

The Colloidal Silver Hand Book

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[1. History of Colloidal Silver](#)

Silver is a powerful, natural antibiotic that has been used for thousands of years, with no harmful side effects ever having being observed. Great Grandma put a silver dollar in the milk to keep it from spoiling as it sat on the back porch in summertime. Also it is well known that the ancient Greeks knew the medical value of silver. It was observed that those ancient families who ate from silver utensils rarely were sick and had few infections. This knowledge 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 and mixed in their foods. And after a generation or two, they received the full benefit from the silver particles which found their way into the body of these people, hence had little chance of getting any infectious illness. 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 There are many historical references on Colloidal Silver.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 Dec. 12, 1914.

COMMON IN AMERICA PRIOR TO 1938 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. There were none of today's antibiotics available, and Colloidal Silver was used for just about everything. But Colloidal Silver was relatively expensive back then, just as today's man made antibiotics are expensive.

SAVINGS IN COST TODAY Due to a recent breakthrough in the modernization of an original, pre- 1983 method of production, a more concentrated product is available at a tremendous savings in cost. Not only is Colloidal Silver much cheaper than it used to be, it also is much cheaper than today's antibiotics. Furthermore it is available without a prescription.

CURRENT MEDICAL INTEREST Today, Colloidal Silver is rapidly gaining favor in the medical community, reflecting a kind of revival in the public health sector. Dr. Richard L Davies, executive director of the Utah Silver Institute, which monitors silver technology in 37 countries, reported in 1978: "In four years we have described 87 important new medical uses for silver. We are just beginning to see to what extent silver can relieve suffering and save lives. Some contemporary references from which this information is drawn include Dr. Harry Margraf of the St. Louis University, Dr. Charles Fox of the Columbia University; Dr. Carl Moyer, Dept. of Surgery at Washington University and the literature of Dr. Robert Becker- "The Body Electric and Crosscurrents Other sources are listed in the references chapter of this booklet.

BLUE BLOODS TODAY There are true Blue Bloods yet today. All those who through the centuries had the knowledge and resources to use medicinal silver are still Blue Bloods. (Why give up something that works, is simple, cheap and so important to good health?) Many of the world leaders presidents, prime ministers, their families, their advisors and their families use daily Colloidal Silver. They know that they are exposed to extremely contagious disease on a almost daily basis because they are in the business of traveling and meeting many people. By taking Colloidal Silver daily, they can prevent the otherwise certain eventuality of contracting infectious disease. There is another group of people who are also Blue Bloods. These are people who may not have their pictures in newspapers for making global decisions, but they have learned that sufficient daily Colloidal Silver will make anyone a true Blue Blood in about a week, preventing infection thereafter and vastly increasing the chances of surviving a severe burn injury or an outbreak of bio toxins and also enjoying an increased rate of healing and better digestion. They can find no other way so simple, so quick, certain or so cheap.

NO SILVER SPOONS TODAY A thorough search reveals that today there are no silver spoons to be found on the market. If one wanted to purchase real silverware having pure silver on the business, or ladle end, it would be discovered that it is not available. There are some brands having silver inlaid in the ladles, but no silver on the end where it might wear off ever so slightly to the benefit of the user.

RECOMMENDED DAILY AMOUNTS

Individual response may vary from the average amount of Colloidal Silver needed for optimum benefit for most people. About 17 per cent, or one sixth of the population will find maximum benefit from a less than recommended daily amount. And about another sixth will find they need to take more.

TITRATION Determining the amount needed. Begin with the recommended amount of one teaspoon per day. Use half the recommended amount for young children and one fourth for babies. After taking one teaspoon of Colloidal Silver daily for four days, adults may cut back to one -half teaspoon daily (and proportionally, by body weight, for children) The accepted method is for an adult to consume a 125 ml to 200 ml bottle of Colloidal Silver monthly, in any convenient increment any time during the month. In the event a person begins taking Colloidal Silver while having a cold or flu or for any other virus, bacteria or fungus, - the daily amount should begin with triple the dosage (one teaspoon three times a day) for three days, then follow the above regimen. Some people will feel achy and sluggish on the third or fourth day after beginning Colloidal Silver daily. This is called a healing crisis. When the body sluffs off a great many entrenched toxins at once, the eliminatory organs can become overloaded in which case it is recommended to drink lots of extra water this will lessen the symptoms rapidly. If a person, taking the daily amount, finds that he or she will still occasionally have an infection, one may even quadruple the RDD. There should be no danger of overdosing; however, very few people ever need four times the RDD. Since prevention is the idea here, one may err on the side of safety by taking slightly more than a perfect minimum because one never knows when there may be a sudden major outbreak of some germ in such numbers so as to overwhelm the combined defenses of an immune system fortified with only a minimum level of Colloidal Silver. If an attack of germs happens to be stronger than the immediate combined defense level of the body's natural immune system plus a particular level of daily Colloidal Silver, one may feel some illness, or worse.

APPLIED KINESIOLOGY Applied kinesiology is one other means of determining one's own individual need for Colloidal Silver, especially if the individual does not have a cold or other infection to begin with. Recheck from time to time, but always err on the side of excess. Kinesiology can be the most effective way to determine the optimum amount for infants, and very young children also.

BODY BUILDUP AND ELIMINATION Five to seven days is average for the initial benefit of Colloidal Silver to begin. Colloidal Silver will build up in the tissues to at least a concentration of five parts per million (5 ppm) at, on the average, by the tenth day. This is the minimum effective concentration. Higher concentrations are desirable, due to the risks of illness from major exposure to a disease outbreak or major burn injury. One to three weeks after cessation (again this varies with each individual) the Colloidal Silver effectiveness is finally lost and is eliminated through the kidneys, the lymphatic system and the bowel.

2. Colloidal Silver, an Exceptional Antibiotic

Colloidal Silver is the only antibiotic known reportedly to kill all types of viruses, fungi and bacteria. Colloidal Silver is also the only antibiotic known to be perfectly harmless to all parts of the body. Whilst the liver and kidneys can be harmed by other antibiotics, Colloidal Silver promotes healing. COMPARE WITH OTHER ANTIBIOTICS Colloidal Silver is non-toxic to mammals, reptiles, plants and all living things that are not of a one celled structure. One-celled life uses a different method of Oxygen metabolism. herein lies its weakness. Since Colloidal Silver acts only as a catalyst, meaning , it influences a change in the rate, or occurrence of a reaction of one-celled organisms, but does not enter into any chemical reaction with the body tissues. The mere presence of Colloidal Silver near any virus, fungus or bacterium (one-celled disease causing pathogens) will immediately cripple their oxygen-metabolising enzyme, or chemical lung, which suffocates and dies usually within six minutes. The dead organism is subsequently cleared out of the body by the immune and lymphatic system. Each of the other man made antibiotics will kill only five or six types of germs. Increasingly more and more bacteria is becoming resistant to these antibiotics. These bacteria are commonly referred to as Super Bugs, however they are unable to form a resistance to Colloidal Silver which will kill not only the bacteria but also all forms of viruses, a feat no man made antibiotic has managed to date ! A further draw-back of all other antibiotics is that they will destroy a variety of the body's essential enzymes, but Colloidal Silver doesn't, disable or harm in any way the many different human body enzymes, as these enzymes are particularly different to the enzymes of single-celled life. Colloidal Silver actually promotes healing with less resulting scar tissue. No other antibiotic will do that. NO DRUG INTERACTION WITH ANY OTHER MEDICINES OR HERBS There has never been known to have been a silver/drug interaction of any kind. The allopathic prescription pharmaceuticals of today are no more likely to react with silver in the body than did the surprisingly powerful herbs from which they were developed and used for thousands of years, right along with the silver. The chemical nature of silver is such that inside the body it behaves to as to form no compounds that are toxic, and when already in the colloidal and stabilised state, is even further removed from any possibility of the tiniest of problems. Colloidal Silver simply does not react with anything in the body except a germs oxygen metabolising enzyme. KILLS RESISTANT PATHOGENIC STRAINS Disease organisms can become resistant to regular antibiotics, triggering dangerous super-infections. Conventional antibiotics are industrially developed from toxins manufactured by other bacteria for their own defenses- penicillin being a prime example. Disease organisms in the body respond to this cultivated toxin of the conventional antibiotic at about the same rate as they do to the original organism. This is a long enough time that a mutation can, and often occur which will make the organism immune to the particular antibiotic. Colloidal Silver is claimed to work relatively fast - mostly within six minutes or less, upon contact within the body- that these disease causing pathogens have no time to mutate into a resistant strain as such a mutation requires far longer than the time silver

needs to kill the pathogen. 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. To sum up no one celled organism or plant will ever be able to develop immunity to silver. HOW DOES COLLOIDAL SILVER WORK Body tissues having 5 parts per million (5 ppm) of Colloidal Silver will be free of virus, 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 best described as a substance that brings about, or causes a reaction or occurrence without itself participating or being consumed. The Colloidal Silver acts as a catalyst in disabling a particular enzyme, best described as chemical lung, 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 enzyme common to all viruses, fungi and bacteria.- whilst not affecting the enzymes of tissue type cells. WHY IS COLLOIDAL SILVER NON ALLERGENIC There have been no allergic reactions to silver reported in recorded history of the medicinal use of Colloidal Silver, because Colloidal Silver only affects the rate and occurrence of a pathogen's oxygen - metabolism activity as described in the foregoing section. However Colloidal Silver does not react chemically within the body. Over use of Colloidal Silver has only one effect, that is so called Argyria which is the development of a gray blue tinge of the fingernails and the skin. What happens here is simply that the body starts to store the excess silver in the tissue and collagen, which make up the major part of the finger nails. This condition however has no known detrimental effect and will disappear once the Colloidal Silver intake is reduced or discontinued for a while. HOW HEALING IS ACCELERATED Mitosis - the usual cell division in body tissue- is when two new, identical cells are formed. When Colloidal Silver is present in the body tissue, some of the divisions will be different. One duplicate cell and one dedifferentiated cell are formed. The dedifferentiated cell is like a baby cell that can change into any type of cell in the body. It will naturally migrate to a part of the body where there is tissue damage, where the cell changes to a local tissue type cell, adding to the normal cell repair in the injured area and greatly lessening scar tissue formation. This accelerated healing benefit of Colloidal Silver was discovered by Robert O. Becker, MD and was reported in his book, The Body Electric. He and his research colleagues observed a variety of cells which are primitive in appearance, looking just like the active cells in bone marrow of children. These cells grew fast, reproducing a diverse and surprising assortment of primitive cell forms including fully dedifferentiated cells and rounded fibroblasts. Positive Silver Becker states, produces large numbers of dedifferentiated cells, overcoming the main problem of mammalian regeneration. Positive Silver accelerates the healing process by over 50 percent. It is obvious that in the aggregate they profoundly stimulate soft tissue healing in a way unlike any known natural process He further stated in his book: positive Silver kills all types of bacteria existing because no other single antibiotic worked uniformly against all types of bacteria. Positive Silver he says, offers several advantages over previous antibiotic substances. 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.

HOW SILVER WORKS AGAINST FUNGUS A fungus is a series of single cells having tiny tubes of material on the cell wall stretched between the cells. Whether more linear in its spread and expand mode or alternatively more like a fabric in its reproductive mode, a fungus still will exhibit that same characteristic of a one celled bacterium, namely that particular type of chemical lung which is immediately, completely and permanently disabled by the presence of Colloidal Silver. Any fungus is killed within six minutes of contact with silver in the body. The Colloidal Silver Simply suffocates it!

HOW SILVER WORKS AGAINST VIRUSES A single virus will invade a living cell of body tissue, then this insidious pathogen will take over the nucleus of the cell and alter its re-productive mechanism to replicate the virus, instead of the enzyme, hormone or other chemical the cell would normally have produced for the body within that cell. Later, the newly produced virus will be released from that cell into the bloodstream. However another interesting process happens. As the virus affects the cell for its own purpose, part of the response of that living cell is that it reverts back to a more primitive cell structure and chemistry. The oxygen metabolizing enzyme in the cell wall reverts to a more primitive form also. This more primitive form of enzyme is vulnerable to the effect of Colloidal Silver. The catalytic effect of the Colloidal Silver simply by being near the enzyme of this cell results in that enzyme becoming permanently disabled. It cannot function to bring oxygen into the cell and that virus host cell now dies. This process will take no more than six minutes and the body will dispose of it as it would any other of the millions of cells that end their usefulness each day.

DOES SILVER WORK AGAINST 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 to act as its chemical lung, which is promptly crippled by the mere presence of Colloidal Silver as stated before, the cell suffocates and dies thus denying the virus to replicate. The 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. YES, future ! Because 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.

DOES SILVER WORK AGAINST CANCER ? The mutation of healthy cells into cancer cells occur continuously, even in healthy bodies. But such cancer cells are destroyed by the body's natural immune system at a rate about the same as they occur, and when the body condition is stable, there is nothing manifest that a healthy person would experience as cancer. Some types of Cancer are reported to be caused by a virus. Like with any virus, upon invading a body tissue cell it will take over the cells reproductive chemical factory thereby forcing the cell to replicate the virus instead, the cell will revert to the primitive state thus enabling the Colloidal Silver to be effective and kill the cancerous cell. A higher concentration of Colloidal Silver means more immediate

contact with any virus or other pathogen.

3. COLLOIDAL SILVER AS A PREVENTATIVE

Colloidal Silver, as a preventative is unsurpassed. Sufficient Colloidal Silver taken daily precludes infection, disease, contagion and serious burn toxicity. IT SERVES AS A SECOND IMMUNE SYSTEM Taking Colloidal Silver daily is like having a second immune system. It lessens the load on the body's natural immune system and effectively kills the many bugs present throughout the body. In addition, it lessens the toxicity due to the average amount of germ, virus and fungus activity that occurs naturally in the body. However, tests prove that, due to the high absorption of silver in the small intestine, the friendly bacteria in the large intestine are not affected. The second immune system acts parallel to, and independent of the body's own first in line defense - a major advantage in warding off outbreaks of influenza or any germ plague or pestilence. IT HELPS IN SEVERE BURN CASES Colloidal Silver, as a preventative is unsurpassed. Sufficient Colloidal Silver taken daily precludes infection, disease, contagion and serious burn toxicity. IT SERVES AS A SECOND IMMUNE SYSTEM Taking Colloidal Silver daily is like having a second immune system. It lessens the load on the body's natural immune system and effectively kills the many bugs present throughout the body. In addition, it lessens the toxicity due to the average amount of germ, virus and fungus activity that occurs naturally in the body. However, tests prove that, due to the high absorption of silver in the small intestine, the friendly bacteria in the large intestine are not affected. The second immune system acts parallel to, and independent of the body's own first in line defense - a major advantage in warding off outbreaks of influenza or any germ plague or pestilence. IT HELPS IN SEVERE BURN CASES Sufficient daily Colloidal Silver is to have greater than five parts per million. Recommended is a higher dose titration, as determined by kinesiology, to an indication toward protection from all infection. To charge tissues with large amounts of Colloidal Silver is to be ready for any attack of germ and the inevitable biotoxins resulting from severe burn injury! When obtaining Colloidal Silver preparation the strength of the product must be taken in consideration. Tests have shown that preparations containing less than 30 parts per million of silver are not effective, as the amount of Colloidal Silver needed to bring the body's silver to an effective level would (with some 5ppm Ag products) require the consumption of two litres of undiluted product a day! Fortunately, advances in the manufacturing technology of Colloidal Silver allow the manufacture of Colloidal Silver with 30 and 50 + mg. of Silver per Litre.

4. OTHER ESTABLISHED USES OF COLLOIDAL SILVER

An amazing, yet still only partial list of more than 650 diseases that Colloidal Silver has been used against include (in alphabetical order): Acne, AIDS, allergies, appendicitis, arthritis and athletes foot, bladder infection, blood parasites, blood poisoning, boils, bubonic plagues and burns; cancer, candida,

canine parvovirus, chilblains, cholera, colitis, conjunctivitis and cystitis; dandruff dermatitis, diabetes and dysentery; eczema and encephalitis; fibrositis; gastritis and gonorrhea; hay fever and herpes; impetigo and indigestion; keratitis, leprosy, leukemia, lupus, lymphangitis and lyme disease; malaria and meningitis. Also, neurasthenia; parasitic infection, pleurisy, pneumonia, prostate infection. pruritis ani, psoriasis and purulent ophtalmia; rheumatism, rhinitis and ringworm; scarlet fever, septic conditions (eyes ears, mouth and throat), seborrhea, septicemia, shingles, staph and strep infections, stomach flu and syphilis; thrush (yeast infection), thyroid infections, tonsillitis, toxemia, trachoma, trench foot and tuberculosis; ulcerated stomach; virus (all forms) ; warts and whooping cough and yeast infection (females).

RECOMMENDATIONS FOR SKIN PROBLEMS While Colloidal Silver is used as a preventative against viruses, bacteria and funguses through daily oral use; Colloidal Silver has been also applied directly to open wounds and sores to eliminate surface infections. Apart from its beneficial effect Colloidal Silver does not sting or burn. Other antiseptics sting when applied to a wound because they are killing the surrounding tissue cells as well as killing the germs. But whilst Colloidal Silver kills the topical germs within six minutes, it does not harm any surrounding tissues.

Acne: In addition to omitting sugars, fats and chocolate from the diet, any person with acne should wash and rinse the face thoroughly four times a day; and after each rinsing, use a small amount of Colloidal Silver and massage it onto the problem areas two to three times with a finger or a tiny piece of cotton or tissue. This wash- rinse-massage activity may be continued throughout an acne breakout, or better, as a continuous prevention through the teen years. This continuous habit precludes breakouts, leaving the skin continuously clear. Most people find it helpful to carry a 50ml or 200ml bottle of Colloidal Silver with them for availability throughout the day.

Cuts and abrasions: Apply Colloidal Silver directly to the open wound and onto any dressing used. Colloidal Silver may be used as the only medication on the dressing, or it may be used with another medication.

Eczema and skin rash: Dab Colloidal Silver directly onto affected area, rubbing slightly. Repeat often to keep the area moist. Bandage lightly, if desired, keeping the bandage moist with Colloidal Silver. Change bandage daily.

Warts: Cover the wart with a small adhesive bandage saturated with a few drops of Colloidal Silver. Keep the bandage moist. The wart should disappear within a few days. Large warts may take a few days longer to disappear.

RECOMMENDATION FOR INTESTINAL PROBLEMS Optimum digestion: Put all, or a fraction of the recommended daily amount of Colloidal Silver, as determined by titration, into the beverage of choice accompanying any meal. As the food is digested, the presence of Colloidal Silver will keep the food from putrefying in the digestive tract, killing any germs ingested with the food, and leaving the food more useable. Also there will be no flatulence.

Parasitic infections: To take an amount of Colloidal Silver, again as determined by titration to preclude parasitic diseases caused by tiny, worm like animals that burrow through a particular organ, or in some cases throughout the entire body. In every case, these parasites reproduce by laying eggs and these eggs have the same characteristics of the oxygen-metabolising enzyme as the single celled bacterium.

These eggs cannot hatch when there is sufficient Colloidal Silver in the surrounding body tissue. They are killed within a short time and subsequently eliminated by the immune system. Diarrhea diseases: A number of diseases such as cholera, canine parvovirus or other diseases, where the pathogen resides mainly in the large intestine, can be fatal. The fatality is mostly due to the dehydration of the body resulting from severe and prolonged diarrhea and vomiting. The pathogen causing the problem is active in the large intestine, the one place where Colloidal Silver when used correctly will not penetrate. There are two different methods to overcome this barrier. The first is to take a 200 ml glass dosed with Colloidal Silver together with three or four big glasses of water on an empty stomach. This way the Colloidal Silver will get into the large intestine and should within a short time take care of the problem. The other method is by way of colonic irrigation the dose rate using a 50mg. Colloidal Silver preparation is 15 ml per 200ml. of sterile water. This method in fact brings the fastest relief from the disease, Medical literature reports that Cholera has been cured with Colloidal Silver. Healing crisis: This is a condition wherein the Colloidal Silver is killing the pathogens very rapidly. The body's five eliminatory systems, the kidney, liver, skin, bowel and lungs become temporarily overloaded. This especially is true in the case of overcoming AIDS with Colloidal Silver. One may feel as though he or she has the flu. It is recommended to continue the silver regimen, yet drink up to 4 liters of water a day, take five or six grams of vitamin C and a high enema. Repeat for two or three days. Please note if the healing crisis persists see your local practitioner for additional advise. RECOMMENDATION FOR PURIFYING FOOD & WATER Water purification: Colloidal Silver is an excellent water purifier. Water stored with one or two tablespoons of Colloidal Silver per 5 litres will be safe and sweet tasting for a very long time. Water containing germ contaminants (not toxic chemicals) can be made drinkable by adding two to three tablespoons of Colloidal Silver per every 5 litres of water. The Silver whilst purifying the water is also beneficial to the body, unlike the commercial tablets containing toxic chlorine bleach! To guard against such water-borne diseases such as dysentery, the following airlines now use either silver water filters or a well known Hydrogen Peroxide/Colloidal Silver combination. British Airways, Swiss Air, Scandinavian Airlines, Lufthansa, Air France, Canadian Pacific Airlines, Alitalia, KLM, Japan Airlines and Pan Am. The Swiss and Australian Government has approved either or both the silver water filters or the hydrogen Peroxide/Colloidal Silver preparation which are now used in homes offices and town water supplies. After testing 23 methods of purifying water, NASA selected a silver system for its space shuttle. Home-canned foods: One-half teaspoon of Colloidal Silver per 1 liter in home-canned foods precludes the growth of all bacteria, virus and fungus. As the food is consumed, the presence of silver will aid in the digestion process by not allowing fermentation of starches contained in the food, and will prevent the putrefaction of protein or rancification of fats in the digestive tract. Neither will there be a formation of gas in the bowel, nor food decay from toxins to diminish a sense of well being. Most commercial food processing operations to date have elected to use preservatives which, unlike Colloidal Silver, are toxic and poisonous to people. were these commercial food processors to use Colloidal

Silver instead, it would yield the triple benefit mentioned above. Questionable refrigeration: In addition to keeping prepared foods cool and well sealed, add about one table spoon of Colloidal Silver per 1 liter (volume) to picnic foods containing mayonnaise, dairy products, or anything that has a potential for Salmonella growth and poisoning. Stir in very well. Leftovers and Condiments: Mix about one quarter tablespoon of Colloidal Silver into each container of mustard, ketchup or pickle relish. Mix one half teaspoon into items that spoil more easily, i.e. mayonnaise, milk etc. They will store longer, remain fresher and benefit digestion.

5. VETERINARY USES OF COLLOIDAL SILVER

The following conditions in animals, birds and fish have been successfully treated with Colloidal Silver: * Bacteria and parasites in house pets, farm animals and birds. * Parvovirus in dogs. * Revival of belly-up goldfish. * Scours and undulant fever in cattle. JAPANESE FIRMS FIGHT AIR POLLUTION Silver can fight deadly poisons also. Japanese firms have announced the following startling technologies that use silver to purify air: One company converts 50 parts per million of carbon monoxide into harmless carbon dioxide by passing the gas through a stack of screens coated with silver compounds. Another uses silver compounds to remove vinyl cyanide, methyl cyanide and hydrocyanic acid from its discharges. Finally a gas chemical company removes all the 200 parts per million of nitric oxide by passing the gas through its silver compounds.

6. UNDERSTANDING THE COLLOIDAL STATE

Most chemistry text books have a chapter on the colloidal state, as if it were a special case. Actually, the colloidal state is the only state for all living things. Within fluid water, the chemical elements of life occur in a flux of halves, or opposite electrical pairs, always in motion and swapping these molecular halves in complex chemical reactions that are the process of growth and repair. In this flux of the body's fluids are the germ pathogens also, whose own molecular pairs interact with those of the body as they strive to survive. They are all parasites that attack and eat the body cells of the host person, dumping their waste into the surrounding tissues and the bloodstream. When this fluid flux contains an electrically charged ion or micro-particle of Colloidal Silver, it selects from among the tissue cells of the body only those disease causing pathogens and suffocates them catalytically, simply by being there; then, unaffected drift on, to repeat the process again and again. The crystalline state is the condition of dry, dead matter. Most medications are in the crystallized state. The body must first convert them to the colloidal state before they can be used. There is some expense to the body in time, energy and effectiveness. During this process some molecular pieces are left over, which burden the body with their need to be eliminated. In the case of Colloidal Silver, nothing is left! CHARACTERISTICS OF COLLOIDAL SILVER Colloidal Silver will react chemically with many of the 92 natural elements and compounds. While many of these compounds are toxic,

pure silver is non-toxic. It acts only catalytically with the enzyme, or chemical lung of single celled organisms. Pure Silver won't dissolve in water, however if pure silver is by some process divided into single atoms or micro-clusters of fewer than 15 atoms each, given a positive electrical charge and attached to a molecule of simple protein, it will float in and throughout the pure water indefinitely, creating a so called colloidal suspension. The force of electric charge is stronger than the force of gravity, thus the particle remains suspended. Much has been written and claimed by people displaying a fair amount of ignorance of the workings of a colloidal substance mainly with regard to the color of colloidal silver. True colloidal silver is a colorless liquid because the micro-clusters of the silver are simply too small for light to reflect back to the human eye (the particular wave length of the reflected light determines the color we perceive) Many manufacturers not being able to make a true colloidal silver preparation resort to using food or other coloring agents to give the liquid a yellow appearance because they somewhere have read that colloidal silver should have a color to its liquid. Color will be noticed if one of the following conditions are present: * The Silver used is of a silver sulfide type and not very healthy (yellow, mainly used in the ceramic industry) * The Silver used is Silver Oxide (brownish, black in color) * The particles are too big in size * Food or other coloring dyes were used * If the silver loses its colloidal state and precipitate out of solution (mainly black) in this case the product will have lost its efficacy and should be disposed of as contrary to some advise to shake the bottle will not revert the silver particles to a colloidal state. People are best advised to stay clear of these products as they are in many cases of dubious quality and most certainly have little or no beneficial effect. If you have any doubt regarding the actual colloidal silver content, ask the vendor for a Batch Sample Silver Analyses. Reputable manufacturers will have Health Department approval for their manufacturing facilities and have their Colloidal Silver batches analyzed and the result of same available for their customers.

7. CARE AND STORAGE OF COLLOIDAL SILVER

Keep Colloidal Silver in the food storage, store it in glass containers only and away from electrical appliances. Although glass breaks easier, glass is the only material that will keep Colloidal Silver for any length of time. DO NOT accept Colloidal Silver packaged in plastic as its shelf life is minimal and the silver particles most likely will plate out on the surface and hence are no longer in suspension. There is an inherent electric charge in the hydrocarbon molecule that will draw the charged silver particle out of solution, bonding it to the side wall of the plastic container! You may not see it but it's there all right. The preparation is then unusable. Do not store Colloidal Silver in a refrigerator or freezer, as the long term electric charge of the appliance can have the same effect on colloidal silver as does storing it in a plastic container. WHEN IT MAY BE THE ONLY THING AVAILABLE Some people believe there may be a time in the foreseeable future when food storage may be the only means of antibiotic/disinfectant for any of us. Life would be very different then, with many items unavailable, and a storage of

Colloidal Silver could be life saving. A very different condition in the future could be rampant diseases, plagues from contamination's of the water and air through man made Bio-toxins of germ warfare (as seen in the Strecker Memorandum video) Whatever the source, either invasion or local error any military activity can result in a major outbreak of anthrax or lesser causes resulting in Salmonella poisoning. Another extreme threat for our immediate future is the emergence of so called Super Bugs. Because of the current over-use of pharmaceutical antibiotics today, many virus and bacteria organisms will be immune to the conventional medicines! Colloidal Silver is not only a way of prevention now, but may possible be our best choice to store for future use.

8. MEDICAL STUDIES AND OTHER TESTING

Colloidal Silver and illness: The author of body Electric Dr. R. Becker, noted in his studies a correlation between low silver levels and illness: Those who had low silver levels frequently were sick more often with colds, flu, fever and other illnesses. He said he believes a silver deficiency is the reason for the improper functioning of the immune system and that silver is critical for the destruction of bacteria and viruses. Becker's experiments conclude that silver works on a wide range of bacteria without any side effects and without any damage to the cells of the body. Colloidal Silver and healing: Becker also states that the silver ion was doing something more than 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 change 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. Colloidal State and Cancer: Again Becker concluded that in the presence of silver ion, cancer cells change back to normal cells regardless of their location in the body. He concluded that the presence of silver ion regenerates tissues and eliminates cancerous cells as well as eliminating other abnormal cells. Dr. Bjorn Nordstrom 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. Swimming pool water purification: Silver is widely used to purify swimming pool water, and it does not sting as does chlorine. A dramatic demonstration in Nebraska recently placed 250 liters of raw sewage into a pool containing no disinfectant. A standard measure of fecal contamination is the count of Escheri coli (E. coli) and organism found in the human intestinal tract. The count soared to 7000 colony forming E coli cells per milliliter of water. Subsequently the water was flushed through a silver electrode array, which totally eliminated the E.coli within three hours. Follow-up tests also shown the water to be completely free of other one-celled organisms. Hydroponics testing: Tests in a hydroponics greenhouse showed that Colloidal Silver is absorbed and used by the living plant as are any other minerals. Hydroponics is an ideal gardening method having only one problem: Viruses, funguses and bacteria tend

to thrive in the plant nutrient fluid. Colloidal Silver is proven to kill every one of the pathogens, and without any consequence to the nutrient medium or to the delicate plants. In addition, the plants ingested the silver through their roots, thus becoming a source of the silver minerals for human consumption. Overdose testing: In laboratory tests since 1985 researchers knew that overdose testing needed to be performed. One lab technician involved in the project from the beginning, volunteered himself as a guinea pig for the first project. He consumed 1 liter of water dosed with a high concentration of Colloidal Silver for a period of several weeks. The chemistry of his body fluids was monitored, as was his general well being (colds flu headaches etc.). He was especially observed for any change in skin color to see if the technicians skin would develop a gray pallor of Argyria. He had no change of color in his skin, felt more vigorous and alert and experienced no aches or colds etc. Others in the laboratory repeated the test themselves finding the same results. UCLA study: It is claimed that some years ago an independent research laboratory sent to the University of California in Los Angeles a sample of Colloidal Silver to be tested against AIDS and anthrax. UCLA undertook the tests and proved conclusively that Colloidal Silver was highly effective in remedial applications against both disease pathogens. The independent researcher has obtained the same results in his own laboratory, and sought confirmation from UCLA. When the UCLA laboratory director called to confirm those findings, the director of the independent laboratory asked to have as the test results on a letter bearing the UCLA letterhead. However he was advised that a payment of U\$ 10,000 was required for this letter. The UCLA lab report confirming the effectiveness remains unofficial.

9. Glossary

Argyria or Argyrosis: a condition of skin having a gray blue pallor caused by excess silver being stored in the skin

Bacteria: Morphologically simplest group of organisms of various species concerned in fermentation, putrefaction and the production of disease

Collagen: the protein contained in connective tissue and bones and finger nails.

Colloidal state: a system of particles in a dispersion medium in which the particle diameters are between 10^{-7} and 10^{-9} m, i.e. between true molecular solution and a coarse suspension.

Enzyme: a protein capable of catalyzing a chemical reaction necessary of the cell

Fibroblast: is the nucleus cell responsible to manufacture the cells and enzymes of the body's immune system.

Lymphatic System: are vessels within our body conveying the so called lymph, a clear to yellow slightly alkaline fluid derived from the tissue of the body (primary

part of the body's sanitation system.)

Silver: Ag precious metal one of the earliest known metals contained in earth's crust at a concentration of 0.1ppm and in seawater at 0.01 PPM.

Titration: to ascertain the required quantity of a substance by volume or weight which exactly fulfills certain given requirements.

Virus: infective disease agent, smaller than a micro-organism and requiring living cells for multiplication.

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