

# COLLOIDAL SILVER GENERATOR

## INSTRUCTIONS FOR USE Feb 2008

Congratulations, you have just purchased a top quality, reliable, NZ Colloidal Silver generator that is simple to operate, cheap to run and guaranteed for a year.

A colloid is a liquid in which extremely small, electrically charged particles are held in suspension. Silver as a colloid kills over 600 disease-causing organisms – bacteria, viruses, fungi and parasites, all in a matter of minutes upon direct contact. It does not attack them directly, but destroys the enzymes they depend on for oxygen. Therefore resistant strains cannot develop and the body does not develop a tolerance. Colloidal Silver is therefore both a remedy and a preventer of infections of any kind.

Silver also appears to be an essential trace mineral for our body, as virtually everybody who takes Colloidal Silver reports superior health and a more effective immune system.

Colloidal Silver also works equally well for pets, farm animals and plants. You can take it internally (2 teaspoons a day at 5 or 10 ppm (parts per million) for an adult or a child), or apply it externally as a spray, a high strength gel, in a nebuliser, or on a soaked pad.



### Please carefully read all instructions before starting

#### **Included in your kit.**

- 1 240 volt to 28 volt output Colloidal Silver generator.
- 2 Silver rods of 99.9% pure fine silver, 2 mm gauge x 140 mm in length.
- 1 black plastic silver rod holder.
- Instructions for use.

#### **Not included.**

- Glass jar 250ml to 2000ml (2 litre). Size is not critical.
- Distilled water.

#### **Silver rods**

The silver rods will gradually erode over time, but should last for years in normal use and make over 200 litres of Colloidal Silver at 5 ppm (parts per million) concentration before eroding away completely. Only the rod carrying the positive current (red alligator clip) erodes away and becomes thinner, therefore swap them around from time to time to even out the wear.

New, pure silver rods are available for \$24 a pair, post free from the suppliers of this unit.

Never use sterling silver as it is only 92.5% pure and may contain nickel which is a toxic metal.

#### **Water purity**

Water purity is vital. It is one of the main factors that controls how small the particles of silver will be.

Only distilled water should be used. Anything else

will produce an inferior Colloidal Silver. Minerals, especially chlorine, can combine with the silver to produce inferior compounds such as silver chloride.

You can provide your own distilled water by using a home distiller, but generally it is just as economical and less trouble to purchase it ready-made from most NZ supermarkets, or branches of The Warehouse, under the brand name Pure Dew, or Hydr-8.

However, since Jan 2007, the purity of Pure Dew has been increased from 2 ppm (parts per million), which was ideal for making Colloidal Silver, down to about 0.5 to 1 ppm. Hydr-8 is similar.

Both these distilled waters, Pure Dew and Hydr-8 are now so free of minerals as to barely conduct electricity. Consequently they are very slow to start the reaction process to make Colloidal Silver. It will generally take about two hours or more for the generator to slowly build up sufficient silver in a litre of water to bring conductivity to the point where generation will start.

This starting point is indicated by what looks like smoke drifting around in the water near the silver rod connected to the red terminal.

Therefore it is recommended that you add 5% filtered tap water, or 20% of previously made Colloidal Silver, to the distilled water before starting, to bring it up to 2 ppm. This does not affect the quality of your Colloidal Silver.

### **HOW TO OPERATE**

#### **To make a standard solution – 5 ppm or 10 ppm**

Colloidal Silver is effective at 5 ppm (parts per million). A 5 ppm solution should have a pale gold hue after being allowed to stand overnight and then compared side by side with plain water in transparent glass. A 10 ppm solution will have a stronger gold colour.

Always make your Colloidal Silver in a glass container and away from strong direct sunlight, or shield the water from sunlight in some way. Colloidal Silver particles soon lose their positive electrical charge and clump together under the influence of sunlight.

**Step 1** Fill a 250 to 2000 ml size jar with distilled

water (see section above on the importance of water purity and how to increase starting mineral content to 2 ppm). The size of the container is not critical as the Colloidal Silver particles will disperse evenly when the water is stirred afterward. A 750 ml (¾ litre) preserving jar is ideal.

**Step 2** Remove the two silver rods attached to the black plastic rod holder and insert them into the two holes in the holder. Then clip the black and red alligator clips onto the end of each one as illustrated in Fig 1. The order is not important as both rods are identical. These clips have a dual purpose; to carry the low voltage current to and from the generator, and to hold the silver rods in place.



Fig 1

If the jar you use is shallower than the silver rods, the rods can be left protruding further out of the top of the black plastic holder, and the alligator clips moved further down. Even if less than half the silver rod is immersed in the water it will still work. The rods should not touch the bottom or sides of the glass as this encourages sediment to build up on the rods.

**Step 3** Insert the silver rods into the distilled water using the top rim of the jar as a support. Keep the rods parallel to each other. You may need to bend them slightly.

**Step 4** Plug the generator into a normal 240 volt household outlet and switch it on. The red light should glow. You are now making Colloidal Silver.

At first the reaction proceeds very slowly. For 1 to 5 minutes nothing may seem to be happening. But you should soon see a smoke-like mist drifting in the water around the silver rod connected to the positive red alligator clip. Begin timing from this point. This normally happens within five minutes for recommended 2 ppm distilled water, but it can be very much longer, up to four hours for 0 ppm pharmaceutical grade purified water, or 2 hours for the currently sold 1 ppm water. (Before suspecting your generator of malfunctioning, do a test using tap water. The mist should quickly appear.)

From this point on, the water may become a little cloudy.

If the smoke-like mist should form almost immediately, within 30 seconds, it is a sign that the water is not distilled and/or has too high a mineral content. This will not make satisfactory Colloidal Silver, producing a grey or muddy brown solution which has been found to be inferior in laboratory tests.

**Step 5** Time your total generation time from the moment you see this smoke-like mist. Use the following guidelines for varying amounts of distilled water to either 5 or 10 ppm. The timer on your stove can be useful for this purpose.

Container size	5 ppm	10 ppm
250 ml water	15 minutes	25 minutes
500 ml water	30 minutes	50 minutes
750 ml water	45 minutes	75 minutes
1 litre water	60 minutes	100 minutes
2 litres water	120 minutes	200 minutes

Some experimentation with generating time, and water quality, will probably be necessary until experience is gained. You may decide to purchase a

\$102 Colloidal Silver ppm Meter from us and measure the ppm as you generate. This takes away all the guesswork.

**Step 6** About two thirds of the way through the generation process, the generator should be switched off and the silver rod assembly removed from the water and the rods wiped with toilet tissue or a paper towel, and then put back in the water again and the generator switched back on.

This wiping should ideally be done twice, or even three times during the last third of the generating cycle.

One rod will have a light brown coating and the other a dark brown coating. Wiping is not essential, but it does keep your Colloidal Silver cleaner.

Be sure to turn off or unplug the generator unit before removing the silver rods from the water, as the rods can short circuit together on a stainless steel

Fig 1

bench top and cause minor sparking, or even overheating of the generator if continued for a number of minutes.

**Step 7** When you have finished generating, switch off the unit, remove the rods and briefly stir the Colloidal Silver with a non-metal stirrer. Then filter out any silver rod sediment from the solution by pouring it through a paper towel or clean cloth, or just allow it to settle overnight and then decanter.

It will probably still look a little cloudy at this stage, but when the Colloidal Silver has been left to clear overnight and any impurities have settled out, it should be clear and have a discernible golden hue when compared with plain water. This will be more noticeable after 36 hours.

If you should accidentally leave the generator on too long and end up with a dark gold solution, don't try and dilute it with more distilled water, just use it as is. Any surplus silver will plate out onto the sides of the jar.

**Step 5** If you prefer, you can afterwards shine up the electrodes again with a scouring pad. However this is not necessary, just a thorough wipe with a paper towel is normally sufficient. If you do use a scouring pad, also wipe the rods afterward with a paper towel.

#### How to store your Colloidal Silver

Once you have made high quality Colloidal Silver it is important to protect it and ensure that the silver particles maintain their positive electrical charge and stay separate from each other in suspension. Like charges repel each other and anything that removes this positive charge from the particles will degrade the effectiveness of the Colloidal Silver by causing the particles to clump together. Sunlight, magnetic fields of home appliances like refrigerators, and some cheap plastics can cause this process to occur, and will also usually darken the solution.

Colloidal Silver is therefore best stored out of the refrigerator, and in a dark glass container. Clean beer or ginger beer bottles are ideal. Clear glass can also be used, provided it is kept in a dark place such as a closed cupboard or cardboard carton.