

BOB BECK LECTURE

TAKE BACK YOUR POWER!

CONQUERING “INCURABLES” WITH MICROCURRENTS!

BLOOD ELECTRIFICATION is a proven, startling, rapid, inexpensive and safe discovery for proven remissions.

A suppressed medical breakthrough now apparently guarantees anyone total power to reverse previously “incurable” diseases ***INCLUDING HIV and CANCER*** with a simple electronic device.

Lecture

A tested, revolutionary but almost unbelievable medical discovery may enable rapid AIDS, Epstein-Barr, Hepatitis, Cancer, Lupus and other disease elimination. Total cost is about \$1.32 per patient per remission of symptoms and requires NO doctors, surgery, drugs, diet, medical bills, shots, herbs, or outside intervention. This breakthrough is now yours despite apparent suppression by medical and pharmaceutical cartels.

Workshop

EVERYTHING needed to enable rapid do-it-yourself recoveries from previously “incurable” viruses, bacteria, microbes, pathogens, fungi, and parasites in TOTAL PRIVACY with complete instructions plus legal loopholes which may keep researchers unmolested by FDA while healing themselves and others. *Most* subjects are symptom free within 4 weeks.

Developed independently by Bob Beck, it's here NOW !

We have nothing for sale!

March 20, 1997

"Most men occasionally stumble over the truth, but most pick themselves up and continue on as if nothing had happened".
Winston Churchill

Dear fellow researcher, (HIV only)

This "theoretical" (*keep it legal...*) information is yours now. But before you start, you may wish to get a PCR test (count of active HIV cells in blood) and a second one 90 days after completion of neutralization. Some show dramatic drops, a few show negative HIV counts. However in most cases *symptoms* vanish or decrease dramatically regardless of test results.

Several subjects (but not all) have shown a *NEGATIVE* PCR test (polymerase chain reaction; K. Mullis, 1983) after completion (indicating no more active HIV detectable in blood.) But it's normal for common HIV *antibody* tests to remain the same even after complete remissions, just as you will always carry specific antibodies if you've once had childhood diseases like measles, chicken pox, or mumps. Many other diseases including cancer may vanish with electrification and silver colloid ingestion, plus ozone water detoxification.

This very slight and mild electrification of your blood does not kill any viruses or harm normal blood cells. Instead, the minute currents appear to alter and inhibit the ability of the outer protein layer of the virus to attach to lymphocytes (reverse transcriptase process) This blocks the binding of the HIV virus with the host cell (Thymic-T lymphocyte; CD4 T-helper cells) so the virus is thought in effect to be neutralized, immobilized and eventually eliminated from the body. Rate of recovery is the product of current intensity multiplied by time of exposure. (Kaali; with Lyman and Merkatz; 1994 paper.) This communication describes a safe and tested procedure for interrupting HIV reproduction. But you **MUST** avoid ingesting any medicinal herbs, domestic or oriental, since blood electrification causes electroporation of cell membranes and can thus cause tremendous increase of molecular transport into cells resulting occasionally in extreme and toxic overdosing. Allow one week to eliminate herbs and other medications from body before blood electrification. (See J.C. Weaver, Havard-MIT Division of Health Sciences and Technology in *Journal of Cellular Biochemistry* 51:426-435; 1993.)

With AIDS, be prepared for a temporary initial *DROP* In T-cell count due to lysing (dissolution) of previously infected white cells by treatment-destroyed HIV and its subsequent scavenging by macrophages since tests count *both* healthy and infected cells. Also some patients do not test PCR negative however practically all will experience a dramatic decrease in symptoms. T-cell counts CD4 (T4) may recover and continue to rise dramatically after a few months since tests count both healthy and infected cells.

When discussing your recovery, please refer to all data and claims as "hypothetical" to avoid entanglement with FDA and legal constraints forbidding use of the word "cures".

If you follow instruction *precisely*, avoiding herbs and toxic medications, and de-toxify properly **YOU may be symptom free in a few months**, safely and surely. We have numerous reports of complete recoveries when all instructions are followed.

Please share your results with me so as to assist others. Your name will not be used. ***We still have nothing for sale. So you have nothing to lose since there is nothing to purchase except a few parts.***

With highest regards, and good luck!

Bob Beck *Bob*

A PROPOSED EXPERIMENTAL/THEORETICAL, NONINVASIVE, NONPHARMACEUTICAL, IN VIVO METHOD FOR RAPID NEUTRALIZATION OF HIV VIRUS IN HUMAN SUBJECTS.

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In a remarkable discovery at Albert Einstein College of Medicine, NYC in 1990, it was shown that a minute current (50 to 100 *micro* amperes) can alter outer protein layers of HIV virus in a petri dish so as to prevent its later attachment to receptor sites, (Science News, March 30, 1991 pg. 207.) It may also reverse Epstein-Barr (chronic fatigue syndrome), hepatitis, and herpes B. HIV-positive users of this enclosed information may expect a *NEGATIVE* PCR test (no more HIV detectable in blood) after 30 days. This is reminiscent of a well proven cure for snakebite by application of electric current that instantly neutralizes the venom's toxicity. (Lancet, July 26, 1986, pg. 229.) And there may be several other as yet undiscovered or untested viruses neutralizable with this discovery; perhaps more surprisingly, even the common cold.

This very simple and valid blood clearing treatment offered great promise as a positive method for immobilizing known strains of HIV still present and contaminating some European and US blood bank reserve supplies. It was further suggested that infected human HIV carriers could be cured by removing their blood, treating it electrically and returning it by methods similar to dialysis as described in US patent # 5,188,738. Dr. S. Kaali, MD, projected that "years of testing will be in order before such an *in vitro* (blood removed for treatment) device can be made ready for widespread use" (Longevity, Dec. 1992, pg. 14.) This paper reveals an alternate "do-it-yourself" approach for electrifying/purifying blood *with no dialysis, implants, or medical intervention*.

In the writer's opinion both blood and lymph can be cleared *in vivo* (which means blood isn't removed or skin ever penetrated) simply, rapidly, and inexpensively with similar but *non-invasive* techniques described herein. All are fully disclosed in this paper. Also included is the proven schematic, parts lists, electrode construction and complete instructions. Electronic and controlled electroporation approaches may well make vaccines (even if possible someday), pharmaceuticals, supplements, herbs, and diet therapies, plus other proposed remedies obsolete, even if they worked and were universally available at no cost.

In a public lecture (Oct. 19, 1991) the writer proposed this theoretical do-it-yourself method for accomplishing HIV, parasite, fungal, viral and pathogen 'neutralization' *in vivo*. Subsequently, his original modalities and protocols have been extensively peer reviewed, refined, simplified and made universally affordable (under \$75 for *both* devices including batteries when self-made). These two simple treatments used in tandem can potentially nullify well over 95% (and perhaps 100%) of known HIV strains residing in *both* blood, lymph, and other body tissue and fluids. Following is a summary of several years of offshore feedback with this noniatrogenic, do-it-yourself, simple and inexpensive experimental solution to the ever escalating AIDS dilemma. There are no known side effects since milliampere currents are much lower than those in FDA approved TENS, CES and muscle stimulators which have been in daily use for many years. Battery replacement costs are about \$1.32 per month per user or about 7¢ per day for a typical 21 day 'spontaneous remission'. No doctors, pharmaceuticals, shots, diets, medications, or other intervention appears necessary.

One compact battery-powered *blood* clearing instrument is basically a miniature relay driven by a timer chip set to ~4 Hertz. Its 0 to 27V user adjustable biphasic output minimizes electrode site irritation. The described system delivers stimulation through normally circulating blood via electrodes placed at selected sites (such as one electrode behind ankle bone on inside of foot and another on opposite foot) over the sural, popliteal, posterior tibial, or peroneal arteries where the subjects' blood vessels are accessibly close to the surface (pg. 7) or on wrist or arm. Optimum electrode positions are reliably located by feeling for strongest pulse (pg. 5.) Micro current, treatment is of such low amplitude that it creates no discomfort when used as directed and is demonstrated to have no harmful side effects on healthy blood cells or tissue. A major obstacle to this simple and obvious solution is contrived aversion and disbelief. Treating approximately 120 minutes per day for four or six weeks should in the writer's opinion effectively neutralize well over 95% of any HIV and simultaneously any other electrosensitive viruses, parasites, bacteria, or fungi in blood. In heavy infections, shorter application times could prevent overloading patients with toxins. Simply treat for a greater number of days or inject ozonized water. In time, the restored immune system plus silver colloid may handle residual problems. In the special case of diabetically impaired circulation longer treatment times may be indicated. (Refer to expanded instructions on pg. 5.) Immobilized viruses may be expelled naturally through kidneys and liver. More rapid neutralization is possible but *not* recommended because of potential excessive toxic elimination reactions (Herxheimer's syndrome). T-cell counts may drop initially because of lysing and subsequent scavenging by macrophages but should recover and increase after a few months. Even negative PCRs are sometimes reported.

Latent / germinating HIV reservoirs in the body's *lymph* or other tissue may theoretically be neutralized with a *second* and separate device by the strategy of generating a very high intensity (-10 kilogauss) short duration (-10 μ S) magnetic pulse of ~20 joules by discharging a modified strobe light's capacitor through an applicator coil held at body points over lymph nodes, thymus, kidneys, adenoids, and other possible internal sites of latent infection (see pg. 8). By the physics of Eddy current / back emf "transformer action" (Lenz' law) the desired criteria of minimum current induced through infected tissue on the order of 100 μ A to 1 mA should be readily attained. Several pulses repeated at each site may insure a reliable "overkill" for successful disease neutralization. A magnetic "pulsar" is very inexpensive and simple to build. Full instructions are on pg. 6...

But subjects must assume responsibility for their own health- a "heresy" in today's society where we're conditioned to look for answers only to a medical establishment that has no current knowledge remotely promising "cures" for numerous other well known fatal diseases.

These "theoretical solutions" are being disclosed under constitutional freedom of speech guarantees in spite of extensively organized hostile opposition to non-pharmaceutical or *inexpensive* cures. Data can be *legally* offered only as "theoretical" and no medical claims can be made or implied. See your health professional! Anyone at his discretion and assumed responsibility should be free to build, use (on himself) and network his "research" results. With these data an average intelligent high school student should confidently be able to assemble *both* theoretical blood and tissue clearing modalities in about three hours and for a total investment of around \$75.00. Components are widely available. After assembling, "cures" cost about \$1.50 per patient for batteries. If electronically unskilled, 'busy' or technically illiterate, call an 'Amateur Radio Supply' store (yellow pages) and find a ham radio operator, hobbyist or TV repairman or pay a ny kid on the block to do it for you. After 'spontaneous remissions' some users may wish to interest their doctors. But be advised that *electronic* cures may be vigorously suppressed or ignored because there is presently no credibility nor drug cartel profit in this inexpensive AIDS solution. Also the 1910 Rockefeller/Flexner Report attempted to discredit Electro-medicine with a conspiracy to inflate pharmaceutical profits.

I'm definitely *not* soliciting funds. This was independently developed by Bob Beck at his private expense and offered freely for 'theoretical and informational purposes only' and with absolutely no profit motive. Non-FDA approved devices are illegal to use within the USA except via little known FDA regulation loopholes whereby doctors and *researchers* are allowed to use *anything* on patients if they build it themselves (Code of Federal Regulations 21 § 807.65 subsections {d} & {f}). See actual text in footnote on pg. 4. Although we will offer technical updates and always welcome feedback from users, please respect the writer's privacy and never attempt to contact him for additional help or construction information. *Everything* users need to know is included herein.

We have nothing for sale.

Biomedicine

MARCH 30, 1991 pg. 207

Shocking treatment proposed for AIDS

Zapping the AIDS virus with low-voltage electric current can nearly eliminate its ability to infect human white blood cells cultured in the laboratory, reports a research team at the Albert Einstein College of Medicine in New York City.

William D. Lyman and his colleagues found that exposure to 50 to 100 microamperes of electricity — comparable to that produced by a cardiac pacemaker — reduced the infectivity of the AIDS virus (HIV) by 50 to 95 percent. Their experiments, described March 14 in Washington, D.C., at the First International Symposium on Combination Therapies, showed that the shocked viruses lost the ability to make an enzyme crucial to their reproduction, and could no longer cause the white cells to clump together — two key signs of virus infection.

The finding could lead to tests of implantable electrical devices or dialysis-like blood treatments in HIV-infected patients, Lyman says. In addition, he suggests that blood banks might use electricity to zap HIV, and vaccine developers might use electrically incapacitated viruses as the basis for an AIDS vaccine. For scientists working to create contraceptive devices that repel sperm with electricity, the new study also hints at a lifesaving side effect: protection against HIV.

BUSINESS WEEK / SCIENCE & TECHNOLOGY
APR. 5, 1993 pg. 83

THE LACK OF SYMPTOMS DOESN'T REFLECT AIDS' EARLY STRENGTH

One of the great puzzles of AIDS is why the disease usually takes years to develop. During the long period between initial exposure to the HIV virus and the first symptoms, scientists have detected only small amounts of the virus in the blood. This suggested that the infection exists at a low, latent level before it flares up.

But two new studies reported in the Mar. 25 issue of *Nature* overturn this theory. Researchers at the University of Minnesota at Minneapolis, the National Institutes of Health, and other institutions have found massive amounts of the virus present during the early, symptomless stage of the disease. Up to 25% of the cells in the lymph nodes are infected with the virus, reports the team led by Minnesota's Ashley T. Haase.

The results raise questions about current treatment. If so many immune-system cells are infected, drugs that are typically given later may not control the disease. The findings suggest that drugs should be started as soon as the infection is discovered. That "might reduce the amount of virus later," says oncologist Howard M. Temin of the University of Wisconsin, who co-authored an analysis of the studies in *Nature*.

A-10 / The Houston Post / Wednesday, March 20, 1991

YOUR HEALTH/MEDICINE

Scientists say electric current may help fight AIDS

REUTER NEWS SERVICE

NEW YORK — Doctors at a prestigious New York medical center are testing a new way to fight AIDS — using electrical energy to weaken the killer virus — and say their first results are encouraging.

Researchers William Lyman and Steven Kaali of the Albert Einstein School of Medicine said Tuesday that initial laboratory tests have

shown electrical current can weaken the virus believed to cause acquired immune deficiency syndrome.

The two men said they plan to move to the next phase of the experiment in April using blood samples from people with AIDS.

If their tests are successful, the researchers hope it could lead to a new way to treat AIDS patients, possibly involving a dialysis-type

machine in which an AIDS patient's blood would be treated with electrical current outside the body.

"What we have done is expose the AIDS virus in laboratory circumstances to electrical current and then incubated the virus with white blood cells susceptible to the virus. We found that the virus became much more ineffective," Kaali, a specialist in the medical use of electrical current, said.

Lyman, an AIDS researcher and associate professor of pathology at Einstein, likened the new technique to chemotherapy.

"You are not going to get rid of the tumor, but you could get rid of enough of it to help the patient lead a normal life. This is not a cure but a new tool," Lyman said.

He added that the use of electrical energy has no toxic side effect and that a similar technique has been used as a treatment for reducing herpes.

SPECIAL SECTIONS

OUTER LIMITS

• "Electrocuting" the AIDS Virus

"ELECTROCUTING" THE AIDS VIRUS: A SAFER-YET BLOOD SUPPLY

Despite official reassurances about the safety of the nation's blood supply, concern lingers that small amounts of HIV-infected blood may be sneaking through, especially since current screening detects only antibodies to the virus, which can take months to form. But now a new electrical process for cleaning blood of viruses may solve the problem.

At the Albert Einstein College of Medicine in New York City, Steven Kaali, M.D., has found that most of the AIDS viruses in a blood sample will lose their infectious capability after being zapped by a very low-level current. Repeated exposure appears to leave blood virtually free of HIV, as well as hepatitis—without harming blood cells.

Kaali cautions that it will take years of testing before a virus-electrocuting device is ready for use. But, ultimately, he predicts, it could be used not just to purify blood, but to treat people with AIDS, by channeling their blood out of the body, exposing it to virus-

A PRACTICAL GUIDE TO THE ART AND SCIENCE OF STAYING YOUNG

DECEMBER 1992

LONGEVITY

killing current and then re-turning it. "By lowering the viral count," he says, "we may be able to lengthen and improve the quality of AIDS patients' lives."
—Sharon McAuliffe

EXPANDED INSTRUCTIONS FOR EXPERIMENTAL / THEORETICAL HIV BLOOD NEUTRALIZATION. HYPOTHETICAL PROTOCOLS FOR EXPERIMENTAL SESSIONS

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PRECAUTIONS: Do NOT use wrist to wrist with subjects with cardiac pacemakers. Any applied electrical signals may interfere with 'demand' type heart pacers and cause malfunction. Single wrist locations should be acceptable. Do NOT use on pregnant women, while driving or using hazardous machinery.

Users MUST avoid ingesting anything containing medicinal herbs, foreign or domestic, or potentially toxic medication, nicotine, alcohol, recreational drugs, laxatives, tonics, and certain vitamins etc., for one week before starting because blood electrification can cause electroporation which makes cell membranes pervious to small quantities of normally harmless-chemicals in plasma. The effect is the same as extreme overdosing which might be lethal. See Electroporation: a General Phenomenon for Manipulating Cells and Tissues; J.C. Weaver, Journal of Cellular Biochemistry 51:426-435 (1993). Effects can mimic increasing dosages many fold. Both the magnetic pulsar and blood purifier cause electroporation.

Do NOT place electrode pads over skin lesions, abrasions, new scars, cuts, eruptions, or sunburn. Do NOT advance output amplitude to uncomfortable levels. All subjects will vary. Do NOT fall asleep while using. The magnetic pulser should be safe to use anywhere on body or head.

Avoid ingesting alcohol 24 hours before using. Drink an 8 oz. glass of distilled water 15 minutes before and immediately following each session and drink at least four additional glasses daily for flushing during 'neutralization' and for one week thereafter. This is imperative. Ignoring this can cause systemic damage from unflushed toxic wastes. When absolutely essential drugs *must* be ingested, do so a few minutes *after* electrification then wait 24 hours before next session.

If subject feels sluggish, faint, dizzy, headachy, light-headed or giddy, nauseous, bloated or has flu-like symptoms or rashes after exposures, reduce pulsing per session and/or shorten applications of electrification. Drink more water- preferably ozonized - to speed waste oxidation and disposal. Use extreme caution when treating patients with impaired kidney or liver function. Start slowly at first like about 20 minutes per day to reduce de-toxification problems.

To avoid shock liability, use batteries only. Do NOT use any line-connected power supply, transformer, charger, battery eliminator, etc. with blood clearing device. However line supplies are OK with well-insulated magnetic pulse generators (strobe lights).

Health professionals - Avoid nicotine addicts, vegans, and other unconsciously motivated death-wishers and their covert agendas of 'defeat the healer'. Tobacco, the most addictive (4½ times more addictive than heroin) and deadly substance of abuse known, disrupts normal cardiovascular function. True vegetarian diets are missing essential amino acids absolutely necessary for the successful rebuilding of AIDS-ravaged tissues. Secondary gains (sympathy / martyrdom, work avoidance, free benefits, financial assistance, etc.) play large roles with many AIDS patients. "Recovery guilt" as friends are dying has even precipitated suicide attempts masked as 'accidents'. Avoid such entanglements, since many have unconscious death wishes.

SUPERIOR ELECTRODES. Excellent, convenient and vastly superior electrodes, reusable indefinitely can be made by butt-soldering lead wires to ends of 1½" long by 3/32" dia. blanks cut from type 316 stainless steel rods available from welding supply stores (Cameron Welding Supply, 11061 Dale Ave., Stanton, CA 90680). Use 'Sta y Clean' flux before soldering (zinc chloride/hydrochloric acid). Shrink-insulate TWO tight layers of tubing over soldered joints to prevent flexing/breaking and lead/copper ions from migrating. Wrap three or four turns of 100% cotton flannel around rods. Spiral-wrap with strong thread starting from wire side to end, tightly pinch cloth over the rod's end so as to leave no metal exposed by wrapping 6 or 7 turns of thread TIGHTLY just off end of rod, then spiral wrap back to start and tie tightly with four knots then cut off excess cloth at end close to pinch-wraps. Treat end windings and knots with clear fingernail polish or Fray Check® (fabric & sewing supply stores) to prevent unraveling. Soak in a strong solution of sea salt (not table salt) containing a little wetting agent like Kodak Photo Flow, ethylene glycol, or 409 kitchen cleaner. Add a few drops of household bleach, silver colloid, etc., for disinfectant. Store solution for reuse. Tape soaking-wet electrodes tightly over pulse sites with paper masking or Transpore™ tape or with 1" wide stretch elastic bands with tabs of Velcro® at ends to fasten. Electrodes should closely conform *precisely* along blood vessels, not skewing ever so slightly over adjacent flesh. This insures better electrical conductivity paths to circulating blood and insures very low internal impedance. (~2000Ω). Rinse and blot-dry electrodes and skin after each use. NEVER allow bare metal to touch skin as this will cause burns manifested as small red craters that heal slowly. The objective is to get maximum current into blood vessels, not leak it over to adjacent tissue. Therefore never use any electrode wider than about ¼ inch.

ELECTRODE PLACEMENTS: Locate *maximum* pulse position (NOT to be confused with acupuncture, reflexology, Chapman, etc. points) on feet or wrists by feeling for maximum pulse on inside of ankle -1" below and to rear of ankle bone, then test along top center of instep. Place electrode on whichever pulse site on that foot that feels strongest. Scrub skin over chosen sites with mild soap and water or alcohol swab. Wipe dry. Position the electrodes lengthwise along each left and right wrists blood vessel. Note: with subjects having perfectly healthy hearts and not wearing pacers, it is convenient to use left wrist to right wrist exactly over ulnar arterial pulse paths instead of on feet. Recent (Dec. 1995) research suggests that placing both electrodes over different arteries on the same wrist works very well (see pg. 7), avoids any current through heart, and is much more convenient and just as effective. An 8" long, 1" wide elastic stretch-band with two 1½" lengths of ¾" wide Velcro® sewn to ends of opposite sides makes an excellent wrist band for holding electrodes snugly in place. With electrode cable unplugged, turn switch ON and advance amplitude control to *maximum*. Push momentary SW. 2 'Test' switch and see that the red and green light emitting diodes flash alternately. This verifies that polarity is reversing -4 times per second (frequency is NOT critical) and that batteries are still good. When LED's don't light replace all three 9V batteries. When the white incandescent bulb dims or appears yellowish, or relay isn't clicking, replace all four AA cells. Zener diodes will extinguish LEDs when the three 9V battery's initial 27V drops below 18V after extended use. Never use any electrode larger than 1½" long by ½" wide to avoid wasting current through surrounding tissue. Confine exactly over blood vessels only. Apply drops of salt water to each electrode's cotton cover -every 20 minutes to combat evaporation and insure optimum current flow. Later devices are solid-state, use only three batteries and no relays, and are much smaller.

Now rotate amplitude control to *minimum* (counter-clockwise) and plug in electrode cable. Subject now advances dial slowly until he feels a "thumping" and tingling. Turn as high as tolerable but don't advance amplitude to where it is ever uncomfortable. Adjust voltage periodically as he adapts or acclimates to current level after several minutes. If subject perspires, skin resistance may decrease because of moisture, so setting to a lower voltage for comfort is indicated. Otherwise it is normal to feel progressively less sensation with time. You may notice little or no sensation at full amplitude immediately, but feeling will begin building up to maximum after several minutes at which time amplitude must be decreased. Typical adapted electrode-to-electrode impedance is on the order of 2000Ω. Typical comfortable input (to skin) is ~3mA, and maximum tolerable input (full amplitude) is ~7mA but this 'reserve' margin although harmless is unnecessary and can be uncomfortable. Current flowing through blood is very much lower than this *external* input because of series resistance through skin, tissue and blood vessel walls, but 50 to 100 µA through blood is essential.

Apply blood neutralizer for about 2 hours daily for ~2 months. Use judgment here. The limiting factor is detoxification. Carefully monitor subject's reactions (discomfort, catarrh, skin eruptions, weeping exudites, rashes, boils, carbuncles, coated tongue, etc.). With very heavy infections, go slower so as not to overload body's toxic disposal capability. With circulation-impaired diabetics, etc., you may wish to *extend* session times. Again, *have subject drink lots of water*. Recent changes in theoretical protocol being currently tested suggest following up the three weeks of treatments with a 24 hours per day (around the clock) continuous electrification of blood for two days to deal a knockout blow to the remaining HIV's 1.2 day life cycle. (A. Perelson; Los Alamos Biophysics Group, Mar. 16, 1996 "Science" Journal.) Remember to reinsert electrodes regularly. If you absolutely *must* ingest prescription drugs, do so immediately *after* turning off instrument and allow 24 hours before next treatment to let concentrations in blood plasma decay to lower levels.

Remember, if subjects ever feel sleepy, sluggish, listless, nauseous, faint, bloated, or headachy, or have flu-like reactions they may be neglecting sufficient water intake for flushing toxins. We interpret this as detoxification plus endorphin release due to electrification. Let them rest and stabilize for ~45 minutes before driving if indicated. If this detoxing becomes oppressive, treat every *second* day. Treating at least 21 times should 'fractionate' both juvenile and maturing HIV to overlap maximum neutralization sensitivity windows and interrupt 'budding' occurring during HIV cells' development cycles. Treatments are claimed to safely neutralize many other viruses, fungi, bacteria, parasites, and microbes in blood. See US patents # 5,091,152 5,139,684 5,188,738 5,328,451 and others as well as numerous valid medical studies which are presently little known or suppressed. Also, ingesting a few oz. of ~5 parts per million of silver colloid solution daily can give subjects a 'second intact immune system' and minimize or eliminate opportunistic infections during recovery phase. This miracle substance is pre-1938 technology, and unlike ozone is considered immune from FDA harassment. Silver colloid can *easily* be made at home electrolytically in minutes and in any desired quantities and parts per million strength for under 1¢ per gallon plus cost of water. It is ridiculous to purchase it for high prices. Colloid has no side effects, and is known to rapidly eliminate or prevent hundreds of diseases. Silver colloids won't produce drug resistant strains as will all other known antibiotics. No reasonable amount can overdose or injure users either topically, by ingestion, or medical professional injection. Refer to page 9 for complete instructions on successfully making your own.

výrobce přístrojů podle Dr. Becka
www.becktechnology.cz

SUGGESTIONS FOR ACQUIRING AND USING AN INDUCTIVELY COUPLED MAGNETIC PULSE GENERATOR FOR THEORETICAL LYMPH AND TISSUE HIV NEUTRALIZATION

Revision February 28, 1997. Copyright © 1991/1997 Robert C. Beck

Note: These data are for informational and instructional purposes only and are not to be construed as medical advice. Consult with your licensed health practitioner.

In keeping with do-it-yourself inexpensive hypothetical approaches to self-help, the simplest and most rapid means for obtaining a capacitor-discharge magnetic pulse **lymph and tissue pathogen neutralizer** would be to find and modify a used functioning portable battery *and* ac powered electronic flash (strobe light) for cameras. These are acquired at swap meets, yard sales, pawn shops, or in junk boxes at used camera stores. Or purchase a new Vivitar (brand) model 1900 (\$22) carried at some professional camera stores. This compact, light weight, inexpensive, rapid recharging flash is only 17.5 Watt-seconds (Joules; calculated as $\frac{1}{2} CV^2$ where C is in μF and V is in kilovolts) power but is readily available and easily modified. It works well enough for casual use but runs on batteries only so has greater operating expense than an AC/DC unit.

California swap meet prices for *used* strobes range from \$4.00 to about \$18.00. One Sunday the writer found a dozen ac/dc strobes, all in good working condition. Carry four AA batteries with you so you can test flash units before purchasing. I chose to modify a long discontinued Vivitar (brand) model 110 because it was larger than the rest and seemingly more powerful, however almost any brand or model of comparable output power (35 watt-seconds) should work. **Preferably select one with 115V ac as well as battery operating (dc) capability.**

First wind the applicator coil. Junk VHS videocassette reels are cheap, plentiful and adequate for this application. Remove 5 screws from shell, remove reels and discard tape. Be SURE alternative spools (if used) are non-conductive or system will not work. Avoid shorter length VHS tape reels which may have center hubs larger than 1" dia. and won't hold sufficient wire. Drill $\frac{1}{4}$ " holes through hub and through center of flange(s). Make two 4" discs from $\frac{1}{4}$ " thick plastic or fiberboard, drill $\frac{1}{4}$ " center holes and another $\frac{1}{4}$ " hole off-center so coil's inside lead wire can be pulled through. These 'stiffeners' will sandwich reel's flanges so they won't warp or split as wire pressure builds up while winding progresses. A 2" (or longer) $\frac{1}{4}$ -20 machine nut and bolt with washers through centers will clamp flange stiffeners and reel and also provide a shaft to hold in a variable speed drill motor or similar winding device if used. Then remove bolt and stiffeners.

Specifications: Completely fill tape spool with #14 or 16 enameled copper magnet wire (130 to 160 turns) wound onto the 1" dia. hub and 3- $\frac{1}{2}$ " OD spool with a gap width for wire of $\frac{5}{8}$ ". Scrape enamel insulation $\frac{1}{2}$ " from ends and tin. Pull inside end of magnet wire through hub and stiffener and to outside. ~130 turns (about About 1- $\frac{1}{2}$ " should fill spool. Remove bolt, stiffeners, and finished coil. Now solder ends of 3 ft of *heavy* two-wire extension cord to each side of coil. Finished coil weighs ~1 LB 3 oz, has ~0.935 millihenry inductance, 0.34 Ω resistance, and takes ~20 minutes to hand wind or ~3 minutes with drill motor. An excellent alternative is an AMS brand air-core crossover inductor for home audio, MCM Electronics, Centerville, OH 45459. (800) 543-4330 catalog # 50-940, #16 gauge, 0.58 Ω , 2.5mH, 2- $\frac{7}{8}$ " dia., \$10.65

Strobe modification consists simply of wiring the finished applicator coil with 4' ft. leads in series between either flash tube electrode. Be extremely cautious when working with case open because a strobe's capacitor can hold a residual high-voltage charge for a long time even when 'off'. Before modifying and to avoid shock, short out the capacitor by placing clip leads directly across the flash tube. Remember to remove this shunt later. To install coil, unsolder either wire from flash tube and connect one lead wire from coil to that side of tube. Connect the other lead from coil to the wire you just removed from tube. Insulate connections with tape. This places your coil *in series* with the flash tube and enables the tube to act as an ionized gas relay or 'thyatron' that dumps most of capacitor's stored energy through coil when fired. Lamp will still flash but less brightly. Cover flash window with black paper. Melt wire-slot with soldering iron. Replace case. You're done!

Is it working properly? A good way to test for strength of pulsed magnetic energy is to lay a thin *steel* washer (one strongly attracted to magnet) flat on top of coil, $\frac{1}{2}$ " off center. A 1" dia. 'fender' washer with $\frac{1}{8}$ " center hole works well. Let the flash unit charge for about ten seconds plus or until the strobe's 'ready light' comes on then push flash button and see how high the washer is 'kicked' by Eddy current repulsion. A 35 watt-second strobe repels a washer about 14 inches vertically. Think of your pulsed coil as the 'primary' of a transformer and anything conductive nearby (living tissue included) as the 'secondary' into which current is induced when cut by coil's time-varying magnetic lines of flux. Your do-it-yourself magnetic pulse generator delivers a measurable output intensity *several thousand times* more powerful during each cycle than \$7,000.00 German "Magnetotrons"®, Elecsystem "Biotrons"®, or Canada's "Centurion"® devices widely exhibited at holistic medical expos, none of which is *nearly* powerful enough for HIV, herpes, hepatitis or Epstein-Barr neutralization or adequate electroporation. It is also functionally similar to the "Diapulse"® miracle-working healing modality when coil is applied over liver and other organs. Magnetic fields and therefore induced currents penetrate *all* body cells, bones and tissues in proximity to coil (effective approx. 4 inches deep) and can theoretically neutralize electro-sensitive pathogens and viruses such as herpes B, HIV, hepatitis, Epstein-Barr and possibly many others as yet undiscovered that can hide *within* nerve sheaths and are therefore untouchable via immune system, white cells, or injectables. This may account for the impossibility of curing many known chronic infections via pharmaceuticals, antibiotics, or any presently known conventional treatments other than electrotherapy. Use pulser on body sites daily before blood electrification. This pulser is safe to use anywhere on the head, and body except with cardiac pacemaker users. See pg. 8 for lymph gland locations. Zap sites at ~10 second intervals for ~20 minutes daily.

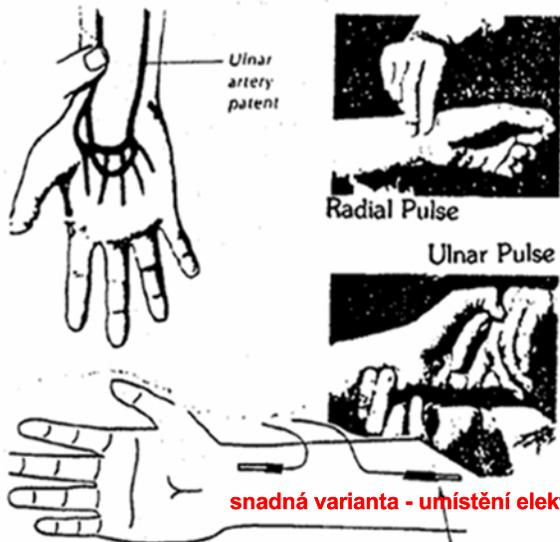
To use, press fully insulated coil flat against body over lymph glands and other selected locations such as shown on pg. 8. Let strobe build up to full charge (about 4 to 10 seconds between pulses) and fire coil while contacting each site. Subjects will feel no physical sensations except for light 'thumps' during this phase of treatment. Exposure levels are considered safe because intensity of this magnetic pulser is much lower than Magnetic Nuclear Resonance Imaging in routine use on tens of thousands of patients. But should subject feel 'headachy', nauseous, sluggish, or display flu-like symptoms after exposures with either of these two devices, reduce number of pulses or duration of blood clearing process and drink more water. If immune system is very badly damaged, you may need to repeat all routines after several months to insure permanent and complete neutralization. *When using, keep coil several feet away from credit cards, watches, magnetic tape, computers, floppy disks, homeopathic remedies, etc.,* since its powerful magnetic field can de-gauss and erase magnetic data as well as subtle energy potentized medicines. As an unanticipated serendipity, pulsers are reported to erase deeply rooted lymph and tissue pathology and possibly even classical "miasma's" as well as many other microbes, fungi, bacteria, parasites, and viruses. Flash should preferably be used with ac power to save battery costs since you'll only get about 40 full pulses per new set of alkaline batteries. For sanitary purposes, enclose coil in plastic zip-lock discardable sandwich. When treating numerous subjects if there's no ac adapter it is economical to utilize a small rechargeable lead-acid "motorcycle" battery. Sota Instruments, Vancouver Canada's latest pulser measures 600 μF , 330-350V; 36.75 Joules; 21,429 Gauss at 105 Amperes peak; 17,850 Ampere Turns; pulse rate time ~1.8 microseconds; pulse duration ~2.5 milliseconds; lifetime ~85,000 cycles; and penetrates ~8" through tissue.

How much should this cost? Used electronic flash lamps cost ~\$2.00 to ~\$18.00. Three $\frac{1}{2}$ LB spools of #14 magnet wire retail for \$9.66 ea. at Action Electronics. (You'll need ~1- $\frac{1}{2}$ LB) 4-AA alkaline batteries, \$ 2.89. A 12 ft heavy duty #14 X 2-wire 15 amp. ac extension cord costs about \$2.00 and makes 4 sets of leads, or use heavy-duty speaker wire. VHS spools ~50¢. Wholesale wire \$2.50 to \$4.35/ LB in 10 LB rolls at Pacific Wire & Cable, 1228 S. Village Way, Santa Ana, CA 92704. (714) 558-1864 ~1 week delivery. **~\$12. minimum | \$60.50 maximum.**

NĚKOLIK MÍST PRO SNADNÉ UMÍSTĚNÍ ELEKTROD NA ELETRIZACI KRVE

EASY LOCATION OF PREFERRED SITES FOR HYPOTHETICAL BLOOD ELECTRIFICATION

Revision January 10, 1997. Copyright © 1997 Robert C. Beck, D.Sc.



snadná varianta - umístění elektrod na zápěstí

Align Electrodes Parallel to and Directly Over Pulse Paths

This figure illustrates the hypothetical placement of the two probes on the same forearm and wrist. A stretch-band with Velcro™ can be used to hold snugly in place. Position straps before sliding salt-water saturated cotton covered electrodes under straps. They are about 8" apart on same

Radial Artery

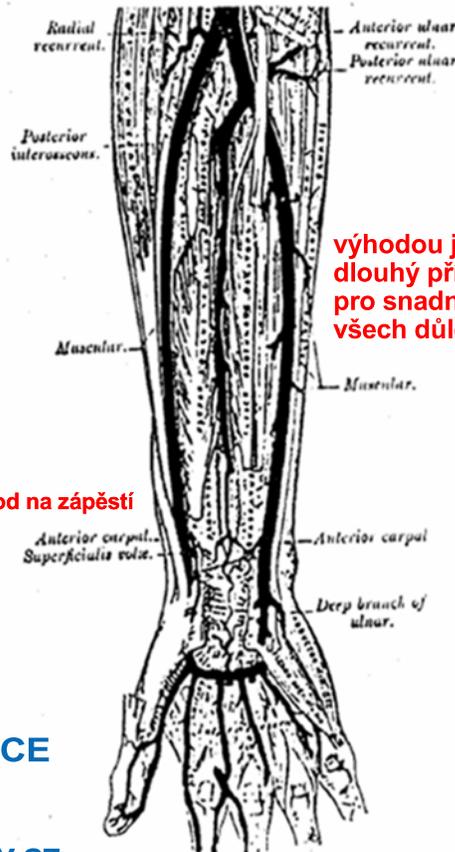


FIG. 305.—Ulnar and radial arteries. Deep view

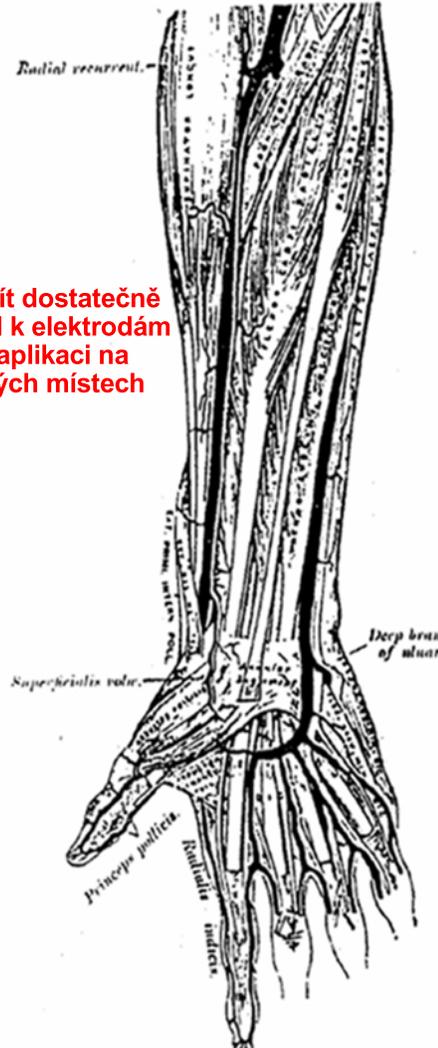
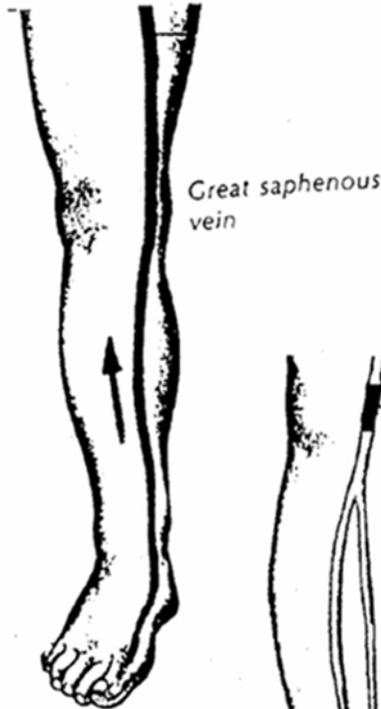
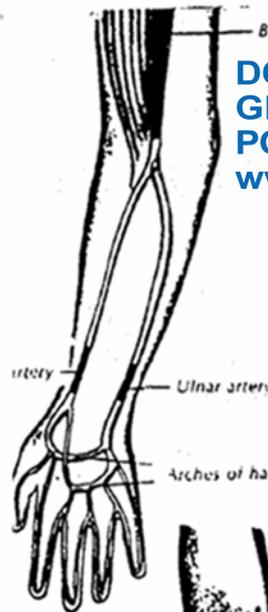


FIG. 304.—The radial and ulnar arteries.

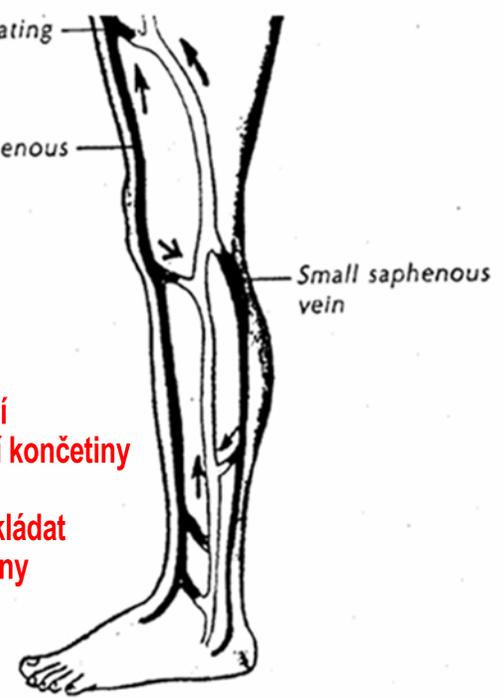
výhodou je mít dostatečně dlouhý přívod k elektrodám pro snadnou aplikaci na všech důležitých místech

DOPRUCENÍ VYROBCE GENERATORU BG3 PODLE DR. BECKA
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varianta umístění elektrod na dolní končetiny

elektrody lze přikládat také na krční tepny



jiná varianta umístění elektrod na zápěstí



Align Probes Parallel to Pulse

This figure illustrates the hypothetical placement of the two probes on the same wrist. A double-sided hook-and-loop (Velcro™) strap can be used to hold the probes in place. It is easier to place the electrodes on the body if you first place the velcro strap around the wrist, and then insert the electrodes under the strap.



NĚKOLIK MÍST PRO UMÍSTĚNÍ CÍVKY MAGNETICKÉHO PULSERU

EASY LOCATION OF LYMPH NODES FOR PREFERRED HYPOTHETICAL MAGNETIC PULSING SITES

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Press either flat side of coil tightly into skin and "flash" each site three to five pulses daily after "ready" lamp lights.

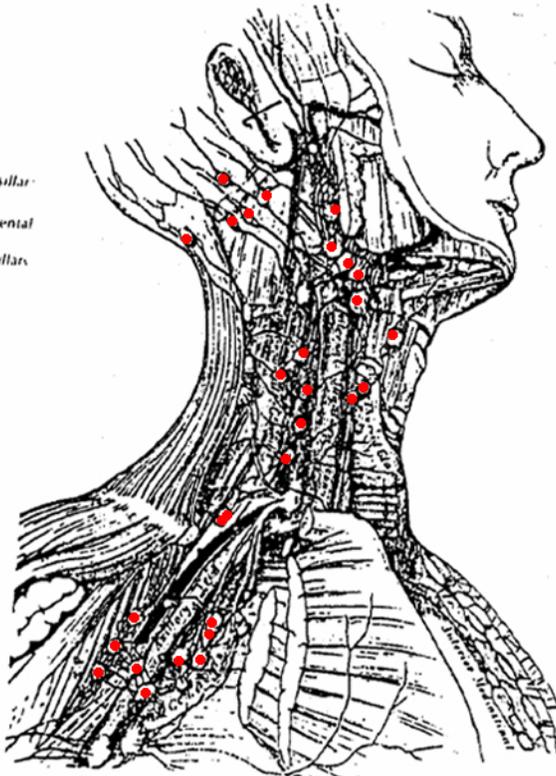
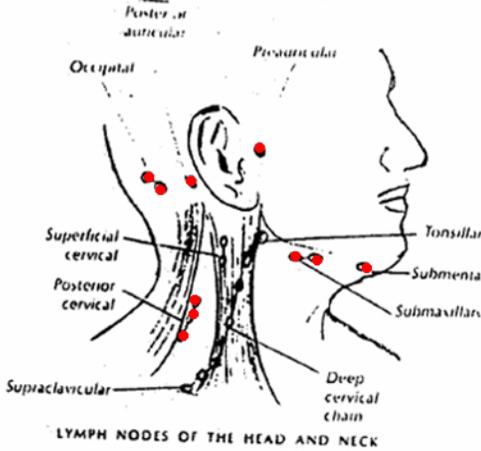


FIG. 35.—The deep lymphatics and glands of the neck and thorax.

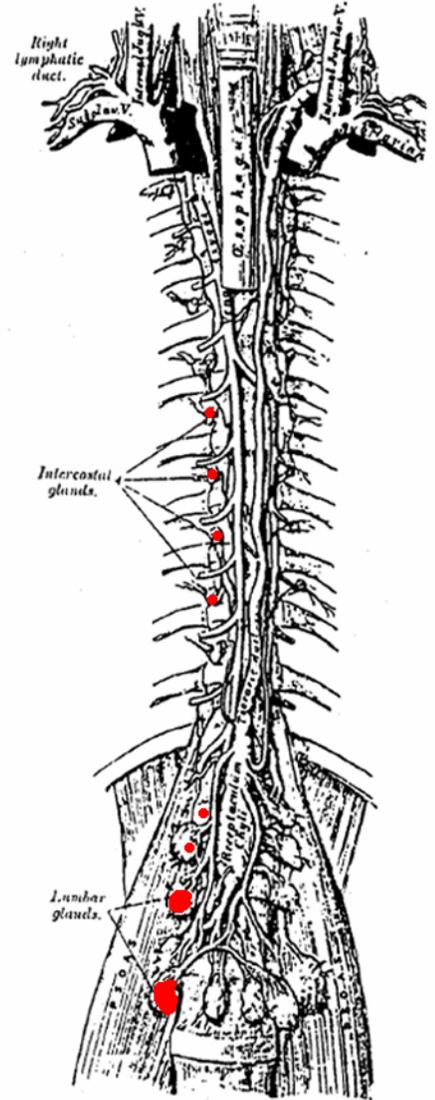
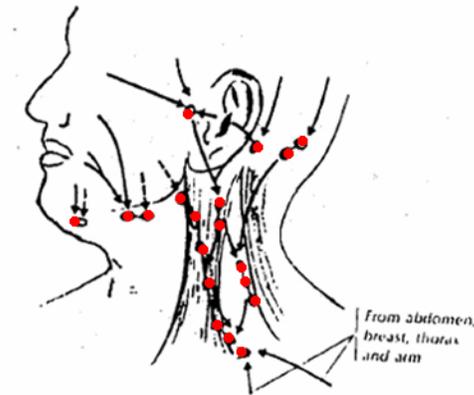
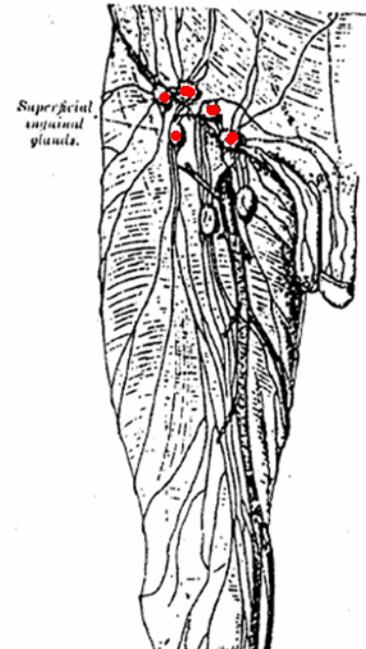
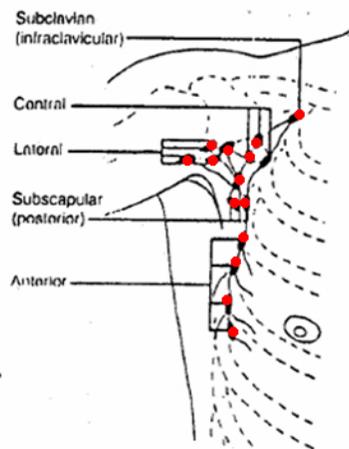
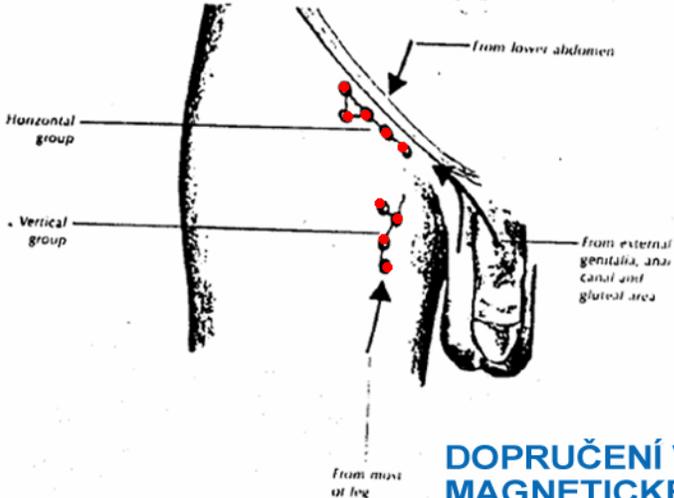
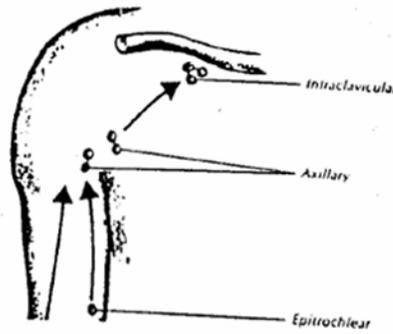
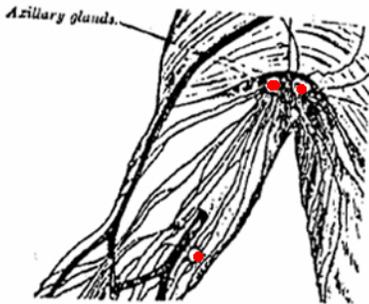


FIG. 37.—The thoracic and right lymphatic duct.



← External lymphatic drainage
 - - - Internal lymphatic drainage (e.g. from mouth and throat)

LYMPHATIC DRAINAGE OF THE HEAD AND NECK



**DOPRUČENÍ VÝROBCE
 MAGNETICKÉHO PULSERU MPG30
 PODLE DR. BECKA**
 výrobce přístrojů podle Dr. Becka
www.becktechnology.cz

Total Cancer Remissions through Blood Electrification Combined with Magnetic Pulsing plus Silver Colloid Ingestion

Theories Offered for Information and Educational Purposes Only and are the Author's Opinions

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My archives contain a tantalizing report from several decades ago describing an authenticated record of an older man who was struck by lightning, survived, and subsequently grew a third set of teeth and a bushy head of youthful new dark hair. His grossly metastasized, inoperable cancers vanished. He threw away his glasses and cane, and appeared much younger and was totally healthy for the first time ever. This fascinated scientists and years later almost encouraged some highly illegal and bizarre human experiments in an abandoned aircraft hangar in Wendover, Utah where Tesla coil research with ball lightning was underway. The incident generated wide speculation but few insights at the time. This mystery remained sleeping until 1990 when an astounding discovery was reported at Albert Einstein College of Medicine in NYC by Drs. Kaali and Wyman. Not surprisingly, these data were apparently immediately suppressed. (See **Science News**; Mar. 30, '91 pg. 207; and **Longevity**; Dec.' 92 pg. 14.)

As a totally unexpected and unpredictable outcome of my self-funded research since 1991 into "blood electrification" with micro currents for AIDS (currently showing excellent results) a growing number of users previously unknown to me, began independently reporting remarkable "spontaneous remissions" of numerous *other* diseases *Including cancer*. Most involved no doctors, medication, or time off. Recoveries occurred after subjects had self-administered an altered do-it-yourself in vivo blood electrification treatment partially described as an In Vitro process in US Patent #5,188,738 issued to Dr. Steven Kaali in '93. (This work may have been anticipated twenty years earlier in 1973 by patent # 3,753,886 and by several others dating back to the turn of the century...) We were puzzled to find explanations. This preliminary report offers one possible theory. The magnetic pulser success with Cancer was independently proven in 1984 and described in US Patent #4,665,898 and eleven other independent researchers and patents going back over fifty years.

The Einstein disclosure describes removing blood from one arm, electrifying it, and returning it to the other arm in a process similar to dialysis. It also describes surgically implanted active electrode chambers containing miniature batteries sewn inside blood vessels. This author's preferred approach leaves all blood in the body, is totally non-invasive, costs practically nothing and is safely accomplished in about a month with ~two hours per day exposures as one goes about his normal activities. It handles most pathogens while blood flows naturally through the ~60cc volume of the electrified forearm's ulnar branch arteries from elbow to wrist. Without medications, invasive techniques or doctors, most pathogens, viruses, microbes, parasites and fungi just tend to disappear. Progress can be easily observed with dark-field and phase-contrast microscopy. The entire process and simple apparatus is fully described in my '91 paper and recent issues of **Explore**. (Vol. 7 #1.) Also simple instructions for self-made silver colloids of far better quality than you can usually buy are given. You can turn any glass of tap or distilled water into a 3 ppm top quality colloid in about two minutes anywhere with a shirt pocket battery-operated instrument. To date many "spontaneous remissions" of dozens of "incurable" illnesses including HIV have been reported by users and researchers of this "blood purification" when combined with ingestion of pennies-per-gallon instantly self-made silver colloid. Since none of dozens of friends using these apparent miracles has experienced infections, colds, flu, pneumonia, or lost a single day's productivity in over three years, evidence strongly suggests restored immune systems or dramatically improved blood functioning. It is also fascinating to note that several pet owners report their cats now refuse to drink water if silver colloid is not added. Trips to veterinarians with previously recurring infections were cut dramatically. It is as though the Creator had left a secret "back door" method for mankind to finally conquer incurable diseases plaguing us since the beginning of time. To stay out of big trouble, these data are being offered under "First Amendment freedom of speech" rights and legally should not be construed as medical advice.

It has long been known that dissections of cadavers dying of natural causes reveal many have had cancer several times during their lifetime resulting in "spontaneous remissions" generally without their knowledge and without ever visiting a doctor. An optimally functioning immune system somehow "handles" diseases of which the subject seldom becomes aware. Several promising broad-spectrum natural immunological agents like interferon and interleukin are produced by healthy Immune systems but would cost thousands for patients with already overloaded or "shut down" defenses although many such neuropeptides could speed cures. Other respected researchers describe "pleomorphic" forms of cancer pathogens which evolve through several stages- even mycotoxin involvement- *all* of which surrender to blood cleaning. In spite of dozens of theories offered, most diseases disappear with these simple, rapid, inexpensive in-vivo do-it-yourself tools and *without* drugs, herbs, homeopathics, pharmaceuticals, diets, doctors, discomfort or *any* medical intervention. Users have nothing to buy except replacement batteries. Complete recoveries cost under \$2 per patient per disease. For persons unable to self-assemble the simple electrifier (about two hours and ~\$30), dozens of people are currently custom building them and several companies are providing excellent and reliable combination "plant growth stimulators" and colloid generators ready to use. Most retail from \$125 to \$200. But this health breakthrough is politically incorrect and may never be FDA approved because of billions invested in treatment facilities, pharmaceuticals, and in clinical diagnostic equipment which must be amortized even if made obsolete. This discovery gives power over diseases back to the individual; an economic disaster for the health cartels. The only dangers lie in too rapid detoxification avoidable by increasing water intake for flushing wastes (Herxheimer's syndrome), plus ingestion of any herbs (even garlic) during blood electrification because of vastly enhanced cell absorption due to electroporation. (See J.C. Weaver; Harvard-MIT in *Journal of Cellular Biochemistry* 51 :426-435; 1993.) All drugs, herbs, alcohol, tobacco, and some

vitamins *must* be discontinued for at least two days before starting and for the duration of blood electrification or magnetic pulsing. This minimizes substances in your blood plasma which can become toxic at ~20X their normal levels.

Electrification is now being successfully used underground around the world. One Eastern MD claims numerous documented cancer cures by using only blood electrification and *no* surgery, radiation, drugs or chemotherapy. Many were considered terminal. We're even seeing clean blood tests of now healthy patients with previously long-standing Lupus. We have in our possession many IRB's showing complete HIV remissions, sero-conversions, and negative PCR tests.

The most reasonable theory of why electrification is so surprisingly effective for so many conditions lies in the now-proven fact that when correctly applied directly into blood (*not* into other body tissue like palms of hands, soles of feet, or organs) it neutralizes all microbes, pathogens, fungi, parasites, viruses, bacteria, mycotoxins and coexisting foreign lifeforms and alien invaders and their byproducts. This should never be confused with Royal Rife or Hulda Clark technology. Effective results are found to require a *minimum* of 27 Volts under load with low impedance output which must deliver up to several *milliampere*s measurable current into skin to produce the required 50 to 100 *microampere*s internally through blood after the inevitable series resistance losses through vessel walls plus several layers of tissue. Electrical currents in blood can be measured with an ac microamp meter by IR drop using partially insulated hypodermic needles inserted ~6 inches apart into the same artery. Clark's "syncro zap" running at her standard 30 khz (considered many octaves too high to be effective) actually measures only ~2.6V peak to peak under load (~2000 ohms) at palms. This is an order of magnitude too low to have any real effect beyond placebo. The syncro-zapper's current is unmeasurable directly in the blood and physically cannot produce the essential 50 to 100 μ A required internally. This may only mask readouts of parasite presence radionically. Unfortunately the live bugs remain undisturbed and are still there and will still be observed in stool and microscopic blood diagnosis. To function at all, electrification requires cotton-covered salt water saturated stainless steel electrodes *never* over 3/32" wide and 1" long. These must be carefully positioned directly over and precisely in line with arterial pulse points on opposite sides of the same wrist. This maximizes current into blood by not wasting it in surrounding tissue. Square or round TENS, EKG, EEG, EMG, etc. electrodes work only marginally and should never be substituted. Preferred instrument pulse-repetition rate is ~4 Hz biphasic with steep rise time and 50% duty cycle. Rate is *not* critical although much higher frequencies and certainly higher harmonics of the essential square wave output are degraded by "skin effect" where currents travel around the outside of body instead of internally. This is demonstrated by lighting a bulb in one hand while touching a Tesla coil with the other and not getting shocked. Electrification causes no known harmful side effects to healthy cells or tissue. A restored and unencumbered immune system may make one almost immortal! Electrified blood cells are observed to live for well over a month when sealed under cover slips on microscope slides while the average life of "normal blood is ~4 days. This strongly suggests that even aging bodies may easily and rapidly be made impervious to many hostile, toxic, infectious, antibiotic-resistant and even yet undiscovered invaders. The subject is barely scratched with miracles being reported regularly ranging from dramatic weight loss to restored hair, feature symmetry (Prof. R. Thornhill, Univ. N. Mexico), etc., many of which were totally unexpected but that I have personally experienced or observed.

One example- cervical cancer alone kills ~1/3 of all victims in the third world, and has long been known to be caused by the papilloma virus. Electrification eliminates these toxic "fellow travelers" coexisting in our blood and automatically handles innumerable diseases previously considered "incurable". Ebola or other possibly genetically engineered biological warfare "designer" germs may be unleashed someday per some theories of Gulf War Syndrome diseases which are currently immune to all other known countermeasures *except* blood electrification and colloids.

Like all revolutionary ideas, this incredible breakthrough barely survived initial ridicule and rejection because it is too startling, effective, inexpensive, simple and foolproof to be believable. It has experienced violent opposition from entrepreneurs selling health products made obsolete. Next, massive resistance came from the population's ~85% harboring unconscious hidden agendas or "death wishes" of "defeat the healer" and who must protect their secondary gains. And almost universally, people simply refuse to take responsibility for their own health. They think the "Doctor" priesthood should know what's "best" for them. And predictably, some doctors realize this will erode their incomes because it is cheap, universally effective, simple "do it yourself at home", and cures many things they can't. (A patient *cured* is a customer lost!) So acceptance of blood electrification is just now emerging to enthusiastic acceptance from those who've experienced the results. Being profit-motivated, the establishment must resist anything like this. But we now have our "hundredth monkey". Skeptics have only to use this technology to directly enjoy immensely better health. **Take back your power! This works!**

The writer is a researcher, not a practitioner. **I have nothing for sale.** Please never try to contact me by phone or letter or through third parties since it is a felony for me to answer well meaning medical questions. I am a physicist, not a licensed medical practitioner and such devices are not presently FDA approved. But I am preparing a do-it-yourself photo illustrated manual covering all details which should be available by the end of this year.

Banishing disease with three 9-volt Batteries

Part One: Homemade Colloidal Silver Vindicated

From Perceptions Magazine, May/June 1996 Issue

by Mark Metcalf

"We now know what 'wealth' is. Wealth is the ability to re-generate forward life. How many people can you take care of for how many days?" Buckminster Fuller

You can purchase a Colloidal Silver kit by calling Mark Metcalf at 213-462-5453. Reprinted by permission from Perception Magazine.

Imagine having your own hospital. Not just any hospital either. After all, the mortality rate generally drops when hospitals go on strike.(1,2,3,4) Death due to toxic drugs, unnecessary treatment, rampant ignorance and a sea of antibiotic-resistant bacteria make most hospitals the Devil's own playground. No, I'm talking about a hospital that makes people well again. Now, imagine that your new hospital is essentially cost free, works anywhere and is the size of a transistor radio, neatly fitting in your shirt pocket. Impossible? Not at all. The only thing unbelievable about it is that any American is without one.

The "hospital" I am talking about is a Colloidal Silver generator. Silver is a powerful, natural prophylactic/antibiotic, used for thousands of years. Ancient Greeks lined their eating and drinking vessels with silver, as did many other cultures throughout the world.(5) Pioneers of the American West would put a silver dollar in a jug of milk to keep it fresh without refrigeration.(6) Did you ever wonder why silverware was made from silver? One of the properties of silver is that it kills bacteria on contact in six minutes or less.(7) It may be that gold and silver were first used as valued currency because of their medical properties.

Dr. Robert O. Becker, author of *The Body Electric*, recognized a correlation between low silver levels and sickness. He said silver deficiency is 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 the body. He also states that silver does more than kill disease-causing organisms; it also causes major growth stimulation of injured tissues. Burn patients and even elderly patients notice more rapid healing with silver application. According to Dr. Becker, all strains of pathogens resistant to other antibiotics are killed by the element. He even discovered that silver can change cancer cells back to normal!

What is Colloidal Silver?

Colloidal Silver is the result of an electro-magnetic process that pulls microscopic particles from a larger piece of silver into a liquid, such as water.(8) As tiny particles, the silver can more easily penetrate and travel throughout the body. Colloidal Silver works as a catalyst, disabling the enzyme that all one-celled bacteria, fungi and viruses use for their oxygen metabolism. In short, it suffocates the bad guys. Unlike with antibiotics, resistant strains have never been known to develop. In fact, antibiotics are only effective against perhaps a dozen forms of bacteria and fungi, but never viruses. Because no known disease-causing organism can live in the presence of even minute traces of the chemical element of metallic silver, Colloidal Silver is effective against more than 650 different disease-causing pathogens.(9)

Since there is not enough room to list all the diseases against which Colloidal Silver has been used successfully, here is a tiny sample: acne, allergies, appendicitis, arthritis, blood parasites, bubonic plague, burns (colloidal silver is one of the few treatments that can keep severe burn patients alive), cancer,(10) cholera, conjunctivitis, diabetes, gonorrhea, hay fever, herpes, leprosy, leukemia, lupus, lymphangitis, 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 ulcer. In addition it also has veterinary uses, such as for canine parvo virus. You'll also find Colloidal Silver very handy in the garden since it can be used against bacterial, fungal and viral attacks on plants. Simply spray diluted Colloidal Silver on the leaves, and add to soil water.

It would appear highly unlikely that even germ warfare agents could survive an encounter with Colloidal Silver, since viruses like E. Bola and Hanta, or even the dreaded "flesh-eating bacteria" are, in the end, merely hapless viruses and bacteria. To top it off, Colloidal Silver is non-toxic, making it safe for both children and adults, as well as pets.(11,12) In short, anything bigger than a one-cell animal seems to like it.

Nor does one have to worry about that old FDA (Food and Drug Administration) fox being put in charge of this home remedy hen house. Colloidal Silver is a pre-1938 healing modality, making it exempt from FDA jurisdiction under the grandfather clause.(13)

So why haven't you heard of it?

I suspect the user friendly economics of Colloidal Silver may have something to do with its low profile in the media. Colloidal Silver can't help but shine a spotlight on the expensive and deadly nature of our pharmaceutical industries, who are bigger than the Pentagon economically. For example, the pharmaceutical cartel's relentless promotion of dangerous vaccines for humans and animals through government programs have now been linked to everything from increasing crib deaths in infants (who in many documented cases scream for hours before dying), to the increasingly common disease, feline leukemia, in house cats.(14) Colloidal Silver, on the other hand, is a safe and reliable alternative to expensive pharmaceuticals.

It is possible that consuming large amounts over long periods of time may kill some friendly bacteria in your intestines. If taking large amounts, you should supplement your diet with yogurt or acidophilus, or compensate for possible bacteria loss in some other way. This is not, however, a serious problem, and unlike antibiotics, Colloidal Silver does not weaken the body's immune system. In fact, it is said to give the body a second immune system, creating a shield against disease of all kinds.

As it is currently marketed through local health food stores, colloidal silver contains anywhere from 1 to 5 parts per million (ppm) and sells for as much as \$21.95 for two ounces. An average adult dose might be anywhere from a tablespoon per day to a sixteen ounce tumbler, or more, since no toxic dose is known. Thanks to one physicist's(14) brilliantly simple design outlined below, you can now construct your own generator and produce unlimited amounts of high-quality colloidal silver concentrate for the price of water!

How to make your own Silver Colloid Generator.

While it has been discovered that 30 volts is the ideal for Silver Colloid production, 27 volts is very effective and happens to be the convenient result of wiring three 9-volt batteries together. Therefore, you'll need three 9-volt transistor radio batteries, three battery snap-on lead connectors, 2 insulated alligator clips, 1 24 volt 40 mA sub miniature incandescent bulb (28 volt 40 mA will also do fine), a foot of 3/32" heat shrink insulation tubing, a foot of 2-conductor stranded insulated zipper wire for clip-leads, a small box to put it all in, and 10" of pure silver wire (.999 fine). This should cost under \$30.00 for everything. Assuming some skill with a soldering iron, you should spend about thirty minutes constructing the generator.

Solder your three snap-on battery clips in series (red to black) to provide 27 volts. Connect a 24V incandescent lamp in series with either positive or negative output lead. Solder the red insulated alligator clip to the positive (anode) and the black insulated clip to the negative (cathode) 2 conductor lead wires. Insulation is shrunk over soldered connections using a heat gun or hair dryer.

Cut your 10" of silver wire in half. Bend top ends of your two 5" silver electrode wires so they can clip over the top rim of a plastic or glass cup (not metal). About 4" of each wire should be submerged. **WARNING!** Use ONLY pure silver (.999 fine) electrodes. #14 gauge is the preferred thickness. Pure silver is sometimes available at electroplating supply companies. Or, inquire at a jewelry store specializing in silver about who their wholesaler is. **www.becktechnology.cz**

With this in mind, you may want to have a chemical analysis (assay) of your purchased silver in addition to the written word of your supplier.

If the Silver Colloid is to be ingested or injected, be sure to use distilled water. Tap water is fine for other uses, such as for a topical spray or for plants. Also, before beginning to make your Colloidal Silver you will need to make a saline solution for enhancing conductivity. If you are using filtered spring water, no saline solution will be needed as spring water already has a natural saline content. If the saline content of the water is too high, black flakes will begin to appear on the surface of the water.

Saline solution can be made by mixing approximately four ounces of distilled water with half a tea-spoon of sea salt in a separate container. Do not use common table salt as table salt has chemical additives. After stirring the salt solution for a minute, pour some of the water into an eye dropper bottle.

Now you're ready to make Colloidal Silver. Pour eight ounces of distilled water into your glass. Add 1 or 2 drops of saline solution (3 drops at the most; if you use too much salt, you'll be making silver chloride instead!)(15) to water and stir with a plastic/non-conductive utensil.

Insert silver electrode wires. Placement of wires is not critical, but they must not be touching each other or the process will stop. (You cannot shock yourself in this process so do not be concerned.) Attach alligator clips to the ends of the silver electrode wires coming over the outside rim of the glass and you will see a grey mist inside the glass start to peel away from the positive polarity wire while bubbles of hydrogen rise from the other. Laboratory tests show that this method creates a silver colloid of approximately 1 ppm per minute of activation time. Since you are only taking microscopic particles from the silver wire, your silver wire may very well last for years.

The brightness of the light bulb is related to the conductivity of the water. It is not necessarily a problem if the bulb is very dim or even remains dark as long as the process itself is occurring. Of course, when batteries are old, the light will also become dimmer, signaling it's time for a change. Touch the two alligator clips together to test the brightness of the bulb as a battery check. A fresh set of batteries should last a year or more.

When finished, detach alligator clips. Clean silver electrode wire after each use to remove dark oxide on the anode. Use a small piece of 1/4" thick nylon kitchen scouring pad to polish dried silver, then wipe with paper napkin to make ready for next use. Store your Colloidal Silver in dark, non-conductive (and if plastic, non-reactive) containers, like empty hydrogen peroxide bottles. Keep away from light as even room light will degrade colloids rapidly by turning solution grey or black just as exposure to light darkens the silver in camera film. Stir thoroughly or shake each time before using. Keep cool, but do not refrigerate. Also, put a few drops of Silver Colloid in the saline solution to prevent fungus growth.

In using your own home-made silver colloid generator it will become apparent that you now have the power to safely protect yourself, your family, your pets and plants, your community, and (through the dissemination of this information), our nation, from over 650 pathogens, viruses, microbes, fungi and parasites. Upon creating your first batch of Colloidal Silver, you will find it tastes the same as untreated water. And it won't sting, even in a baby's eyes. Congratulations and bon appetit!
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References

1. "Medical malpractice alone kills an estimated 45,000 people annually (in the U.S.), making it the leading cause of accidental injury and death." -- Adriane Fugh-Berman, MD
2. As many as 14,000 people die in Australian hospitals every year through preventable mistakes, ranging from misdiagnosis to being given the wrong drugs. This makes hospitals the third-largest killer in Australia after heart disease and cancer. For those who survive, between 25,000 and 30,000 patients are left with a serious and permanent disability as a result of such mistakes. -- The Sydney Morning Herald, 6/2/95 and the New Scientist, 6/10/95.
3. Using statistics from the 1984 Harvard study, the National Safety Council and other sources, the Campaign to Protect Consumer Rights says that more people die in the U.S. from medical negligence than any other accidental cause. If these statistics are valid, medical errors kill more people each year than automobiles, falls, drownings, fires, choking, guns and poisons combined.
4. "Only 10 to 20 percent of all medical procedures currently used in medical practice have been shown to be efficacious by controlled trial." -- U.S. Office of Technology Assessment
5. Encyclopedia Britannica, 1910
6. Health Consciousness Magazine, vol. 15, no. 4
7. Colloidal Silver is 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 nontoxic. 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 fungus, virus, bacterium, strep-tococcus, staphylococcus, and other pathogenic organisms are killed in three or four minutes; in fact, there is no microbe known that is not killed by Colloidal Silver in six minutes or less, a dilution of as little as five parts per million, though there are no side effects whatsoever from high concentrations. -- "Use of Colloids in Health and Disease," quoted in "Report: Colloidal Silver," Health Consciousness, Vol.15, No.4.
8. "(Colloidal Silver) is not a chemical compound containing Silver, but pure metallic silver of submicroscopic clusters of just a few atoms, held in suspension in pure water, by the tiny electric charge on each atom." -- Health Consciousness, Vol. 15, No.4
9. As an antibiotic, Silver kills over 650 disease causing organisms; resistant strains fail to develop. Silver is absolutely nontoxic. Silver is the best all-around germ fighter we have. Doctors are reporting that, taken internally, it works against syphilis, cholera, and malaria, diabetes and severe burns. -- Bio/Tech News, 1995
10. Dr. Bjorn Nordstrom, of the Karolinska Institute (Sweden's equivalent of our National Institutes of Health), has used Silver in his cancer cure method for many years. He says the whole thing is quite simple. This brought rapid remission in patients given up by other doctors. -- "Silver, Our Mightiest Germ Fighter" Science Digest, March, 1978.
11. Metallic Silver (Colloid) is non-toxic, however, silver nitrate and other compounds of silver are and should not be ingested. -- Dr. Bob Beck
12. Environmental Protection Agency's Poison Control Center reports no toxicity listing for Colloidal Silver, considering it harmless in any concentration.
13. The FDA has stated that because Colloidal Silver is (by fifty years) a pre-1938 drug, it may continue to be marketed. Sept. 13, 1991, letter received from consumer safety officer Harold Davis, U.S., Food and Drug Administration. Moreover, the FDA has no jurisdiction regarding a pure, mineral element.
14. The following significant adverse events have occurred following administration of DTP vaccines: inconsolable crying for more than 3 hours (1/100 doses), high-pitched, unusual crying (1/1000 doses), fever higher than 105 degrees fahrenheit (1/330 doses), transient shock-like (hypotonic, hyporesponsive) episode (1/1750 doses), convulsions (1/1,750 doses), sudden infant death syndrome (SIDS). (Interestingly, no percentage of SIDS is given-- author.)
15. Encephalopathy occurring within 7 days following vaccination. This is defined as an acute, severe central-nervous-system disorder occurring with 7 days following vaccination, and generally consisting of major alterations in consciousness, unresponsiveness, generalized or focal seizures that persist more than a few hours, with failure to recover within 24 hours.

Studies have indicated that a personal or family history of seizures is associated with increased frequency of seizures following pertussis immunization. The ACIP and AAP do not consider a family history of seizures to be a contraindication to pertussis vaccine despite the increased risk of seizures in these individuals.

As reported with Haemophilus b polysaccharide vaccine, cases of Haemophilus type b disease may occur... -- Excerpts from Lederle-Praxis Biologicals' own DPT Vaccine package insert. Lederle-Praxis Biologicals is a division of American Cyanamid, which is itself a division of I.G. Farben, the former Nazi chemical combine who manufactured Zyklon-B. Zyklon-B was the nerve gas used for exterminating millions of human beings in concentration camps. "Concentration" stands for mass "concentrations" of civilian population. In other words, a complete cross section, including infants, children, senior citizens, etc.

15. If you are making silver chloride you will see black flakes appearing at the top of the water along with salt crystals forming at the bottom of the glass. Silver chloride production normally requires one drop of saline solution (or more) per ounce of water.

Banishing disease with three 9-volt Batteries

Part Two: Homemade Colloidal Silver Vindicated

From Perceptions Magazine, May/June 1996 Issue

by Mark Metcalf

"We used to think, and some still do, that life came from a chemical soup. Now we know that unless there is an electrical charge there is no life. Life, then, is electrical. And when electrical systems go, although the chemistry is still there, the life does not exist."

---Dr. Valerie Hunt, Prof. Emeritus, Dept. of Physiological Sciences, UCLA

In an earlier issue [Nov/Dec 1995] I wrote of a "hospital" that was safer than and in many ways superior to all others in its ability to promote wellness. It was essentially cost-free to operate and portable as a deck of cards: a colloidal silver generator. With it you can make virtually unlimited amounts of the highest quality colloidal silver for the price of water.

Currently, we the people of the United States are spending \$3,700 per person per year to treat our diseases-the highest amount in the world. Ironically, our health problems are getting worse. Absurd as it sounds, the third leading cause of disease and death in the United States is now infectious disease. These deaths are completely preventable.

With the simple act of wiring together three 9-volt batteries, something very profound begins to happen: Ordinary people are able not only to heal themselves, but find themselves endowed with the power to heal others and to protect the health of entire communities. These everyday people's newfound power encompasses even the ability to heal animals, plants and trees. They are also able to grow more nutritious food and to store it for longer periods.

Losing their dependent patients, the multi-billion-dollar, managed-care-of-"incurable"-diseases industry and the deadly, mutagenic vaccine industry begin to crumble. So does the cold-and-flu industry which buys all those prime-time TV ads.

Don't expect these cartels to take their losses lying down. They will do their best to frighten people away from making it themselves, sometimes buying off colloidal-silver manufacturers to act as their agents. You can also expect these drug companies to aggressively market their own substitute products, just as they pushed antibiotics in the 1940s when colloidal silver was first suppressed.

One of the most effective flimflam ploys involves trotting out an "expert" who confirms that the product he or she is selling is absolutely essential for your well-being. This spokesperson will stress that his/her studies of the competition revealed that Brand X will very likely harm you. Actually, the expert is used as a shill to usurp your freedom of choice and dictate what you should regard as "health" and health-promoting practices.

Similar ploys have been used by colloidal-silver manufacturers, resulting in confusion and fear among those most interested in using it. We can best avoid manipulation by gaining a deeper understanding about different types of colloidal silver, production methods, issues of safety and usefulness.

First some basics. A colloid consists of minute particles that float within a liquid despite the pull of gravity. To stay in suspension, these particles must be smaller than 1 micron (1/1000 of an inch). When fresh produce is processed through a juicer, a colloid results in the form of a glass of juice. Drinking fresh juices makes it possible to consume far more nutrients than by eating. Because juice is the equivalent of a predigested food, the body can process large amounts with minimal effort and correspondingly better health results.

As a colloid sits, the larger particles begin to fall out of suspension and settle to the bottom of the container. To redistribute the contents, one usually shakes a bottle of juice before drinking.

Similarly, with colloidal silver, particles are pulled off a pure silver wire immersed in water by applying a low-voltage electric current which gives each particle an electric charge. Although this charge is long lasting, it is not permanent: daylight, magnetic fields and time will cause a silver colloid to lose its charge. This is referred to as "falling out" or "plating out."¹

Note, while colloidal silver is light sensitive, it is not as light sensitive as camera film. Taken to the beach under the midday California summer sun, it will oxidize in about 10 minutes. Indoors, under ambient and artificial light, this would take about three days. However, that only means that colloidal silver should be stored in tinted or opaque containers.

Many colloidal-silver manufacturers claim that if the silver particles are "too large," the resulting brew will be injurious, but the truth can be found in many science textbooks. When current is applied to silver in solution, the particles that break off will always be the same size: 1.26 angstroms (.00001 microns).² This particle is so small that the next stop on the road to smallness is the atom itself!

Colloids are by nature the smallest particles matter can be divided into while retaining individual characteristics. Reducing a piece of metallic silver to a cloud of microscopic particles greatly extends its total surface area and its healing properties-while deepening penetration into the body.

Because the silver particles are charged, they strive to combine with other elements. Trace elements exist even in distilled water, and when the charged silver particles combine with a specific trace element, the solution can turn one of a number of colors, like gray, yellow, green or brown. The element the silver chooses is largely irrelevant: Once in the body, the silver releases its bond in search of stronger attachments in order to stabilize its charge. Therefore, as the silver colloid enters the body, the original silver particles (about the size of 15 atoms) quickly pass through the stomach lining and into the blood stream where they circulate for about a week before elimination.

Yellow Colloidal Silver

Yellow colloidal silver is favored by most manufacturers, not because it is more effective than other types, but because it has a longer shelf life. This stability in solution does not automatically translate into smaller combined-particle size of the silver ion and the trace element. Some trace elements are simply more water soluble than others. Either way, particle size is a moot point: Freshness and density (parts per million, or ppm), not color, determine effectiveness.³

A disadvantage of the yellow colloidal silver is its bitter taste-unlike the silver-colored one. Also, the yellow solution is more difficult to make. When using a 27-volt generator, it is helpful to reduce the water volume to shorten the much-longer activation time the yellow solution requires. I could find no medical evidence that a yellow colloid is more effective than a silver one. Of course, you can create both for yourself and compare their effects.

To make the yellow solution, use a tall, narrow glass with 6 to 8 ounces of distilled water. Use no saline solution. The water will not gain conductivity, as it does when a saline solution is added, so the process will take about 45 minutes. It will produce a concentration of approximately 10 ppm. Keep an eye on the color of your solution, or it will eventually turn murky brown and then black. If this happens, just throw it out and start over.

How To Make High-concentration Solutions

High-concentration solutions cannot be made by simply extending the process time.

As more silver ions travel through the water, the conductivity increases which begins to alter the process. The result is a time limit of about 15 minutes when using distilled water plus saline solution at room temperature.

To create high concentrations of silver, simply heat the water. For every 10 degrees that the water rises above room temperature (72 degrees), the ppm figure doubles: If 5 ppm resulted after seven minutes of activation with 16 ounces of water at 72 degrees, 82 degrees would yield 10 ppm, 92 degrees would deliver 20 ppm, etc.

You should not boil the water, but you will find plenty of leeway between 72 and 212 degrees (boiling). Also, do not use a teapot because of its calcified residue. A cleaner pot, like a stainless steel, ceramic or glass one used for cooking, will work fine.⁴ Then pour the warm/hot water into a glass.

Zero Toxicity

The body's ability to process the tiny atoms of colloidal silver makes silver build-up in the body impossible. The Environmental Protection Agency's Poison Control Center reports a "No Toxicity" listing for colloidal silver. In fact, it appears that harmlessness is one of the attributes of the colloidal state, regardless of content. For example, examining a bottle of colloidal minerals from a local health food store, I noticed arsenic, nickel and lead among the 65 trace minerals on the ingredients list: If the particles are small enough, you can even drink arsenic!

Since the body has a vital need for silver-to maintain the immune system and to produce new, healthy cells-and since our blood is also a colloid, the harmonious way in which colloids enter the body may well make colloidal silver the safest medicine on earth.

Just to prove a point to myself, I made a 16-ounce solution of well over 250 ppm and drank it. I repeated this procedure four days in a row, daily ingesting at least the equivalent of 50 16-ounce glasses of a 5-ppm, solution! I did not eat yogurt or acidophilus or compensate for friendly bacteria loss in any way. The only side effect was that I seemed to feel better!

According to pharmacist Ron Barnes, R.Ph. (Capitol Drugs, Los Angeles), this makes sense because:

Many strains of pathogenic microbes-viruses, fungi, bacteria or any other single-celled pathogen-resistant to other antibiotics are killed on contact by colloidal silver and are unable to mutate. However, it does not harm tissue-cell enzymes or friendly bacteria.

A Rejuvenating Elixir

My next experiment was a little different. I cut two flowers in the back yard and left one on a shelf without water for 24 hours. When I picked it up the next day it was completely limp. I made a fresh cut at the bottom of the stem and placed it in a glass of high-concentrate colloidal silver. Each day it got better. By the third day, the stem had become firm again, as if it had just been cut. Not a single petal was lost.

I had placed the second flower into ordinary water immediately. By the third day, many of its petals had fallen; though it had been in water from the start it was already dying.

It seems that something in silver is tied to the very core of the life process itself. Dr. Robert O. Becker, MD, agrees. Writing about his experience with older patients, the noted biomedical researcher from Syracuse University and author of *The Body Electric* and *Cross Currents* said:

Silver did more than kill disease-causing organisms. It promoted major growth of bone and accelerated the healing of injured tissues by over 50 percent.

He also discovered that silver "profoundly stimulates healing in skin and other soft tissues in a way unlike any known natural process..." and that it promotes a new kind of cell growth which looks like the cells of children!

These cells grew fast, producing a diverse and surprising assortment of primitive cell forms able to multiply at a great rate, then differentiate into the specific cells of an organ or tissue that had been injured, even in patients over 50 years old.

A Broad-spectrum Remedy

The healing properties of silver are so wide ranging that we see researchers expressing amazement time and time again. Alfred Searle, founder of the pharmaceutical conglomerate, wrote in 1919:

Applying colloidal silver to human subjects has been done in a large number of cases with astonishingly successful results. For internal administration, orally or hypodermically, it has the advantage of being rapidly fatal to parasites without toxic action on its host. It is quite stable. It protects rabbits from ten times the lethal dose tetanus or diphtheria toxin.

I received a call from a man with a Ph.D. in computer science who had read my original article, made some colloidal silver and applied it with a dropper chronic eye infection. He said the infection went away almost immediately. In passing he mentioned that the solution also got rid of the plaque on his teeth. I had been wondering what happened to the plaque on my own teeth but had not put the two together.

The power of silver still reigns worldwide in many modern-day applications: Physicians use silver compounds in 70 percent of all the burn centers in the United States, while British Airways, Swissair, Scandinavian Airlines, Lufthansa, Olympic, Air France, Canadian Pacific Airlines, Alitalia, KLM, Japan Airlines and Pan Am all rely on silver-process water filters to curtail waterborne diseases. NASA uses a silver water-purification system on the space shuttle as do the Soviets. Japanese firms even remove cyanide and nitric oxide from the air with silver.

So, how do you frighten people away from the safest medicine on earth? You tell them that the bogeyman will get them. If they're too sophisticated for that, tell them they will get a strange, archaic disease like argyria. Actually, there is no record of anyone ever contracting argyria from colloidal silver made by the electrolytic method.

(Argyria is a harmless and infrequent cosmetic condition in which some body parts take on a slight bluish cast due to the presence of chemical compounds of which silver is only a component. It did not seem to bother the royal, "blue-blood" families of Europe, who stayed healthy through the plagues of the Middle Ages by ingesting large amounts of silver.)

Surviving With Colloidal Silver

Were I to end up in the midst of a calamity, I would need only water to have one of the most powerful medical resources in the world at my disposal. (Technically, colloidal silver can be made in a variety of common liquids, including beer and soup, but I'm not recommending anyone do this in the normal course of events.)

In a remarkable clinical trial with 14 elderly patients, Dr. Becker inserted a pair of silver electrode wires directly into each wound, using the body's own juices as the liquid solution and applying current to the external ends. (The voltage one uses is so low it produces no sensation.) With this technique, he was able to heal infections inside broken bones--one of the hardest types to control-and to mend previously unhealing fractures and breaks.

In some cases he left the silver surgically implanted in the body. In others, he sewed the wound up around the protruding electrode. Once the wound had healed, "The implanted silver wire was easily withdrawn from the wound manually without the need for surgery or anesthesia."

Regarding the ability of metallic silver to control infection, he 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." Concerning the safety of inserting it into the body, he added: "In no case were any undesirable side effects of the silver treatment apparent."

Under emergency conditions it would be good to remember that U.S. silver coins from 1964 and earlier contain 90 percent silver, nine percent copper and one percent zinc, all of which are known to have beneficial properties if used in a colloidal state. Just scour the coins until they are clean and shiny (I mention this purely as an intellectual consideration and not to recommend that anyone undertake such an action under normal conditions. Silver wire is much easier to use.)

What Doesn't Colloidal Silver Do?

It does not interact with any other medications or upset the stomach; in fact, it is a digestive aid. It does not sting the eyes. Medical-journal reports and documented studies spanning the past hundred years indicate no known side effects whatsoever from oral or intravenous administration of colloidal silver in animal or human testing. It has been used with good results under the most demanding health care circumstances.

Without overstating the case, it may be time to recognize colloidal silver as not only the safest medicine on Earth, but also the most powerful!

Currently Preferred Silver Colloid Making Apparatus, Means, and Methods

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To easily and rapidly make unlimited quantities of good quality silver colloid concentrate for ~1/10¢ per gallon plus water costs you'll need three 9V type MN1604 regular alkaline transistor radio batteries, three battery snap-on lead connectors, 2 insulated alligator clips, 1 "grain-of-wheat" 24 volt 40 mA sub miniature incandescent bulb, a foot of 3/32" heat-shrink insulation tubing, 10" pure silver wire, and a foot of 2-conductor stranded insulated wire for clip-leads. This should cost under \$20 maximum for everything and take about 35 minutes to assemble from scratch. This design is "idiot proof" and simple to use. It makes an odorless, tasteless, colorless fast and powerful antiseptic and one of the most remarkable healing agents known. The entire colloid making process takes about five minutes per 8 OZ batch for ~5 ppm laboratory tested concentration at room temperature.

Use three snap-on connector clips for the batteries. Solder them in series (red to black) to provide 27 volts. Connect a 24V incandescent lamp in series with either (positive or negative) output lead. Solder a red insulated alligator clip to the positive (anode) and a black insulated dip to the negative (cathode) 2-conductor lead wires. Insulation is shrunk over soldered connections using a heat gun or match. Use ONLY pure silver (.999 fine) electrodes. #14 gauge (AWG) is the preferred size. Pure silver is sometimes available at electroplating supply companies, foundries, precious metals dealers, etc. Do NOT use "Sterling" silver (.925 or other) since Sterling contains copper and nickel. Nickel can be toxic. **WARNING!** Sterling is sometimes passed off for electrodes with commercial colloid makers through ignorance or by entrepreneurs who are trying to cut corners and save money. Discard them as hazardous. Use only triple distilled or de-ionized water for injectable colloid. Single distilled water makes transparent colloids but its higher resistance takes up to half an hour to make a 5 ppm. concentration. Tap water is O.K. for most other uses but contains chlorine which may produce some AgCl which is harmless but gives a milky appearance as will any salt (NaCl) which should be avoided.

Bend top ends of silver electrode wires to dip over rim of plastic or glass container. Leave about 4 inches of bare electrodes submersible in the working solution (water). Spacing between electrodes is not critical. There is no on-off switch, so process starts immediately when alligator clips are both attached to submerged wires. Process stops when either or both dips are disconnected. If bulb glows visibly, proceed and let current flow for about five minutes then remove alligator clips, stir, and you're done! If bulb doesn't light or you see only a faint reddish glow, add sea-salt solution (see next paragraph). Observe the smoke-like plumes of pure white ultra fine grain silver against a dark background as colloid electrolytically sinters off the anode (positive polarity side of battery; red lead) and drifts into solution. Stir thoroughly before using or storing and shake each time before using. Five minutes activation of ~8 OZ of properly conductive water at ~72F gives ~5 ppm (parts per million) strength. Each additional 10° F will double ppm for a given electrolysis time. Yield also depends on water conductivity, surface area of electrodes, amount of current, and time. ~5 minutes makes a stock solution which can be safely used full strength for anything. I occasionally put electrodes in my coffee, fruit and vegetable juice, tap water, and other restaurant drinks to charge them with colloid directly. I even treated a mug of Anchor Steam Beer to see if it worked - it did! But its best to charge water by itself and add this to other foods and liquids as desired or drink it directly. Overdosing with any amount is considered unlikely.

The 24v, 40 mA miniature bulb acts as an ideal ballast, current drain indicator, current limiter, and battery condition check for the apparatus. I found aircraft "grain-of-wheat" lamps (Precision Lamp, Inc. part #10238) in surplus for 50¢ each. You can momentarily short-circuit clip-leads together without harm; the bulb will simply light brightly. Also the visual brightness while operating gives an accurate indication of water conductivity. With distilled or de-ionized (high resistance) water, you should stir in a very minute amount (1 drop, no more) of dissolved sea salt solution, preferably "Celtic Golden Marine" (brand) available at health food stores. Do not use table salt since it contains additives like iodine, aluminum, or silica desiccates, etc. Too much salt (more than one drop) NaCl, can produce unwanted silver chloride and give a "dish water" appearance. Prepare a saturated solution of sea salt beforehand, filter and store in a 1 or 2 OZ brown drugstore eyedropper bottle. Add a little colloid to your bottle to prevent bacterial growth. Stir a drop of this salt solution into 8 oz of any high-resistance water. The bulb should show just a very dim reddish glow. Salt must be added *before* making colloid. Make and store only in electrically non-conductive containers such as dark brown glass or plastic such as prune juice bottles, hydrogen peroxide containers, Kahlua or Bailey's Irish Cream liquor containers etc., but never in metal (don't peel labels as these shut out more light). Suggested adult dosage of silver colloid can be one to several OZ. stock solution in 6 to 8 OZ of water taken not more than three times in 24 hours. Consult your health professional. 8 OZ glasses of full strength (up to 30 p.p.m.) can be ingested directly with no harmful side effects.

Clean electrode wires after each use to remove dark oxide occurring on anode because the oxygen (produced electrolytically) oxidizes silver. Cut a small piece of 1/4" thick nylon Scotchbright™ kitchen scouring pad to polish dried silver, then wipe with paper napkin to make silver ready for next use. A fresh set of 3 alkaline batteries will make hundreds of 8 OZ batches of five minute silver colloid before battery replacement becomes necessary. Periodically check batteries by momentarily short-circuiting tips of alligator clips together to observe whiteness and intensity of light. When bulb appears significantly dimmer or locks yellowish after time, replace all three alkaline batteries. Pry snap connectors off, tape 3 new cells together, and replace snap-on clips. Be very careful not to crush or damage the fragile little in-series lamp.

Colloid concentration and purity is readily checked by viewing back-scatter of a laser beam as it passes through your finished solution Tyndall/Rayleigh effect). Use a 1 to 5 milliwatt laser diode pointer (630 to 670 nanometer wavelength) that makes a small spot at several feet, not just a "light emitting diode". Look into the beam at about a 15 degree angle. (Point beam through solution so spot hits your chin or lips. *Never look directly at source; this can injure your eyes.*) Laser pointers retail for about \$30. at some computer or parts outlets such as Fry's Electronics. Surprisingly the inexpensive pointer from Radio Shack does not perform satisfactorily for this particular application. Other Radio Shack models (~\$69) will.

Stir your fresh batch with a plastic (non-conductive) fast-food disposable knife and store in a dark brown container. Keep away from light as even room light levels will degrade colloids rapidly by turning solution gray or black just as exposure to light darkens the silver in camera film. Light can also neutralize positive charges on silver ions that help keep particles in suspension. Keep colloids cool but do not refrigerate or let freeze. Always shake container thoroughly before using. After evaluating many different instruments and methods, this paper describes what is easily the best performing, least expensive, simplest and most convenient method for producing good quality silver colloids presently disclosed. It has been fully tested and found to work much better than expensive, dangerous and complex devices. However it does not work with metals such as gold. This standalone appliance works all by itself, and never requires high voltage, ignition coils, transformers, underwater sparking, or "plugging in". It goes in your pocket and will work anywhere. It is essential for sterilizing local drinking water when traveling. (See accompanying suggested uses). It can generate excellent fine-grain silver colloids directly in any fluid containing water ranging from soup to champagne without diluting it. You can make any desired concentration in parts per million by electrolyzing at higher temperatures. There is no heat or waste, and it cannot shock you. There is no need to stir *during* processing however stirring or shaking is essential before storing and each time before using. Filtering is generally unnecessary. Don't add preservatives, minerals, EDTA, proteins, gelatin, coloring (some makers add yellow dye to make it appear "golden" and even honey to slow precipitation), or any other substances. If purchased at market prices commercial colloids could cost up to \$60 for 8 OZ of generally vastly inferior products. Most available colloids on today's market when evaluated prove to be practically worthless. (At a recent health expo, in my opinion out of eight brands tested only two were found to be adequate in quality, suspension, and content. Many contained additives such as EDTA, coloring and gelatin for suspension). This paper describes an easy way for anyone to make his own for only a small fraction of a penny. It seems ridiculous to buy it for high prices. You can now afford to use colloids universally, such as in laundry water for sterilization, as a disinfectant spray, rinse for fruit and vegetables, fungicide, bactericide, plant spray, pet health assurance, and hundreds of other applications. Drinking dilute silver colloid safely kills over 650 pathogens, viruses, microbes, fungi, and parasites within minutes and is said to give you a second intact immune system. Side effects or overdosing are unknown and resistant strains of disease-causing pathogens never develop. Some users ingest lactobacillus acidophilus, bulgaricus, yogurt etc. to replenish friendly intestinal flora.

Warning! Multi-level entrepreneurs hoodwinked by profit motivated promoters generally protest that their colloid is "better, finer-particle size, purer, improved suspension, more golden, made by some expensive top secret proprietary process, etc." or other absurd rationalizations to justify outrageous prices. Just offer to test both at an independent laboratory. This do-it-yourself process makes a perfectly satisfactory colloid with a four year track record of excellent results. Should you wish to make "golden yellow" silver colloid, simply start with 8 OZ of distilled water, add no salt or soda or other ionizing material, and leave electrodes in for 30

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THE AGE OF GREED

...there were numerous reports of Egyptian use of mustard and other poison gases and suggestions of various bacteriological attacks as well.²⁹

The Egyptians' rudimentary program was nothing compared to the sophisticated formulas developed by the various Western nations. Still, Nasser had more than enough tools to do horrible damage to the Jews, and it was only a matter of time before one of the Western nations shared its more advanced Nazi weapons expertise with the Arabs. As Jonathan Pollard later discovered to his horror, that is exactly what occurred in the 1970s and 1980s. The German nerve gas factories recently constructed in Libya and Iraq are using the identical formulas perfected on Jews at Auschwitz.

Many people have criticized the nation of Israel for commencing a nuclear bomb program. As already discussed, President Kennedy begged the Jews not to introduce atomic weapons to the Middle East and offered them \$600 million to build a nuclear-powered freshwater desalinization plant instead. Tel Aviv refused the offer and plowed 10 percent of its national budget into the Dimona facility, a move that some people believed irrational.

Many of the former intelligence officers we interviewed on this subject say that the Jews had no other choice. During the 1950s the proliferation of Nazi technology in chemical and biological warfare had spread like wildfire around the world. Nasser already had his Nazi scientists on the job, and soon the Arabs would perfect these weapons of mass destruction for use against the Jews. A few suitcases full of Rycin could effectively poison the entire national water system of Israel. A truckload of canisters filled with Soman nerve gas released downwind could wipe out the population of Tel Aviv in an afternoon. A barrier of anthrax spores in the soil would isolate Beersheba for decades.³¹

The Israelis were not paranoid. The threat of another "final solution" was, in fact, increasing every year. As American intelligence reports now confirm, the Soviet Union had taken the Nazi human experiments and developed new forms of toxic warfare. By the mid-1950s the Soviets had produced enough Nazi nerve gas to poison the population of the world several times over. Huge stockpiles of anthrax, plague, and "designer bacteria" were in place in each Soviet city. In the event of war, barriers of poison ground would isolate Soviet cities from invaders. More frightening, the Soviets had developed new offensive systems of germ warfare for genocide.

There is little defense against this kind of attack, and what few antidotes exist are withheld from the public as military secrets. One of the best examples of this is Movidyn, a substance that the Soviets discovered in their satellite state of Czechoslovakia way back in the 1950s. Movidyn is a form of colloidal silver, odorless, tasteless, and cheaper to produce than chlorine disinfectants. One part per billion of powdered Movidyn in water has a germicidal effect. In a study of infected wells, it completely destroyed typhus, malaria, cholera, and amoebic dysentery. Drinking containers washed in Movidyn retained their germ-fighting abilities for several weeks.

Movidyn seems to be a cost-effective prophylactic for most of the waterborne diseases that infect the Third World. To the astonishment of the Soviet military, Movidyn also disinfected every germ warfare bacteria in the Soviet arsenal, even their newest designer poisons. In other words, Movidyn was too good. The Czech factory was disassembled and carted back to the Soviet Union. To this day, the Movidyn formula seems to have been suppressed from the world, but then so have reports of germ warfare experiments that went wrong. Every country, including the United States, has a few skeletons in its closet when it comes to research on weapons of genocide.

The fact that the Soviets went to such lengths to develop antidotes to chemical and biological warfare techniques is testimony to the devastating effects they can have on the defenses of any nation, let alone the tiny nation of Israel. It also would be naive to think that such weapons are too frightening to use in war. The Japanese army successfully used germ warfare, including plague, against the population of China during World War II. Recently declassified Japanese files indicate that they intended to conquer Australia with rats infected with bubonic plague, cholera, anthrax, typhoid, and hemorrhagic fever. The U.S. Air Force dropped potato bugs on Nazi Germany to destroy crops. Saddam Hussein used both nerve gas and germ warfare against the Iraqi Kurds. There are too many precedents to ignore.

The Israelis always have known that, sooner or later, someone would think about targeting them. The genie of germ warfare had been let out of the bottle by the Nazi laboratory at Auschwitz. During the 1950s and early 1960s they watched nation after nation perfect the technology. Even if the Jews went public, the Western governments would deny that they were using Nazi scientists to research illegal weapons of genocide. Probably all that would happen from such a pronouncement would be that Western nations would simply do a better job of concealing their toxic warfare programs. No one in the West would give up the Nazi scientists, not as long as the Communists were using them too.

The Soviets were relying on germ and gas warfare as their primary defense, for their atomic program lagged several years behind that of the West. By 1948, the Soviets had the bomb, but no guidance system for missiles to transport it. The military depended on radio beacons inside...

A FEW UNIQUE PLUS TRADITIONAL USES FOR SILVER COLLOID

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When you control a source of penny-per-gallon make-it-yourself high concentration silver colloid (see attached how-to page) you can use it for hundreds of health improvement applications. A few are suggested here. You can use most tap water to make colloid for industrial and external uses and distilled or de-ionized water for internal or injectable applications.

Add to suspected drinking water when traveling or camping. Colloid sprayed bums heal rapidly without scarring. Safely sterilize anything from toothbrushes to surgical instruments. Use topically on cuts, wounds, abrasions, rashes, sunburn, razor nicks, bandages. Spray on garbage to prevent decay odors. Mist kitchen sponges, towels, cutting boards to eliminate E. Coli 0157:H7 and salmonella bacteria to prevent food poisoning, gastrointestinal inflammation, and genital tract infections.

Add when canning, preserving, bottling. Use like peroxide on zits and acne. Add to juices and milk. Will delay spoiling, fermenting, deteriorating, clabbering or curdling. Spray in shoes, between toes, between legs to stop most skin itch, athlete's foot, fungi, jock itch. Diminish dandruff, psoriasis, skin rashes, etc. Add to bath water, gargle, douches, colon irrigation, nasal spray and dental water-pick solutions. Cuts downtime dramatically with colds, flu, pneumonia, staph, strep, respiratory infections and rhinoviruses. Skin itch, eye and ear infections, some moles and warts vanish when colloid is sprayed on body after bathing. Use with Q-tip on fingernail, toenail, and ear fungi. Neutralize tooth decay and bad breath. Colloid stops halitosis by eliminating bacteria deep in throat and on back of tongue. Unlike pharmaceutical antibiotics, silver colloid never permits strain-resistant pathogens to evolve.

Put a few drops on band-aids and bandages to shorten healing times. Health professionals might consider IV and IM injections. Tumor and polyp shrinking is reported when masses are injected directly (when colloid is added to sterile physiological saline or Ringer's Solution which contains ~9000 ppm sodium chloride). Toothaches, mouth sores, bacterial irritations are diminished. Soak dentures. Spray refrigerator, freezer and food storage bin interiors. Stop mildew and wood rot. Mix in postage stamp, envelope, and tape moistening wells, paint and paste pots to prevent bacterial growth, odors, spoiling or souring. Add to water based paints, wallpaper paste, dishwasher, cleaning and mopping solutions, etc. Spray pet bedding and let dry.

Spray on top of contents of opened jam, jelly, and condiment containers and inside lids before replacing. Mix a little in pet water, birdbaths, cut flower vases. Always add to swamp cooler water. Spray air conditioner filters after cleaning. Swab air ducts and vents to prevent breeding sites for germs. Use routinely in laundry final rinse water and always before packing away seasonal clothes. Damp clothes or towels and washcloths will not sour or mildew. Eliminate unwanted microorganisms in planter soils and hydroponics systems. Spray plant foliage to stop fungi, molds, rot, and most plant diseases.

Treat pools, fountains, humidifiers, Jacuzzis, hot tubs, baths, dishwashers, recirculating cooling tower water, gymnasium foot dips, and bath and shower mats. Spray inside shoes, watch bands and gloves and under fingernails periodically. Treat shower stalls, tubs, fonts, animal watering troughs, shavers to avoid trading germs. Rinse fruit and vegetables before storing or using. Put in cooking water. Human and animal shampoos become disinfectants. Prevent carpets, drapes, wallpaper from mildewing. Wipe telephone mouthpieces, pipe stems, headphones, hearing aids, eyeglass frames, hairbrushes, combs, loofas. Excellent for diapers and diaper rash.

Do toilet seats, bowls, tile floors, sinks, urinals, doorknobs. Kill persistent odors. Rinse invalid's pillowcases, sheets, towels and bedclothes.

There are literally thousands of other essential uses for this ridiculously inexpensive, odorless, tasteless, colorless, totally benign and easily produced powerful non-toxic disinfectant and healing agent. You'll find that a spray or misting bottle of silver colloid solution may be the most useful health enhancement tool in your environment.

From Colloidal Silver: The Natural Antibiotic by Zane Baranowski, CN

When properly prepared, colloidal silver is a completely non-toxic, tasteless, internally and externally applicable, broad-spectrum germ fighter and disinfectant which can significantly reduce the length and severity of many bacterial infections. For these reasons and more, colloidal silver should prove to be one of the greatest discoveries in preventive, natural health care of all time.

Discovering the Universal Antimicrobial

Silver is one of the most universal antibiotic substances. When administered in the colloidal form, it is for all practical purposes, non-toxic. Silver has been proven to be useful against hundreds of infectious conditions. Although the exact mechanism for the proven antimicrobial effects of silver is unknown, the most accepted theory is that silver disables the specific enzyme that many forms of bacteria, viruses and fungi utilize for their metabolism.

The Rediscovery of Colloidal Silver

The comeback of silver in medicine began in the 1970's. The late Dr. Carl Moyer, chairman of Washington University's Department of Surgery, received a grant to develop better treatments for burn victims. Dr. Margraf, as the chief biochemist, worked with Dr. Moyer and other surgeons to find an antiseptic strong enough, yet safe to use over large areas of the body. Dr. Margraf reviewed 22 antiseptic compounds and found drawbacks in all of them. "Mercury, for example, is an excellent antiseptic but toxic," he comments. "Popular antiseptics....can be used over small areas only." Furthermore, disease organisms can become resistant to antibiotics, triggering a dangerous super-infection. "These compounds are also ineffective against a number of harmful bacteria, including the biggest killer in burn cases - a greenish-blue bacterium called *Pseudomonas aeruginosa*. It almost always shows up in burns, releasing a poison."

Reviewing medical literature, Dr. Margraf found repeated references to silver. It was described as a catalyst that disables the enzymes microorganisms depend on to "breathe." Consequently, they die.

Therefore, Dr. Margraf decided to use the best known compound of silver: silver nitrate. Concentrated silver nitrate was corrosive and painful. So he diluted the silver nitrate to a .5 percent solution and found that it killed the *Pseudomonas aeruginosa* bacteria and permitted wounds to heal. Resistant strains did not appear. Silver nitrate, however, was far from ideal. It disturbed the balance of body salts, was thick and cumbersome to use and stained everything it touched. Dr. Margraf searched for other preparations of silver. As a result of these efforts, hundreds of important new medical uses for silver were found. Medical journal reports from the early 1900's demonstrated a properly prepared colloid of silver was the only form of silver solution that was not deposited under the skin, no matter how many times the proper amount was administered.

There were still skeptics. Some of the negative reaction that colloidal silver received in the early 1900's, "was due to a premature supply of improperly prepared and unstable colloids... Shortly after the definite recognition of the colloidal nature of the chief body fluids was effected, the enormous possibilities which might result from the application of colloidal disinfectants and medicines were rapidly recognized." A number of colloidal substances were placed on the market in this country and elsewhere. It was soon found, however, that most of these preparations rapidly deteriorated in value: some of them were so unstable that they contained no active colloid at the time when they were used."

N. R. Thompson recognized that, "To primitive life forms, oligodynamic silver is as toxic as the most powerful chemical disinfectants and this, coupled with its relative harmlessness to animate life (i.e. mammals), gives it great potential as a disinfectant."

Based on laboratory tests with colloidal silver, destructive bacteria, virus, and fungus organisms are killed within minutes of contact, Larry C. Ford, M.D., of the Department of Obstetrics and Gynecology, UCLA School of Medicine, Center For The Health Sciences reported in a letter dated November 1, 1988, "I tested them (the silver solutions) using standard antimicrobial tests for disinfectants. The silver solutions were antibacterial for concentrations of 10⁷ organisms per ml. of *Streptococcus Pyogenes*, *Staphylococcus Aurcus*, *Neisseria Gonorrhoea*, *Gardnerella Vaginalis*, *Salmonella Typhi*, and other enteric pathogens, and fungicidal for *Candida Albicans*, *Candida Globata*, and *M. Furfur*."

Jim Powell reported in a Science Digest article March, 1978, titled, "Our Mightiest Germ Fighter", "Thanks to eye-opening research, silver is emerging as a wonder of modern medicine. An antibiotic kills perhaps a half-dozen different disease organisms, but silver kills some 650. Resistant strains fail to develop, Moreover, silver is virtually non-toxic." Dr. Harry Margraf of St. Louis concluded "Silver is the best all around germ-fighter we have."

The Future

The future of colloidal silver is bright. Hopefully with today's technological advances, we can avoid the past mistakes and benefit from its wide range of advantages to prevent and treat infectious disorders.

Although reports on the use of colloidal silver have spanned the past 100 years, research relating to its recent use is limited. However, through a growing number of physicians, dentists, veterinarians, nutritionists and satisfied users, information regarding the modern day uses of colloidal silver is mounting.

This information in no way 'proves' colloidal silver 'cures' infectious disorders or disease, and this claim should not be made by any reputable colloidal silver manufacturer. However it is proven that colloidal silver does have tremendous antimicrobial power; the history of safe and successful colloidal silver use is extensive, and the number of current health professionals and individuals that successfully utilize colloidal silver to reduce the length and severity of infectious disorders is growing exponentially.

Overall, it seems that the effective and safe use of colloidal silver in the treatment of dozens of common infectious disorders is only limited by the imagination and creativity of those afflicted.

Colloidal Silver: THE UNIVERSAL ANTIBIOTIC

*No known disease-causing organism can live in the presence of even minute traces of the chemical element of simple metallic silver, and there are **ZERO NEGATIVE SIDE EFFECTS!***

The ancient Romans and Greeks found that liquids would stay fresher longer if put in silver containers. Our own American pioneers found that a silver dollar put in a jug of milk would delay spoilage. They also found that if they would keep their silverware "hidden" in their water barrel that the water would not go bad.

Some people wonder why the FDA would allow such a powerful antibiotic to be sold over the counter without a prescription. There are two reasons: The first reason is that true colloidal silver is a Pre-1938 drug (by over fifty years) and so the FDA has stated that it may continue to be marketed (grand fathered). The second reason is that the FDA has no jurisdiction over a pure mineral element.

"What we have actually done was rediscover the fact that silver killed bacteria, which had been known for centuries... when antibiotics were discovered, clinical uses for silver as an antibiotic were discarded." - Dr. Robert O. Becker, M.D.

Silver is a very powerful natural antibiotic. It has been used for thousands of years in its less effective solid form but in more recent decades it has been used in its colloidal form...with no side effects. It is a catalyst, disabling the particular enzyme that all one-celled bacteria, fungi and virus, use for their oxygen metabolism which means they suffocate or starve. Many others are destroyed because the electric charge on the silver particles cause their internal protoplast to collapse, and still others are rendered unable to reproduce.

Using the proper solution there are never any side effects and using true colloidal silver does no harm to the essential bacteria found in our intestinal tract. While a person can overdose on virtually anything, the chances of overdosing on colloidal silver is about the same as overdosing on water. (If you drink too much you may pop and if you swim in it you may drown.)

WHAT IS A COLLOID?

A colloid refers to a substance that consists of ultra-fine particles that do not dissolve, but remain suspended in a medium of different matter. These ultra-fine particles are larger than most molecules but so small they cannot be seen by the naked eye. Colloidal silver is not a chemical compound containing silver, but a pure metallic silver of sub-microscopic clusters of just a few atoms, held in suspension, in pure water, by the tiny electric charge on each atom.

"As an antibiotic, silver kills over 650 disease-causing organisms; resistant strains fail to develop. Silver is absolutely non-toxic. Silver is the best all around germ fighter we have. Doctors are reporting that, taken internally, it works against syphilis, cholera and malaria, diabetes and severe burns."

Silver Our Mightiest Germ Fighter, Science Digest, March 1978.

HOW DO YOU MAKE COLLOIDAL SILVER?

In the early 1900's there were two main methods of producing colloidal silver. These were the grind and the electrocolloidal methods. In more recent times a chemical method has been developed.

The main drawback to the grind process was that the particles were so large that gravity could pull on them and cause them to settle out of suspension therefore much of the value of the colloidal solution was lost. Stabilizers were often used to keep the particles in solution but these stabilizers were too often protein that would tend to disturb the charge on the silver particles thus causing them to lose some of their effectiveness. A true colloid does not need a stabilizer of any kind. The silver particles are so small (1-100 billionth of a meter in size) THAT GRAVITY HAS NO EFFECT ON THEM AND THEY STAY IN SUSPENSION.

"There are two principal ways of producing metallic colloids, viz., chemical and physical (electrical)...The two methods of production yield widely different results, and from a therapeutic point of view I need only deal with the electric colloid metals, since only these present the necessary homogeneity, minuteness of granules, purity, and stability." Dr. Leonard Keene Hirschberg, A.M.M.D. (John Hopkins)

The Chemical method has been widely used to replace the grind method and provides a convenient shortcut to the more difficult and costly electrocolloidal process. But it too has serious drawbacks and does not create a superior quality true colloidal silver. The problem with using chemicals (acids) to produce the colloids is the difficulty of getting them back out of the solution. These acid residues can change the pH of the solution and can cause serious side effects to the consumer. Typically the colloid of silver produced by acid has a pH of between 4.5 - 5.5 while a true colloid of silver has a pH of 6.5.

The electrocolloidal process allows extremely fine silver particles to be suspended in solution by the tiny charge placed on the particles. If done properly this method replaces the need for any chemicals, stabilizers, or proteins and the product is then a true colloid of silver. Particle size is crucial in producing colloidal silver. If the particles are too large then they may lodge in the lining of the digestive tract and possibly cause scar tissue to form. The preferred size for the best results is from 0.005 to 0.015 microns. At this size they can remain in suspension almost indefinitely. A critical indicator of the quality of colloidal silver is the color. The color you want to see is a very pale yellow. If the particles are too big then the solution is more brown. The larger the particles the darker the solution.

Silver is a natural element and occurs as a trace mineral in the soil. As such it is one of the essential trace minerals required by plants, animals, and humans. The adult RDA for silver is 400 milligrams. Doctors have connected silver with our bodies natural defense system. So, if we are deficient in silver we may be subject to far more illness and disease than if we had sufficient silver in our system. When our body has enough silver it is almost like having another immune system.

WHY HAVEN'T WE HEARD OF COLLOIDAL SILVER BEFORE?

Perhaps you have but didn't know it! For many years there was a law that required hospitals to use a silver solution in the eyes of newborn babies to insure that they would not go blind if the mother happened to have gonorrhea. The silver solution used was very black and ugly but you could make no mistake that the baby was treated because they would have the tell-tale black eyes for days. Since the solution was very inexpensive and absolutely effective against nearly all pathogens the pharmaceutical companies could make no money. They lobbied for and were successful in substituting their narrow band antibiotics. The "antiquated" silver solutions were quietly shelved in favor of modern narrow band or selective

antibiotics. Now the doctor would prescribe an antibiotic designed to kill a specific microbe. If it didn't work or you got another type of microbe then he would prescribe another antibiotic. Since there was no money to be made from the inexpensive colloidal silver that killed virtually all of the pathogenic microbes, it was no longer considered by the pharmaceutical companies, no longer taught in the medical schools and no longer available through standard medical supply sources.

HOW TO USE IT

Applications include oral, topical, by injection, as a nasal, ear, or eye drop, or as a spray for other sensitive tissues. Since it kills all disease causing bacteria, fungi, and virus within six minutes of contact but leaves unharmed the "friendly" bacteria, many people take it internally every day as a boost for their immune system. It does not sting, burn, or otherwise hurt even the most sensitive areas..even a babys' eyes.

It can be used on warts, open sores, or a rinse for acne, eczema, and other skin irritations. It can be used vaginally, anally, or even atomized and inhaled. The number of disease organisms presently identified that colloid of silver is fatal to is now over 650.

Listed below are some of the organisms colloidal silver kills in less than sixty seconds.

Anthrax • Athletes' foot • B. Cell Dysentery • Tuberculosis • Boils • Cerebro-spinal Meningitis • Colitis • Cystitis • Dermatitis • Diplococcus
Diphtheria • Gonorrhea • Impetigo • Influenza Pneumococci • Ringworm • Sepsis • Shingles • Sprue • Staphylococci • Streptococci •
Warts • Whooping cough.

Do you have an antibiotic in your home emergency preparedness kit? How about a way to purify contaminated water?

Apply directly to cuts, scrapes, or open sores. Put a few drops on a band-aid and wear over warts. Dab directly on eczema or itchy areas, or acne, mosquito bites, or any skin problem. Water is purified by adding one half teaspoon per gallon, shake well, wait six minutes, shake again, wait six minutes and drink. No home emergency preparedness kit would be complete without a method of making water safe to drink. This purified water makes a great digestive aid because it eliminates fermentation. It is the ideal food preservative because it is also good for you. An example of using it to help preserve food is to put about 1/4 teaspoon in a quart when canning.

Colloidal Gold

WHAT IS IT?

Colloidal GOLD is simply the pure element GOLD and pure water. The GOLD is in ionic form. Those ions are about 1 billionth of a meter in diameter which is so small that for them to move one quarter inch would be equal to us going about eleven hundred miles. No physical machine or any other means could grind the GOLD so small. In the natural world only plants can produce GOLD in such small particles as colloidal GOLD. They do it the same as when they produce iron. They take the metallic iron from the soil which our bodies cannot use and change it into the ionic or colloidal form which we can use. (eat your spinach!). The particles are so small they will stay in suspension in pure water indefinitely.

Just as you would never chew nails to get your iron, you should never take GOLD in metallic form...it can be toxic causing problems for digestion, kidneys, and more. While metallic gold in foil form is used all over the world to help arthritis sufferers externally, no doctor would ever use it internally in any metallic form.

Colloidal GOLD is made by a very technical electro-colloidal or electrolysis method that passes pure (triple deionized) water over .999 fine GOLD that is charged with high frequency/high voltage electricity. GOLD ions are driven off the GOLD into suspension in the water which is then treated with Ozone (oxygen), and passed through a powerful magnetic field. The result is simply pure GOLD in pure water.

Another form of GOLD that is indeed used internally is GOLD cyanide salts which is created by dissolving GOLD using two very powerful acids. The resulting salts have produced some spectacular results especially with arthritis sufferers but is used only as a last resort because of the possible toxic side effects of the salts. Results of GOLD salts injections typically went as follows: Of every six patients, one would have to stop the injections because of side effects. Of the five that continued one had no effects whatever, three were benefitted, and one was completely healed. (the arthritis was not reversed but all pain and other evidence of active disease was stopped).

This is indeed the same kind of GOLD that everyone thinks of when you say GOLD. It's chemical symbol is Au. It's atomic number is 47; its atomic weight is 197. It is one of the heaviest metals with a specific gravity of 19.3 meaning it is 19.3 times as heavy as water. Annual world production is about forty million ounces. It is the most ductile and malleable of all metals. It can be beaten into sheets so thin it would take 300,000 sheets to make a pile an inch high. A single ounce can be drawn into a wire so thin it would be over fifty miles long. Ninety to ninety five percent of the worlds production is used for reserves to stabilize the worlds currency. About half of the balance is used for jewelry, one fourth in the electrical industry, and about ten percent in the dental industry. Out of the tiny amount left over we get our GOLD for medical purposes but that tiny amount has had tremendous benefits for those who will use it in the colloidal form.

HISTORY

GOLD has had much to do with the development, direction, and quality of human civilization through the millennia. It caused the rapid expansion to the west in America because of the GOLD rush frenzy such as the California, Yukon, and Black Hills GOLD rushes. The beauty and malleability of gold has fascinated humans throughout the ages.

The effect of GOLD on individuals has been just as dramatic as it's effect on civilizations. Medieval alchemists spent many personal fortunes trying to turn base metals such as lead into GOLD. While out of their work sprang modern chemistry, their main goal of creating GOLD was never achieved...at least no one has admitted to it. The legends and stories of lost treasure and lost GOLD mines still fire our imaginations.

The use of GOLD for healing and control of pain has long been told in folklore and legends but the earliest documented use in "modern" medicine was in 1890 when Dr. Robert Koch discovered that the Tubercle bacillus could not live in the presence of GOLD. Gold was then quickly found to be of benefit in all of the conditions listed below. The use of GOLD to treat arthritis has been continuous since 1927. The ancient alchemists equated GOLD with the essence of sun, warmth, life in the hearth, life force, ego, blood, etc. When we see the benefits of using Colloidal GOLD we can believe that perhaps those ancient scientists knew more truth than we have ever suspected until now.

HOW CAN IT BE USED?

výrobce přístrojů podle Dr. Becka
www.becktechnology.cz

All of the uses of Colloidal GOLD have not been found. As colloidal technology advances it will revolutionize the way we have been using mineral supplements in the past. Medical science has proven beyond any doubt that the body can absorb essential minerals in the colloidal form far more rapidly than in the pill, powder or any other form. No one seems to know exactly how GOLD does what it does, but the problem is not whether or not the GOLD ion can help... it can! The problem is getting the little ion to where the problem is. Remember, for it to go a quarter of an inch through flesh is like a person having to walk through a very dense, wet, dark and scary jungle. The solution is to take the recommended dosage topically, internally, or both as your health professional directs until the GOLD arrives at the problem area and has time to do it's job.

Already, the new, high tech, colloidal technology has put colloidal minerals and trace mineral products into the market that have caused remarkable, even revolutionary results. Colloidal GOLD has taken the place of metallic GOLD and GOLD salts and many believe it is a far better remedy for chronic inflammation, depression, drug and alcohol addiction and obesity. People use it topically for many different skin conditions as well as for problems deep inside muscles, tendons, and joints such as arthritis, bursitis, and rheumatism. Taken internally at about one half to one teaspoon per day it can circulate to all parts of the body.

THIS IS A PARTIAL LISTING OF CONDITIONS WHERE COLLOIDAL GOLD HAS BEEN USED SUCCESSFULLY.

Brain function • Arthritis • Depression • Despair • Fear • Frustration • Drug Addiction • Alcohol Addiction • Melancholy • Sorrow • Anguish
Arthritis • Burns • Circulatory Problems • Chills • Digestive Disorders • Gland Function • Hot Flashes • Night Sweats • Puncture Wounds
Obesity • Cancer • Seasonal Affective Disorder (SAD)

NON TOXIC

Promotes a general euphoric feeling of well being. Stimulates the body's restorative functions. Enhances the body's natural defenses against illness. Promotes vitality and longevity.

Report on Colloidal Silver

Silver is a powerful, natural antibiotic, used for thousands of years, with no known side effects. Colloidal Silver is a catalyst, disabling the particular enzyme that all one-celled bacteria, fungus and virus, use for their oxygen metabolism. It is of no harm to human enzymes or any part of the human body chemistry. It can kill all disease-causing organisms, in six minutes or less, upon contact, even those pleomorphic, no matter how they mutate. Resistant strains fail to develop, and the body doesn't develop a tolerance. Colloidal Silver is both a remedy and a prevention of infections of any kind. Having sufficient Colloidal Silver in your body is to have a superior, second immune system. It was in common use until 1938. Great Grandma put a silver dollar in the milk, to keep it fresh at room temperature.

There has never been a drug interaction with any other medication. Colloidal Silver has been found to be both a remedy and prevention for all colds, all flu, all infections and all fermentation due to any bacteria, fungus or virus, especially staph and strep, which are found present in many disease conditions. Through simple high school biology studies we learn that all living things exist in the colloidal form. The body can more readily use medications already in the colloidal form, as opposed to crystalline. Colloidal Silver is the most useable form of the most effective disease fighter there is.

The body actually needs Colloidal Silver to fight disease-causing organisms, and to aid healing. The adult RDA for Silver is 400 milligrams. Taken orally each day, it's like having a second immune system. Many older folks feel younger because their body energies are used for other things than fighting disease, and digestion is better. Medical research has proven that Silver aids the developing fetus in growth, health, and eases the delivery and recovery. Fantastic successes have been reported in many cases previously given up by establishment doctors.

Colloidal Silver is tasteless and won't sting, even Baby's eyes, and won't upset the stomach. It is produced today by a modernized original process, at a fraction of the pre-1938 cost, and is more concentrated. Colloidal Silver contains no free radicals, as the Silver acts only as a catalyst, and is stabilized. This is not a chemical compound containing Silver, but pure metallic silver of sub-microscopic clusters of just a few atoms, held in suspension, in pure water, by the tiny electric charge on each atom. It is absolutely non-toxic, (except to one-celled plants and animals), and non-addicting. Colloidal Silver is the remedy for all infections, even the non-apparent, low-grade general body infections most people have. Parasites are also killed, as they have an egg-stage in their reproductive cycle, which is one-celled and therefore killed in six minutes or less.

Colloidal Silver Specifications

There has been a lot of confusion amongst consumers over the optimum concentration of Colloidal Silver to use. Most of this uncertainty has been caused by wrong information given out by misinformed manufacturers who believe in the old axiom that more is better". In the case of Colloidal Silver more silver is not better. A small concentration of silver with a huge number of uniformly sized, electrically charged, ultra-fine silver particles is better. This is the most crucial component of any Colloidal Silver solution. Silver operates best in the body when the particles are as small as possible, and as separate as possible.

In properly manufactured Colloidal Silver the tiny electrical charge placed on the silver particles creates repelling force that prevents the particles from clumping together into larger particles. If the silver particles are too large they eventually get pulled by gravity to the bottom of the bottle. In the body, these larger particles cannot be properly absorbed and therefore the effectiveness of the colloidal solution is lost. The preferred silver particle size for optimum results and safety of use is 0.005 - 0.015 microns in diameter. In a 'true' colloid, these silver particles are animated by what is known as the Brownian Movement and are enabled to remain in suspension in a liquid medium almost indefinitely without stabilizers.

Make sure that the Colloidal Silver product you use has small concentration of silver, ideally 3-5 ppm, with a huge number of uniformly sized, electrically charged microscopic silver particles. Remember, higher concentrations of silver do not necessarily mean greater amounts of silver particles. Quite often these solutions contain silver particles that are very large and therefore fewer in overall number. In the case of Colloidal Silver the term parts per million (ppm) is a chemistry term designating a concentration of silver but not the total number of silver particles. This is extremely important to understand when choosing a Colloidal Silver product.

Under ideal conditions the average daily diet of an adult should yield at least 0.05 milligrams of mineral silver. A 4 ounce bottle of Colloidal Silver in a concentration of 3 ppm, yields approximately 0.015 milligrams of silver per teaspoon. So, in this concentration, taking four teaspoons a day is sufficient in cases where a person is getting no silver in the diet and a smaller dosage of up to three teaspoons would be adequate for those who do not have a total silver deficiency. Bear in mind, it requires the amount of (0.02) milligrams of silver to kill non-sporulating bacteria in

contaminated water and the minimum daily requirement of silver is 0.05 milligrams, so it makes absolutely no sense for anyone to take the risk of using an overly concentrated Colloidal Silver product.

SOME QUOTATIONS TO CONTEMPLATE

Thompson of the Runcorn Health Laboratory in Cheshire, England, reports: "The concentration of silver necessary to sterilize water contaminated with pathogenic bacteria is between .04 and .20 PPM."

-UCLA Medical Center has reported that "colloidal silver.....killed every virus that was tested in the lab."

-Dr. Henry Crooks, speaking about colloidal silver, states: "I know of no microbe that is not killed in laboratory experiments in six minutes."

-Dr. Harry Margraf of St. Louis states: "Colloidal silver is the best all-around germ fighter we have."

-"The First Wealth is Health".....Emerson

COLLOIDAL SILVER

The following is a partial list of the more than 650 diseases that Colloidal Silver has been known to have been used successfully against:

abrasion • leukemia • acne • lupus • acne rosacea • lymphangitis • AIDS • lyme disease • allergies • malaria • appendicitis • meningitis • arthritis • mosquito bites • athlete's foot • neurasthenia • bladder inflammation • parasitic infections (viral & fungal) • blood parasites • pneumonia • blood poisoning • pleurisy • boils • prostate • bubonic plague • pruritis ani • burns • psoriasis • candida • purulent ophthalmia • chillblanes • pyorrhea • cancer • rhinitis • canine parvovirus • rheumatism • cholera • ringworm • chronic fatigue • scarlet fever • colds/flu • (septic conditions of the eyes, ears •colitis mouth & throat) •conjunctivitis - seborrhea •cuts, scrapes - septicemia •cystitis • shingles • dermatitis • skin cancer • diabetes • sores • dysentery • staph infections • eczema • syphilis • fibrositis • thyroid • gastritis • tonsillitis • gonorrhea • toxemia • hay fever • trachoma • herpes • trenchfoot • impetigo • tuberculosis • indigestion • virus (all forms) • infections • warts • inflammations • whooping-cough • itchy skin • yeast infection .

MOST IMPORTANT QUALITIES:

Non-toxic, no known side effects, is made entirely from the pure mineral element, silver • Contains no chemicals or proteins • Useful against over 650 disease-causing organisms (i.e. germs, fungi & some viruses) • Helps strengthen the bodies natural defenses (when taken daily), is highly germicidal • Helps growth stimulation of injured tissues, is a remedy for infections • May be used internally or applied topically.

DYNAMIC CHARACTERISTICS:

•A safe and all around germ-fighter •Safe to use, even for children •No recorded reaction with other medications •Tasteless, odorless, harmless to eyes •Helps improve digestion. Does not upset the stomach •Body develops no dependency or tolerance •Cannot overdose •Helps prevent colds and flu •Promotes greater energy, vitality and vigor •Excellent for veterinary uses.

Blood Cleaner & Colloidal Silver Resource List

Fully assembled instruments may be obtained from the following distributors:

1. SOTA Instruments Incorporated, P.O. Box 26161, Central Postal Station, Richmond, BC, V6Y 3V3 Canada; (800) 224-0242
2. Energetic Transformations, LLC, P.O. Box 17614, Boulder, CO 80308-0614; (800) 497-7208
3. A.L.H. - Jane Stilwell, 216 Niagara Way, Santa Ana, CA 92703; (714) 972-0935 *** [Jane is main contact for Bob Beck]
4. Action Electronics, 1300 E. Edinger Avenue, Santa Ana, CA 92705; (714) 547-5169 *** [Full line of kits & component parts]

Web Addresses

1. <http://www.sota-inc.com/> [Best source for assembled instruments] [e-mail address is anybody@sota-inc.com]
2. <http://www.padrak.com/beck/> [e-mail address is drdale99@wavenet.com]
3. <http://www.Action-Electronics.com> [e-mail address is action@edm.net]

Colloidal Minerals at Wholesale Prices! These are THE SAME minerals used in the Dr. Wallach Toddy Products. Buy direct and save.

1. Rockland Corporation, (800) 421-7310, 12320 E. Skelly Drive, Tulsa, OK 74128
2. Advanced Bio Company, (800) 211-1493; Must give Confirmation Number 1027 to receive discount. Cost is about \$18.50.

Rebounding & Lymphisizing

1. Health & Beyond, (800) 856-4863, 2255 N. University Pkwy, Ste 15, Provo, UT 84604 [Highest Quality Rebounders]

Juice Machines These are the best prices available on all top-of-the-line juice machines.

1. Fern's Nutrition, (800) 229-3376; 16912 Gothard, Unit E, Huntington Beach, CA 92647

Patented Fast Dry Lozenge Cold Cure

1. George Eby Research, 2109 Paramount Avenue, Austin, TX 78704; (800) 345-3371 (Self Care Catalog)

And now it's silver that is finding wholly new uses as a wonder in modern medicine...Perhaps it soon will be recognized as

OUR MIGHTIEST GERM FIGHTER

by Jim Powell

Thanks to eye-opening research, silver is emerging as a wonder of modern medicine. An antibiotic kills perhaps a half-dozen different disease organisms, but silver kills some 650. Resistant strains fail to develop. Moreover, silver is virtually non-toxic. Says a pioneering silver researcher, Dr. Harry Margraf of St. Louis: "Silver is the best all around germ-fighter we have."

SILVER - NEW MAGIC IN MEDICINE

Developed by Dr. Charles Fox of Columbia University, a silver compound known as silver sulfadiazine is used in 70 percent of burn centers in the U.S. It also stops the herpes virus responsible for cold sores and fever blisters. With silver sulfadiazine, Dr. Fox scored what properly is acclaimed as a momentous breakthrough, for it was the first new silver compound to win FDA approval and become generally available. A pharmaceutical house, Marion Laboratories, is offering it as an ointment, under the brand name of Silvadene; other companies are making silver sulfadiazine available in several countries from Canada to India.

Doctors are reporting that, taken internally, the compound works against three scourges - syphilis, cholera, and malaria. And even tiny amounts of silver wipe out huge quantities of disease organisms in water. Some specific instances of silver's use:

- To guard against such waterborne diseases as dysentery, more than half of the world's airlines now use silver water filters. For instance: British Airways, Swissair, Scandinavian Airlines, Lufthansa, Olympic, Air France, Canadian Pacific Airlines, Alitalia, KLM, Japan Airlines and Pan Am.
- The Swiss government has approved silver water filters. They're used in homes and offices throughout the country.
- After testing 23 methods of purifying water, NASA selected a silver system for the space shuttle.
- Silver is widely used to purify swimming pool water, and it doesn't sting your eyes as chlorine does. A dramatic demonstration recently took place in Nebraska: Fifty gallons of sewage was pumped into a pool without any disinfectant. A standard measure of contamination is the count of *E. coli*, an organism found in the human intestinal tract. The count soared to 7000 *E. coli* cells per milliliters of water. Then the water was flushed through silver electrodes - and within three hours it was completely free of *E. coli*.

Silver also can fight deadly poisons. Japanese firms have announced five startling technologies which use silver to purify air. One company converts 50 parts per million of carbon monoxide to 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. A gas chemicals company removes all the 200 parts per million of nitric oxide by passing the gas through its silver compounds.

The currently increasing medical interest in silver actually reflects a kind of revival in the public health sector: In ancient Greece and Rome, people used silver containers to keep liquids fresh. American settlers, traveling across the West, often put a silver dollar in milk to delay its spoiling. Around the turn of the century, some doctors used silver nitrate to help the healing of stomach ulcers.

Yet silver fell out of favor, The reason was argyria - a skin discoloration that results when hundreds of times the proper amount of silver compounds are injected or taken orally. Silver becomes deposited under the skin and stays there. It's harmless. In fact, it kills bacteria that may be present. But of course, nobody wants gray skin.

So for a while, then, only two medical uses for silver continued: dentists fill teeth with a silver alloy, and doctors put a few drops of 1 percent silver nitrate solution in newborn babies' eyes to kill bacteria that can cause blindness.

The comeback of silver in medicine began more than a decade ago.

The late Dr. Carl Moyer, chairman of Washington University's Department of Surgery, received a grant to develop better treatments for burn victims. Dr. Margraf, as the chief biochemist, worked with Dr. Moyer and other surgeons to find an antiseptic strong yet safe to use over large areas of the body.

Dr. Margraf reviewed 22 antiseptic compounds and found drawbacks in all of them. "Mercury, for example, is an excellent antiseptic, but toxic," he comments. "Popular antiseptic such as Mercurochrome and Merthiolate can be used over small areas only. Many iodine compounds are effective, but quite a few people are allergic to iodine. Since the doctor rarely knows if a patient is allergic, it's prudent to rely on something else. Dilute alcoholic solutions, hydrogen peroxide, and other antiseptics can be used on little cuts, but are too painful on big wounds. Disease organisms can become resistant to antibiotics, triggering a dangerous super-infection.

☞ Silver: Case Histories

A speeding car overturned and burst into flames. The 18-year-old driver suffered burns all over his face, neck, arms, hands, back, stomach, and legs - burns covered more than 80 percent of his body. Until recently, this would have been a death sentence. Doctors knew how to restore vital body fluids and salts, but had no way to fight infection, the primary cause of death in burn cases. Fortunately for this youth, a new silver compound killed deadly bacteria and enabled him to heal. He was out of the hospital within four months.

A 65-year-old diabetic cut himself on the leg. He washed and bandaged it, but as often happens with diabetes, the pain persisted, and the cut grew into a sore. Soon it became bigger than the bandage, and he had to apply a dressing. Still, it grew bigger and uglier.

In desperation, he went to a clinic. His sore was diagnosed as a "stasis ulcer." For a year, one treatment after another was tried. Nothing, including penicillin and sulfanamide, could heal the ulcer. If his condition had continued unchecked, his leg probably would have been amputated.

But finally he was referred to a clinic that treated skin ulcers with a new silver compound. This promptly stopped growth of all bacteria. In less than two months, the ulcer was completely healed.

"These compounds are also ineffective against a number of harmful bacteria, including the biggest killer in burn cases - a greenish-blue bacterium called *Pseudomonas aeruginosa*. It almost always shows up in burns, releasing a poison.

Reviewing medical literature, Dr. Margraf found repeated references to silver. It's described as a catalyst that disables the enzymes microorganisms depend on to breathe. Consequently, they die.

When Dr. Margraf began his search, the best-known compound was silver nitrate because it's the simplest silver compound that dissolves in water. (Pure silver won't dissolve.) But though silver nitrate kills microorganisms, it can also be corrosive and painful. Dr. Margraf noted that it had been used in relatively high concentrations. *What would happen, he wondered, with more dilute solutions?*

The researchers began testing, and after several months settled on a .5 percent solution. It killed *Pseudomonas aeruginosa* and permitted wounds to heal. Resistant strains did not appear.

Silver nitrate, however, was far from ideal, reports Dr. Margraf: "It severely disturbs the balance of body salts, and its use must be halted from time to time. It must be applied in thick, cumbersome dressings, and stains everything it touches."

So he tested 53 other silver compounds, some of which were newly synthesized. The most promising: a complex, silver-zinc-allantoinate.

It proved to be as effective with chronic skin ulcers as with burns. In *Archives of Surgery*, published by the AMA, Dr. Margraf now reports his latest findings: Silver-zinc-allantoinate helped 339 of 400 chronic skin ulcers heal. On an average, bacteria counts dropped 99 percent a week. Many diabetics were saved from needless amputation. The compound now is undergoing tests by Miles Laboratories.

Meanwhile, at Columbia, Dr. Fox, who had been studying the germ-fighting property of silver for nine years, tested nearly a hundred different compounds before settling on silver sulfadiazine. "Though it contains sulfa," he reports, "the silver keeps this compound from acting like a sulfanamide. Resistance hasn't been a problem."

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 and save lives."

COLLOIDAL SILVER: THE UNIVERSAL GERMICIDE

HISTORICAL BACKGROUND AND RESEARCH

Silver has long been known for its special properties. The people of ancient Greece and Rome used silver containers for keeping liquids fresh. Through the centuries, royal households carried on this practice by storing their provisions in silver containers. Privileged family members used silver eating utensils; they had their meals served on silver plates and their drinks served in silver cups. Indeed, the skin of blue bloods reportedly had a bluish tinge due to the minute traces of pure metallic silver they regularly consumed. In American pioneering days, new settlers travelling to the West would put silver dollars in their milk to delay spoiling.

By the turn of the 20th century, silver was regarded as a proven germ-fighter. In medicine, a solution known as Colloidal Silver was commonly used as a mainstay of antibacterial treatment. Although considered to be 'high tech' at that time, the type of solution was technically inferior compared to today's colloidal silver solutions. One of the drawbacks was that the particle size of the silver never reached its optimum ultramicroscopic size and thus its highest level of efficacy

Back then, highly effective colloidal silver was very expensive to produce. The pharmaceutical industry wanted faster-working drugs that were cheaper and patentable. In addition, when manufactured improperly, or taken at hundreds of times the proper dosage with extraneous silver compounds included, a permanent skin discoloration, called argyria, could result. For these reasons, colloidal silver fell out of favor. Even so, such prestigious journals as the *New England Journal of Medicine* and the *Lancet* (1914) published the results of scientific studies and examined the many successful uses of colloidal silver.

In 1910, Dr Henry Crooks, a pioneer in colloidal chemistry, wrote that:

"...certain metals, when in a colloidal state, have a highly germicidal action but are quite harmless to human beings.. it may be applied in a much more concentrated form and with better results... Bronchial tuberculosis.. *Staphylococcus pyogenes*, various *Streptococci* and other pathogenic organisms are all killed in three to four minutes; in fact, no microbe is known that is not killed by this colloid in laboratory experiments in six minutes, [and] the concentration of the [silver] does not exceed twenty-five parts per million..."

In 1919, Alfred Searle, founder of the pharmaceutical conglomerate of the same name, wrote in his book, *The Use of Colloids in Health and Disease*, that:

"...Applying colloidal silver to human subjects has been done in a large number of cases with astonishingly successful results. For internal administration, orally or hypodermically it has the advantage of being rapidly fatal to parasites without toxic action on its host. It is quite stable."

COLLOIDAL SILVER REAPPRAISED

Much later, in the 1970s, colloidal silver once again became a valued substance. Doctors at Washington University in St Louis, Missouri, stumbled upon it while searching for effective treatments for burns victims, having tried many other medicines.

Biomedical research has shown that no known disease-causing organism--bacteria, virus or fungus--can live for more than a few minutes in the presence of even minute traces of metallic silver.

Jim Powell reported in an article, "Our Mightiest Germ Fighter", published in *Science Digest* (March 1978, pp.59-60): "Thanks to eye-opening research, silver is emerging as a wonder of modern medicine. An antibiotic kills perhaps a half-dozen different disease organisms, but silver kills some 650. What's more, resistant strains fail to develop when using silver. Moreover, silver is virtually non-toxic."

Larry C. Ford, M.D., of the Department of Obstetrics and Gynecology at the UCLA School of Medicine's Center for the Health Sciences, reported in a November 1988 letter:

"I tested them [the silver solutions] using standard antimicrobial tests for disinfectants. The silver solutions were anti-bacterial for concentrations of 10 organisms per ml of *Streptococcus pyo genes*, *Staphylococcus aureus*, *Neisseria genorrhoeae*, *Gardnerella*, *Vaginalis*, *Salmonella typhi*, and other enteric pathogens, and fungicidal for *Candida albicans*, *Candida globata*, and *M. furfur*."

Biomedical researcher Robert O. Becker, M.D., from Syracuse University, has reported that "Silver stimulates bone-forming cells into growing new bone where it had not healed for long periods of time." Dr Becker is the author of *The Body Electric* and *Cross Currents*, and is also known for his work in regenerating the amputated limbs of bullfrogs.

According to Dr Becker, "Silver did more than kill disease-causing organisms. It promoted major growth of bone and accelerated the healing of injured tissues by over 50 per cent." In his research he discovered cell types that looked just like the active bone marrow of children. "These cells grew fast," he wrote, "producing a diverse and surprising assortment of primitive cell forms able to multiply at a great rate, then differentiate into the specific cells of an organ or tissue that had been injured, even in patients over fifty years old. This ability overcomes the main problem of mammalian regeneration."

Dr Becker also discovered that silver "profoundly stimulates healing in skin and other soft tissues in a way unlike any known natural process... and kills the most stubborn infections of all kinds, including surrounding bacteria and fungus." He concluded that, "What we have actually done was rediscover the fact that silver killed bacteria, which had been known for centuries...; when antibiotics were discovered, clinical uses for silver as an antibiotic were discarded."

COLLOIDAL CHEMISTRY

The term "colloid" refers to a substance that consists of ultra-fine particles that do not dissolve but remain in suspension dispersed in a continuous medium. These ultra-fine particles consist of many atoms or molecules of the original material, but so small they cannot be seen by the naked eye.

Not all types of colloidal silver are 'true' colloids. Properly manufactured colloidal silver is a liquid solution consisting of a minuscule number (3 to 5 parts per million) of submicroscopic particles of silver, held in suspension in pure water by a tiny electrical charge placed on each particle.

In a 'true' colloid of silver, the ideal size of the silver particles falls within the range of 0.005 to 0.015 microns in diameter. The particles are

animated by what is known as Brownian movement, which keeps them in suspension almost indefinitely. You could fit 1,000,000,000 of these submicroscopic particles into a cube that measures four one-hundredths of an inch or 250 thousandths to 25 millionths of an inch.

PRODUCTION METHODS

Many methods were used to produce colloids in the early 1900s--most commonly, the grind process and the electrocolloidal process.

The main drawback to the grind method is that the silver particles are so large that they settle towards the bottom of the solution and much of the colloid's value is lost. To offset this problem, some manufacturers add a stabilizer. By so doing, the silver particles tend to settle to the bottom much more slowly. Typically, the stabilizer used is a protein. The use of a stabilizer tends to disturb the charge on the silver particles, thereby blocking their action and reducing their effectiveness. A 'true' colloid does not require an artificial stabilizer or additive of any kind.

In recent years, the chemical process has been widely employed to replace the grind method. The chemical method provides a convenient shortcut, but it, too, falls short of the superior quality of 'true' colloidal silver. The reaction used is the reduction of a solution of a silver salt. The problem with using chemicals to produce colloids is the difficulty in getting them back out of the solution. These are powerful acid solutions which can cause negative side-effects in the consumer. Also, the use of chemicals has been shown to affect the overall pH of the solution. Typically, a chemical-produced colloid of silver is quite acidic, having a pH of 4.5 to 5.5, while a 'true' colloid of silver has a pH in the range of 6.5.

The electrocolloidal process allows extremely fine silver particles to be suspended in solution by the tiny charge placed on the particles. It is done by striking an electric arc between poles made of the metal, under water. If done properly, this method replaces the need for any chemicals, stabilizers or proteins, so the product can be called a 'true' colloid of silver. However, much of the efficacy of the colloidal solution depends on the actual size and uniformity of silver particles. Particles that are too large may cause harm by lodging in the fine lining of the digestive tract and causing scar tissue to form.

COLOR

A critical indicator of the quality of colloidal silver is color. As the size of each silver particle gets larger, the color of the solution ranges from yellow to brown to red to grey to black. Colloids of silver that are produced using the proper electrocolloidal method are a different color than the grind- or chemically-produced colloids, except in the case of some products that contain artificial food coloring to get the right color. The ideal form of colloidal silver is a golden yellow color.

BIOCHEMISTRY

Medical researcher Dr Gary Smith suggests that silver may be linked to the proper functioning of the body's natural defense system and that people with an inadequate intake may be more prone to illness.

Medical tests indicate no known adverse effects from the use of properly prepared colloidal silver. Indeed, there has never been a recorded case of adverse interaction with any other medication.

Some lab tests have shown that 'true' colloidal silver in the range of 3 to 5 PPM (parts per million) has little effect on 'friendly' bacteria, while being highly useful against infections and in eliminating various microbes, viruses and fungi. Colloidal silver that is too concentrated (above 5 PPM) may upset the delicate balance of the digestive tract by destroying significant amounts of friendly bacteria.

With a 98 per cent uptake rate, colloidal minerals are much more easily assimilated compared to mineral supplements derived from crushed and processed clay, rocks and soil. And unlike many vitamin and mineral supplements where a higher concentration is sometimes more beneficial, with colloidal silver an excess in quantity does not mean more quality. In fact, the opposite is true.

FDA EVALUATION

A number of forms of colloidal silver have been officially recognized as pre-1938 drugs by the US Food & Drug Administration (FDA). However, not all forms listed were true colloids of silver because the size of the particles and the effectiveness varied markedly.

The FDA's Center for Drug Evaluation and Research has stated:

"Colloidal silver is considered to be a pre-1938 drug. These products may continue to be marketed without submitted evidence of safety and effectiveness [required of all drugs marketed after 1938] as long as they are advertised and labeled for the same use as in 1938 and as long as they are manufactured in the original manner."

COLLOIDAL SILVER TREATMENT

Colloidal silver is tasteless, odorless and non-stinging to sensitive tissues. It may be taken orally, as well as put on a Band-Aid and applied directly to cuts, scrapes, open sores and warts.

It may also be used as a rinse for acne, eczema and other skin irritations. It can be gargled, dropped into eyes and ears, used vaginally and anally, as well as atomized and inhaled into the nose or lungs.

The following is a partial list of the more than 650 diseases that have been successfully treated with colloidal silver:

- Acne • Anthrax • Appendicitis • Arthritis • Athlete's Foot
 - Bacterial infections • Bladder infections • Blood poisoning
 - Boils • Burns
 - Cancer • *Candida albicans* • Catarrh • Chronic Fatigue Syndrome • Colitis
 - Conjunctivitis • *Cryptosporidium* infection • Cystitis
 - Dermatitis • Diabetes • Diarrhea • Diphtheria • Dysentery
 - Ear infection • Eczema • Epstein-Barr virus • Eustachian tube infection
 - Fibrositis
- výrobce přístrojů podle Dr. Becka
www.becktechnology.cz

- Gastritis • Gonorrhoea
- Haemorrhoids • Herpes virus
- Impetigo • Influenza • Intestinal disorders
- Keratitis
- Legionnaire's disease • Leprosy
- Lesions • Lupus
- Malaria • Meniere's disease • Meningitis
- Neurasthenia
- Ophthalmia
- Paratyphoid fever • Pleurisy • Pneumonia • Polio virus
- Prostate disorders • Pruritis ani • Psoriasis • Pyorrhoea
- Rheumatism • Rhinitis • Ringworm • Rosacea
- *Salmonella* infection • Scarlet fever • Seborrhoea
- Septicaemia • Septic ulcers • Shingles
- Skin cancer • Sores • *Staphylococcus* infection
- *Streptococcus* infection • Sunburn • Syphilis
- Tetanus • Tonsillitis • Trenchfoot • Tuberculosis • Typhoid
- Ulcers
- Warts • Whooping cough
- Yeast infections

MORE CLINICAL EVIDENCE

"A 65 year-old diabetic cut himself on the leg. He washed and bandaged it but, as often happens with diabetes, the pain persisted, and the cut grew into a sore. Soon it became bigger than the bandage, and he had to apply a dressing. Still it grew bigger and ugly. In desperation he went to a clinic. His sore was diagnosed as a 'stasis ulcer'. For a year, one treatment after another was tried. Nothing, including penicillin and sulfonamide, could heal the ulcer. If his condition had continued unchecked, his leg probably would have been amputated. But finally he was referred to a clinic that treated skin ulcers with a silver compound. This promptly stopped the growth of all bacteria. In less than two months, the ulcer was completely healed." (*Science Digest, March 1978*)

"We have had instant success with colloidal silver and immune-compromised patients. A few examples are: pink-eye totally resolved in less than six hours (topical); recurrent sinus infections resolved in eight days (oral ingestion); acute cuticle infections, twenty-four hours (topical). 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." (Dr Evan M., Kansas)

"Success depends on the amount of silver in the person's body, and problems result from the lack of silver in the body. When silver is present, the cancer cells stop their development and the body is basically restored. When silver levels are low or nonexistent, the cancer growth rate slows or continues to grow because the cells cannot reverse themselves."

"One might ask, how do we get silver in our body in the first place? We get silver and all minerals in the body through the food we eat. How does silver get in the food? It gets in the food through living soil...where living organisms in humus soil (there are billions in a handful of dirt) break down the soil so plants are provided minerals in a form assimilable to the plant.

"By assimilating the plant nutrients, the minerals are transferred in our digestive tract where our bodies utilize the captured organic (chelated) minerals through the bloodstream to the various organs of our body. Hence, we get silver from plants.

"If we cannot assimilate silver for some reason or as the tissues age, we develop a silver deficiency and an impaired immune system, leading to cancer in most cases. I suspect a silver deficiency is possibly one of the main reasons cancer exists and is increasing at such a rapid rate." (*Cancer researcher Dr Gary Smith, writing in an unpublished article*)

WHO'S USING COLLOIDAL SILVER?

- In Canada, Switzerland and the US, physicians use various forms of silver to treat a multitude of infections.
- In the US, silver is used in bone surgery and in 70 per cent of US burns centers.
- Naturopaths and chiropractors use colloidal silver to treat the effects of *Cryptosporidium*. Ayurvedic, Chinese and homeopathic practitioners also regularly use silver in their treatments.
- Swiss biochemists are studying silver's ability to interrupt the cellular replication of HIV at various stages.
- Colloidal silver water-filters are approved by the US Environmental Protection Agency and also by the Swiss government for use in homes and offices.
- The American space agency NASA uses a silver water-purification system for its space shuttles; so do the Russians.
- The airline companies Air France, Alitalia, British Airways, Canadian Pacific, Japan Air Lines, KLM, Lufthansa, Olympic, Pan Am, SAS and Swissair use silver water-filters to curtail waterborne diseases.
- Silver is often used in place of chlorine in swimming pools because it doesn't sting the eyes.
- Japanese companies are using silver to remove cyanide and nitric oxide from the air.

A Closer Look At Colloidal Silver

By Peter A. Lindemann

During the last two years, a number of books and articles have appeared in public on the subject of colloidal silver. Some of these include: the Bio-Tech News Special Report, "Hi-Yo Silver"; Colloidal Silver, The Natural Antibiotic Alternative, by Zane Baranowski; Colloidal Silver, by Tonita d'Raye; and "Banishing Disease with Three Nine Volt Batteries", parts I & II, by Mark Metcalf. Literally hundreds of other newsletters and small publications have repeated the information in these articles without checking the content for accuracy.

The appearance of these materials two years ago was the first wave of public education concerning colloidal silver. Today, most Health Food Stores carry and sell several brands of colloidal silver, scores of MLM companies have colloidal silver products in their lines, and prices are starting to drop. While it is still possible to spend as much as \$10/oz. for colloidal silver in Health Food Stores, prices can be as low as \$5/oz. Some mail order catalogs sell it for as little as \$2.50/oz., and I have seen small classified ads selling it for under \$1/oz. The trend is definitely toward a lower price.

One of the phenomena driving the price down is the appearance of the devices that allow people to make their own colloidal silver. At this time, (Spring 1997) the cottage industry of colloidal silver generators is starting to penetrate the larger market. This is starting to cause alarm in high places. One major commercial manufacturer of colloidal silver has recently issued a warning statement to its customers, alerting them to the dangers of the 'inferior quality' of colloidal silver made by these devices. CNN and other major media have also tried to scare the public away from colloidal silver by showing a blue-skinned person who "suffers" from Argyria, a cosmetic condition caused by the build-up of silver compounds under the skin. Even JAMA (The Journal of the American Medical Association) has run articles warning of Argyria and the toxicities associated with "colloidal silver proteins." On January 16, 1997, new labeling guidelines concerning colloidal silver went into effect, issued by the FDA. Other FDA rulings on "safety and effectiveness" are still pending. With all of these developments, it doesn't take a rocket scientist to see that the whole situation around colloidal silver is heating up!

The purpose of this article is to raise the level of public knowledge to a higher degree of accuracy. Knowledge is power, and the public needs to know the truth about colloidal silver.

The first thing people need to know is that there are at least FOUR different products on the market being called COLLOIDAL SILVER.

The first type of product is the classic, original kind, usually called "electro-colloidal silver." This product is made either by the "electro-arc" method in deionized water, or by the "low voltage electrolysis" method in distilled water. This product is usually found in concentrations between 3-5 ppm (parts per million), but sometimes as high as 100 ppm. Properly made, this product consists of microscopic particles of pure, elemental silver suspended in water, with no other elements present. Each particle of silver carries a POSITIVE electrical charge. Colloidal silver made this way appears either transparent-clear or transparent-light yellow.

The second is called "mild silver protein." This product chemically binds microscopic particles of silver to a protein molecule. It is usually found in concentrations between 20-40 ppm. Its appearance may be transparent-clear or amber.

The third are "silver salts." These products can be made either chemically or electro-chemically and usually create a form of silver that DISSOLVES in the water. Concentrations range between 50-500 ppm. Its appearance is transparent-clear. The silver particles do carry a POSITIVE electrical charge, but almost invariably, these products contain other elements or compounds other than silver.

The fourth is sometimes referred to as "powdered silver." This product was developed by the Russians and is made when a pure silver wire is rapidly disintegrated by an high voltage electrical discharge, similar to an old photographic flash bulb. The microscopic silver dust is collected and either dissolved in water or added to salves and creams for topical use. Concentrations range from 100-500 ppm.

All of these products work, to one degree or another, as a broad spectrum germicide because they all contain microscopic particles of SILVER. That said, it is important to understand a number of things: 1) all of these products are not "colloidal suspensions" of silver, 2) these products DO NOT all behave the same in the body or in laboratory tests, 3) effectiveness and dosage varies from product to product, 4) quality varies from product to product and from batch to batch with the same product, and 5) they are NOT all uniformly safe and non-toxic. There are no industry standards that manufacturers voluntarily follow to assure quality control and there is no governmental regulation of the industry.

On the other hand, there are millions and millions of satisfied colloidal silver users who would like to have continued, free access to the product, and a growing number of manufacturers entering the market with a wide variety of new products.

The critical factors that make a "good" colloidal silver product are particle size, purity, concentration, and cost. The only way to authoritatively determine the first three is by laboratory analysis. The best way to determine particle size is by electron microscope photograph. The best way to determine purity is by mass spectroscopy or by x-ray diffraction analysis. The best way to determine concentration is by chemical analysis of total dissolved solids. The cost of the product should be calculated in reference to the total quantity of silver present, such as: \$5.00/oz of 100 ppm is equal to 25¢/oz of 5 ppm (the first has 20 times more silver by volume and costs 20 times more by volume.)

Making Your Own

The simplest way to control these factors is to make the colloidal silver for yourself. By doing this, you will not know exactly what is there unless you do laboratory testing, but you will have a pretty good idea. Without laboratory testing of commercial products, you don't know much more, because the quality control batch to batch is loose with most brands. Also, by making it yourself, you will end up with real "colloidal" silver, which is the product referred to in most of the literature.

If you are already making your own colloidal silver, please pay special attention to this section because much of the information you now have may be incorrect.

The simplest way to make real colloidal silver at home is by the "low voltage electrolysis" method. A few batteries may be connected to some silver electrodes and placed in a glass of water. This process will cause small particles of silver to be sintered off the electrodes and enter the water. This deceptively simple method is very easy to do WRONG, and most people who are making colloidal silver at home are making an inferior product.

It's In The Water

výrobce přístrojů podle Dr. Becka
www.becktechnology.cz

When you do this yourself, it is very important to control the purity of the water, because the purity of the water is one of the factors that controls how small the particles of silver will be. Only high quality DISTILLED water should be used. You cannot use purified or filtered water because it still has too many dissolved minerals in it. You cannot use deionized water because it doesn't conduct electricity well enough to start the reaction. Distilled water is just perfect to start the reaction slowly and let it proceed properly.

Another variable that influences particle size is the water temperature. The warmer the water, the faster the reaction will take place, and the smaller the particles will be.

Please Pass The Salt

Regardless of what anyone has said to the contrary, silver chloride will ALWAYS form if any amount of salt is present. Never add anything to the water that will make the water conduct electricity better. Never add salt, sea salt, or Celtic sea salt to the distilled water because the salt puts chloride ions in the water that react with the silver to form silver chloride. Another serious problem arises when making colloidal silver with salt in the water. The presence of salt increases the electrical conductivity of the water and this dramatically speeds up the reaction. As the reaction speeds up under these circumstances, it produces larger particles. The product produced is invariably cloudy-white in appearance. Actual electron microscope photographs of this material show silver particles in the range of .05 to .15 microns. These particles are TOO LARGE to form a colloidal suspension, and the proof is that the material will settle to the bottom of the container in a very short period of time. Therefore, this home brewed "colloidal silver" product may be dangerous to consume internally for TWO reasons: the presence of silver chloride and the production of large particles.

The Best Is Yet To Come

The very best voltage for the reaction is 30 volts, because the electrodes run the cleanest at this voltage. If you have a small power supply, set it for 30 volts. If you are running on batteries, it is best to start at 36 volts (three 12 volt batteries or four 9 volt batteries) and let the batteries drain down from there. Holding the silver electrodes at a uniform distance away from each other yields a better product.

When 30 volts is applied across silver electrodes held uniformly apart in distilled water, a totally different event happens. First, the reaction proceeds very slowly. Often, for the first 15 minutes nothing seems to be happening. Then finally, a faint yellow mist will begin to form. Within a few minutes, the reaction will speed up, but the particles produced will be a golden-yellow as viewed with a flashlight. Using this method, 8 ounces of distilled water at room temperature can be made into a 3-5 ppm colloidal silver preparation in 20-25 minutes. Made this way, colloidal silver can cost under 10¢/oz to make. Electron microscope photographs of this product show a silver particle size in the range .001 to .004 microns. During manufacturing, the particle cloud is a golden-yellow. These particles will hang in the water at the level they are produced, and for the most part, will not fall to the bottom of the glass. This is what a "colloidal" preparation of silver looks like. After the particles disperse, the water will look clear again, but may turn a light yellow if the concentration is high enough and after the particles have become evenly dispersed.

"The Yellow Color"

There has been a fair amount of controversy in the public literature concerning the appearance of the "yellow" color. A lot of well meaning people have told me that "yellow is bad", "silver isn't yellow", "yellow is sulfur contamination", "yellow is iron contamination", and lots of other things. I finally found what I believe to be the answer to this question in a book titled Practical Colloid Chemistry, published in London in 1926. In the section on the "Colours of Colloidal Metals", sub-section on the "Polychromism of silver solutions" on page 69, I found the following statements: "The continuous change in colour from yellow to blue corresponds to a change in the absorption maximum of the shorter to longer wave-lengths with a decreasing degree of dispersion. This is a general phenomenon in colloid chemistry illustrating the relation between colour and degree of dispersion." This section goes on to describe the colors that show up in a wide variety of colloidal metal solutions. Interestingly, they ALL have a yellow phase. For true "electro-colloidal" silver, the particle size range that can appear yellow is .01 to .001 microns (10 to 100 angstroms) because that is the size of silver particle that best absorbs the indigo light, leaving only its inverse color, yellow, to be observed. The final transparent-yellow appearance only shows up after the particles have become evenly dispersed.

The Brown Glass Bottle

Once you have gone to the trouble of making colloidal silver particles as small as .001 microns, it is important to protect them. The particles stay away from each other in suspension because they each have a positive electrical charge (+) and these "like charges" repel each other. Anything that can strip this charge off the particles will degrade the quality of the colloidal silver by a process called re-coagulation, where the particles clump together again to form larger aggregates. Ultraviolet light from the sun and many plastics can cause this process to occur. Therefore, colloidal silver is best stored in dark, glass containers. The two kinds of glass container that are suitable for this are the dark amber and the cobalt blue.

The Same Difference

The biggest "secret" about the manufacture of high quality colloidal silver is that it is nearly impossible to standardize the product. Silver is apparently reactive to a number of natural forces that have yet to be identified. Even when the voltage, the water, and the water temperature are identical, different batches will proceed at different rates on different days. The speed of the reaction can vary by over 100% depending on the day. On "normal" days, the reaction is proceeding well by 15 minutes, with a visible cloud of particles. On "slow days" it may take 30 minutes before any visible production of yellow particles begins. Because of this variation, it is always wise to observe the reaction with a strong flashlight so you can see how quickly the reaction is happening. Once the yellow cloud starts forming, time the batch for 5 more minutes. This is the best way to standardize your home brewed colloidal silver.

Colloidal or Ionic?

Another big controversy surrounds the question of whether this method produces "colloidal" silver or "ionic" silver. Most people have been told that colloidal silver is "good" and ionic silver is "bad." Once again, the truth might be unpopular. The word "colloidal" refers to a condition where, in this case, a solid particle is SUSPENDED in a liquid (silver in water). The solid particles are too large to be considered DISSOLVED, but are too small to be filtered out. This colloidal condition is most easily detected by what is called the "Tyndall effect", where a narrow beam of light is shined through the liquid to produce a cone shaped dispersion of the light. The particles so illuminated also exhibit a random, zig-zag activity called "Brownian motion" when observed under a microscope. When something is completely dissolved, both the Brownian and Tyndall effects disappear.

The word "ionic" refers to a condition where a particle has an electric charge. In the case of "electro-colloidal" silver, this electric charge is ALWAYS positive. Silver will not form a negatively charged ion. So, the truth is that electro-colloidal silver is BOTH colloidal and ionic. It is considered colloidal because of the

particle SIZE and it is considered ionic because of the particle CHARGE. In fact, most of the biological studies suggest it is colloidal silver's ionic characteristics that make it such a good germicide. It is also interesting to note that the old chemistry books make no distinction between the colloidal and ionic states of the electro-colloidal metals.

Purity of Silver

The quality of your finished product depends entirely on the purity of the water you start with and the purity of the silver you start with. Most of the current literature suggests that only 99.9999% pure silver can be used. Most home brew systems use 99.9% pure silver. So, what is the difference? To find out, I contacted Academy Metals, a company in Albuquerque, New Mexico, that produces commercial silver. The total allowable impurities in 99.9% (.999 fine) silver is 1000 ppm or 1 part in 1000. These impurities and their maximums are 1) Copper, 800 ppm, 2) Lead, 250 ppm, 3) Iron, 200 ppm, and 4) Bismuth, 10 ppm. This product is readily available in wire form and costs about \$3.00 above the market (spot) price of silver. When this product is used to make electro-colloidal silver at a concentration of 5 ppm, the total impurities from the silver drop to 4 ppb (parts per billion) copper, 1.25 ppb lead, 1 ppb iron, .05 ppb bismuth. With all allowable impurities at these low levels, there is a reasonable argument for not being concerned. Still, sometimes small things make a big difference. 99.99% silver (.9999 fine) has total allowable impurities of 100 ppm of the same metals in the same ratios, and costs (in wire form) between \$50-\$90 above the spot price of silver. 99.999% silver (.99999 fine) has total allowable impurities of 10 ppm, and in wire form costs about \$250 above the spot price. 99.9999% silver, in wire form, costs more than gold and is very difficult to find commercially.

In one sample of 10 ppm colloidal silver we sent out for total analysis (made with 99.9% silver electrodes), the primary impurities found were: 1) Sodium, 470 ppb, 2) Calcium, 260 ppb, 3) Manganese, 70 ppb, 4) Potassium, 50 ppb, and 5) Magnesium, 24 ppb. Since none of these impurities could have come from the silver, it suggests that the purity of the water should be of greater concern to the person making their own colloidal silver, than spending extra money on purer silver.

Concentration

The concentration of silver in the water is usually measured in parts per million, or ppm. While this is the standard convention, ppm is a "ratio" and not an indicator of quantity. When a laboratory tests colloidal silver for concentration, they report the findings in milligrams per liter (mg/L). Milligrams per liter is an actual measurement of weight per volume, and therefore is a real quantity measurement. In the metric system, one liter of water weighs 1000 grams, and one milligram is one thousandth (1/1000) of a gram, so 1 mg/L is the same as 1 ppm, as long as we are talking about water. Silver weighs a little more than water, but the equivalence is very close, and the terms are often used interchangeably. With this in mind, we can calculate that one teaspoon of 5 ppm colloidal silver has about 25 mcg (micrograms) of silver in it.

Dosage

In 1940, R. A. Kehoe reported that under normal circumstances, the average daily intake of fruits and vegetables would provide between 50-100 mcg of silver as a trace element. Since that time, the commercial farm soils of this country have become extremely deficient in trace minerals. Although I do not have authoritative figures for silver, according to the Earth Summit Report, issued in 1992, the levels of soil based minerals in North America have dropped over 85% in the last 100 years. Assuming that our ancestor's diet used to contain trace silver, and that our diet probably has greatly reduced levels, there is a reasonable argument for supplementing with colloidal silver. Two teaspoons of 5 ppm colloidal silver provides about 50 mcg of silver and could be considered a "nutritional" amount, if taken on a daily basis. Any amount above four teaspoons a day or 100 mcg should be considered a "therapeutic" amount. That said, it should not be assumed that electro-colloidal silver is equivalent to or has the same metabolic effect as receiving trace silver from dietary plant sources. But since there are very few plant sources of trace silver available today, colloidal silver is probably the best substitute. If you want to experiment with taking colloidal silver for an extended period of time, stay within the amounts considered to be nutritional. If you want to experiment with larger doses, do so with caution, and only for a day or two at a time.

Safety and Toxicity

Silver can act as a heavy metal poison in the body. It can also act as a trace mineral nutrient. The difference is in the particle size, NOT the concentration. Colloidal silver with a particle size of .001 microns has particles 100 times smaller than a preparation of silver with a particle size of .1 microns. The smaller the particle, the less likely it will behave as a toxin. Typically, the worst toxic reaction from metallic silver, cited in the medical literature, is a condition called Argyria. Argyria is primarily a cosmetic condition characterized by a permanent, bluish discoloration of the skin. Argyria causes no physical discomfort, and does not have any other known side effects. Your skin just looks bluish-gray. In fact, the term "blue bloods," in reference to the royal families of Europe, probably refers to a mild, argyrial condition caused by the constant eating of food from silver plate settings. It is interesting to note, however, that there has never been a case of Argyria reported from the use of electro-colloidal silver, free of salts or other impurities.

Argyria, while not being a deadly condition, certainly is undesirable. It is usually caused by the massive intake of silver salts, such as silver nitrate, silver sulfate, and silver chloride. To determine just how toxic these substances are, I contacted the Agency for Toxic Substances and Disease Registry through their on-line information service at (<http://atsdr1.atsdr.cdc.gov:8080/ToxProfiles>). All of these silver salts are talked about as toxins, but the only consequence of even high exposure in humans that is listed is Argyria. EPA issues a "control code" for each toxic substance it tracks that can cause human illness. Silver nitrate and silver sulfate have control codes, but silver chloride does not. I received essentially the same information when I spoke with Dr. Eidson at the Department of Epidemiology in Santa Fe, New Mexico. Apparently, the government thinks silver and silver compounds are toxins that essentially have no significant toxic effects other than the ability to discolor your skin.

Looking just a little deeper into the situation, I pulled out Lectures on Homeopathic Materia Medica by J.T. Kent. In the section on the use of metallic silver as a homeopathic remedy, there are 7½ pages of indications (symptoms) that include actions on the nerves and cartilage, as well as increased tendency toward emotional outbursts and mental excitability. In fact, the list of symptoms is rather extensive. So, exposure to silver may not kill you or cause organic disease, but that may not mean there is no toxicity. Apparently, silver has the ability to act as a subtle irritant as well as lodge in certain tissues. This suggests that taking colloidal silver every day may not be a good idea for people who already have these symptoms.

Effectiveness

In a study done, in part, by the Institute of Microbiology in Rome, Italy, and published in Applied and Environmental Microbiology, in December, 1992, various forms of silver were tested for their ability to kill micro-organisms. Pure electro-colloidal silver outperformed 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; the silver salts being as much as 100 times less effective.

Electro-colloidal silver's effectiveness as a broad-spectrum germicide is directly related to the number and size of the particles. The same volume of space taken up by one silver particle .1 microns in size, will hold about 10,000 silver particles .001 microns in size. This reduction in particle size not only allows for a greater distribution of the silver, but it also greatly increases the total surface area of silver available for interacting with the environment. These, plus the stability of the electrical charge, are the most important factors when considering the effectiveness of colloidal silver.

The Regulators

While silver has been shown to be a very effective germicide, killing gram-negative bacteria, gram-positive bacteria, yeasts, molds, and viruses in laboratory experiments, this does not mean that it will invariably cure disease conditions in the body caused by these organisms. Colloidal silver is a fantastic adjunct to the home, but it is by no means a "cure-all". The biggest obstacle to using colloidal silver as a "home remedy" is the lack of information in the public domain on how to use it effectively in any given situation. The FDA has tested colloidal silver extensively and found that different micro-organisms succumb to its action at a wide variety of concentrations and exposure times. If any of this information entered the public domain, the FDA would consider their own research "unsubstantiated medical claims" and reason enough to classify colloidal silver as a "new drug." The "new drug" classification would be "required" because "new use protocols" had been developed that did not exist before 1938.

Here is an example of the problem. It is now estimated that one in four women will develop breast cancer in their lifetime. I have spoken to two women who claim to have cured themselves of breast cancer with colloidal silver. They were both diagnosed by biopsy. After the diagnosis, they took 2 teaspoons of colloidal silver a day until their surgery. One took a home-made product, the other took a silver protein product. In both cases, the biopsy of the removed breast tissue and lymph nodes was cancer free. The question is, will colloidal silver work this well for all cases of breast cancer? Probably not, but in the current legal and political environment, we may never know. No pharmaceutical company can control or monopolize ownership of colloidal silver, so none of them will ever fund the testing, which currently costs over \$10 Million and takes 10 years. FDA says if you claim that colloidal silver cures breast cancer, that would classify it as a new drug, and the public cannot be given access to new drugs without proper testing. Using the FDA model, it could cost the public \$1 Billion to "prove" to the FDA what the FDA already knows about colloidal silver. Politics has definitely entered this picture. FDA does not want to be exposed as an enforcer for the drug companies, or be seen as an agency clearly not acting in the public's best interest. While these ideas are not new to some of us, it would be a startling revelation if a large portion of the population began thinking this way. FDA would certainly like to avoid this "public relations" embarrassment. The fact is, FDA has never spent our tax dollars discovering something important, and then published their findings for the benefit of the public at-large; especially when it involved something that was powerful, safe, and inexpensive for the public to make for themselves. Obviously, empowering the population to be self-reliant and frugal in relation to their own healthcare is not the FDA's responsibility.

Colloidal silver clearly has some extraordinary capabilities and hundreds of legitimate uses. But without standardization, quality control, and extensive medical testing, the public will never know how best to use colloidal silver in a given situation. FDA may yet try to restrict public access to colloidal silver, claiming it is unsafe, even though they know how "safe and effective" it CAN BE when used properly. In the absence of the release of this authoritative testing data, the public is left just experimenting and groping for the answers. A big fight over the public's access to colloidal silver may be looming because the cost of healthcare in this country is out of control, and the public is looking for inexpensive solutions that work. In that sense, colloidal silver could be "just what the doctor ordered."

Digestive Interactions

Colloidal silver is apparently able to kill nearly all micro-organisms, including the "friendly flora" your digestive system needs for proper function. I have spoken with hundreds of people who have taken colloidal silver on a daily basis and have noticed no digestive upset, even after prolonged use. I have also spoken to two individuals who reported digestive upset after taking colloidal silver one time. So, in my experience, the die-off of friendly flora is possible, but rare.

There are a number of strategies that can reduce the probability of digestive interactions. The simplest one is to swish the colloidal silver around in your mouth for 30 seconds before swallowing. This promotes an absorption of the colloidal silver into the body away from the intestinal tract. Another strategy is to take smaller doses, multiple times per day, or with meals. Either way, if you do experience a die-off of friendly flora, they can be re-populated by taking any of the acidophilus products on the market.

Septic Tanks

Septic tanks are like your home's intestinal tract. They only work when populated with friendly flora. If you live in a rural area with your house on a septic system and you are making your own colloidal silver, make sure you don't throw a lot of it down the sink or your septic system may stop working properly. This problem can be handled by using a product like RID-X periodically, which is a good idea anyway.

Conclusions

Colloidal silver is an extraordinary product. It can enhance your health and the health of your family in hundreds of ways. Everyone should learn how to make high quality colloidal silver, and have that capability in their home, in case the regulators restrict its availability at some point in the future. This could be the best "health insurance" policy you ever implemented!

If you buy one of the colloidal silver makers on the market, make sure it can make the "yellow" particles. When you make it yourself, make sure you are making the "yellow" particles. If you have any doubts about the quality of the product you are making or buying, you can send samples to any of the following laboratories for definitive testing.

QUICK SUMMARY

A New Paradigm for Instant Healing

Informational and Educational Purposes Only. Not intended as medical Advice.

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Disclosed here is a revolutionary do-it-yourself, safe, natural, inexpensive proven solution to infectious diseases based on blood electrification. It requires no doctors, drugs, or other outside intervention. It costs practically nothing. Clinical tests have confirmed these four steps can "cure" HIV (AIDS), CANCER, HEPATITIS, LUPUS, EPSTEIN-BARR, GULF WAR SYNDROME, GIARDIA, CANDIDA, and even the common cold, plus most other known infectious diseases including ones for which there are no currently successful antibiotics, vaccines, or treatments. It is offered to humanity as a no-profit, information-only, empowerment for everyone who wishes to be healthy again. We have nothing for sale.

Unbelievable breakthrough in recent research.

HOW? Four separate discoveries are combined in this new "cocktail" paradigm. Together they provide confirmed sweeping magic-bullet "cures" clinically tested and demonstrated to actually eliminate most "incurable" afflictions. *If you do it yourself you have nothing to buy except parts and batteries. Most have unconscious death-wishes manifested as disbelief, aversion, resistance and "defeat the unorthodox healer". But you must take back your own power and be willing to let go of your crutches.*

What are the four easy protocols?

1. **Blood Electrification:** Microcurrents are known to eliminate all viruses, parasites, fungi, bacteria and pathogens in blood. Disclosed by many revolutionary patents and research over past years, these breakthroughs were lost or suppressed. The method was rediscovered by Einstein College of Medicine as an AIDS cure in 1990, then silenced.
2. **Pulsed Kilogauss Magnetic Fields:** Externally applied magnetic resonance of lymph, spleen, kidney & liver helps neutralize germinating, latent alien invaders and blocks re-infection. This quickens disease elimination, restores the immune system and supports detoxification. Permanent magnets, no matter how strong, will not nor can not scavenge pathogens with back-emf currents. You *must* have a sharp time-varying, not DC, magnetic impulse.
3. **Sliver Colloids:** Pennies-per-gallon self-made perfected colloids greatly assist in eliminating all known pathogens and guard against opportunistic infections. This "second immune system" is synergistic with steps 1, 2, and 4.
4. **Drinking Ozonized Water:** Rapid, safe, totally natural cell oxygenation without free radical damage. Universal detoxification by oxidation of wastes, dead and neutralized pathogens, (all anaerobic) reducing all to H₂O + CO₂ *without* colonics, heat, liver and kidney flushing, herbs or other modalities. A low-cost, O₃ generator is fully described.

These four do-it-yourself tools are fully disclosed with detailed illustrated instructions for use. Utilized together and for two hours a day for about three weeks, they eliminate diseases. There is nothing to buy. No outside intervention, pharmaceuticals, herbs, enzymes or other treatments appear necessary. Some persons may need extra rest, liquids, trace minerals plus vitamins B and C during recovery. Malingerers justify avoidance by repeatedly demanding more "proof". If you show 100 cures, they'll insist on 1000, being more comfortable with peer approval than anything new.

Have these flour Proven cures been known previously? Apparently, but not in combination. Related discoveries have been reported in medical journals and patents over many years. Most were lost, ignored, disbelieved or suppressed by doctors and pharmaceutical cartels because this knowledge thwarts profiteering from people's suffering. US patents on related inventions establish public domain by prior state-of-the-art (many are pre-1982). Such miracle "cures" have been independently rediscovered and proven effective many times. Lately all four combined therapies were tested. This proved to be a synergistic breakthrough -the *magic-bullet* solution to most diseases was found and confirmed by clinical studies including numerous PCR tests plus disappearance of all symptoms.

Why haven't doctors revealed this before now? *A patient cured is a medical customer lost!* When actualized, these data could interrupt HMO profits; disrupt medical-pharmaceutical cartels; abort all biological warfare schemes; eliminate most drugs, medicines, debility, and early deaths; wipe out hospital and health care capital investments; minimize insurance machinations; dramatically abate sickness and suffering; plus imperil social security futures with bankruptcy; wreck sales of supplements, herbs, homeopathic and other health "remedies", machines, and practitioner's incomes. These are not politically correct.

It might permit a few *ethical* practitioners to keep their Hippocratic oaths by giving back the patient's sovereignty instead of serving the AMA, FDA, and drug cartels. But this would decimate their incomes.

Bob Beck

výrobce přístrojů podle Dr. Becka
www.becktechnology.cz

Blood Electrification – The easy in-Vivo way

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Several years of experimentation and thousands of successes have resulted in simple, fast, proven ways to
Implement this most important step in self-healing.

1. Build your own or purchase a ready-to-use device, or put finishing touches on a nearly-completed kit available for \$89 from Action Electronics, 1300 E. Edinger, Santa Ana, CA 92705. (714)-547-5169. With adequate detoxification, some use two or more blood electrifiers simultaneously to speed the recovery process, however one instrument works superbly.
- 2 Prepare and label a sea-salt-in-water solution for electrode wetting. Use ½ teaspoon of sea salt in a 2 ounce dropper bottle. Greater salt concentration can cause osmotic skin burns, irritation and rash. Add water and 4 drops of Pyrex or Clorox, Let salt dissolve. Filter through paper towel to clarify this storable conductive interface between cotton covered electrodes and skin. NEVER let bare metal electrode or any small area of metal touch skin directly, or it will burn. Use natural salt only, not table salt containing iodine for goiter end aluminum end silicates to insure easy pouring.
3. For best electrical conductance scrub skin at electrode locations with an alcohol swab or soap and water to eliminate oils, grime, dead cells, etc., rinse and dry. With fingertip rub a drop of salt water into pores along each electrode site.
4. Referring to illustrations, carefully feel for pulses and trace a line about 1 inch along at each wrist site precisely on top and inline (parallel) with located blood paths. Pulses are harder to feel on side opposite thumb. Never place electrodes over new lesions, cuts, abrasions, or sunburn. Muscle twitching in palm and fingers is normal and experienced occasionally.
5. Dip electrode covers into bottle to saturate initially. Position wet electrodes not over $\sim 3/32$ wide and 1-1/4" long to wrist precisely over traced pulse paths. Slide from forearm side underneath a snug 1" wide stretch elastic band with Velcro holding overlapped ends. One electrode positions on radial (thumb) side, the second on opposite (ulnar) side of same hand. Current is confined to blood in lower forearm. Very little electrification is detectable elsewhere thus making safer for heart pacer users.
6. Put larger models in pocket and run electrode cord down sleeve or strap the smaller electrifier (single battery Sota instrument) with stretch-band to forearm. Plug in electrodes, turn on and advance slowly to comfortable level. The Sota is small, convenient, unobtrusive, uses one instead of three 9V batteries. Neither interferes with normal activities. (Sofa Instruments, PO Box 26161, Central Postal Station, Richmond, BC, Canada V6Y 3V3 1-(800)-224-0242).
7. Re-adjust power occasionally to maximum comfortable level. You can even sleep with it on without fear. When the treatment (about two hours per session daily for a month but only after detoxifying) is finished, turn it off and put it aside until tomorrow. Blood cleansing can be speeded with heat; example: wrapping forearm and hand with attached electrodes in heating pad set to high. When red and green LED's flash alternately with electrodes unplugged you know it's working properly.
8. Keep electrodes wet by re-moistening occasionally with drops of salt water using eye dropper in bottle cap. When finished rinse wrists. Wash electrodes periodically with soap, water and soft toothbrush to eliminate skin oils and soils. Soaking overnight will dissolve caked salt. Discoloration at ends is normal. When frayed or worn, discard old covers and rewrap stainless rods with 3 turns of 100% cotton flannel. Secure tightly with a few turns of thread wrapped to end, spiral back to beginning and tie. Electrodes should last for months, but wire leads break and must be replaced eventually.

What's inside the instruments? Preferred electrifiers must generate a 3.9 Hz (not critical) biphasic, 50% duty cycle sharp-rinse-time square wave, $\pm 27V$ peak adjustable output, capable of delivering several milliamperes into a low resistance load at skin surface ($\pm 2000 \Omega$ impedance) which after losses through tissue resistances delivers the necessary 50 to 100 microamperes through flowing blood. This suppressed medical discovery is proving to neutralize or eliminate all parasites and their mycotoxins, fungi, viruses, microbes, germs, pathogens, bacteria, or any other foreign invaders in blood without drugs. There are no known side effects to healthy cells, tissue, or fluids. Elimination can be verified by dark field / phase contrast microscopy.

Precautions: Badly debilitated patients such as full blown AIDS victims should begin electrification at less than 20 minutes every second day and flush by drinking lots of pure immediately-ozonized water because their systems will go into rapid detoxification causing physical symptoms called Herxheimer's syndrome. Users taking ANY medications, herbs, toxic vitamins or even traces of garlic in food should minimize these substances in blood for at least two days before starting and avoid other agents including coffee, tea, alcohol, tobacco, medications, recreational drugs, etc., during the several weeks of recovery. "Electroporation" is shown to increase dosage effects by levels up to 20 times normal of anything drunk, shot, or ingested thus causing problems. This is documented by J.C. Weaver, Harvard-MIT, *Journal of Cellular Biochemistry*, 51: 426-435:1993. Patients needing essential medications should take them immediately after turning off electrification and wait 24 hours before next blood cleansing. This lets drug residues decay to minimum levels in plasma before re-electrifying. If detoxing becomes disturbing, proceed even more slowly. Symptoms may include fever, giddiness, dizziness, headaches, light-headed vagueness, nausea, skin rashes, eruptions, itching, boils; coughing, kidney and liver discomfort, aches, general malaise, inflammations, frequent urination, and sluggishness. Use caution when detoxing patients with impaired liver or kidney function. But remember it's far better to force wastes out of your system than leaving stored where they may have been hiding for years.

Treat even more slowly if initial discomfort occurs. Electrification will profoundly improve your health and sometimes provoke your deepest unconscious mind-sets such as everyone's conflicting guilt and death wishes. This generally causes noticeable anxiety and depression which may accompany recoveries.

Bob Beck

výrobce přístrojů podle Dr. Becka
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OZONE REVISITED

Offered for Educational and Informational Purposes Only; not Intended as Medical Advice

Preliminary data May 13, 1997 Copyright © 1997 Robert C. Beck

Recent re-evaluation of ozone suggests that while it is controversial as a stand-alone therapy, O³ when directly ingested in water simultaneously with electroporation (biphasic microcurrents in arteries) provides a truly remarkable boost to total system oxygenation, *plus natural and rapid detoxification*. Measurements show dramatic increases in blood oxygen within minutes using meters like the Nellcor® NPB-40 "Percent Oxygen Saturation Meter" (Nellcor Puritan Bennett, Inc., Pleasanton, CA 94599, 1-800-NELLCOR). Many different "Ozonizers sold at health expos for prices up to \$4700 are large heavy suitcases, must plug into AC, and almost universally use vastly inferior *Ultra-Violet* systems and bottled oxygen instead of the preferred high-voltage cold-corona utilizing *air* for ozone production. Described here is a superior design producing faster, more concentrated O³ than other available home units. It is a very portable three-way, stand-alone system. You can choose to utilize either internal battery power, or AC plug-in, or car lighter powered input. It can be put together by anyone for a fraction of the cost of top-of-the-line ozonizers. A second cheaper but slower do-it-yourself design using AC power only is also shown here. It uses inexpensive parts for the budget-minded but still works superbly. O³ unlike other forms of oxygen carries *negative* electrical charges that specifically counteract free radical damages, scavenge crosslinking and re-charge depleted cells. Ionic silver colloids also greatly assist this "rejuvenation" process by restoring free electrons.

O³ rapidly converts (oxidizes) all known toxins and wastes long present in your body cells to H₂O and CO₂ which flush out easily and rapidly without utilizing colonics, lymph, spleen, liver, or kidney detoxing or any other treatments.

BUILDING A COMPACT, LINE-DEPENDENT AC/DC LOW COST POWERFUL OZONE GENERATOR USING AIR AND NOT REQUIRING EXPENSIVE BOTTLED OXYGEN

Connect together in this order

1- 12.6 V-1.2 Ampere-hour rechargeable lead-acid gel-cell battery (~1-½ hr./charge)	\$ 16.50
1- In-line fuse holder (EM brand GMA 18 Ga.)	2.49
1- 5- 8 Amp short fuses; Female spade .187, 18-22 GA battery connectors	3.15
<i>Action Electronics, 1300 E. Edinger Ave., Santa Ana, CA 92705 (714) 547-5169</i>	
1- Connector set, cigarette lighter male plug and female jack.	2.50
1- 12V dc to 110V ac inverter (NOTEpower brand, model #PW-50)	71.95
<i>Mar Vac Electronics, 2001 Harbor, Costa Mesa, CA 92627 (714) 645-6448</i>	
1- AC adapter to triple outlet (Drugstore)	~2.00
1- Aquarium aerification pump (Schego Optimal 5 W 250 liter/hour membrane)	35.00
<i>Strictly Fish, 12227 Harbor Blvd., Garden Grove, CA (714) 750-7151</i>	
1- German Sander brand model 200 fish tank ozonizer, adjustable 0-200 mg O ³	389.00
<i>TIS Tropical Fish, 16175 Brookhurst, Fountain Valley, CA (714) 839-1740</i>	
1- 25ft. flexible plastic airline tubing ¼" OD cat. #14507	3.89
1- Check Valve (prevents water from back-siphoning into ozonizer)	2.19
1- Airstone (glass bead or ceramic - not plastic) Fine bubbles, Kordon #62503	2.49
1- (Optional) Spring-wound timer, 0-60 min. or SPST. switch (<i>Fry's Electronics</i>)	12.00
Switch cuts off system at selected time. Wire between battery and inverter	
You may need a plastic, leather, or canvas bag or other small carrying case.	

Total: Retail price for currently preferred system: (Only \$324.00 wholesale.) \$ 540.50

A less expensive but excellent system is described next. It plugs into 115V AC, uses less powerful and fewer parts, is somewhat slower, but produces the highest quality ozone from ambient air or bottled oxygen.

1- Sander model 25 hi-voltage cold-corona aquarium ozonizer.	\$ 169.99
1- Whisper #500 aquarium air pump; Silaflex II (not rubber) diaphragm & valves.	26.99
<i>Fishland, 13079 Harbor Blvd., Garden Grove, CA 92643</i>	
Misc., plastic tubing, check valve, fine bubble stone, extension cord, etc.	8.60

Total: Retail cost for complete system. (Only \$123.35 Wholesale) \$ 205.58

List prices: Sander Ozonizers 25 mg-\$169.99; 50 mg-\$189.99; 100 mg-\$244.99; and 200 mg (most powerful "portable") for \$389.00

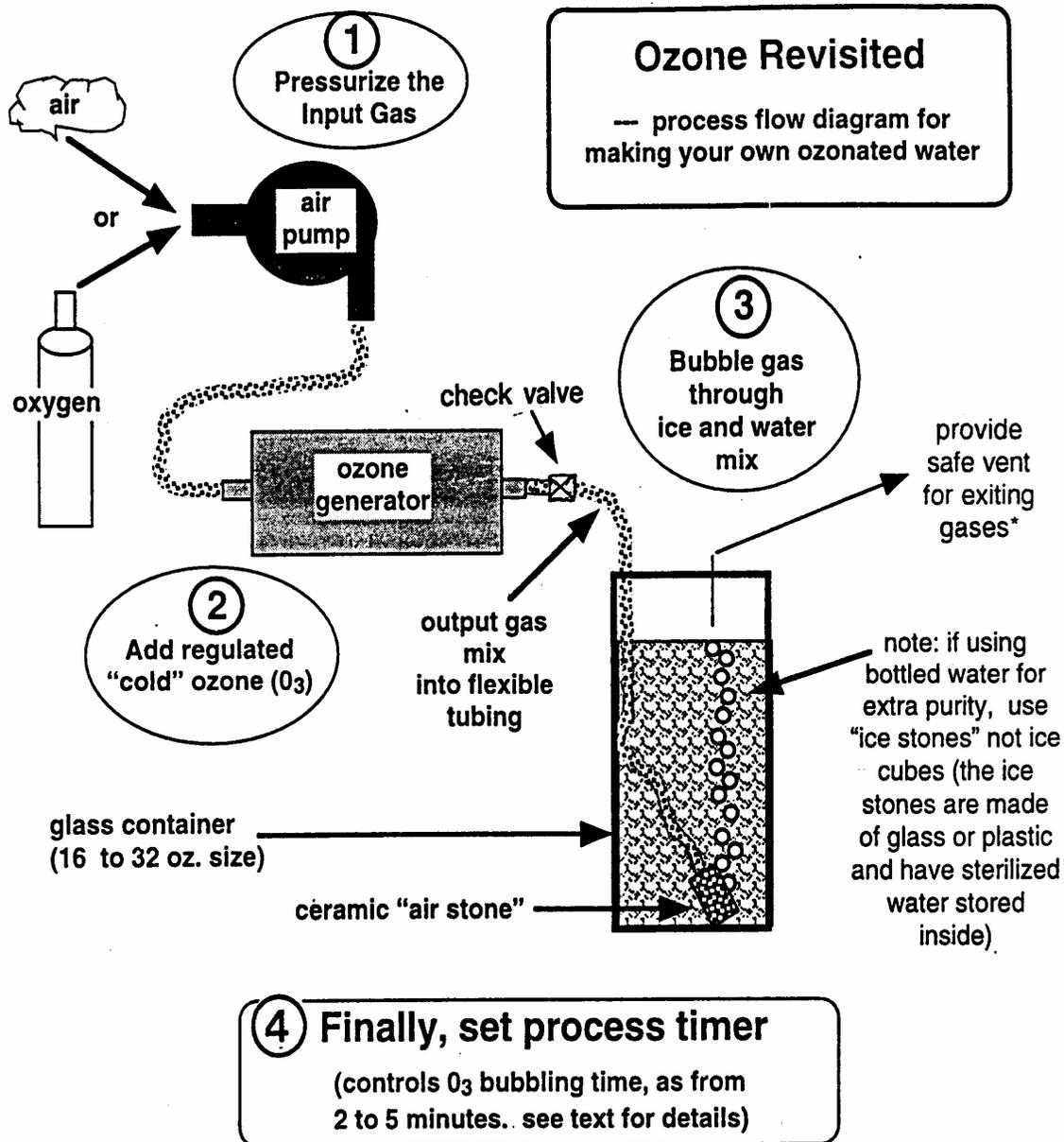
Purchase the strongest corona unit you can afford. Avoid cheaper, weaker Ultra-Violet types.

Note: Nitrogen by-products, oxides and acids produced with *air* and cold corona discharge have been tested and found negligible and harmless in ozonized drinking water. But hot arcing produces unwanted byproducts using air; pure oxygen does not. So to be safe start with bottled oxygen and pure water only if making O³ intended for inter-muscular injection, insufflation, direct blood infusions, or with heparin for auto-dialysis (bubbling blood in a vessel for re-injection or "autohemotherapy"). "Medical" & "industrial" (welding) oxygen are *identical* and come from the same tanks at suppliers who charge more by pretending that "medical-grade" oxygen is somehow "different". Ambient air works well for drinkable O³. The colder and purer your water and the deeper the container for greater pressure plus the smaller the volume of H₂O being bubbled, the most ozone dissolves faster and the longer it lasts. Ideal bubblers are ~3" dia. X 2-½ ft. high Teflon or Polypropylene tubes with airstone at very bottom. Tall, thin plastic bottles work almost as well but their greater content takes a little longer for saturation. Non-reactive Pyrex containers are better.

To use: submerge airstone to bottom and "bubble" ~10 OZ containers of ½ ice + ½ cold tap water for ~5 minutes with the inexpensive design or ~2 min. with the more powerful 200 mg ozonizer. Charge *cold* water in a large bottle for ~25 min. Drink immediately since O³ without stabilizers even in ice water has a half-life of about 20 minutes so retains full potency for only a short time. Benefits start in minutes and are far superior to many other expensive products claimed to provide "bound" oxygen (chlorites; ClO₂) or proprietary "Vitamin O" stabilized oxygen boosters. Ozone cannot be stored which is why everyone needs his own generator to make O³ immediately before using for the best possible results.

Never breathe ozone or ozonized air as it damages (oxidizes) lung tissue even in small quantities.

Bob Beck



➔ **Note: always drink or use ozonated water within 20 minutes after making.**

***Caution: do *not* breath in ozonated gas... (the chemical activation that gives it power to cleanse is too strong for lung tissue and can easily cause damage)**

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NEW PERIODIC TABLE

Revised 1995

1 H 1.00797	2 He 4.0026	3 Li 6.939	4 Be 9.0122	5 B 10.811	6 C 12.01115	7 N 14.0067	8 O 15.9994	9 F 18.9984	10 Ne 20.183	11 Na 22.98977	12 Mg 24.312
13 Al 26.98154	14 Si 28.0855	15 P 30.97376	16 S 32.064	17 Cl 35.453	18 Ar 39.948	19 K 39.0983	20 Ca 40.08	21 Sc 44.9559	22 Ti 47.90	23 V 50.9414	24 Cr 51.996
25 Mn 54.9380	26 Fe 55.847	27 Co 58.9332	28 Ni 58.71	29 Cu 63.546	30 Zn 65.37	31 Ga 69.72	32 Ge 72.59	33 As 74.9216	34 Se 78.96	35 Br 79.904	36 Kr 83.80
37 Rb 85.4678	38 Sr 87.62	39 Y 88.9059	40 Zr 91.22	41 Nb 92.9054	42 Mo 95.94	43 Tc (97)	44 Ru 101.07	45 Rh 102.9055	46 Pd 106.4	47 Ag 107.868	48 Cd 112.40
49 In 114.82	50 Sn 118.69	51 Sb 121.75	52 Te 127.60	53 I 126.9044	54 Xe 131.30	55 Cs 132.9054	56 Ba 137.33	57 La 138.9055	58 Ce 140.12	59 Pr 140.9077	60 Nd 144.24
61 Pm (145)	62 Sm 150.35	63 Eu 151.96	64 Gd 157.25	65 Tb 158.9254	66 Dy 162.50	67 Ho 164.9304	68 Er 167.26	69 Tm 168.9342	70 Yb 173.04	71 Lu 174.97	72 Hf 178.49
73 Ta 180.9479	74 W 183.85	75 Re 186.207	76 Os 190.2	77 Ir 192.22	78 Pt 195.09	79 Au 196.9665	80 Hg 200.59	81 Tl 204.37	82 Pb 207.19	83 Bi 208.9804	84 Po (209)
85 At (210)	86 Rn (222)	87 Fr (223)	88 Ra 226.0254	89 Ac (227)	90 Th 232.0381	91 Pa 231.0359	92 U 238.029	93 Np 237.0482	94 Pu (244)	95 Am (243)	96 Cm (247)
97 Bk (247)	98 Cf (251)	99 Es (254)	100 Fm (257)	101 Md (258)	102 No (259)	103 Lr (260)	104 Ku (260)	105 Ha (260)	106 — (263)	107 — (280)	108 — (288)
109 — (296)	110 — (296)	111 Pe (292)	112 Dk (300)	113 Cb (299)	114 Ci (302)	115 Ab (305)	116 Im (305)	117 To (306)	118 Zi (318)	119 Dd (315)	120 Rd (314)
121 Bo (317)	122 Db (319)	123 Mu (320)	124 It 3.22	125 Ro (333)	126 Tn (323)	127 Tv (328)	128 Tt (328)	129 Tr (332)	139 Ki (348)	140 Ct (361)	

Note: Numbers in parentheses indicate the mass number with the most stable isotope, (good enough for our civilization at the moment). Shading indicates elements of Alien origin.

NEW PERIODIC TABLE

Revised 1995

NAME	SYMBOL	ATOMIC WEIGHT	ATOMIC NUMBER	PLACE OF DISCOVERY AND DATE					
Actinium	Ac	(227)	89	France, 1899	Magnesium	Mg	24.312	12	England, 1808
Algoarium	Ab	(305)	115	Alien	Manganese	Mn	54.9380	25	Sweden, 1774
Aluminium	Al	26.9815	13	Denmark, 1825	Mercury	Hg	200.59	80	Known to Ancients on Earth
Americum	Am	(243)	95	USA, 1945	Molybdenum	Mo	95.94	42	Sweden, 1778
Antimony	Sb	121.75	51	Known to Ancients on Earth	Murinite	Mu	(320)	123	Alien
Argon	Ar	39.948	18	Scotland, 1894		Md	(258)	101	
Arsenic	As	74.9216	33	Known to Ancients on Earth	Neodymium	Nd	144.24	60	Austria, 1885
Astatine	At	(210)	85	USA, 1940	Neon	Ne	20.183	10	England, 1898
Barium	Ba	137.34	56	England, 1808	Neptunium	Np	(237)	93	USA, 1940
Berkelium	Bk	(247)	97	USA, 1949	Nickel	Ni	58.71	28	Sweden, 1751
Beryllium	Be	9.0122	4	Germany/France, 1828	Niobium	Nb	92.906	41	England, 1801
Bismuth	Bi	208.9804	83	Known to Ancients on Earth	Nitrogen	N	14.0067	7	Scotland, 1772
Boridium	Bo	(317)	121	Alien	Nobelium	No	(259)	102	Sweden, 1957
Boron	B	10.811	5	France/England, 1808	Osmium	Os	190.2	76	England, 1804
Bromine	Br	79.909	35	France, 1826	Oxygen	O	15.9994	8	England/Sweden, 1774
Cadmium	Cd	112.40	48	Germany, 1817	Palladium	Pd	106.4	46	England, 1803
Calcium	Ca	40.08	20	England, 1808	Pergium	Pe	(292)	111	Alien
Californium	Cf	(251)	98	USA, 1950	Phosphorus	P	30.9738	15	Germany, 1669
Carbon	C	12.01115	6	Known to Ancients on Earth	Platinum	Pt	195.09	78	Italy, 1557
Ceblidium	Cb	(299)	113	Alien	Plutonium	Pu	(244)	94	USA, 1940
Cerium	Ce	140.12	58	Sweden/Germany, 1803	Polonium	Po	(209)	84	France, 1898
Cesium	Cs	132.9054	55	Germany, 1860	Potassium	K	39.102	19	England, 1807
Chlorine	Cl	35.453	17	Sweden, 1774	Praseodymium	Pr	140.9077	59	Austria, 1885
Chromium	Cr	51.996	24	France, 1797	Promethium	Pm	(145)	61	USA, 1945
Cobalt	Co	58.9332	27	Sweden, 1737	Protactinium	Pa	(231)	91	Germany/England, 1917
Colladium	Ci	(302)	114	USA, 1977	Radium	Ra	(226)	88	France, 1898
Copper	Cu	63.546	29	Known to Ancients on Earth	Radon	Rn	(222)	86	Germany, 1900
Corbomite	Ct	(361)	140	Alien	Rhenium	Re	186.207	75	Germany, 1925
Curium	Cm	(247)	96	USA, 1944	Rhodium	Rh	102.9055	45	England, 1803
Diburnium	Db	(319)	122	Alien	Rodinim	Ro	(333)	125	Alien
Dikironium	Dk	(300)	112	Alien	Rubidium	Rb	85.47	37	Germany, 1861
Dilithium	Dd	(315)	119	Alien	Rubindium	Rd	(314)	120	Alien
Dysprosium	Dy	162.50	66	France, 1886	Ruthenium	Ru	101.07	44	Russia, 1844
Einsteinium	Es	(254)	99	USA, 1952	Samarium	Sm	150.35	62	France, 1879
Element 106		(263)	106	USA/Russia, 1974	Scandium	Sc	44.956	21	Sweden, 1879
Element 107		(280)	107	USA/Russia, 1977	Selenium	Se	78.96	34	Sweden, 1817
Element 108		(288)	108	USA/Germany, 1979	Silicon	Si	28.086	14	Sweden, 1823
Element 109		(296)	109	USA/India, 1982	Silver	Ag	107.870	47	Known to Ancients on Earth
Element 110		(296)	110	USA/India, 1983	Sodium	Na	22.9898	11	England, 1807
Erbium	Er	167.26	68	Sweden, 1843	Strontium	Sr	87.62	38	Scotland, 1790
Europium	Eu	151.96	63	France, 1901	Sulfur	S	32.064	16	Known to Ancients on Earth
Fermium	Fm	(257)	100	USA, 1953	Tantalum	Ta	180.948	73	Sweden, 1802
Fluoride	F	18.9984	9	France, 1886	Technetium	Tc	(97)	43	Italy, 1937
Francium	Fr	(223)	87	France, 1939	Tellurium	Te	127.60	52	Romania, 1782
Gadolinium	Gd	157.25	64	Switzerland, 1880	Terbium	Tb	158.9254	65	Sweden, 1843
Gallium	Ga	69.72	31	France, 1875	Thallium	Tl	204.37	81	England, 1861
Germanium	Ge	72.59	32	Germany, 1886	Thorium	Th	232.0381	90	Sweden, 1828
Gold	Au	196.967	79	Known to Ancients on Earth	Thulium	Tm	168.9342	69	Sweden, 1879
Hafnium	Hf	178.49	72	Denmark 9-3	Tin	Sn	118.69	50	Known to Ancients on Earth
Hahnium	Ha	(260)	105	USA, 1970	Titanium	Ti	47.90	22	England, 1791
Helium	He	4.0026	2	Scotland/Sweden, 1895	Topaline	To	(306)	117	Alien
Holmium	Ho	164.9304	67	Switzerland, 1878	Tri-cobalt	Tr	(332)	129	Alien
Hydrogen	H	1.00797	1	England, 1766	Tri-Tanium	Tn	(323)	126	Alien
Indium	In	114.82	49	Germany, 1863	Tri-Titanium	Tt	(328)	128	Alien
Indurite	It	(322)	124	Alien	Tri-Uium	Tv	(328)	127	Alien
Iodine	I	126.9044	53	France, 1811	Tungsten	w	183.85	74	Spain, 1783
Iridium	Ir	192.22	77	England/France, 1804	Uranium	U	238.029	92	Germany, 1789
Irlidium	Im	(305)	116	Alien	Vanadium	V	50.942	23	Sweden, 1830
Iron	Fe	55.847	26	Known to Ancients on Earth	Xenon	Xe	131.30	54	England, 1898
Kironide	Ki	(348)	139	Alien	Ytterbium	Yb	173.04	70	Switzerland, 1878
Krypton	Kr	83.80	36	Great Britain, 1898	Yttrium	Y	88.9059	39	Finland, 1794
Kurchatovium	Ku	(260)	104	Russia, 1964	Zienite	Zi	(318)	118	Alien
Lanthanum	La	138.91	57	Sweden, 1839	Zinc	Zn	65.37	30	Germany, 1746
Lawrencium	Lr	(257)	103	USA, 1961	Zirconium	Zr	91.22	40	Spain, 1789
Lead	Pb	207.19	82	Known to Ancients on Earth					
Lithium	Li	6.939	3	Sweden, 1817					
Lutetium	Lu	174.97	71	France, 1807					

Note: Numbers in parentheses indicate the mass number with the most stable isotope, or the only one known to exist at the moment.

Blood Electrification - Reprint of Patent # 5,188,738

United States Patent 5,188,738 Kaali, et. al. * Feb. 23, 1993

Alternating current supplied electrically conductive method and system for treatment of blood and/or other body fluids and/or synthetic fluids with electric forces.

Inventors: Kaali; Steven (88 Ashford Ave., Dobbs Ferry, NY 10522); Schwolsky; Peter M. (4101 Cathedral Ave., NW., Washington, DC 20016). [*] Notice: The portion of the term of this patent subsequent to Aug. 18, 2009 has been disclaimed. Appl. No.: 615,437 Filed: Nov. 16, 1990

Related U.S. Application Data

Continuation-in-part of Ser No. 562,721, Aug. 6, 1990, abandoned. Intl. Cl.: B01D 35//06 A61K 41/00 U.S. Cl.: 210/748; 128/419.R; 128/421; 128/783; 128/784; 204/131; 204/164; 204/186; 204/302; 210/243; 422/ 22; 422/ 44; 604/ 4 Field of Search: 210/243, 748, 764; 128/419 R, 421, 783, 784; 604/4; 422/22, 44; 204/131,164, 186, 242, 275, 302, 305

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Abstract

A new alternating current process and system for treatment of blood and/or other body fluids and/or synthetic fluids from a donor to a recipient or storage receptacle or in a recycling system using novel electrically conductive treatment vessels for treating blood and/or other body fluids and/or synthetic fluids with electric field forces of appropriate electric

field strength to provide electric current flow through the blood or other body fluids at a magnitude that is biologically compatible but is sufficient to render the bacteria, virus, parasites and/or fungus ineffective to infect or affect normally healthy cells while maintaining the biological usefulness of the blood or other fluids. For this purpose low voltage alternating current electric potentials are applied to the treatment vessel which are of the order of from about 0.2 to 12 volts and produce current flow densities in the blood or other fluids of from one microampere per square millimeter of electrode area exposed to the fluid being treated to about two milliamperes per square millimeter.

31 Claims, 26 Drawing Figures

This invention relates to novel electrically conductive methods and systems employing electrically conductive vessels provided with electrically conductive surfaces for use in subjecting blood and/or other body fluids and/or synthetic fluids such as tissue culture medium to direct treatment by alternating current electric forces.

BACKGROUND PROBLEM

It is now well known in the medical profession and the general public that blood collected in a blood bank from a large number of donors may be contaminated by contaminants such as bacteria, virus, parasites and/or fungus obtained from even a single donor. While screening of donors has done much to alleviate this problem, the screening of donors can and does miss occasional donors whose blood is unfit for use. When this occurs and the unfit blood is mixed with otherwise usable blood, the entire batch must be discarded for transfusion purposes. Because of this problem, the present invention has been devised to attenuate any bacteria, virus (including the AIDS HIV virus) parasites and/or fungus contained in blood contributed by a donor to the point that any such contaminant is rendered ineffective for infecting a normally healthy human cell, but does not make the blood biologically unfit for use in humans. Similar problems exist with respect to treatment of other body fluids, such as amniotic fluids. The treatment method and system is also applicable to mammals other than humans.

In addition to the above, there is a need for methods and systems for the treatment of blood and other body fluids both in in-situ processing wherein the treated blood and/or other body fluids are withdrawn from the body, treated and then returned to the body in a closed loop, recirculating treatment process that is located near but outside the patient's body, or the treatment can be effected through implanted treatment system components.

In co-pending United States application serial No. 07/615,800 entitled "Electrically Conductive Methods and Systems for Treatment of Blood and Other Body Fluids with Electric Forces"-Steven Kaali and Peter M. Schwolsky, inventors, filed concurrently and co-pending with this application, a similar treatment method and system employing direct current excitation potentials is described and claimed. The disclosure of co-pending application Ser. No. 07/615,800 hereby is incorporated into this application in its entirety.

SUMMARY OF INVENTION

The present invention provides new electrically conductive methods and systems using alternating electric current excitation potentials for treating blood and/or other body fluids, such as amniotic fluids, and/or synthetic fluids such as tissue culture medium from a donor to a transfusion recipient or to a storage receptacle, or for recirculating a single donor's or patient's blood or other body fluids. The treatment can be accomplished in a treatment system external of the body or by implant devices for purging contaminants using a novel electrically conductive vessel for direct electric treatment of blood or other body fluids, such as amniotic fluids, with alternating current electric field forces of appropriate electric field strength to attenuate such contaminants to the extent that bacteria, virus, fungus, and/or parasites contained in the blood or other body fluids are rendered ineffective to infect and/or affect normally healthy human cells. The treatment, however, does not render the blood or other body fluids biologically unfit for use in humans or other mammals after the treatment. The new methods and systems according to the invention achieve these ends without requiring time consuming and expensive processing procedures and equipment in addition to those normally required in the handling of blood or other body fluids or synthetic fluids. The invention can be used to achieve the electric field force treatment during the normally occurring transfer processing from a donor to a recipient or to a collection receptacle, or recirculation of a single donor's or patient's blood or other body fluids, such as amniotic fluids.

A NEW PROCEDURE FOR MAKING COLLOIDAL SILVER

You now have a choice. You can make your colloidal silver with or without salt. Colloidal Silver made without salt is considered superior as the particle size is smaller. A spokesman for the Colloidal Association of America told us it requires a smaller particle to kill a virus than a bacteria. Some customers have reported they have found silver colloid made without salt more effective. (Thanks, Tom) We've noticed that ourselves:

Procedure without salt:

1. Heat 16 ounces (500 ml) of distilled water to boiling. (Preferably in a heat-resistant glass container.)*
2. The silver wires should be immersed about 75-80% in the hot water in a glass container.
3. Turn the switch on and time for 15-20 minutes.
4. Stir gently from time to time with a non-metal utensil. The silver colloid will be clear.

Notes:

- 15 to 20 minutes will produce 3-5 ppm (parts per million) with most distilled water. Water with a higher alkalinity (often found in the eastern U.S. and Canada) produces a higher ppm.
- If timed for longer, the Silver Colloid will be a pale yellow color. With most of the waters we tested, this occurred at about 6 to 9 ppm depending on the water.
- If grey or black flakes appear, filter before using.
- It is important the Silver Wires do **not** touch each other. A slightly higher ppm is produced when the silver wires are a uniform 12" apart for the length of the submerged wire.
- The White Bulb should remain off or be dimly lit when making Colloidal Silver. If the light shines brightly it means either the two Silver Wires are touching each other or there are too many impurities or minerals in the water you are using. Try a different brand of distilled water.
- **Storage:** Store in a dark glass bottle—never metal—in the cupboard or other dark place. Always store in a dark place as sunlight or room light will quickly degrade silver colloid by turning the solution grey or black—just as exposure to light darkens the silver in camera film. (Light neutralizes positive charges on silver ions that help keep-the particles in suspension.)
- Do not freeze. Do not refrigerate or expose to other rapid temperature changes (such as a hot car) or its usefulness will be affected.
- Do not drink any sediment.
- Do not use a glass measuring cup. A metal kettle that has been coated can be used, a glass cooking pot, or glass beaker with wire under it.

MORE ON COLLOIDAL SILVER

How much and how often?

It makes sense to me that since our soils are deficient—often woefully deficient—in trace minerals, our soils at one time contained more traces of silver. In *Colloidal Silver*, Keith Courtenay reports on an article: "In 1940 and 1966, respectively, R.A. Kehoe and I.H. Tipton reported that under normal circumstances the average daily diet will yield approximately 50 mcg to 100 mcg of silver." The report continues: "Therefore, it seems logical that a concentration of 3 to 5 ppm, yielding 15 mcg to 25 mcg of silver per teaspoon, will be a sufficient concentration to be both effective and safe to consume on a regular, daily basis. A 4 oz. container of colloidal silver at a concentration of 3 ppm will contain approximately 355 mcg of total silver—well below any reported toxicity level of orally consumed silver—even if several ounces were consumed on a daily basis for several years. Higher concentrations above 5 ppm, or about 591 mcg of total silver in a 4 oz container, may cause silver build-up in the system and are not necessarily more effective." For chronic or serious conditions the author states: "It is recommended to build up to, and take double or triple the recommended amount for 30 to 45 days, then reduce to the maintenance dosage." Here at SOTA, we take breaks from drinking colloidal silver just as we take breaks or vary our food supplements.

What determines toxicity?

There are no reports of silver toxicity—argyria or darkening of the skin—with modern-day colloidal silver produced electrically. A spokesperson for the newly-formed Colloidal Association of America, told us that toxicity in the past from silver compounds such as silver nitrates, silver iodides and silver bromides was a result of injection. These compounds had larger particle sizes of silver for the lymph system to deal with. In order to get rid of these larger particles, the lymph system pushed them out through the skin. Once silver is exposed to light, of course, it darkens. Thus darkening of the skin or argyria.

This same spokesperson said purity of the water is a major determinant of particle size. As PPM increases so does particle size. It takes a smaller particle size to kill a virus than it does a bacteria. He also pointed out that some companies producing colloidal silver commercially have developed proprietary formulas that enable them to increase PPM while keeping the particle size small. Electrically produced colloidal silver contains silver in both ionic and colloidal form. Some researchers say colloidal silver must be ionic in form to be effective.

If you're concerned about toxicity, the best measurement for silver levels in your body is hair analysis. One customer reported on his hair analysis after drinking 3 to 4 ounces of colloidal silver a day for 3 months. He was making the colloidal silver using the one drop of celtic salt. The lab reported that his level of silver could be 10 times higher and still be low. (Thank you, Dan.)

Ways to ingest:

For faster entry into the blood stream, one health practitioner passed along that he recommends dropping or spraying colloidal silver up the nose. As long you don't have mercury fillings, you can also hold it under the tongue for quicker absorption before swallowing. For those who do have mercury fillings, a customer passed along the idea of drinking your colloidal silver through a straw.

USING THE BECK PROTOCOL

Just a reminder the units based on Beck's research are experimental devices. It is not known, therefore, how long we need to use them. Bob Beck lectures about a 21-30 day protocol for HIV because it is known to be undetected in some cases after this time period. Live blood cell analysis, however, shows there is a lot more needed to put the blood in a healthier state. Each of us must determine for how long and how often we want to do the Beck protocol.

I use the units for from 4 weeks to 12 weeks then take breaks to use an herbal program to help cleanse and build the colon, kidneys and liver. Even though I'm in generally good health. I see this as a continuing protocol for at least a year. After that, I plan to use the units for a month every six months as a maintenance and preventative program.

When stopping the use of all three parts of the protocol—customers have reported they forgot the units when they traveled—a few of us have noticed susceptibility to a flu or other 'bug'. It is possible the immune system misses the support, and if our body hasn't had the time to clean everything up, a 'bug' can get the better of us. When we complete a cycle now, we don't stop all three parts of the protocol—using the Silver Pulsar, the Magnetic Pulsar and drinking silver colloid—at once. We at least continue with the colloidal silver for a time to provide support for the immune system.

GARLIC

Research abounds about how garlic strengthens the immune system. Dr. Bob Beck, however, found in his research back in the 1980's that garlic has a detrimental effect on the brain. We've also learned from a health practitioner that many yoga groups and philosophical teachings caution against the use of garlic as it is known to hinder meditation.

Here's our read on garlic. Dr. Richard Schulze—probably the foremost herbalist in North America today—tells us we've created problems because we now use many medicinal herbs as common foods. A medicinal herb, of course, should be used shorter term when needed to best benefit from its healing qualities. While Schulze does not include garlic in this list, we suggest that it be best used as a medicinal herb. That means we would use garlic from time to time to help strengthen the immune system.