Most allopathic medical doctors and scientists do not consider Homeopathy to be valid, yet its empirical track record is impressive. In addition, more recent research into the scientific principles relevant to homeopathy are giving credibility to this school of medicine while provoking hostility in the debunkers. Recent studies in the field of Homesis (Not related to Homeopathy) has indicated that very small trace amounts of certain toxic elements and compounds can trigger a strong boost effect in activating the body's immune system, and may actually be needed for good health.

The critics of colloidal silver focus on two things: (1) Unsubstantiated claims by promoters and (2) The toxic characteristics of silver. In some cases the language used by critics can be as biased and critical as the promoters. There are also many sincere individuals who hold diverse and opposing viewpoints.

Their concern over the sales hype in marketing colloidal silver has some justification. There are some who promote consumption with little regard to the accuracy or truthfulness of their statements, or for the appropriate use of colloidal silver or for the quality of their product. It appears that most of them have copied the pitch of their predecessors without checking the accuracy or truthfulness of the statements. This isn't true of all colloidal silver promoters but it only takes a few bold and reckless ones to give them all a bad rap and their critics an excuse to quash them all.

The toxic effects of silver is another matter. Like many substances, silver is toxic when used in excess. However, it is totally harmless if used in small amounts and there appears to be a wide gap (gray area) between the small amounts that are useful levels and the extremely high levels that are toxic. Iron and zinc are the same way except that too little can be as bad as too much. We usually depend on a good diet to provide the right amounts of many of these important trace minerals, but often that just isn't enough.

Critics of silver sometimes state that it has been known to cause organ damage, kidney damage, pulmonary edema, atherosclerosis and death. Many of these claims appear to be based on a research study on dogs in which the dogs were deliberately killed by extremely large lethal doses of silver (in large particle size) in order to enable the investigators to study silver toxicity. At the doses given any heavy metal and probably many essential minerals like zinc, iron, copper, etc. would have produced death in a similar fashion. Out of context references like this do nothing to bring light to the subject. This study is reviewed in a more meaningful context in this document.

Critics also say that there is risk of developing a condition called argyria in which excess (in large particle size) silver is trapped in the skin and tissues causing discoloration and possibly other harm. This is possible and those who use colloidal silver need to be aware of it. The issue of toxicity is of major importance and it needs to be understood

by everyone using colloidal silver. Since colloidal silver has become popular, numerous (probably tens of thousands to hundreds of thousands) of individuals have consumed colloidal silver, some of them in substantial quantities. It appears that the modern low concentration versions of colloidal silver are better tolerated and eliminated from the body than those preparations from the early 1900's. Still there is a lot that needs to be better understood about silver toxicity. To date, there have been no reports of argyria caused by moderate levels of pure silver in a colloidal suspension (small particle size) using a distilled water base.

That the present time, the EPA guidelines appear to establish the best tolerance levels for silver, which happen to overlap the best levels for effective germicidal and anti-viral properties. The EPA says four tablespoons a day for 70 years (of 5 PPM colloid) is an acceptable intake of silver. The nominal amount for good health practice is two tablespoons a day of 5 PPM colloidal silver, with higher levels being acceptable for short periods. The small particle size allows adsorption directly into the blood stream, by swishing it around your mouth. Due to the small particle size, excess colloidal silver is typically released through normal elimination within 5 days. Topical usage is not as restrictive since very little is trapped in the skin and larger quantities colloidal silver may be required to flush an infected area.

With regard to the political correctness, or incorrectness, of colloidal silver, It is necessary to maintain a balanced perspective. If you think "FDA approved" medicines are safe, go to the library and look them up in the PDR (Physicians Desk Reference). If you like to read scary stuff, this is a good hobby. In addition, doctors are pressured by drug companies to use drugs approved in one application, in other areas where they may be unsafe! On the other hand, some folks who are dedicated to "natural alternatives" often consider anything from a pharmaceutical company to be "bad". They need to remember that most antibiotics were derived from natural substances (like penicillin from molds) at one time. Common sense and an ethic of "do no harm" to yourself or others must prevail.

There is a lot of concern today about the threat of new antibiotic resistant diseases, the potential for devastating plagues, and even terrorists attacks. There is also strong historical and testimonial evidence that silver will work as a broad-spectrum antibiotic. Given a specific infectious disease, proper diagnosis and the informed consideration of all alternatives is essential. The use of silver in the treatment of infectious diseases may be appropriate in situations where the infection is truly dangerous and safer alternatives are not available or have failed to prove effective. Anyone using silver in these situations must engage a physician as an ally. In terms of self protection in case of an national emergency, first aid kits, travel, etc., individuals need a proven method for producing their own antibiotics and colloidal silver appears to be the best way of doing this.

There is a great need for credible research to be performed by independent institutions regarding the toxicity, toxic mechanisms, potential clinical uses, and usage protocols for colloidal silver. Pharmaceutical companies won't spend money doing that because they can't patent it and make money on it and published proof of effectiveness could result in an inexpensive colloidal silver competing with their products.

Recently, with the development of antibiotic resistance in many diseases and the increase in the new strains of bacteria and viruses worldwide, there is renewed interest in silver. Large companies are developing and introducing new silver compounds for a variety of anti-microbial applications, including protection against the spread of the AIDS virus.

Today, the sale colloidal silver is restricted by the FDA. If sold at all, it must be as a trace mineral supplement without medical claims or claims of specific benefits. Under pressure from the large drug companies that want to push expensive drugs, the FDA is acting as the "Word Police" to restrict access to information about its benefits. Due to the lack of potential profit, Its' need, or lack of need, in human nutrition is not scientifically studied and established. It remains popular as an "alternative" health care modality because of the large number of anecdotal reports of positive benefits. The best source of colloidal silver is the make it yourself. Be sure to follow proper guidelines to insure a consistence product of a known concentration level.

