



Biofilms, Chronic Lyme disease and Neurological illness:

Can Colloids and CBD Help?

Lyme Disease Surges As Antibiotics Become Less Effective; Alternative Modalities May Help

With Lyme disease (and chronic Lyme disease) becoming one of the fastest spreading illnesses in the world, alternative medicines like CBD oil and silver are garnering more attention, especially since antibiotics are becoming increasingly less effective. Medical experts have deemed Lyme disease a growing threat, an epidemic, and a national public health crisis.

While the general consensus is that Lyme is an East Coast malady, it is in fact found throughout the United States, and additionally in more than **60 different nations**. Including the UK.

Chronic Lyme disease can lead to arthritis, heart disease, neurologic complications, and even death.

“Lyme disease is a very serious situation that is endemic in certain areas of the country and has been **reported** in all 50 states in the United States,” explains Marilyn Williams, an Executive Director of the Lyme Disease Association of Delmarva Incorporate, located in Salisbury, Maryland.

“[Lyme] is a life-threatening condition that affects every

system of the body.”

Failures Of Conventional Medicine

Lyme disease is typically treated with the antibiotic Doxycycline over a 28-day course. According to the Centers for Disease Control and Prevention (CDC), patients treated with antibiotics in the early stages of Lyme disease stand a better chance of recovering. But given the growing worldwide **resistance to antibiotics**, doctors are advised to try to find out what bacteria is involved and take into account a patient’s personal history with antibiotics.

According to an article in *Bethesda Magazine*, “Experts fear that the use of long-term antibiotics raises the threat of antibiotic-resistant bacteria. In addition, the medications are often administered intravenously, which can lead to complications.”

In 10 percent to 20 percent of patients, symptoms don’t go away and chronic Lyme disease ensues.

Then there’s the spirochete, a corkscrew-shaped bacterium called *Borrelia burgdorferi* that is transmitted through the ticks that cause chronic Lyme disease. Co-infections occur when *Borrelia* and different pathogens are transmitted through the same tick bite.

The most common co-infections, which were found in patients with Lyme disease, were *Babesia* (32 percent), *Bartonella* (28 percent), *Ehrlichia* (15 percent), *Mycoplasma* (15 percent), Rocky Mountain spotted fever (6 percent), *Anaplasma* (5 percent), and *Tularemia* (1 percent), according to a *PeerJ survey* done by researchers. Lyme is called “The Great Imitator,” since it presents a varying collection of symptoms, resembling many other diseases.

According to Clinical Herbalist Elizabeth Moriarty:
The Lyme spirochete is an exceptionally intelligent organism. It is complex and highly evolved to overcome immunological responses, and is adapted to specifically shield itself from the immune systems of many different mammals. Its shape-shifting nature and protective biofilm are remarkably effective strategies for avoiding host immunity. In biofilms, bacterial cells exhibit 10 to 1,000 times less susceptibility to specific antimicrobial agents. And, it's crucial to understand the nature of the spirochete itself, as an active spiral body that changes shape, shifting into a protective round body in response to a hostile environment, such as antibiotics, and conditions unfavorable for growth.

Williams says that ineffective therapy can stem from not being administered the correct antibiotics or that certain bacteria, parasites, or fungus were not being properly addressed or diagnosed.

Typical chronic Lyme disease treatments can further damage the body. Certain treatments can harm the gastrointestinal (GI) framework and kill healthy bacteria in the body's system, leaving it open to contagious and bacterial contamination. Antibiotics harm the covering of your GI tract, which is crucial to a healthy immune function.

Patients with Lyme disease are frequently misdiagnosed with fibromyalgia, ALS, CFS, multiple sclerosis, and different psychiatric diseases. Misdiagnosis with these different illnesses may postpone the right treatment as the infection advances.

Victims of chronic Lyme disease often do not know they have been bitten by a tick and discover years later that

they contracted the infection. Treatment with antibiotics, years after the fact, causes a slow and fragmented recuperation from the sickness.

The latter stage of the infection incorporates harm to the body and sensory nerves and cerebral inflammation. As explained in one study, nervousness and depression happen at a higher rate in patients with Lyme disease than those without it. Memory impairment, physical weakness, fatigue, changes in cognition, changes in affect (mood), and trouble with focus are common effects of the disease.

Psychiatrist and Lyme expert Robert C. Bransfield M.D. states, “In my database, suicidal tendencies occur in approximately 1/3 of Lyme encephalopathy patients. Homicidal tendencies are less common, and occurred in about 15 per cent of these patients.”

What You Need To Know About Chronic Lyme Disease – A Ticking Time Bomb

An accurate analysis of Lyme disease and salient treatment is crucial. Once a tick has connected, if undisturbed, it may feed for a few days. The longer it remains appended, the more probable it will transmit the Lyme spirochete, as well as other co-infections.

If [pregnant women](#) are infected, they sometimes transmit the infection onto their unborn babies. While it is not regularly common, a stillbirth can occur.

Numerous [studies](#) and reports by practitioners who treat chronic Lyme disease suggest that sexual contact may be a route of transmission influenced substantially by the extent of active disease in the Lyme patient combined with the state of health of the sexual partner. If further study

finds sexual contact to be a viable mechanism of transmission, it will help to explain the fact that most Lyme patients have no recall of having been bitten by a tick.

10 Common Symptoms Of Lyme Disease

1. Skin Rash
2. Fever and Chills
3. Fatigue
4. Muscle and Joint Pain
5. Severe Headaches
6. Facial Palsy
7. Irregular Heartbeat
8. Abnormal Sensations in the Limbs
9. Inflammation at Several Sites
10. May Include Cognitive Problems

<https://www.youtube.com/watch?v=VT6gCqulCok>

Health Benefits Of CBD

Tetrahydrocannabinol (THC) and cannabidiol (CBD) are two types of cannabinoids (chemical compounds) found naturally in the resin of the marijuana plant, Cannabis sativa. Both offer health benefits, but CBD does not leave you “stoned” like THC.

Moriarty explains that while CBD is valuable in treating the symptoms of Lyme, there is no hard evidence that CBD can authentically be claimed to be a cure in and of itself, since its antimicrobial effects are impeded by the presence of the Lyme spirochete's protective [biofilm](#).

However, she adds that CBD *is* valuable as a component of a complete formula that serves to treat many of the most challenging symptoms of Lyme disease, certainly including depression and anxiety; general pain and inflammation; musculoskeletal pain and inflammation very specifically; and cognitive/mental fog.

Current research suggests that once Lyme has moved beyond the initial infection stage, penetrating the biofilm is the primary impediment to successful treatment.

“Arguably, a viable cure will necessarily embody a full protocol that allows both penetration of the biofilm and offers anti-microbial agents that avoid triggering a shape-shifting response in the Lyme bacteria,” says Moriarty. “For example, evidence suggests that teasel root is one of the plant medicines that helps facilitate an environment that Lyme does not regard as hostile, thereby allowing the body's immune system access to the bacteria once the biofilm is breached.”

Dr. Ernie Murakami, founder of The Dr. E Murakami Centre for Lyme Research, a naturopathic facility located in British Columbia, Canada, believes that he has found a potential cure for Lyme disease among other illnesses with the use of CBD.

Murakami concludes:

“Other anecdotal cases of cannabidiol treating chronic infections resistant to the standard antibiotics convinced me that there was an antibiotic effect with cannabidiol.” His findings are currently being conducted in the United States.

A 2013 study [published in the British Journal of Clinical Pharmacology](#) analyzed multiple CBD studies that had been performed to date and found that the compound reduces [symptoms](#) of the disease.

23 benefits of CBD/Cannabidiol

1. Anti-cancer properties
2. Neurodegenerative diseases In cell cultures, CBD was found to prevent toxic effects of [neurotransmitter glutamate](#) and radical oxygen species (ROS) in the brain, thus preventing brain cell death . CBD has antioxidant activity greater than vitamin C (ascorbic acid) or vitamin E (α -tocopherol).
3. Multiple sclerosis symptoms
4. Therapeutic benefits for schizophrenia
5. Reduction of epileptic seizures
6. Reduction of anxiety, panic disorders and OCD
7. Reduction of chronic pain and inflammatory conditions
8. Anti-inflammatory reduction of Rheumatoid arthritis
9. Relief of nausea and increases appetite
10. Lowers incidence of diabetes
11. May promote heart health a study reported that CBD caused dilation of arteries and protected blood vessel from damage in animal models.

CBD reduced the infarct size (size of damage from clogged blood vessels) in the heart and brain and irregular heart rhythms in animal models.

Studies show that CBD reduced the heart rate and blood pressure in response to anxiety or stressful situations.

12. May treat depression

13. May help with inflammatory bowel disease.

14. Anti-microbial activity against MRSA.

15. May protect against mad cows disease.

16. Promotes bone growth.

17. Reduces Dyskinesia

18. May help with insomnia.

19. May be effective in treating substance use disorders.

20. May help with quitting nicotine addiction.

21. May provide treatment for acne.

22. Reduces the growth of skin cells (keratinocytes), playing a potential role in the treatment of psoriasis.

23. Protects the brain from lack of oxygen.

<https://www.selfhacked.com/blog/cannabidiol-cbd/>

Water soluble CBD logic V's CBD oil

Our human body is made of approximately 80% water. Most CBD products on the market are oil based and don't mix with our – water-based bodies – effectively. Water-soluble CBD technologies have solved this problem by converting CBD oil – extracted from hemp – into nano sized “individual” molecules. By separating the individual molecules, from the natural “clump,” a measurable increase of bioavailability occurs. Bioavailability is simply, how much CBD actually gets into your bloodstream. A water-soluble compound will travel in the body faster and more efficiently

What is water soluble CBD?

Most CBD oil products are just that, they are an “oil” product and don't mix well with water.

Like most oils, getting it to mix with water is almost an impossible task. While CBD oil products do have their use, the problem is that the human body is made of mostly water. Since our bodies are mostly made of water, getting an oil product to get maximum use is limited.

Water-soluble CBD products are just the opposite of an oil-based hemp CBD product. A patented process takes the larger CBD molecules and adds a smooth separation between each individual compound. This process increases the bioavailability of CBD, thus allowing more CBD to get absorbed into your bloodstream. Once CBD is

you the relief you desire. In your bloodstream, it can go to work and provide

What are the advantages of water soluble CBD

Water-soluble CBD has many advantages over CBD oil counterpart.

A major challenge with most CBD products on the market involves the lack of understanding of the “actual” amount of CBD you’re absorbing. One critical advantage with water-soluble CBD is the ability to measure the exact amount of CBD you want absorbing into your bloodstream.

Knowing the accurate serving of CBD helps you to quickly achieve the desired effect. Once you know how much CBD your body requires providing relief, you’re able to quickly repeat this process time and time again.

Water soluble CBD V’s CBD oil

CBD “oil” compared to CBD that dissolves in water is almost a no-brainer, once properly researched.

Common sense tells us that oil and water do NOT mix together very well. Since the human body is made of mostly water, the basic logic reveals that water soluble CBD does – in fact – mix well with water.

Through a special process, CBD oil extracted from hemp is made to easily dissolve in water or other liquids.

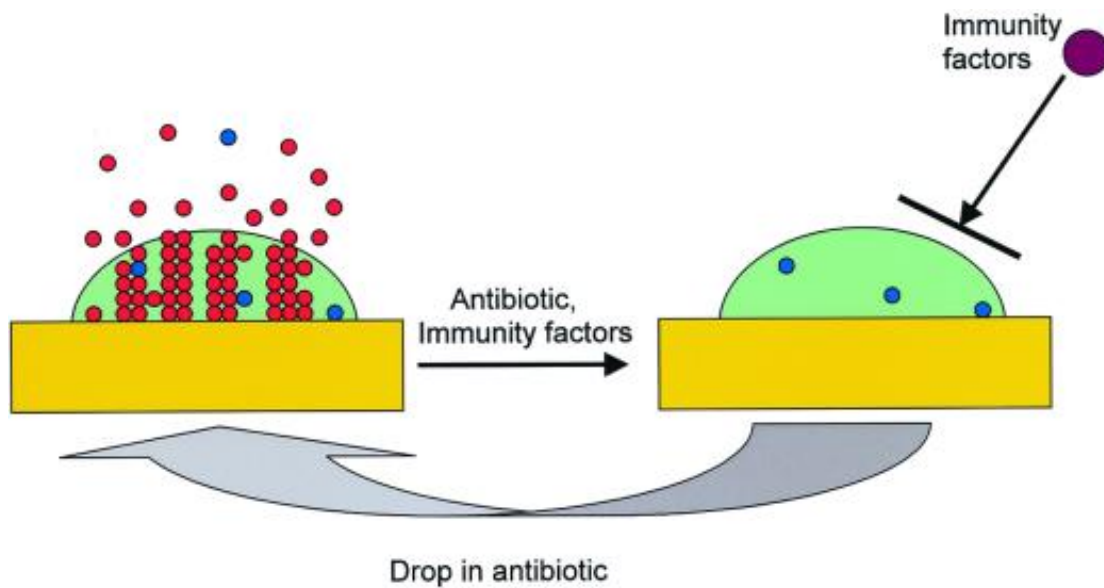
Silver's Poignant Impact

CBD oil in combination with colloidal silver could bring optimal results. Silver is a natural and general purpose anti-fungal, anti-bacterial, and antiviral product. It works because it kills with an electrical charge rather than a chemical one, so pathogens cannot develop any resistance to it. As such, it's a natural cure for Lyme disease, as well as killing 99.9% of all known bacteria's, pathogens and viruses.

According to a report in the National Centre for Biotechnology Information (NCBI), silver is a novel strategy for the prevention and treatment of biofilm related infections like Lyme disease. Like the plaque on your teeth, a biofilm can form when a community of microorganisms stick together on a surface. When biofilms coat the Borrelia bacteria that cause Lyme disease, this dampens antibiotics' powers. However, because silver nanoparticles have extremely large surface areas, they can interact with microorganisms better than antibiotics. Silver's nanoparticles can penetrate inside biofilm-protected bacteria and react with proteins and DNA, which interrupts the respiratory chain and cell division. Result – bacterial cell death.

Unlike antibiotics which increasingly can cause tolerance and resistance issues, DNA damage, cell mutation and inhabitation of cell division is a common occurrence

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC90417/>



Infection caused by Biofilms

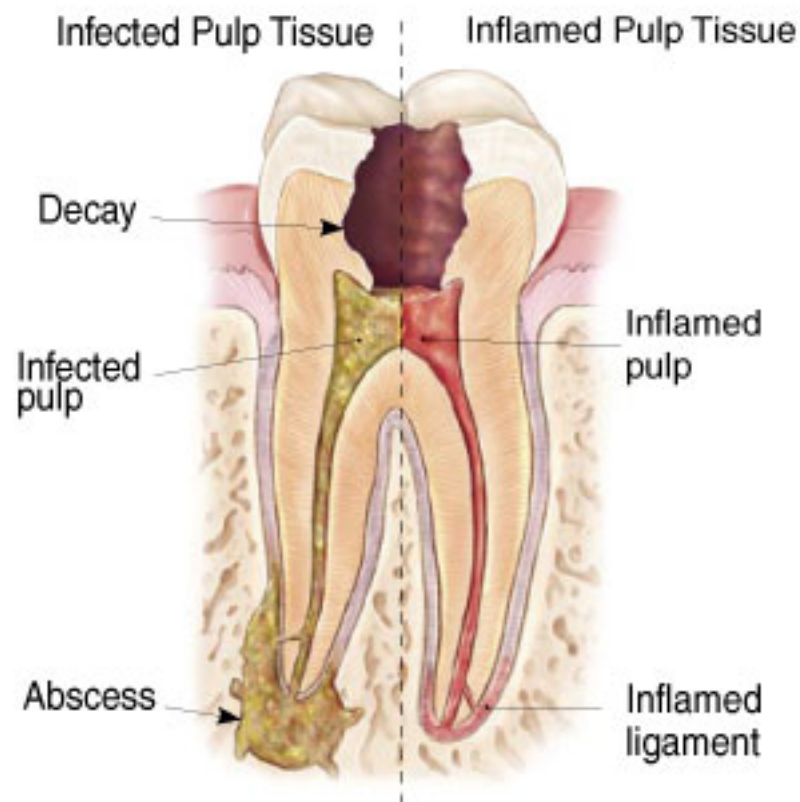
According to a recent public announcement from the National Institutes of Health, “more than 60% of all microbial infections are caused by biofilms.” This seems high, but then if one recalls that such common infections as urinary tract infections (caused by *E. coli* and other pathogens), catheter infections (caused by *Staphylococcus aureus* and other gram-positive pathogens), child middle-ear infections (caused by *Haemophilus influenza*, for example), common dental plaque formation, and gingivitis, all of which are caused by biofilms, are hard to treat or frequently relapsing, this figure appears realistic. The less common but certainly more threatening is biofilm infections that cause serious morbidity and mortality. These are endocarditis caused by *S. aureus*; infections of permanent indwelling devices such as joint prostheses and heart valves, also caused by *S. aureus*; and infections in cystic fibrosis patients caused by *P. aeruginosa*. *Candida Albicans*, meningitis, *Helicobacter pylori*.

Other worsening factors include amalgam fillings

<https://www.youtube.com/watch?v=ZviAmoDwZLg>

and root canals The bacteria in root canals can cause destruction of the nervous system and other systems, resulting in autoimmune reactions.

If you currently have a root canal, GET IT OUT! Let go of vanity and know that you are carrying around a dead tooth that is a breeding grounds for bacteria. This bacteria creates devastation to the immune system and eventually causes disease.



A researcher and physician named Dr. Robert Jones studied the relationship between breast cancer and root canals and claims that in a 5-year study of 300 women, 93% of the women with breast cancer had a root canal, and the other 7% had other oral issues. The women with tumours, in most of the cases, had the tumour growing on

the same side of their body as the root canal. I had the root canals removed immediately, but still remained sick.

Together with consistent use of antibiotics this is a ticking time bomb for autoimmune conditions and many forms of cancer.

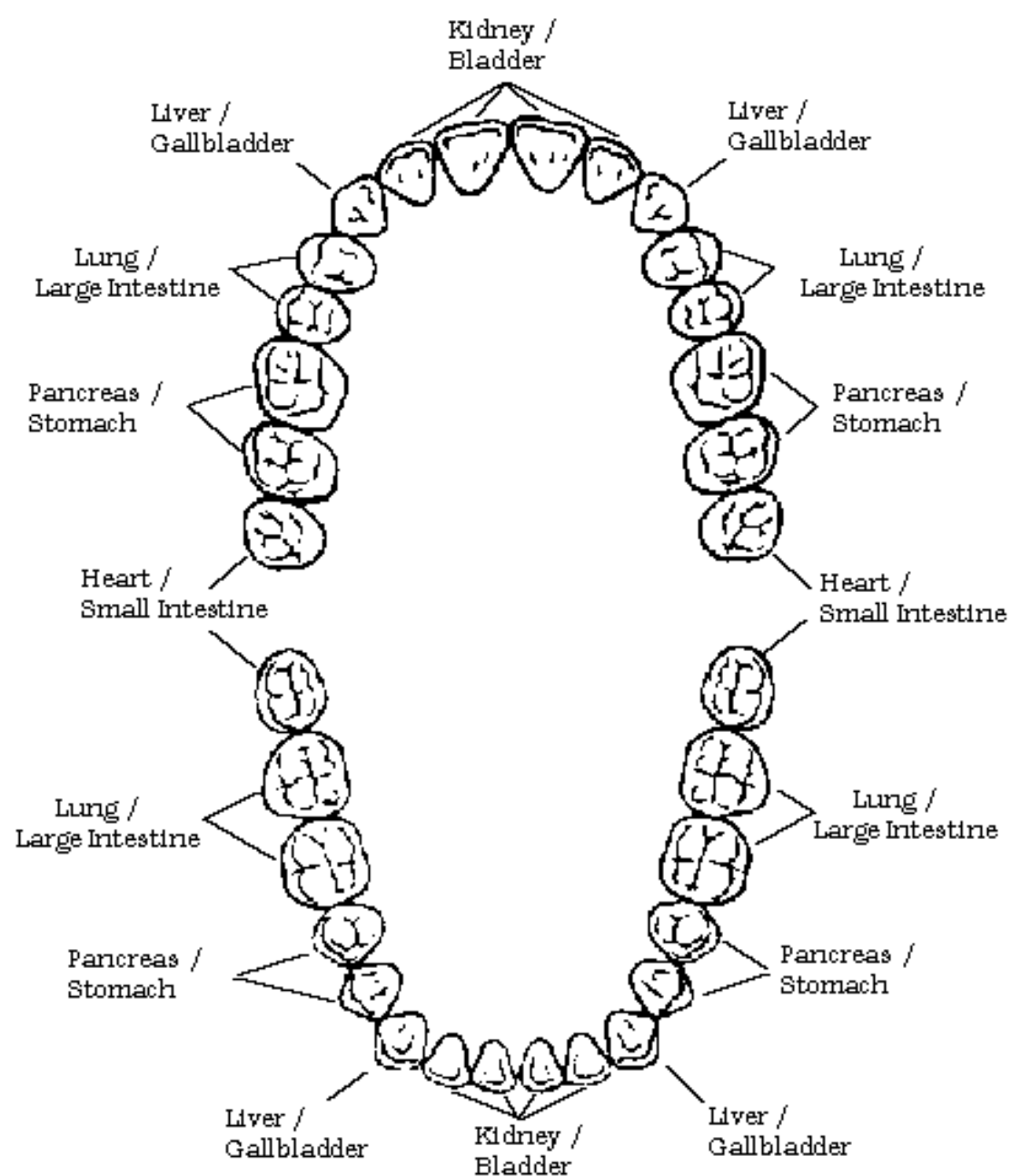
<https://www.youtube.com/watch?v=c8Ly1cMnQhc>

Both Colloidal silver and CBD have much documented beneficial effect against apoptosis of cancer and tumour cells as well as prevention and treatment of many issues regarding oral health.

In Chinese medicine, if you are having issues anywhere in your body they will look at your mouth first. Not surprising, in Western medicine, the mouth is looked at as a last resort!

Every tooth is connected to and has a direct influence on each organ, the Chinese call these meridians.

(Lyme damages teeth as well).



Gold's poignant impact

CBD in combination with colloidal gold could bring optimal results but unlike colloidal silver, colloidal gold is not considered an antiseptic or antibiotic. Instead nanoparticles of gold offer protection against auto-immune diseases, cancer and neurological conditions rather than infectious diseases. In combination together both CBD and colloidal gold work in synergy together to combat conditions which are relieved by both substances creating a powerful weapon against many ailments. Gold also acts as a non toxic delivery system, enhancer and attach to therapeutic molecules due to their nano range size which further increase their ability to cross cell membranes.

<https://www.ncbi.nlm.nih.gov/m/pubmed/28425863/>

Gold influences the core of the cells and nutrients of the body, influencing the etheric body which is the first layer surrounding our physical body.

Gold has historically been a symbol for the transformation of the soul and symbolised the attainment and connection of God-self, perfection of the mind, body and spirit and meant much more than wealth and was said to be the elixir of the Gods. The reason behind this will become clear as you read on....

Neurological diseases have risen dramatically, interestingly; many were almost unheard of until vaccination schedules were increased dramatically with added industrial toxic overload.

Cancer has also increased as a result of our increasingly toxic environment that includes EMF's (electromagnetic

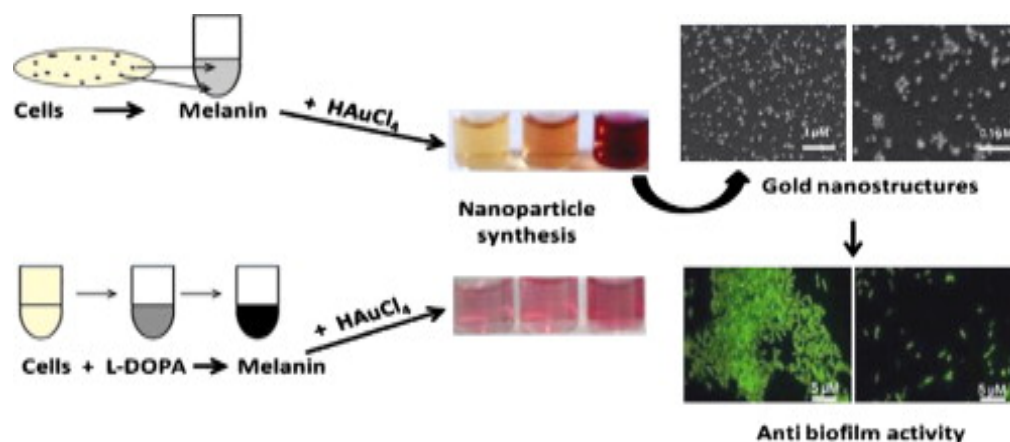
frequencies), nuclear radiation and agricultural and domestic chemical pollutions.

Germes are no longer the main problem, now we are dealing with a lot of toxic enemies that have come to be from our so called technological progress that has come at a high cost of decreased health and auto-immune diseases because profits were more important than negative health consequences.

This is where the real value of colloidal gold can help

Colloidal gold has anti-inflammatory powers for rejuvenating the glandular and the central nervous system and to provide anti-aging, higher IQ and pineal gland enhancing properties, which boost melanin, melatonin and serotonin within the brain. Both melanin and Gold together are also an anti-biofilm agent and display effective anti-biofilm activity and also both linked to the function of the central nervous system.

<https://www.sciencedirect.com/science/article/pii/S0167577X12018198>



Historically gold has been used to treat digestive disorders, circulatory problems, depression, seizures, libido and opiate addictions.

It is a catalyst for endorphin like hormones as well as the mitochondrial antioxidant enzyme Superoxide- dismutase (SOD).

Lately nano-particle gold has even demonstrated anti-tumor/cancer activity.

www.oncologynurseadvisor.com/web-exclusive/gold-nanoparticles-kill-lymphoma-without-chemotherapy/article/279427/

Taken orally, sublingually or nebulizing into the lungs. Many who use colloidal gold report a feeling of being and increase in mental clarity and focus.

31 conditions colloidal gold may remedy or improve

1. Brain dysfunction such as fog and forgetfulness
2. Boosted IQ and memory
3. Insomnia and inability to relax
4. Circulation
5. Glandular issues and dysfunction
6. Pain and swelling (anti-inflammatory)
7. Chills and night sweats
8. Hot flashes, including those from hormonal imbalances.
9. Obesity
10. Digestive disorders
11. Drug and alcohol addictions
12. Arthritis and other joint inflammations
13. Depression, both chronic and SAD (seasonal defective disorder).
14. Hypertension, high blood pressure and muscle tension
15. Reduction of lactic acid build up
16. Fatigue, energy loss and recovery

17. Irregular heart rhythm (arrhythmia)
18. Lowered libido and/or sexual dysfunction
19. Cancer
20. Epilepsy
21. Nervine
22. Respiratory conditions
23. Muscle atrophy
24. Increases strength, stamina and longevity
25. Stimulates cell growth
26. Stimulates collagen growth
27. Skin disorders
28. Rejuvenating effect on the body
29. Emotional healing and harmonizing effect
30. Offers radiation protection
31. Stimulates pineal gland and melanin production
32. Enhances wellbeing
33. Recovery after illness
34. Enhances synapse of the brain
35. Cellular repair & stimulation of skin cells
36. ADD, ADHD and Autism spectrum.

Conclusion:

Both colloidal silver and colloidal gold clearly have many health benefits and serve as a great defence to modern illnesses of environment and modern lifestyles. Together with water soluble CBD the potential for synergistic healing and potent therapeutic properties in a nontoxic fully bio-available delivery system is an invaluable and effective alternative to resistant antibiotics, psychoactive and debilitating pharmaceuticals and the prevention and treatment of many chronic conditions and is sure to impact positively within a wide demographic of people and ailments.

All ingredients within Bio Mineral Balances formulated product contain Nano-sized particles, which cross the blood brain barrier into the cells and will move more effectively around the body creating optimum bioavailability.

Typically 90% bioavailability is expected from water soluble CBD in comparison to oil based which typically is only absorbed by 10% throughout the body and brain.

Disclaimer

[IMPORTANT NOTE AND DISCLAIMER): We are not doctors. We are distributors of natural health products & nutritional supplements. Therefore we cannot and do not offer medical advice. Please do not call with medical questions. If you have a medical problem, please contact your GP. Self-treatment is not recommended. However we do have a qualified herbalist, nutritionist and naturopath able to advise on minor health concerns, which can ONLY be answered via email.

The EU & FDA have not evaluated the information contained within this literature. Products distributed by Bio Mineral Balance are not intended to diagnose, treat, cure or prevent any disease.

Testimonials are the subjective experiences of our customers and are not intended to be construed as being prescriptive in nature, nor a guarantee that the usage methods described are safe, effective or reliable, nor a guarantee that your results will be the same; individual results may vary. Additionally, the contents of this web site are strictly for information purposes only, and should not in any way be construed as providing or attempting to provide medical advice.

Information within this literature is derived from sources deemed to be accurate and reliable, but no guarantee, express or implied, can be made regarding the accuracy or reliability of same. Therefore readers are encouraged to verify for themselves and to their own satisfaction the accuracy and reliability of all reports, recommendations, conclusions, comments, and opinions.

Bio Mineral Balance does not make any claims or promises as to health benefits accruing from the use of any product. There is plenty of publicly available independent documentation -- both pro and con -- regarding the uses and efficacy of colloidal supplements and their long history in health and medicine.

The Colloidal generators, used to make the Colloidal's sold by Bio Mineral Balance, are electronic appliances designed to produce high-quality colloids. They are not medical devices. Bio Mineral Balance specifically disclaims responsibility or liability for any loss or hardship that may be incurred by the reader as a result of the application of any information included within, or as a result of the use or misuse of any electronic product or nutritional supplement.

You are solely responsible for your health and nutrition choices. Anyone with additional information on colloidal supplements is encouraged to write to or **Email Bio Mineral Balance** so that it can be shared with others who may be interested.