

*Managing Sinus Health  
And Clearing Sinus Infections  
Without Antibiotics*

Steven R. Frank  
*Innovative Herbalist*

Second edition Sept. 2010

Third edition January 2014

All rights reserved ©2010

This Book is intended solely for informational and educational purposes and not as personal medical advice. Please consult your doctor if you have any questions about your health.

Managing Sinus Health and Clearing Sinus Infections:

Without the use of Antibiotics

For Rhonda, who has always inspired me to learn, grow and share.

Dillon and Colin, I would not have even headed this direction were it not for you two.

Copyright © 2010 Nature's Rite. All Rights Reserved.  
No part of this book may be reproduced in any form without the written consent of the author or Nature's Rite.

Published by Nature's Rite, LLC  
8122 Uzita Dr.  
Sarasota, FL 34240  
1 800 991 7088  
[www.NaturesRiteRemedies.com](http://www.NaturesRiteRemedies.com)

Additional copies may be ordered on-line or over the phone from Nature's Rite.

## **Editor's Note**

There are few classes of human illness that generate more rumor, innuendo, wild speculation, urban legend and fanciful myth than sinus infections. This is attributable to the fact that these upper respiratory invasions are the most common and frequent malady known to the human species. Their causes and behaviors continue to confound mainstream medical science. They are so common, yet so thinly understood.

In a world that seeks simple solutions, sinus infections and the viruses that often precede them, remain the most elusive of our ailments. To worsen matters, such sinus infections, by weakening our immune systems, often pave the way for even more dire consequences.

Steven Frank truly has the answer to most of our sinus infection miseries. In this book, he describes these simple yet ingenious solutions to this all-too-common affliction.

Sinus infections are emerging as the arena where antibiotics are the most overused, and the least effective, therapy. Antibiotics and surgery are almost the only tools that doctors can offer, even today in the early 21<sup>st</sup> century. Antibiotic overuse is a national health issue for the US and all developed countries. Using them ineffectively in sinus infections only compounds the problem.

Mr. Frank simplifies the complex physiology of your nasal passages and sinuses in a way that you will easily understand. He presents this non-antibiotic, non-surgical, cost-effective solution to your sinus problems in clear and simple language

*Joseph Grim*, Longmont, Colorado, USA February 2010

## Table of Contents:

Introduction	6
The Problem	9
The Solution	12
How to make this work	16
Existing Products	20
Safety of this approach	23
Reaching Deeper into the Sinuses with a Neti Pot	25
Supporting the Sensitive Sinuses	30
Relieving Congestion Naturally	32
Summary	34
FAQs and Therapy Overview	36
References	39
Availability of Recommended Products	40

## ***Forward***

For the last 25 years I have been plagued with sinus problems and infections. Each course of antibiotics that I took made the situation better for a few weeks and then worse after that. I tried every natural solution imaginable and even worked with nationally known Holistic sinus survival expert Dr. Robert Ivker. However, it was not until I stumbled across Steve Frank's Nature's Rite products that I have been able to recover from sinus infections without antibiotics!

After seeing numerous medical specialists I was fortunate enough to meet a functional medicine doctor (Dr. Dan Watts) who had great insight into allergies and sinus problems. He heard my history and recommend that I consult with a medical researcher friend of his named Steven Frank. I visited Mr. Frank and he sent me home with a box of supplies and this very book that you are holding. If I had not personally met Mr. Frank and seen the conviction in his eyes and perceived the depth of his knowledge on the subject, I would perhaps have dismissed his protocol and products as just another holistic treatment.

After reading the book and seeing his video, it became clear that he held a deep understanding of the science and the true cause of the condition. I learned why the antibiotics were actually making the problem worse. I followed the directions diligently. Within a couple of weeks I was feeling better than I had in 25 years. This was a huge, life-changing event for me and I cried tears of gratefulness as I reflected back on all the years that I had suffered. Now I use the products and techniques described in this book on a regular basis to help me deal with my chronic inflammatory response syndrome and to protect my sinuses from the pathogens that we breathe every day.

What you will find here, in these pages, is the knowledge and techniques to maintain healthy sinuses for the rest of your life. Read it carefully, know it well and you will breathe freely forever.

Brad Eppley M.A., LMHC

*Editor's note: Brad is a Life Coach, Psychotherapist and Meditation Teacher who helps people who suffer from chronic health challenges to heal, evolve and grow.*

## ***An Introduction***

It's hard to find someone who isn't affected by sinusitis during at least some part of the year. Spring brings pollens that can irritate sinus tissue, Summer brings dust, Winter produces dryness and Fall, more pollens. Any seasonally-influenced inflammation of the sinuses can cause them to swell and close off, making a warm, damp and mucus-ridden environment that is just perfect for bacterial or fungal over-growth. While these environmental situations and conditions don't "cause" sinusitis, they can most assuredly facilitate it. There will always be pollens, molds, bacteria and virus in the air. They will always land in your sinuses. If the conditions for their growth are good, they will multiply and cause trouble.

Indeed, most sinusitis sufferers fear environmental factors that can cause flare-ups year round. Those who are prone to sinusitis have often endured multiple courses of antibiotics. They've tried steam and saline mists, even surgery, all to no avail. They are all too familiar with the side effects of antibiotics, the short-term benefit of neti-pots rinsing with salt solutions and have suffered the blame of medical practitioners for "not eating right"; as if it were that simple. Yet these infections can cause pounding head-aches, unbearable head pressure and sleepless nights. Antibiotics can have awful side effects like diarrhea and usually lead to yeast infections. Surgery is painful, expensive and often provides poor results. What's a breather to do?

First let's consider what may be the active instigator of a sinus infection. While there are many dietary issues that can affect how the immune system performs, and everyone's immune system is in a different condition depending on their history of antibiotic usage, there would be no infection and subsequent

immune response without a pathogen such as bacteria or fungus. Let us assume for the time being that no one eats perfectly, breathes perfectly pure air or maintains a constantly positive mental outlook. After all, we're human. Even if your aura is imbalanced, we have to lay some blame on bacteria and fungus. In the end, they may be exploiting an imbalanced host, but an imbalance without pathogens is a debilitated state not a diseased state.

A diseased state occurs when the normal fauna and flora (That's what we call the resident bacteria and fungus that live in your sinuses) reaches such a level that your immune system cannot keep it from growing out of control. In this state, the toxins produced by the fungi and the damage caused by the bacteria can get to a point where the sufferer experiences significant swelling and pain. This pain can appear in your forehead, your jaw and even your teeth as the sinuses are in or near all of these areas. A diseased state is an imbalance where the bacteria and fungus are growing out of control and causing sickness and pain throughout your body.

The common treatment protocol is to wait until the diseased state gets so bad that it is un-bearable. At this point, medical intervention becomes available. Until you are suffering from a serious sinus infection, you can't get an appointment with a medical doctor and you can't get a prescription for an antibiotic. Waiting until your health has degraded to the point where the current medical establishment will treat you is simply not the appropriate course of action. If your stove catches on fire, do you stand back and wait until the house gets engulfed so that you can call the fire department? Of course not. You grab a fire extinguisher and try to put it out yourself. If that fails, then you call in the fire department. One needs to act in a preventative manner and ward-off the infection before

it gets to the point where medical intervention is the only hope. Furthermore, one needs to find a healthier and more appropriate means for dealing with the recovery and maintenance of sinus health than the antibiotic standard of care.

It is our goal with this book, to inform the reader with an understanding of what causes the sinuses to become infected and empower them with tools to deal with an arising infection before it becomes a problem. Further, it is important that the reader take-away an understanding of how to maintain their sinuses so as to avoid future problems.

While certain suggested products are mentioned in this book that can act as tools to deal with the condition, these tools are archetypes and by no means the only ones that will work.

## ***The Problem***

Everyone's sinuses are warm moist places that are bombarded with irritants and cleansed with mucus. Normal mucosal flow is in fact, about a liter a day. It is typically not very viscous and simply drains down your throat un-noticed carrying irritants from your sinuses into your stomach where they are passed. This mucus is a polysaccharide and as a sugar, it is food for bacteria and fungus. It is quite normal for colonies of bacteria and fungus to live and grow in this environment; just as normal in fact as it is for our immune system to be constantly attacking them to keep their numbers in check. This immune system balance of the normal flora and fauna in the nasal and sinus passage-ways is on-going and usually amounts to no noticeable inflammation. Inflammation is an irritation of the tissues characterized by swelling and sensitivity. This is often the cause of congestion.

Nevertheless, if the immune system gets beleaguered by an attack somewhere else in the body, or if a sinus gets closed off and the fauna and flora grow faster than the immune system can manage, an imbalance occurs. The resultant damage of cells from the bacteria and strong immune response to this over population can be significant. The inflammation response to the increased toxins produced by the bacteria and fungus leads to swelling of the tissue, increased mucosal flow and the resultant congestion symptoms such as headache, pressure and fever.

A simple cold or even a response to seasonal allergens can cause congestion. This congestion can cause a sinus passage to close-off and become out-of-balance as the bacteria and fungus trapped inside begin to multiply with impunity. Often times,

the person feels this happening but is helpless to overcome the situation. It can manifest as jaw pain, pain in the forehead and even simply pressure in the facial area. The difficult aspect in treating this situation is that until it becomes a full-blown sinus infection, it is difficult if not impossible to see a Doctor and procure a prescription. Flushing with saline from a neti-pot offers some relief as it can open the blockage and carry away some of the pathogens. More often than not, it simply irritates the tissues and removes very few of the bacteria or fungus. The benefit is slight.

Antibiotics, when taken orally, reach the sinuses through the blood-stream. In order to achieve a lethal (to microbes) level of antibiotics in the nasal tissues, one must ingest enough to produce a bacteriacidal level *in the entire body*. This causes problems because the antibiotics will kill bacteria through-out the body, but only the bacteria that are susceptible to this *particular* antibiotic will be killed. The susceptible bacteria die, leaving fertile tissue space for the resistant or unaffected bacteria and fungus to take over. Thus, after multiple courses of various antibiotics, the only bacteria left are the very hard-to-kill types. Additionally, nasal tissue that was once inhabited by bacteria can be taken-over by fungi. Fungi do not respond to antibiotics. This shifting of the natural fauna and flora to the stronger bacteria and fungi makes the situation more difficult to fight next time. It can often lead to fungal over-growth more commonly referred to as a yeast infection. While the approach of continually prescribing antibiotics to fight sinus infections will likely provide short-term relief, it can produce an escalating problem and can even cause problems in other parts of the body. Subsequent vaginal yeast infections or digestive disorders associated with candida over-growth are all too common consequences of using antibiotics to combat sinusitis.

Another problem is that since the antibiotics reach the infected tissue through the blood-stream, bacteria that are not in close contact with the tissues are insulated from the drug. Fungi within your sinus passages can lay down a cellular matrix upon which bacteria colonize. The fungi are in contact with the capillary bed, but they are not affected by antibiotics. This makes killing the bacteria very challenging as the bacterial colony is then out of reach of the immune system and the capillary system that would deliver immune agents or drug agents to kill it. When this happens, the body's defense system is at a significant disadvantage in fighting the infection even if the immune system is healthy. The ingested drugs are relatively useless since they don't have access to the pathogenic organisms for which they are intended. Surgery can leave scar tissue that is poorly vascularized. This further hampers the ability of the immune system to keep the fungal and bacterial populations in check. If this sounds like a gloomy picture, well... it is. To make matters worse, the fungi can excrete toxins that irritate the nasal tissues and cause continual inflammation. This is the continual stuffy nose, runny nose and painful nasal tissue that are characteristic of chronic sinus infections.

## ***The Solution***

There is however, another recourse besides the typical oral dosing of antibiotics that the suffering breather has available to them. Application of an aerosol *anti-fungal* and *antibacterial* agent directly to the infected surface of the sinuses can kill the overgrowth and allow the body to once again regain a healthy balance or “stasis”. This can be accomplished with a broad-spectrum antimicrobial such as an enhanced colloid of silver.

A pure silver colloid of sufficient strength (greater than 30 parts per million) can be enhanced by the addition of a surfactant such as polysorbate 20 to become a potent anti-fungal and anti-bacterial agent. Kill ratios of  $10^6$  and  $10^7$  have been demonstrated in-vitro against Staph., Strep. and P. Aeruginosa. (1) The broad spectrum nature of this anti-microbial agent allows the fauna and flora to be attenuated (killed) evenly so as not to leave resistant organisms behind. This markedly reduces the shifting of the fauna and flora towards more difficult-to-kill pathogens. They are all killed and so there is no tendency for the patient to develop a resistance.

What is more, this enhanced silver colloid is effective against Candida and other fungus commonly found in the sinus passages. Since the active agent is both anti-bacterial and anti-fungal, there is no tendency to kill one pathogen and leave the food supply and a hospitable environment for the surviving organisms. This is a clear advantage over antibiotics.

Even more delightful is that by applying the silver colloid directly to the nasal and downstream sinus passages, the active

agent is not orally ingested and distributed throughout the entire body. This direct application reduces over-all body burden by at least one thousand times and represents a significant advantage over oral, systemic antibiotics. Since the agent is delivered directly to the infected region, it produces little or no effect in other regions of the body. The amount of this antimicrobial agent that reaches the intestines in an active state is insignificant thereby eliminating the concern of attenuating necessary bacteria in the intestinal tract.

As an example, a typical dose of antibiotics may consist of a couple grams of Amoxicillin per day. Distributed throughout the entire body of a 75kg person, this would yield roughly 27 to 30 micrograms of antibiotic per milliliter of tissue. This is a lethal level to both good and bad bacteria *throughout your entire body*.

Now, let's consider the normal course of intra-nasal administration of an enhanced silver colloid. This would typically be two 100 micro-liter sprays (one in each nostril) every 30 minutes for 15 hours of a day. This spraying regimen results in a total dose of 6 milliliters per day. The silver content of this amount of spray is roughly 180 micrograms (0.18 milligrams). This is scarcely more than what the average person ingests each day through water, air and food. Nevertheless, when delivered to the surface of the nasal passages-ways, it represents more than 20 micrograms per milliliter of tissue area. This is a very lethal level to bacteria and fungi in that area.

Therefore, in the case of antibiotics, your entire body must be subjected to 2,000 milligrams of toxic antibiotics each day. In the case of the intra-nasally applied enhanced silver colloid

spray, your body is subjected to 0.18 milligrams of non-toxic silver per day. The difference is roughly 10,000 to 1 in favor of the direct application of the enhanced silver colloid to the infected tissues.

The silver products' advantage increases when one considers that in order to make a fair comparison, one would have to add an anti-fungal to the antibiotic regimen. The silver colloid product is highly effective as both an antibacterial and antifungal agent.

There is an excellent analogy to illustrate this point. If you have a grease fire on your stove, do you:

- a) Go down into the basement and break the water inlet to the house so that the entire house floods. The water eventually reaches the level of the kitchen stove thereby quenching the flames. *This is, in effect, what happens when you treat a sinus infection with antibiotics.*
- b) Grab a fire-extinguisher and directly spray the pan. *This illustrates what happens when you spray an enhanced silver colloid directly into the affected area.*

Obviously, the more sensible approach here is to spray the pan. In fact the more sensible approach to treating sinusitis is to apply the antibacterial and antifungal agent directly onto the infected tissues. This can be done with a local nasal spray of the active agent. Additionally, it can be supported by treatment of the sinuses with a nasal rinsing system such as a neti-pot or nasal squeeze bottle to administer an enhanced aqueous colloid of silver through the entire sinus region.

The important aspect of this illustration is: The proper application of the appropriate active agent to the area that is infected. You put salve on a burn, a band-aid on a cut, moisturizer on dry skin... Why wouldn't you put your antimicrobial directly on the infected tissue when you are suffering from sinusitis?

## ***How to make this work***

The key to making a colloidal silver sinusitis treatment effective is three-fold.

- 1) The right concentration of enhanced, pure silver colloid
- 2) Applied directly to the infected tissue
- 3) Refreshed, at the appropriate interval

All three of these criteria are essential to a successful outcome.

### **The right concentration of the correct antimicrobial agent:**

We need the initial concentration to be high enough so that dilution at the site would still provide silver densities over the infected tissues at greater than 5 micro-grams per milliliter. Minimum bactericidal concentration (MBC) testing has shown that this is critical to ensure a sufficient attenuation of the pathogen. Due to the bonding of the silver with interstitial ions, muco-polysaccharides (mucus) and proteins, the initial concentration of the active agent (silver colloid) needs to be greater than 30 ppm (parts per million). (2) Typical concentrations of simple ionic or colloidal silvers are 8 to 10 ppm and this is simply insufficient. Don't use these as they are simply not capable of killing enough pathogens.

Some colloids boast concentrations of 250 to 500 ppm. These high silver concentration concoctions have bound the silver to a carrier such as a protein or polysaccharide to hold more silver in suspension. The problem with this is that the process of binding the silver before it even gets exposed to the pathogens *reduces* the antimicrobial nature of the silver thousands of

times. If that were not bad enough, you are taking 10 to 20 times the dose and getting 100 times less effectiveness. These “mild silver proteins” or compounded silver hydrosol concoctions are not what the sinusitis-suffering community should be using. An enhanced pure silver colloid offers the best killing power and lowest silver dose. Laboratory and clinical testing has demonstrated this for years.

### **Applied in the correct place:**

The next critical aspect of the therapy is to apply the liquid agent to the infected tissue. This can be done by a nasal wash or by aerosol administration intra-nasally. As the sinus condition improves and the swelling and inflammation subsides, access to deeper recesses is achieved. Using a nasal flushing device such as a neti-pot is helpful, however, for convenience sake, clinical studies have indicated that administration with a simple nasal spray bottle also works well. We have seen tremendous success with neti-pot administration of the active agent in the morning and evening supplemented with nasal administration from the spray bottle throughout the day.

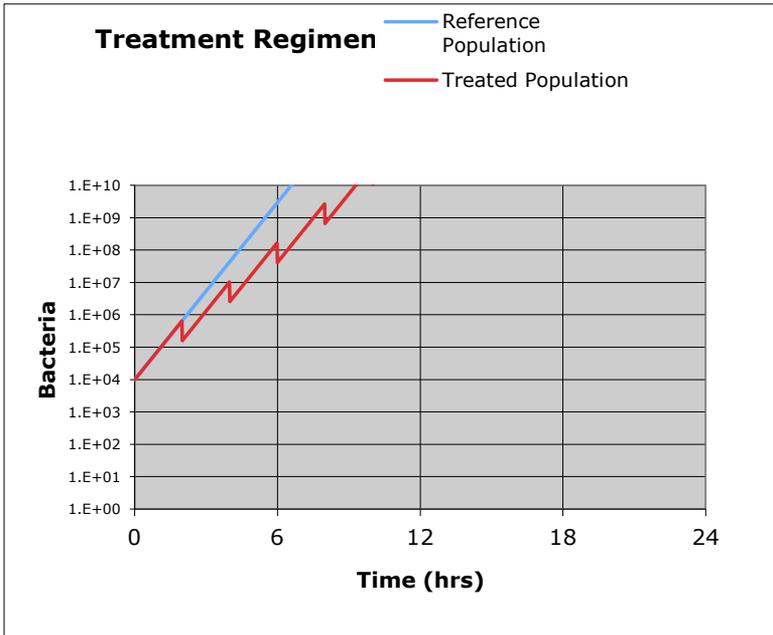
Using the appropriate liquid agent in a cleaned, rinsed neti pot will be covered later in the text.

### **Using the proper protocol:**

The third important aspect of the treatment is to repeat the application of the liquid agent regularly enough to maintain the presence in the region. This is particularly important as the bacteria can double every 20 minutes. If you achieve a reduction of the bacterial load of 4:1 in-situ with a spray of the

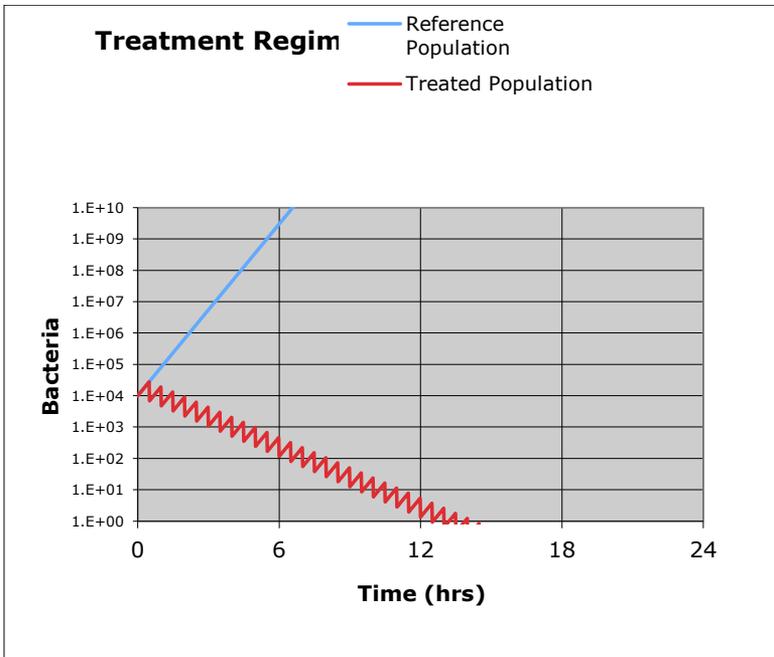
antimicrobial agent, but do not spray again for **a couple of hours**, the bacterial load will have re-bounded past the point at which it was previously. **No net gain** will be made in attenuation of the infection. Re-application every 20 minutes ensures that the user gets ahead of the bacterial replication.

Note: *in the graph below that the treated population grows at almost the same rate as the un-treated (Reference) population. The scale on the left is in orders of magnitude. Each division is a factor of 10 increase in colony size.*



If however, you spray every **20 to 30 minutes**, the effects of the reduction will be cumulative and a **progressive reduction** in the bacterial load will be accomplished. Since normal mucosal flow is on the order of one liter per day, shortly after spraying the colloid in the nasal area, it will be bound to mucopolysaccharides and flushed from the region. The replenishment of active agent to the region every 20 to 30 minutes throughout the day is paramount to the success of this therapy.(3)

*Note: The steady decline of the treated population is due to the active agent being replenished in the region at a rate sufficient to attenuate the population faster than it can reproduce. This is critical to a successful treatment protocol.*



## ***Existing Silver Products***

Some commercially available silver products are bound to proteins or citrates in order to achieve colloids with very high concentrations. Any silver product with a concentration greater than 70 parts-per-million (ppm) is likely to have been altered in this way. Concentrations of some of these products (mild silver proteins) can be as high as 250 to 500 ppm. In fact, the binding of the silver to any other molecule reduces its antimicrobial effectiveness as demonstrated by simple in-vitro Minimum Bacteria-Cidal (MBC) testing on common pathogens like staph and strep. Mild silver protein products should be avoided as they require a far greater dose to achieve the same results as a pure silver colloid. (4)

Claims are constantly being made about the surface-area-to-volume ratio of the silver particles, the shape of the silver particles and even the size of the silver particles as they relate to the effectiveness of the particular product. The best rule of measure is the most direct rule of measure. The products should simply be ranked in terms of antimicrobial effectiveness. After all, what this therapy really calls for is the ability to kill fungus and bacteria. This is not a beauty or space-efficiency contest. A pure silver colloid of good concentration and quality will produce the most antimicrobial effect.

Some products are sold in a bottle with instructions to drink a teaspoon or take several drops under your tongue. This is rather pointless as a sinus infection is not in your mouth and certainly not under your tongue. The systemic dilution of colloid ingested in this manner would produce tissue densities of only a few nanograms per milliliter. This is at least 1000 times below the established MBC (minimum bactericidal

concentration). Other products are sold in fancy nasal spray bottles that suggest application twice per day. This is equally as useless as the normal mucosal flow will carry the applied agent from the region of the infection within 10 minutes, leaving the remaining bacteria to double every 20 minutes for the next 10 hours. Sprays applied twice per day cannot possibly get ahead of a bacterial or fungal infection.

In fact, an ideal product (covered by patent numbers 6,454,754 and 6,749,597 ) is an enhanced silver colloid of greater than 35 ppm in a simple nasal spray bottle that is labeled to direct the user to re-administer the product every 20 to 30 minutes. This produces the desired tissue concentration in the infected region and maintains this presence throughout the treatment process. This product is Sinus Relief<sup>tm</sup> from Nature's Rite.

One synergistic advantage that can be gained is to enhance the effectiveness of the pure colloid by augmenting it with a surfactant. Tests indicate that the surfactant action of 0.2% polysorbate 20 can improve the antibacterial effectiveness of a basic silver colloid from 20 to 200 times. The advantage gained varies depending on the bacteria used in the assay (scientific test). The polysorbate 20 does not bind with nor hinder the silver in colloidal suspension. It is an FDA-approved food additive. In low concentrations it is an effective synergistic enhancement to a basic, pure silver colloid. (5) {patent pending} This advantage is used in the Sinus Relief<sup>tm</sup> product and the Super Neti Juice product<sup>tm</sup> from Nature's Rite.

The silver colloid is an extremely well-tolerated substance and offers little or no irritation to the nasal passages. Since it is not ionically balanced, it can present some sensation upon aerosol administration. This tends to be transient, lasting less than a

minute. In fact, the addition of any salts to ionically balance the liquid will cause the silver to compound and precipitate out of suspension. This is why the Super Neti Juice product is not ionically balanced and can sting a bit upon initial administration. Since the stinging is due primarily to the lack of ions, it is actually the distilled water that it is being diluted with that causes most of the stinging. This can be reduced somewhat by using the Super Neti Juice in an un-diluted manner.

## ***Safety of this approach:***

Concern is often expressed regarding the ingestion of silver. These concerns come from an era when silver nitrate was administered in concentrations of 5% (50,000ppm). (6) This is one thousand times higher concentration than present day colloids and silver nitrate is far less effective as an antimicrobial agent. Silver nitrate is very caustic and not nearly as anti-microbial as silver colloid. Silver colloid is so benign that one can put it in one's eye with little or no discomfort. Normal dietary intake of silver through eating and respiration is on the order of 50 to 100 micrograms per day. When used in the manner described to fight a sinus infection, the amount added to the body on a daily basis is approximately 180 micrograms.

The EPA critical dose for 160-pound adult, i.e., the amount that should not be exceeded in daily consumption, is 1.09 mg/day or 1,090 micrograms/day. The EPA allows the ionic form of silver, Ag<sup>+</sup>, in drinking water at the level of 100 parts per billion (ppb). This is equivalent to 0.1mg/L. Thus, drinking water consumption of 4-8 oz glasses/day is equivalent to 100 micrograms/day of Ag<sup>+</sup>. (7)

The EPA does not consider silver to be a human carcinogen. In fact, their standards for the allowable levels of silver in drinking water would permit a typical human to consume 50 to 100 micrograms per day. Long-term experiments with rats and rabbits indicate that 2.5ug /kg of body weight had no detrimental effects. This would equate to roughly 175 micrograms/day for a 150-pound human.

As for the common myth of turning blue... It's quite simply not going to happen. You would have to consume 1000 liters of silver colloid in a year to even begin to see a slight grayish

discoloration. This would be drinking several liters per day and would cost on the order of \$100,000.00.

In summary, using a nasally administered enhanced silver colloid to combat sinusitis is a safe and effective holistic treatment. It attenuates the bacterial and fungal overgrowth without shifting the body's natural fauna. Acute infections are typically terminated in 2 to 3 days with chronic cases usually requiring 2 to 3 weeks. There are no side-effects to the patient and no danger of developing resistance, Hence, the therapy can even be administered prophylactically during bouts with colds and allergies. This ability to stop sickness before it develops is the key to maintaining health.

Antibiotics address only the bacterial half of the problem and come with varied and significant side-effects. They can cause hair loss, hearing loss, yeast infections and liver damage. Since the silver colloid is antibacterial and antifungal, it offers the perfect solution to combating an infection that is usually a combination of bacteria and fungi. An enhanced aqueous silver colloid will kill these bacteria and fungi without the side-effects often experienced during antibiotic use.

## ***Reaching Deeper into the Sinuses with a Neti Pot***

It is important to note that your sinuses may be so congested and the nasal passage ways so inflamed that for the spray to reach the deeper recesses of the sinuses may take a week of continual spraying. This can be more demanding than the consumer is willing to tolerate. In this case, there is another mechanism of delivery that offers a wonderful symbiosis with the every-30-minutes spray regimen.

For centuries, Eastern countries have used neti-pots to cleanse and flush sinuses before they practiced yoga. In modern times, this tradition has passed beyond their borders to be well received in large parts of the Western world. In fact, it has become a rather common means of clearing excess mucus from sinuses during and after colds and sinus infections.

Traditionally, the neti-pot has been filled with a warm saline solution. This is a combination of salts and water in a percentage of roughly 0.9% salinity. Various types and sources of salts are used with and without scents. The 0.9% salinity is also modified slightly but is based on the fact that this is the physiologically comfortable level as it is the salinity of the interstitial space in your body. In the medical world, it is referred to as “Normal” saline solution indicating that it is normalized to physiological saline levels.

Neti-pots are filled with this warm solution and then the tip of the pot is inserted lightly into a nostril. The user then tips his/her head to the side and literally pours the fluid into the nose, through the sinuses and out the other nostril. The fluid can be trapped for a period of time or simply allowed to run freely.

One should note that bacteria and fungus live quite happily in your body and so bathing them with warm water of the correct pH and salinity is not particularly harmful to these invading pathogens. In fact, it is more useful to visualize the act of neti cleansing with saline solution as a technique to flush and soothe irritated sinuses rather than providing any sort of eradication of the invading pathogens.

However, if we were to replace the saline solution with an antimicrobial that is powerful enough to reduce a population of bacteria by 6 orders of magnitude ( 1,000,000 to 1) in just 40 minutes, wouldn't this be a magnificent way to kill the population of microbes in the deepest recesses of the sinuses?

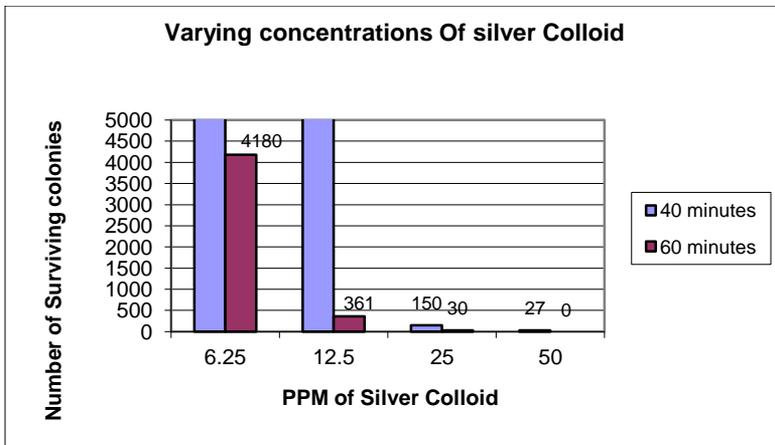
This is in fact what we see happening when using the enhanced silver colloid in the neti-pot. For sinus infections that are recurrent, persistent or simply non-responsive to simpler techniques, the process of neti cleansing with an enhanced aqueous silver colloid solution is a phenomenal method for attenuating (reducing) the microbial load in the sinuses.

Once a continuous flow has been achieved in one nostril and out the other, the nose can be pinched off and the fluid retained in the sinuses for a period of time. Be sure to keep your soft-palate elevated and firmly in place on the roof of your mouth to block the flow of fluid down your throat. The fluid can be trapped for 5 to 10 minutes and the killing of bacteria and fungus increases as time goes on. By using this "trapping" method, one can still breathe through their mouth during the holding process. Typically, after a few flush-and-hold cycles with the enhanced aqueous silver colloid, the sinus membranes will be sufficiently coated with the colloid that the exposure and killing will persist until the user blows his/her nose or the mucus drainage carries away the liquid. This flush can continue killing for 20 or more minutes. If one flushes and holds the fluid in the sinuses for just 10 minutes, the number of bacteria and fungus killed in this simple flushing will be in the

millions. It is a tremendously powerful companion therapy to the regular spraying protocol described earlier. Let us take a look at some laboratory numbers for a moment.

In this graph, excerpted from a test of aqueous silver colloids on *E. coli* as an indicator microbe, we can clearly see the value of using a high concentration pure, aqueous silver colloid. The height of the vertical bars indicate the number of bacteria that *survived* the exposure to this antimicrobial fluid. By the time the concentration in the test reached the 25 to 50 ppm (parts per million) range, there were very few survivors. The test inoculums (number of bacteria that began the test) was roughly 1 million bacteria.

In the case where the concentration of the colloid was only 6.5 ppm, the survivors after 40 minutes numbered roughly 20,400. This is a reduction of less than 100:1. Yet, in the same amount of time, a strong colloid (such as could be found in a product like Nature's Rite Super Neti Juice™) reduced this population from 1 million to 27 survivors. In another 20 minutes, there were no survivors for a reduction of greater than 1 million to 1.



This wonderful performance illustrates the devastating effect that filling the sinuses with a powerful antimicrobial can have on a reticent population of bacteria. It also demonstrates quite clearly that a strong enhanced, aqueous silver colloid is much more effective than the weak simple silver colloids and silver hydrosols that are found in the market-place. It is important to remember to leave the residual liquid coating in the sinuses to a after a flushing by not immediately blowing your nose or flushing again with something else. Longer is better, but waiting at least 10 minutes should be sufficient.

It should be mentioned that since a neti-pot is traditionally used to flush with saline and *salt will absolutely ruin* a colloidal suspension of silver, one should thoroughly rinse the neti-pot that is going to be filled with the enhanced aqueous silver colloid so as to ensure that no residual salt is contained therein. It is the best idea to avoid this problem altogether by purchasing a neti-pot that will be used exclusively for colloids and never put a saline solution or salt of any kind into this pot.

The Nature's Rite, Super Neti Juice<sup>™</sup> is concentrated. It may be diluted by using 10 droppers of the Juice to each ounce of distilled or de-Ionized water. The dropper of the Super Neti Juice cap is calibrated to *deliver* 1 ml each time it is squeezed. So the recommended dilution is 10 ml to each ounce (30 ml) of de-ionized or distilled water. However, you may dilute to your own preference depending on the sensitivity of your nasal passages and sinuses. The product can even be used safely at full strength for maximum microbe killing power.

Sometimes, the sinuses can be rather irritated from the infection and the mucosa can be raw and inflamed. The non-ionically balanced nature of the enhanced aqueous silver colloid and water can cause a "stinging" sensation as it sits on the raw mucosa. The stinging is mostly due to the distilled water that is being mixed with the colloid. The distilled water

contains no ions and is therefore not in isotonic balance with the tissues. The longer you hold the solution in your sinuses, the more the stinging subsides. In just a few minutes, it will become much more tolerable.

It is very important to remember that silver colloids take time to kill. Although they can attenuate a population of bacteria by 10x in a mere 5 minutes, they do not kill “on contact”. With a 10 minute exposure, the kill ratio will increase from 10x to 100x and 30 to 40 minutes, the kill ratio can be 1 million to 1. Since time is the most important parameter, holding the colloid in your sinuses for as long as you can is critical to success. Certainly, after you let it drain out, there will be some left covering the tissues. This will remain for another 5 minutes or so until the mucosal flow moves it away.

The other important point to remember is that weaker colloids such as 10ppm, perform very poorly in-situ. A 45ppm (parts per million) colloid will produce a kill of roughly 1000x more than a 10ppm colloid. Colloids of concentration less than 8ppm do very little at all. It is very much a logarithmic response between kill-ratio and concentration.

## ***Supporting the sensitive sinuses***

When a person is not experiencing a sinus infection, the goal is to keep the nasal membranes moist, soothed and clear of irritants. This can be done with an herbal spray in a balanced saline base. Pollution, dry winter environments, allergens and dust can irritate and dry out the sinus and nasal membranes. It is important to have a means for supporting the nose and sinuses at all times during the year so as to avoid the inflammation that can facilitate an infection.

Calendula and Aloe Vera are naturally soothing herbs for delicate tissues like skin and nasal membranes. Yarrow leaf is a natural means for reducing swelling of nasal tissues. By combining these as a water-based decoction that has been diluted for gentleness, a wonderful and mild supporting spray can be made. Since the sinus environment is generally considered internal, ionically balancing the liquid to normal saline levels aids in the comfort when sprayed on sensitive membranes.

Armed with such an herbal spray, one can periodically (every few hours) bathe the sinuses in a soothing and moisturizing spray. This will cleanse the area of irritants while at the same time keep the nasal membranes from becoming inflamed and swollen. Just such an herbal spray exists and is called Sinus Support <sup>™</sup>. It is offered by Nature's Rite for the care and maintenance of sinuses.

An alternate method for soothing the sinuses after the infection has been cleared is again to rely on the neti-pot. In this case, we desire to reach the sinus membranes and so while the

Calendula and Aloe Vera are quite valuable. Also valuable are Plantain, Echinacea and Eucalyptus. These herbs will directly relax and protect the vulnerable sinuses from further attacks. The Plantain will promote the growth of new tissues to replace those damaged during the infection. A product that is designed to perform this function when used in a neti-pot is Herbal Neti Soother<sup>™</sup>. This herbal decoction can be diluted into your salt-based neti-pot and used to keep your sinuses happy and healthy throughout the year.

During the year, there will be times when you are exposed to molds, virus, bacteria and these airborne pathogens will begin to multiply in your sinuses. This will happen as long as you breathe. So get into a regular practice of flushing the sinuses once a week or so and disinfecting them with Sinus Relief when you go into public environments. Keep all the products around so that you can use them to suppress infection before it gets to the point where it is causing you pain and malaise.

## ***Relieving Congestion Naturally***

During the Spring and Fall when allergens abound, it is virtually impossible to enjoy the out-doors without inhaling many irritating pollens into the nasal environment. This is bound to cause some reaction and congestion. Aside from making it more difficult to breath, the congestion can also cause sinuses to close off, allowing pockets of bacterial and fungal over-growth. Allergens may not directly cause sinus infections, but they can certainly facilitate them by offering congestion and closed sinus areas that are conducive to growing organisms.

When this occurs, one needs a solution that will soothe the membranes, dry up excess mucus secretion, and constrict the vasodialation caused by local inflammation. As with the Nature's Rite Sinus Support <sup>™</sup> product, Calendula and Aloe serve to soothe the membranes and support the repair of damaged tissues. Eyebright and Elder Flower reduce the histamine response to allergens and reduce the excess mucosal flow. Horseradish and Yarrow Leaf constrict the swollen nasal membranes to reduce congestion and allow more open and effortless breathing.

Even better, these herbs act directly on the cells within the nasal tissue getting them to produce their own natural anti-histamines and mucosal flow modifiers. Because they work with the cells instead of directly effecting change in the tissues, they are not habit-forming. The cells don't get used to not having to produce the balancing constituents as they would with over-the-counter anti-histamine products. This obviates the re-bound effect often experienced upon cessation of conventional medications that are used to reduce congestion.

The decoction of these herbs can be presented in a saline-balanced, water-based spray that is not diluted. This full strength herbal decoction is very effective at counteracting the seasonal congestion caused by allergies. Such a product can be found at Nature's Rite and is called Congestion Relief<sup>™</sup>.

## **Summary**

Maintaining healthy and happy sinuses year round doesn't require prescription medications or addicting decongestants. It can be achieved with herbal decoction sprays and natural antimicrobials. This is important since we have to work with our bodies to maintain health for 80 or 90 years of life. Using damaging antibiotics on a regular basis or using addictive decongestants semi-annually are serious impediments to maintaining your health over the long-term. Keeping the sinuses moist, open and soothed is a critical part of maintaining a healthy body. Truly, bacteria that are growing in your sinuses can be found next in your lungs, stomach and throughout your body.

Keeping the sinuses happy by natural means that are gentle and supportive can be a vital part of a life-long process to maintain healthy sinuses and avoid infection. Delivering the antimicrobial agent only to your nose and only when needed is a very holistic and low-impact approach to treating the infections when they occur. It avoids disturbing the body's natural fauna and flora that exists throughout the body and supports the maintenance of a healthier body.

In fact, most fungus that are found throughout your body come in through the nose, drain into the stomach with the mucosal flow and are then passed on to the gut. This can lead to problems in the digestive system such as IBS. The best way to ensure digestive health is to limit the fungus that are thriving in your sinus passages since it is these very fungus that will shed progeny throughout your gut and the rest of your body. So you can see that regular neti cleansing with Super Neti

Juice<sup>™</sup>, spraying with Sinus Relief<sup>™</sup> and maintaining a healthy sinus environment is good for the entire person.

You *can* learn to live with your nose and survive in a polluted, dry and pollinated environment. You can live in harmony with your sinuses. If you can follow the guide-lines as outlined in this book, you and your nose can enjoy many happy years together in blissful harmony.

## ***Frequently Asked Questions and Therapy Overview***

This section is a reference section to remind you of the usage protocol for the Nature's Rite sinus products and to answer some questions that may arise during your use of this information.

### If you have a sinus infection:

1. Spray the Sinus Relief<sup>tm</sup> spray in each nostril every 20 to 30 minutes while you are awake and every time you wake during sleeping.
2. Continue to do this until the infection is gone and you are completely symptom-free. Then continue for another 2 to 3 days to make sure your infection stays gone.
3. Flush and **hold in your sinuses** the Super Neti Juice<sup>tm</sup> 2 to 3 times per day during this same period as you are spraying with the Sinus Relief.
4. Blow your nose *BEFORE* you spray or flush. Doing it afterwards removes the active agent that you just sprayed in there.

### FAQs:

- Q: Do I have to spray the Sinus Relief **when I'm asleep**?
- A: No. But if you wake in the night, reach over, take it off your nightstand and spray it. More is better.
- Q: Will the Sinus Relief work if I **spray it 3 to 4 times** per day?

- A: No. You will kill lots of microbes and they will reproduce in-between sprays to the levels that they were before you sprayed. You will make no progress.
- Q: Does Sinus Relief work to **stop a cold**?
- A: Yes. Absolutely. For relieving a common cold, it is best to begin as **SOON** as you think you have one. Spray every 5 to 10 minutes because virus are more resistant than bacteria.
- Q: Can **children** use the Sinus Relief?
- A: Yes. It's difficult to get them to spray often, but they respond surprisingly well and it's much better for them than antibiotics.
- Q: Are there any **side-effects** of Sinus Relief?
- A: It can tend to dry your nose a little bit. However, when you are fighting a cold or sinusitis, that's not necessarily a bad thing.
- Q: Is it safe for **pregnant women** to use Sinus Relief?
- A: While we have done no testing on pregnant women (and will not) the small amount that you use and the benign nature of the products, leads us to believe that it is far safer than taking antibiotics while pregnant. This however is just an opinion.
- Q: Can I use the Nature's Rite **Congestion Relief**<sup>tm</sup> while I have an infection?
- A: Yes. You should only need to do so a few times per day and remember to spray it in between sprays of the Sinus Relief<sup>tm</sup>. Wait about 10 minutes after using the Sinus Relief<sup>tm</sup> before spraying the Congestion Relief<sup>tm</sup>.
- Q: **How long** does it take Congestion Relief<sup>tm</sup> to work?

- A: Since Congestion Relief <sup>™</sup> is stimulating the nasal membrane cells to produce their own anti-histamines, it can take 5 to 10 minutes. Be patient, it's natural.
- Q: When do I use Nature's Rite **Sinus Support** <sup>™</sup>?
- A: This is best used when you have gotten rid of your sinus infection. It is intended to keep your sinuses comfortable in situations where the air is dry and polluted. Use it every few hours in such environments.
- Q: **Is it safe** to use the Sinus Relief <sup>™</sup> and Super Neti Juice <sup>™</sup> more often than instructed?
- A: Yes. You can use them as often as you wish. Using them more often will further decrease bacteria and fungus counts and will likely eliminate a sinus infection sooner.
- Q: Will these silver-based products **turn me blue**?
- A: Nope. Unless you drink 100 liters (about 25 gallons) in a 3 month time period. So don't do that.

## **References**

- (1) Antimicrobial Testing of Silver Colloids and Silver Iontophoresis, Amber Cornelius and Steven Frank, 2006, Klearsen Corporation
- (2) Patent number 6,454,754, Respiratory Infection Treatment Device, 2002
- (3) Patent number 6,749,597, Respiratory Infection Treatment Device, 2004 continuation in part.
- (4) Antimicrobial Testing of Silver Colloids and Silver Iontophoresis, Amber Cornelius and Steven Frank, 2006, Klearsen Corporation
- (5) Code of Federal Regulations, 21CFR 172, 2002, USFDA
- (6) Timmins AC, Morgan GAR. Argylria or Cyanosis. *Anaesthesia*, 1988; 43: 755-756.
- (7) 1974 Safe Drinking Water Act and its amendments, the U.S. Environmental Protection Agency

## ***Availability of Recommended Products***

The products recommended in this book can be procured individually from any source or made at home if you are so inclined. If however, you would like the convenience of buying them all in one place, already existing as products that are just what you require, they can be purchased at:

### **Nature's Rite**

1 800 991 7088

8122 Uzita Dr.

Sarasota, FL 34240

They can be purchased on-line at:

[www.NaturesRiteRemedies.com](http://www.NaturesRiteRemedies.com)

Or over the telephone at:

1 800 991 7088