

# The New Revolution in Colloidal Silver

In our world of ever increasing information it is hard to keep up with new technology. One of our main problems is how many articles actually contain real scientific advancements and how many are just people out to make a quick buck. Health Tech Ionic Silver is a new and exciting silver product that is backed by scientific evidence.

## Which is better Colloidal Silver, Ionic Silver or Nanoparticle Silver?

There are so many silver products on the market it can be very confusing. Do they work? Which is better? Colloidal silver consists of small silver metal particles in water. These silver particles are often called nanoparticles. Colloidal silver and silver nanoparticles are therefore the same product.

Colloidal silver is made by an-electrolysis process that pulls sub-microscopic particles of silver from a larger piece of pure silver into water. These nanoparticles are held in suspension. The silver content is divided into two forms of silver; ionic silver and silver nanoparticles (colloid) [1] Ionic colloidal silver is therefore another name for colloidal silver.

Research undertaken by Rice University, USA, established that silver only has antimicrobial properties when it's in its ionized form. Silver in its non-ionized form (colloidal nanoparticles) is inert. Rice University concluded that:

***'...silver ions, not the particles themselves, are toxic to bacteria'*** [2]

Therefore the reason colloidal silver has some success is that it contains a limited amount of silver ions. In a colloidal silver product the ionic silver actually battles the microbes but the nanoparticles may lodge in the body.

That brings us to another claim, that it is the size of the particles in colloidal silver that are important for its effectiveness [3]. This is obviously not the case if it is the silver ions that are bioactive.

The U.S. Army doctor R.D. Todd found in laboratory trials that ionic silver is up to 10,000 times more effective than colloidal silver [4].

## Colloidal Silver Ingredients

When colloidal silver is stored over a period of time, the particles tend to agglomerate (clog) and drop out of solution [1]. The term 'colloidal' refers to minute particles of any substance that are scattered in a different medium without actually being capable of being dissolved into that medium – meaning in this case, the silver colloid is not soluble in the water [5].

Colloidal silver products often use preservatives to extend shelf life. Silver protein is another of these products. The silver nanoparticles are suspended with a protein binder such as gelatine, casein or soy to hold the silver in solution [6].

***There are no colloids or preservatives in Health Tech Ionic Silver as it is made from positively charged silver atoms in distilled water.***

## Safety Concerns

Recently many environmental and safety organisations have voiced misgivings over the safety of colloidal silver. The Environmental Protection Agency, USA, stated in a 2010 report: 'There is clear evidence that silver, and in particular nanosilver, is toxic to aquatic and terrestrial organisms' and to cells from mammals in laboratory research' [7].

A study by Charring Cross Hospital, London, found that chronic ingestion of colloidal silver can lead to accumulation of silver metal nanoparticles in the skin (argyria), eye (argyrosis) and other organs [8].

### ***Argyria (the blue man) and argyrosis are not side effects of Health Tech Ionic Silver.***

The medical advice from both the Australian Therapeutic Goods Administration (TGA) and USA Food and Drug Administration (FDA) is that colloidal silver products including nanoparticle silver and ionic colloidal silver cannot make therapeutic (health) claims due to health concerns [9,10].

The key then, is to make Ionic Silver as a pure solution WITHOUT any metal particles. This health concern was resolved by a proprietary manufacturing technique some 18 years ago making Ionic Silver as a pure silver ion solution without any metal particles or nanoparticles.

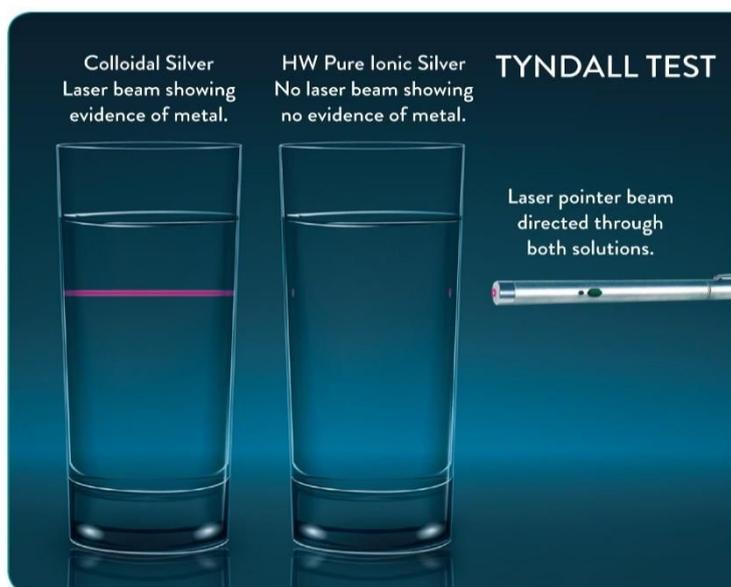
Health Tech Ionic Silver also has a built-in delivery mechanism to shield the silver ions from chloride and other salts in the body, enabling them to be delivered intact to where they are needed.

***Health Tech's Ionic Silver represents a quantum leap in silver technology. Health Tech Ionic Silver has no need for redundant ingredients making it a safe and effective anti-microbial agent.***

## Scientific Proof

The Tyndall effect is achieved when light is scattered by particles in a colloid or particles in a very fine suspension [11]. A solution saturated with silver ions has no Tyndall effect but silver nanoparticles do, even in concentrations as little as 0.1 ppm. HealthWest Pure Ionic Silver (known as Health Tech Ionic Silver in Malaysia) does not have any Tyndall effect as it does not contain any nanoparticles. [20]

## How can you tell if there is metal in a solution?



When a laser is shone through a liquid other than distilled water, a path of light can be seen similar to when you shine a torch through smoke or fog.

All colloidal silvers will show this path of light as the laser beam refracts light off the metal particles contained within the liquid.

This test will clearly show the difference between HealthWest Pure Ionic Silver and Colloidal Silver and will demonstrate that HealthWest Pure Ionic Silver does not contain any metal, colloids or Nanoparticles.

***HealthWest Pure Ionic Silver is known as Health Tech Ionic Silver in Malaysia; and it is the only silver solution that is able to pass the Tyndall effect.***

## Antibiotic Resistance

The World Health Organization (WHO) states that bacteria is continually evolving and can also pass on genetic material that allows other bacteria to become drug-resistant. WHO reports that drug-resistant superbugs have been located in every country [12,13,14].

The Review on Antimicrobial Resistance (AMR) UK, found that superbug infections are responsible for more than half a million deaths globally each year [13]

Jim Collins at Harvard University in 2013 found that low doses of silver could massively boost the effect of antibiotics on bacteria, making them up to 1,000 times more sensitive to the drugs [19].

Nexxion is a company that produces medical equipment coated with silver ions. The chief technical officer has stated:

***"To date, no pathogens have been able to survive contact with silver."*** [15]

A Boston University study found:

"...that silver—in the form of dissolved ions—attacks bacterial cells in two main ways: it makes the cell membrane more permeable, and it interferes with the cell's metabolism, leading to the overproduction of reactive, and often toxic, oxygen compounds...." [16]

## What about Viruses and Fungi?

Antibiotics only kill bacteria but ionic silver is also proficient at disabling viruses and fungi. 'Health Consciousness' magazine writes that:

***'...ionic Silver is an effective anti-microbial without any side effects. It is anti-fungal, anti-bacterial and anti-viral'*** [17]

Philip M. Tierno, Ph.D., Director of Clinical Microbiology and Immunology at New York University Medical Center states:

"Silver (ions) is a natural antibacterial that works by killing bacteria, fungi and yeast by interfering with the metabolism necessary for respiration of these microbes". He adds, "It fights germs with much less fear of developing antibiotic resistance" [18]

## Introducing the New Revolution in Silver Technology

As we have read superbugs are now everywhere in every country. Antibiotics can no longer keep up with the development of resistance that these bugs present. It is time for another approach to everyday infections; and the need for an affordable, effective alternative that will disable not only bacteria but also viruses and fungi.

***Health Tech Ionic Silver works on the amazing ability of silver ions to disable pathogens and render them harmless. Health Tech Ionic Silver is safe for all ages from grandma to baby.***

Health Tech Ionic Silver is incredibly versatile and it can be:

- Consumed orally when sick and / or nebulised
- Taken with medications and therapies including antibiotics
- Used as a preventative
- Applied topically for a multitude of skin problems including infected wounds and burns
- Used as a hand and surface sanitiser (shopping trollies etc.)

## Easy To Use

### Maintenance

Health Tech Ionic silver is good to drink every day to help avoid coughs, colds and stomach upsets.

Health Tech Ionic silver can also be vaporised to help prevent illness.

### How to take when unwell

Sip a mouthful of Health Tech Ionic Silver three to four times a day. A mouthful will be the right amount for your age and size, (small person or large person or child). Pure Ionic silver can be taken before food, with food or after food. Drinking plenty of water is recommended to help the body flush out toxins.

### Bodyguard Spray

Health Tech Bodyguard can be used as often as desired.

### Nebulising is very effective for some complaints

Adults and children over 12 nebulise 8ml two to three times a day.

Children 6 -12 nebulise 4ml two to three times a day.

Children up to 5 nebulise 2ml two to three times a day.

Continue to nebulise for three days after the complaint has resolved.

### Severity

Some complaints are much more severe than others, for instance it is suggested to spray, drink and nebulise for a cold.

If your condition is severe such as pneumonia, please consult a doctor. Pure Ionic silver can still be taken while on medication to aid recovery.

### Pets

Health Tech Pet Protector is safe for dogs, cats, birds, chickens, horses, snakes, lizards and spiders.

### Easy to Store

Avoid any direct sunlight and keep in a clean pantry or cupboard.

No refrigeration needed.

Store at room temperature.

Can be stored in the fridge for those who enjoy drinking it cold.

Can be frozen.



## About HealthWest

HealthWest Pty Ltd is a wholly Australian owned company producing a select range of premium health products for Practitioners and over the counter product (OTC) sales in health food stores and pharmacies with sales worldwide and practitioner preferred lines. Our unique product line utilizes only the highest quality materials, which are as natural as possible. They are formulated in the most synergistic way to provide optimum results. Because our products are manufactured in-house, we can naturally guarantee potency and quality. Our formulas are hypoallergenic, synergistic and contain no artificial additives. At HealthWest quality control is paramount and we guarantee quality, purity and value for money. When you purchase any of the HealthWest range of products, you are buying the best.

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