

# New Horizons in HealthCare The Oxygen/Silver Connection

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## HydroCell

Silver Oxygen Complex

Silver ions have the unique ability to disable the enzyme system of Bacteria, Virus, Yeasts and other harmful parasites. When combined with singlet oxygen this effect is dramatically multiplied.

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#### Acknowledgments

I would like to thank the many who have gone before me in their research into Ionic Silver. Dr. Becker, Dr. Harry Margraf and Jim Powell to name a few, have pioneered modern thinking in a broader acceptance of a product already known for centuries as a broad spectrum germicide. I would also like to thank Dr. Otto Warburg for his research into the role of oxygen in the body.

To the Australian manufacturer who produced the first ionic silver - my sincere thanks. No more metallic build up in the system of my patients.

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#### Preamble

The main reason for writing this information booklet is to explain and share what my many years of experience as a natural health practitioner has

uncovered about the use of Colloidal Silver, Ionic Silver and Stabilized Oxygen preparations.

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### HydroCell

The primary purpose of HydroCell is to reduce the number of harmful microorganisms in the Human Body such as: Bacteria, Fungi, Viruses and Parasites. The secondary purpose is to supply oxygen for energy and cell regeneration.

The research and development of HydroCell is based on two medically approved and scientifically acknowledged principles: that oxygen suffocates and 'kills' pathogens through a process called oxidation and that silver is a natural 'antibiotic' [1-6].

#### Stabilized Oxygen

We are all aware that oxygen is necessary to maintain life. Oxygen is needed for brain function, the heart, the immune system, to produce energy and so on. Oxygen therapy is commonly used in hospitals for a wide range of conditions. Many people who have diseases such as, emphysema, lung cancer and congestive heart failure use oxygen therapy in the community in the form of portable oxygen tanks.

Dr. W. Spencer Way in his article 'Oxidation Catalyst' found in the 'Journal of the American Association of Physicians' states that: *"Insufficient oxygen means insufficient biological energy that can result in anything from mild fatigue to life-threatening disease. The link between insufficient oxygen and disease has now been firmly established"* [28].

Hyperbaric oxygen therapy (HBOT) involves the breathing of pure oxygen while in a sealed chamber that has been pressurized at 1 1/2 to 3 times normal atmospheric pressure. China and Russia treat more than eighty conditions with HBOT. It is approved for medical use in the USA and Britain [40]. There are however two drawbacks to this treatment. Patients usually need to travel to a HBOT chamber and it can be expensive. HydroCell can deliver oxygen to the body's cells at a fraction of the cost and is convenient to use.

*"All chronic pain, suffering, and diseases are caused by a lack of oxygen at the cell level."* Dr. Arthur C. Guyton, MD [27].

Most disease causing microorganisms are strict anaerobes, that is, bacteria and non-enveloped viruses that are very sensitive to oxygen and cannot survive in its presence. They include bacteria that cause disease such as: botulism, tetanus and gas gangrene; Viruses include, herpes, influenza A and HIV [2-4]. Antibiotics are considered ineffective against viruses and the conventional method is to use chemicals that can leave toxic remains and produce serious side effects [1,5]. Stabilized Oxygen helps to eliminate pathogens by adding extra singlet oxygen in the same way that the human immune system uses self-generated single oxygen atoms (oxygen free radicals) to destroy bacterial and viral infections. The effects of oxygen on pathogens include: short-circuiting the processes by which microorganisms create energy; interfering with the production of essential proteins; and disrupting the polyunsaturated fatty acids of cell membranes and viral envelopes. It has been consistently proven that a viral envelope or bacterial cell will breach and disintegrate in the presence of oxygen, thus killing the pathogen [2-4,6,7].

Many microorganisms produce toxic waste products as part of their metabolic process. These toxins can cause more damage than the actual pathogen. Stabilized Oxygen will oxidize, to combine with oxygen, the toxins produced by microorganisms enabling the body to eliminate them naturally [1,2,5,7].

Stabilized Oxygen increases the rate of enzymatic metabolism in the mitochondria ('cell engines') within each cell. This triggers an increase in the metabolic rate, causing small arteries to dilate and increase blood flow. The quality of various blood cells, as well as, circulation, heart function and available oxygen to the brain are improved. The immune system's ability to fight free radicals and help cleanse itself of toxins is increased, lightening the stress on the kidneys and liver. It also helps to keep cell membranes flexible counteracting many of the effects of age-ing [7,8].

The late Doctor Otto Warburg a Nobel Prize winning biochemist specializing in cancer research proved that a cancer cell cannot exist in an oxidizing, healthy cell. Dr. Warburg was the director of the Max Planck Institute for Cell Physiology in Germany [29].

#### **Gut Friendly**

The majority of friendly bacteria in the human intestine which aid in digestion are gram-positive aerobic bacteria, which use oxygen for fuel and to reproduce. These organisms thrive in the presence of Stabilised Oxygen [9].

#### Silver

Much of this information is common knowledge and is disseminated by all proponents of silver, however I think it merits inclusion once again. For thousands of years silver was used as a healing and anti-bacterial agent by civilizations throughout the world. Its medical, preservative and restorative powers can be traced as far back as the ancient Greek and Roman Empires. The Romans used very thin sheets of silver which were then wrapped around wounds and injuries. Bodily fluids reacted with the silver and caused an 'ionic exchange', which in turn accelerated the healing process and prevented infection. The ionic form of silver has broad anti-bacterial and anti-fungal properties. By the early 1900's colloidal silver became the choice of many medical practitioners.

Silver solutions were approved in the 1920s by the U.S. Food and Drug Administration, (FDA), for use as antibacterial agents. There are over one hundred documented uses for silver in the treatment of various conditions, diseases and pathogens in the British Medical Journal [10].

In the 1970's Dr. Carl Moyer, chairman of the Washington University Department of Surgery, received a grant to develop a better treatment for burn victims. Dr. Harry Margraf, chief biochemist on the study, worked with Dr. Moyer to find an antiseptic strong enough, yet safe enough for use over large areas of the body. Dr. Margraf reviewed twenty two antiseptic compounds and concluded that every one of the compounds carried some negative aspect. He noted that many antibiotics were ineffective against a number of harmful bacteria, including the biggest killer in burn cases, a bacterium called Pseudomonas Acruginose. Dr. Margraf concluded: *"Silver is the best all round germ-fighter we have."* [5]. Silver is currently used in major burn centres in the United States [36].

Dr. Hirschberg, John Hopkins: "(silver colloids are)...remarkable for their beneficial action in infective states" [19].

Dr. Robert Becker MD, Syracuse Medical University, noticed a correlation between low silver levels and sicknesses such as colds and flu [11].

Jim Powell, in his article 'Our Mightiest Germ Fighter' found in the journal 'Science Digest' states: *"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...... Moreover, silver is virtually non-toxic.*" [5,10,18,19,31]. Larry C. Ford, M.D, of the Department of Obstetrics and Gynecology at the UCLA School of Medicine, reported in a letter dated November 1st, 1988: *"I tested them (the silver solutions) using standard antimicrobial tests for disinfectants. The silver solutions were antibacterial for concentrations of 10' organisms per ml. of Streptococcus Pyogenes, Staphylococcus Aureus, Neisseria Gonorrhea, Gardnerella Vaginalis, Salmonella Typhi, and other enteric pathogens and fungicidal for Candida Albicans, Candida Globata, and M. Furfur.*" [5,20].

Science Digest March 1978: "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 6 years, one treatment after another was tried. Nothing, including penicillin and sulphonamide, 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" [37].

The magazine 'Health Consciousness' reported that the former USSR used a silver system to sterilize recycled water aboard the space station and NASA selected a silver water filtration system for the space shuttle. Many of the world's airlines use silver water filters to protect passengers from diseases such as dysentery. The Swiss government has approved use of silver water filters in homes and offices. In the U.S.A., some city municipalities use silver in the treatment of sewage. [6,31]. Aid agencies use silver filter systems in counties such as Yemen to disinfect water, eliminating bacteria and parasites. Some of these agencies include: The Red Cross, CARE International, and UNICEF [16].

Hospitals use bandages impregnated with silver ions such as 'Silverlon' and 'Curad' to help in the reduction of germs and to accelerate wound healing. 'Band-Aids' saturated with silver ions are widely available in pharmacies [21,22]. The FDA has approved an endotracheal breathing tube with a fine coat of silver for use in mechanical ventilation. A large randomized trial presented at the American Thoracic Society's 2008 International Conference in Toronto, found the new tube could reduce infections with highly resistant bacteria over traditional tubes by half [35]

In addition, Samsung has introduced SilverCare washing machines with

a final rinse containing silver ions to provide a month of antibacterial protection in clothes [33]. Kohler has introduced a line of toilet seats embedded with silver ions which inhibit the growth of odor causing bacteria, mold and mildew [34].

#### How is Ionic Silver different from Colloidal Silver?

lonic Silver has different properties compared to metallic silver, as it is actually water-soluble. Silver colloids are metallic silver particles that are not dissolved in solution (water) rather they 'hang' suspended in the water. A perfect colloid would have no ions and would have very low bioactivity. It is the silver ion that provides the 'killing' power - not the silver particles [12]. Ionic Silver is dissolved in solution (water), not just suspended as with colloidal silver and therefore cannot drop out of the solution.

#### What is an lon?

An ion is an atom or a group of atoms that carry a positive or negative electrical charge [14].

#### How does lonic Silver kill Bacteria, Viruses, Fungi and Parasites?

Aerobes are bacteria and fungi that live and reproduce in the presence of oxygen. Facultative anaerobes prefer to grow in the presence of oxygen but can grow in an anaerobic (without oxygen) environment. Aerotolerant anaerobes are microorganisms that do not require the presence of oxygen to live and reproduce, and are not destroyed if oxygen is present. These microbes produce enzymes that protect against toxic oxygen molecules, such as, singlet oxygen. Many strains of these viruses, fungi and bacteria are gram-negative. The presence of Ionic Silver near a gram-negative pathogen effectively immobilizes its' oxygenmetabolizing enzyme, or chemical lung [2,3,13]. Ionic Silver is able to achieve this function because it is an ion that carries a positive electrical charge. Gram-negative pathogens carry a negative electrical charge. The positive electrical charge of lonic Silver attracts the negative charge of the pathogen, causing it to lose an electron. This reaction alters the molecular structure of the pathogen resulting in the simultaneous inactivation of many functions such as: cell wall synthesis; membrane transport: alterations in RNA and DNA synthesis and translation; and protein folding and function. Without these functions the microorganism dies and is eliminated from the body [14]. Gram-negative pathogens include:

mycoplasma pneumonia, gonorrhea, infantile diarrhea, pseudomonas, helicobacter pylori, bronchitis, Shigella, salmonella (food poisoning), bubonic plague, diarrhea, toxic shock syndrome and wound infections. Most gram-positive microorganisms are not pathogenic [9].

Gordon Pedersen, PhD an expert in toxicology, virology and the Director of the Institute of Alternative Medicine has recommended silver to eliminate the type A/H1N1 swine flu virus and any accompanying secondary infections [30].

"During 4 years of stool testing every patient for parasites at either Dowell Labs or the Institute of Parasitic Diseases, 99.9% of all people (middle to upper class residents of Los Angeles) had at least one and as many as five different parasites, fungi or yeast infections. As parasites metabolize and excrete, they release neurotoxins which skewer the emotions and mental functions; these are toxins that acidify the tissues and predispose one to chronic degenerative diseases". Timothy Ray, OMD Lac [15].lonic silver suffocates the eggs of internal parasites when they enter a one-celled state during their reproductive cycle and some environmental parasites such as, mosquito larva [16,31].

#### Multi Drug Resistant Bacteria

Multi Drug Resistant germs are at near epidemic proportions through the overuse of antibiotics, resulting in an ever-growing number of untreatable strains. Silver ions however, are reported to effectively neutralize these pathogens [23,24].

"The six bad bugs we call the ESKAPE bacteria -- Enterococcus faecium, Staphylococcus aureus, Klebsiella species, Acinetobacterbaumannii, Pseudomonas aeruginosa, and Enterobacter species -- are among the biggest threats infectious diseases physicians face today". Helen Boucher, MD, of Tufts Medical Center in Boston [25].The manufacturers of Silverlon state that their products kill the six super bugs – ESKAPE bacteria [22].

#### **Gut Friendly**

Unlike non selective colloidal silver preparations lonic Silver is selective at targeting pathogens but not the beneficial gut bacteria [14].

#### **Toxicity and Manufacturing**

lonic silver is manufactured by HealthWest to have the properties of those ions found in natural water and plant sources. This ensures that lonic Silver will work synergistically with the nutrients, minerals and vitamins in our bodies. It is non-toxic to mammals, reptiles and plants. Surface waters in Canada generally contain low levels of silver and there have been no reports of chronic silver toxicity in animals. Ionic Silver is not a cumulative toxin [17].

#### Argyria

Previously, concerns have been raised that long term ingesting of silver could turn the skin blue/grey in a condition called Argyria. Due to the ionic nature of the Silver in HydroCell it is 100% bio-available, as it contains no metallic particles. As there is nothing to be eliminated from the body, there is no potential for harmful build up [26].

#### Parts per Million and Particle Size

The lonic Silver ions in HydroCell are 0.23 of a nanometer, permitting them to pass through cell membranes whereas colloids are too large to penetrate. Research indicates that concentrations of 5-7 parts per million (PPM) of ionic silver to be extremely effective, [38,39]. HydroCell contains 10-ppm of pure ionic silver.

#### **Bacteria Resistant to Silver**

It is important to note that some bacteria are regarded as resistant to silver. These are: Citrobacter Freundii, Enterobacter Cloacae, Enterobacteriaceae (some strains), Escherichia Coli (some strains), Klebsiella Pneumoniae, P. Stutzeri (some strains), Proteus Mirabilis, Vegetative B. Cereus Sp [10].

However as one study of silver resistant bacteria states:

'Overall, this study has provided further evidence that the prevalence of genetic resistance to silver is low and that silver-containing wound dressings still can be effective in controlling such bacteria. It is the authors' opinion that, while silver resistance in wound care should be continually monitored, the threat of widespread resistance is low and silver-containing dressings remain an extremely important tool in managing infected wounds and those at risk of infection'. [32]

#### In conclusion

HydroCell naturally 'kills' harmful microorganisms, reducing them sufficiently for the body's own defense system to kick in thus enabling the body to heal itself. HydroCell is a unique formula containing both Stabilized Oxygen and Ionic Silver, which work in a synergistic manner. The exceptional fusion of two of nature's most potent disease fighters makes HydroCell unparalleled in its capacity to eliminate pathogens and restore function.

#### **Drug Interaction**

Some people may be concerned about taking HydroCell with prescription drugs. No interactions between HydroCell and pharmaceutical medications have been recorded. There are no contraindications with vitamins, minerals, nutrients or therapies [23,24].

Many people who use HydroCell on a regular basis report a greater sense of wellbeing and increased energy levels.

#### Acute illness Protocol for HydroCell

Acute illnesses are sudden onset and of brief duration, that is, expected to be no longer than 3 -5 days.

20 - 40ml on an empty stomach: 1/2 hour before food or 1 hour after food.

If any detoxification symptoms are experienced on this protocol reduce the dose until the symptoms have eased then resume the protocol. Detoxification symptoms may include a worsening of your symptoms and include: headaches, vomiting, diarrhea, skin rashes, muscle aches and pains.

Taking a good quality multi-mineral supplement may help your immune system fight your illness and ease any detoxification symptoms. It is important to drink at least 2 liters of good quality water a day. Water is essential to many of the body's functions and will help to flush out pathogen debris, (the dead particles left after the pathogen is killed) and toxins.

#### Chronic Illness: 13 Week Protocol for HydroCell

Chronic illnesses are of long duration, such as, Chronic Fatigue Syndrome.

If any detoxification symptoms are experienced on this protocol reduce the dose until the symptoms have eased then resume the protocol. Detoxification symptoms may include a worsening of your symptoms and include: headaches, vomiting, diarrhea, skin rashes, muscle aches and pains.

Taking a good quality multi-mineral supplement may help your immune system fight your illness and ease any detoxification symptoms. It is important to drink at least 2 liters of good quality water a day. Water is essential to many of the body's functions and will help to flush out pathogen debris, (the dead particles left after the pathogen is killed) and toxins.

HydroCell is to be taken on an empty stomach:  $\frac{1}{2}$  hour before food or 1 hour after food.

#### Week 1

Day 1:5 ml of HydroCell in a glass of water 2 times a day on an empty stomach

Day 2: 10 ml of HydroCell in a glass of water 2 times a day on an empty stomach

Day 3: 15 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 4: 20 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 5: 25 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 6: 30 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 7: 30 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Stay on 30 ml of HydroCell in a glass of water 3 times a day on an empty stomach for the next 11 weeks.

#### Week 13

Day 1: 25 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 2: 20 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 3: 15 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 4: 10 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 5: 5 ml of HydroCell in a glass of water 3 times a day on an empty stomach

Day 6: 5 ml of HydroCell in a glass of water 2 times a day on an empty stomach

Day 7:5 ml of HydroCell in a glass of water on an empty stomach

#### The protocol is a guideline only and can be modified for individual cases.

The maintenance dose of 20 - 40 ml a day of HydroCell should be continued for as long as symptoms persist or is deemed necessary.

#### Diet

Good food helps the immune system to heal the body. Fresh food is always best. Try and eat a variety of foods, including: green leafy vegetables, raw salad vegetables, steamed vegetables, fruit and protein. Protein may include: fish, eggs, beans, lentils, cheese, milk, chicken, lamb, goat and beef. The most beneficial cooking oils are olive oil and coconut oil. White rice is a very easy food for your gut to digest.

#### External Use

HydroCell is safe to use externally for all age groups including small babies.

HydroCell can be sprayed as frequently as desired:

- On wounds, burns and ulcers.
- In to the eyes.
- In to the ears, (may be very noisy this means it is working).
   Do not use if eardrum is perforated.
- In to the throat.
- A small bottle (100ml) can be taken on an aeroplane and sprayed

as desired on the face to help prevent the spread of airborne pathogens, such as, influenza.

• It can be sprayed in the vaginal area to relieve the itch of Candida albicans, also take internally for this disease.

Animals can also benefit from the antiseptic qualities of HydroCell.

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