

## Does the generator use constant current technology?

One of the most misreported, over-rated and least-understood features of a silver generator is a "*constant-current*" feature that is essentially purported to be the only way to create consistently small particle sizes and that all other designs are inferior. The name is also an absolute misnomer by implying that the current through the water is (constant) when in fact this is only true for about 15% of the total time involved in the electrolysis process. The correct terminology should be rebranded as "*current-limiting technology*" as this is the only functional truth to how it actually works.

**The SilverLungs Generator** has been designed to produce solutions faster than constant-current generators while never reaching a critical point in the production that will begin to promote large particle creation.

To fully understand how the promoted "*constant-current- technology*" works, let's walk through the electrolysis process - in layman terms - from beginning to end.

Virtually all silver generators on the market call for absolutely pure-distilled water as this is vital to ensure there is a minimum of contaminants or other ions that will compound and degrade the ionic silver content. Now assuming that this is what we start with before we process a new solution, we need to understand that the slowest and least efficient point in the silver generation process is the very beginning when the water has extremely little electrical "*conductivity*." Water only conducts electricity when there are conductive elements *within* the water to allow the electricity to pass through it. Using poorly-conductive "distilled" water is a necessary drawback as the goal is to always produce a clean, silver-only solution. This means that in the very beginning stages, we have to sit behind the initial (wait) for silver to very, very slowly begin to dissolve and increase the water conductivity over time.

When the production begins, the water conductivity slowly increases from the increasing amount of silver that is being dissolved and the production process continually accelerates. Keep in mind that essentially the *only* silver dissolving into the water at the beginning stages of electrolysis are silver ions. This is because the electrical current is so low that there is not enough force to remove silver particles from the electrodes. Again, particles only form in any considerable quantity - much later towards the very end of the production - when the electrical conductivity of the water is high enough to promote particle creation. This is why colloidal silver generators are more accurately termed as ionic silver generators as this is usually what comprises 90-99% of the silver content.

The only time this is not the case is when extremely high current levels are allowed to continue (unregulated and unlimited) at which time there are an abundance of very large particles

being introduced (which is exactly what we *don't* want.) These types of generators are very crude and usually battery operated where the current is sometimes 20 times higher than the corresponding critical point for that setup. These are highly colloidal solutions comprised of enormous silver particles that are very *inefficient* at targeting illness due the large particle sizes produced.

Now, going back to the constant current technology, remember that a constant current silver generator is not functioning as claimed for the vast majority of the production process. The nomenclature implies that the current is being held at a regulated point or level and this is simply not true and will fail to be true until enough silver has dissolved into the water. Only then will the electrical current be high-enough (to reach) the preset current-limiting point of the constant-current function.

To better understand, let's imagine that a constant-current generator has a preset limit of 20 mA of total electrical current flow - but until the water conductivity *allows* this much current to pass, it is a non-constant (rising) current *on its way* to the preset 20 mA limit. So in essence, the function of limiting the current can only be functional for a small fraction of the total time involved in producing a batch of silver. Again, this should be a term coined as "*current limiting technology*" and not "*constant-current technology*."

**The SilverLungs Generator** (which **does not** use current limiting or constant current technology) addresses the worry of large particle sizes through its massive 7 gauge silver electrodes, the highly-refined 99.99% silver content, proper stirring that creates a very gentle and consistent stirring pattern, polarity-reversal technology and automatic shut-off detection circuitry. All of these features account for keeping the ever-rising current below a threshold that would eventually lead to large and inefficient particle creation without sacrificing unnecessary time to limit the current for the last part of the production process.

Remember again that the bulk of what is created during the electrolysis process of virtually all silver generators is ionic silver content and *not* silver particles. Particles only become introduced into the water when the electrical current becomes high enough to begin separating particles from the silver crystal structures they are arranged in on the silver electrodes.

To advance the design even further, **The SilverLungs Generator** provides a simple protocol to allow for greater particle ratios and quantities to be created if you have need for a particle-rich solution (while still maintaining *nano-sized* particle integrity.) This is truly the most functional and easiest to operate silver generator produced today.

*These statements have not been evaluated by the FDA. While we present information suggesting benefits of colloidal/ionic silver, we cannot in any way recommend that you attempt to treat yourself with our devices or solution except under the guidance of a physician, and that you never seek to use silver-based supplements from any manufacturer as anything other than an adjuvant to conventional medical care. We do not seek to diagnose or treat any medical condition, only to provide the highest quality products and silver supplements in a marketplace saturated with solutions and devices spanning the full spectrum of quality, workmanship, and safety. Although we do not want to deter you from using silver-based products and supplements, health and wellness should be approached with a level head and plentiful information. We encourage you to consider the research and articles provided on our web site and to discuss the potential benefits of silver with your physician as an adjuvant to your current health regimen. To ensure that you and your doctor can make the best decisions regarding your health and well-being, we are happy to provide additional information to consumers and healthcare professionals alike.*