

Is Hygiene Modern Medicine's BlindSpot?

The Link Between Sinus & Gum Infection and Chronic Inflammation

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Consequence of Living in a Sterile World

Our society has become obsessive/compulsive with the idea of killing off bacteria – of living in a sterile world. Everyday, we work hard to kill off the harmful bacteria in our bodies and in our environment with antibiotics, harsh mouth washes, antibacterial soaps, and antimicrobial cleaners. There is no doubt that being infected with a virulent pathogen can have dire consequences. Therefore, it is understandable that medical science has been focused on finding effective methods to eradicate infections quickly. But there is a price to pay for living in a sterile world.

Perhaps the greatest unintended consequence of living in a sterile world has been the evolution of disease. Antibiotics and antibacterial products are like “boot camp” for microbes – overtime microbes have become stronger and more strategic. As a result, diseases have evolved. Instead of killing us right away, they slowly and chronically cause systemic inflammation, lesions in our tissues and organs, and genetic mutations, introducing the world to the three new killers: (1) heart disease; (2) auto-immune diseases; and (3) cancer.

When scientists cultured the bacteria living on the body, they were surprised to find that the underneath of the fingernails harbored the most virulent bacterial strains. In addition, they found that normal hand washing did not clean adequately.¹ Clearly, hand to face contact is the most likely point of entry for harmful bacteria and viruses.

Antibacterial soaps are not the answer. While they do a good job at killing the pathogenic bacteria on our hands, the beneficial bacteria that make up 99% of the microbes on our skin become the collateral damage. They in turn leave the skin's cellular immunity defenseless to opportunistic infections the next time we touch that doorknob, phone or remote controller.

Our reliance on antibiotics, antimicrobial soaps, and pasteurization is new for human beings. For millions of years, we overcame microbial infections by keeping our immune system evolving from the mini-challenges that the microbes presented. In the last 10 years, research has validated that the majority of microorganisms that come

from nature are not only harmless, they are critical to our physiology. In fact, we now know that there are 10 times more microbes than human cells living in our body.² Our microbial co-habitants create a community of microbes that hold the pathogenic microbes in check.

For example, when the intestinal microbial community is off balance, h-pylori can grow rampant, causing ulcers. Conversely, the absence of helicobacter pylori (h-pylori) in the body has been linked to childhood asthma – bringing into question the overuse of antibiotics.³ I am not recommending that people expose themselves to h-pylori to treat asthma or that they kill it off in order to treat ulcers. What I assert is that an intelligent comprehensive hygiene system is usually adequate enough for self-innoculation.

Our bodies traditionally picked up beneficial microbes from the foods we ate that came from the ocean and soil. We also took on healthy bacteria from our mother's breast milk, yogurt, fermented foods, and animals. Beneficial microorganisms not only live in our intestines, they also inhabit our eyes, skin, mouth and nose.

Ironically, despite our attempt at living in a sterile world, our compromised bio-terrain has become more susceptible to infections due to poor hygiene practices. For instance, the toothbrush we use daily is months old and riddled with the very bacteria we are trying to brush away. We reinfest our mouth and sinuses every time we use it. In addition, we brush our teeth twice a day, everyday. Yet, we breathe in microbes all day long and do not clean out our nasal sinuses. By practicing comprehensive daily oral and nasal hygiene, we may in fact be prolonging our life. Research indicates that when dogs receive regular dental care, they can live 3 to 5 years longer.⁴ The same is probably true for humans.

Published Research Links Oral & Sinus Microbes with Chronic Degenerative Disease

Antibiotics are over prescribed to treat viral-induced colds and flus that manifest sinus and lung congestion. Sinus infections, which every year affect an estimated 37 million people in the United States and cost billions, account for 21 percent of all antibiotic prescriptions.⁵ The improper over-use of antibiotics has allowed chronic pathogenic microbes to take hold in the nasal and oral cavity.

¹PA. Jumaa. Hand hygiene: simple and complex. *International Journal of Infectious Diseases* Volume 9, Issue 1, January 2005, Pages 3-14. ²“Our Microbial Menagerie” by Emily Singer. Technology Review, August 2007. ³“Ulcer-Causing Bacteria May Prevent Asthma,” by Serena Gordon, www.healthfinder.gov ⁴www.myfirehouse.com/NewsEvents/2008/RMD_JF08_6-7.pdf ⁵Sharp, H.J. Archives of Otolaryngology and Head and Neck Surgery, March 2007; vol 133: pp 260-265.

The excessive proliferation of unhealthy bacteria within the mouth and sinuses increases the chance for migration to the rest of the body. Recent research confirms that the bacterial and viral strains found in the mouth have also been found in the sinuses and as far away as the heart, pancreas, lymphatic system, and intestines. In fact, periodontal disease has been linked to sinusitis, diabetes, heart disease, premature birth, miscarriage, and lymphoma.⁶

The moist warm terrain inside the mouth and sinus cavities provides the perfect medium for bacterial growth. Streptococcus and staphylococcus have been found growing inside of the mouth and sinuses, suggesting that a clean mouth can be re-infected by infected nasal sinuses, while a clean nose can be re-infected by the bacterial strains culturing underneath the gums.⁷

In addition, many spontaneous heart fatalities have been linked to dental procedures that unleashed a flood of mouth bacteria into the bloodstream that in turn attacked the heart.⁸ Unfortunately, clinicians may correctly diagnose a condition such as myocarditis without asking the more important question of what caused the inflammation of the heart muscle to spontaneously arise. Upstream from many inflammation conditions exists periodontal bacteria populating the sinus cavity and the mouth that find their way into the lymphatic and circulatory systems.

Research has shown that head and neck infections such as chronic conjunctivitis (“pink eye”), chronic meningitis, chronic sinusitis, and uveitis (“eye infection”) often are caused by oral microbes that migrate throughout the head and neck cavity following dental procedures or aggressive oral infections.⁹ Periodontal microorganisms often play a role in the creation of respiratory infections diagnosed as sinusitis, tonsillitis, pneumonias, bronchial asthma, and lung abscesses following the direct inhalation of saliva and dental plaque or by indirect infection from the blood.^{10, 11}

Most gastrointestinal diseases such as gastritis, colitis, enteritis, and even appendicitis have been linked to the migration of oral microorganisms. Helicobacter pylori, the leading cause of chronic gastritis and peptic ulcer disease, have been found concurrently in patients’ saliva, dental plaque, and G.I. tract. It has also been found in the dental plaque in dyspeptic patients following treatment with antibiotics, leading researchers to conclude that the oral cavity is both the source of the transmission *and* of re-infection after the use of antibiotics.^{12, 13}

In the area of perinatology, recent research has shown that periodontal disease is a primary risk factor in premature birth and low birth weight babies.¹⁴ It has been found that mothers who suffer from periodontitis before conception are 7.5 times more likely to deliver prematurely or to deliver a baby with smaller birth weight than pregnant women with healthy gums.^{15, 16} The oral microbe, *E. nucleatum*, has even been found in the amniotic fluid of pregnant women who have delivered prematurely.

Use of Quinton® Marine Plasma for the Treatment of Chronic Sinus Infections

The key to reducing systemic auto-infection from mouth and nasal bacteria is to combine a daily oral and nasal hygiene program designed to wash away the bacteria proliferating under the gum line and to wash the nasal sinuses. Oftentimes, bacteria, fungus, molds, and viruses become trapped by an inflamed nasal passageway, causing chronic sinusitis. Daily nasal washings that clean out the nasal sinuses help to remove much of these trapped particles before they begin to colonize.

In the late 1800s, Rene Quinton popularized the use of seawater as a nasal wash. In the free clinics he helped to establish throughout Europe in the early 1900s, he achieved tremendous results in the area of health using Quinton® Marine Plasma (QMP). The popular use of QMP in Europe in turn led to the use of basic nasal saline sprays in the U.S. where QMP was unavailable until recent years.

To this day, saline is recommended as a safe and effective way to re-hydrate and cleanse the nasal sinuses. However, commonly available nasal saline sprays contain crystalline salt (sodium chloride), which can cause a “burning sensation” in the nasal sinuses. This occurs in part because the sodium chloride is inorganic as opposed to the organic crystalloid form found in QMP.

In QMP, all of the earth’s minerals are found within a perfect ratio that mirrors that of human blood plasma. The minerals are organically structured as they pass through the dense plankton fields in the open ocean where QMP is harvested. Rene Quinton went to great lengths to preserve the pre-biotic (meaning “pre-living”) organically active state of his marine plasma. To accomplish this, he developed a cold-sterile filtration process that maintained the bioactivity of the “energized” micro-minerals and nutrients while ensuring that QMP was safe.

⁶Renée Gendron, Daniel Grenier and Léo-François Maheu-Robert. The oral cavity as a reservoir of bacterial pathogens for focal infections. *Microbes and Infection*. Volume 2, Issue 8, July 2000, Pages 897-906. ⁷The Role of Bacteria in Chronic Rhinosinusitis. *Otolaryngologic Clinics of North America*, Volume 38, Issue 6, Pages 1171-1192. ⁸Janket SJ, Baird AE, Chuang SK, Jones JA. Meta-analysis of periodontal disease and risk of coronary heart disease and stroke. *Or SurgOrMedOr Path* 2003;95:559-569. ⁹Syrjänen J, Peltola J, Vatonen V, Livanainen M, Kaste M, Huttunen JK. Dental infections in association with cerebral interaction in young and middle-aged men. *J Intern Med* 1989; 225: 179-184. ¹⁰Frank A. Scannapieco, Joseph M. Mulolle. Relationships Between Periodontal Disease and Bacterial Pneumonia. *J Periodontol* 1996; 67: 1114-1122. ¹¹Scannapieco FA, Stewart EM, Myolott JM. Colonisation of dental plaque by respiratory pathogens in medical intensive care patients. *Crit Care Med* 1992;20:740- 5. ¹²Moss E Mark, Beck D James, Garcia R, Frank A. Exploratory case-control Analysis of Psychosocial Factors and Adult Periodontitis. *J Periodontol* 1996; 67: 1060-1069. ¹³Jeffcoat MK, Geurs NC, Reddy MS, Cliver SP, Goldenberg RL, Hauth JC. Periodontal infection and preterm birth: Results of a prospective study. *JAmDentAssoc* 2001; 132: 875-880. ¹⁴Offenbacher S, Katz V, Fertin G, Heasman PA, Collins JG. Periodontal Infection as a Possible Risk Factor for PretermLowBirthWeight. *J Periodontol* 1996; 67: 1103-1113. ¹⁵Von Wowern M, Klausen B, Olgaard K. Steroid-induced mandibular bone loss in relation to marginal periodontal changes. *J Clin Periodontol* 1992; 19: 182-186. ¹⁶Lopez NJ, Smith PC, Gutierrez J. Periodontal therapy may reduce the risk of preterm low birth weight in women with periodontal disease: A randomized controlled trial. *J Periodontol* 2002; 73: 911-924.

In short, QMP is still the only “raw” untreated seawater harvested from nutrient dense plankton blooms in the clean open ocean. When compared with inorganic minerals, the crystalloid minerals found in QMP are bio-available at the cellular level, which means that they are more effective at remineralizing the bioterrain within the nasal sinus cavities, mouth, and eyes. In addition, QMP contains a full spectrum of crystalloid minerals that each play a distinct role in triggering our natural immunity and catalyzing the trillions of enzymatic reactions our body needs to maintain optimal health.

In Barcelona, Spain, Dr. Miguel Pros maintains one of the most advanced respiratory clinics in the world.¹⁷ His interest in treating respiratory conditions grew out of a personal experience he had while in medical school. He observed a medical doctor pulling a long thick white “cloth” out of someone’s mouth. When he inquired how the person “swallowed a cloth”, the doctor told Dr. Pros that the “cloth” was actually an old “taffy like” string of hardened mucous they pulled from the patient’s oral / nasal cavity. Horrified, Dr. Pros decided to dedicate his life to studying the treatment of both chronic and acute respiratory and nasal conditions.

At his clinic, Dr. Pros has successfully been treating sinusitis, asthma, allergies, pneumonia, and bronchitis using QMP for the last 25 years. In October of 2007, I visited his clinic, where he places patients through “breathing sessions”, where they inhale nebulized and atomized QMP through various devices. (See below)

In my meeting with Dr. Pros, I asked him if he thought that it would be possible to completely rebalance the bioterrain within the nasal cavities without concurrently eliminating gum infections, and he said “No.” He said that the bacteria in the gums would consistently re-infect the sinus cavities causing inflammation and infection to take hold. In fact, research has shown that the same harmful bacteria infecting the mouth have been consistently found in the sinuses and vice versa.^{18, 19} It is for this reason that Dr. Pros promotes good oral hygiene as a necessary component to his pulmonary and sinus QMP protocols.

The recommendation of non-habit forming nasal saline sprays by pediatricians and general practitioners is widespread in the U.S. Interest in nasal saline sprays for treatment of basic cold and flu symptoms has surged in recent months following the link between over the counter cold remedies and infant death.²⁰ Research in the January 2008 issue of *Archives of Otolaryngology – Head & Neck Surgery* suggests that the regular use of a seawater based nasal wash may help reduce cold and flu symptoms and prevent future respiratory infections.²¹ Clinicians Benninger and Leopold assert that flushing the nose frequently with a saline nasal spray is effective at preventing and treating sinus infections. Says Leopold



Figure 1

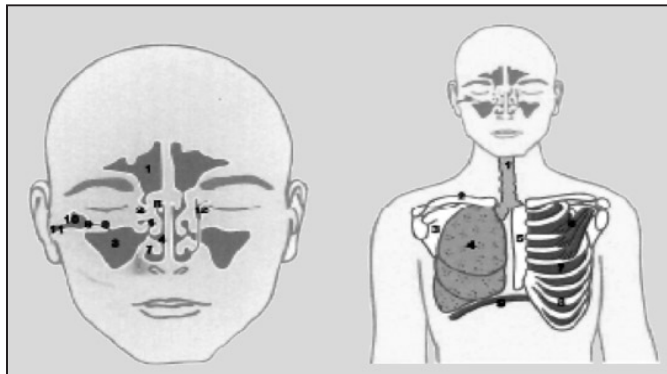


Figure 2

“My patients are sick of hearing about this, but saline therapy is cheap, effective, and underutilized.”²²

Clearly, the daily use of a nasal saline spray such as Quinton® Marine Plasma’s new Nasal Wash may help to prevent the migration of oral microbes to the nasal sinuses, while at the same time re-establishing the bioterrain of the sinus cavities. By reducing the potency of oral and nasal microbes, the healthy microbial and nutrient-rich internal bioterrain will be more capable of down regulating and neutralizing the few microbes that make it into systemic circulation.

In conclusion, while there are many hygiene programs that offer protective benefit, I assert that in addition to brushing the teeth, the best daily hygiene program involves: (1) using a water pick to wash away microbes and spirochetes living under the gums, (2) using a non-antimicrobial soap to clean underneath the fingernails, and (3) using Quinton® Marine Plasma (QMP) to restore the biological terrain of the mouth and sinuses. In addition to holding QMP in the mouth for 2 to 5 minutes daily to restore tissue integrity, QMP can be used as a nasal spray to cleanse and hydrate the nasal sinuses and to reduce inflammation due to chronic infection. The best part is that QMP will not harm or confuse the immune system the way that antimicrobials, cold remedies, and vaccinations do. In addition, QMP is not habit forming, so it can be used daily.

¹⁷ Pros, Miguel. *Mocs Fora*. ¹⁸ Paju, Susanna 1; Bernstein, Joel M 2; Haase, Elaine M 1; Scannapieco, Frank A. Molecular analysis of bacterial flora associated with chronically inflamed maxillary sinuses. *Journal of Medical Microbiology*. 52(7):591-597, July 2003. ¹⁹ Scannapieco FA, Stewart EM, Mylott JM. Colonisation of dental plaque by respiratory pathogens in medical intensive care patients. *Crit CareMed* 1992;20:740-5. ²⁰ Srinivasan A et al. “Infant Deaths Associated with Cough and Cold Medications -- Two States, 2005.” *MMWR* 2007. 56;1:1-4. ²¹ Slapak, I; Skoupa, J; Strnad, P; Hornik, P Efficacy of Isotonic Nasal Wash (Seawater) in the Treatment and Prevention of Rhinitis in Children. *Arch Otolaryngol Head Neck Surg*. 2008;134(1):67-74. ²² <http://www.medicinenet.com/script/main/art.asp?articlekey=79877>

Chinese & Ayurvedic Medicine: Relationship Between Sinus Infections & Health

In addition to being linked to mouth bacteria and degenerative diseases, chronic untreated sinus infections negatively impact our quality of life and our vitality. In Chinese medicine, sinus infections weaken the Wei Chi - the defensive Chi of the body. When the Wei Chi is weakened or over taxed, it directly affects the lungs, which in turn drains our energy.

In Taoist and Ayurvedic medicine, the eyes, ears, and nose are the “portal to the brain”. When the sinuses are blocked and breathing occurs through the mouth, the tongue cannot contact the upper palate, where it is designed to connect the CV1 and CV2 meridians. Breathing through the mouth with the tongue disconnected interferes with the conduction of chi in the conception vessel and governing meridians of the body – the two primary energy conducting meridians in the body.

In Taoist yoga, these meridians are linked to “quality of life” and “vitality”. In Ayurvedic medicine, nasal washings are considered a fundamental daily practice, critical to maintaining mental clarity. Yogis and Rishis in the Himalayas would combine pure glacier water with sea salt and wash out their sinuses daily as part of their purification rituals. Many yogis who practice kaya kalpa, the vedic system of rejuvenation, stress that the daily washing of the nasal sinuses is critical to life extension and daily health maintenance. In fact, every religion has a hygiene ritual.

In order to demonstrate the long term impact of “mouth breathing”, try this simple experiment. Walk around with your nose plugged, breathing through your mouth for one hour.

Notice how disoriented and unfocused you become. Now consider how many children are going to school every day, expected to learn, that are struggling with chronic sinusitis.

Conclusion

In conclusion, despite the overwhelming presence of scientific data linking oral and nasal health to chronic degenerative disease, the majority of Americans do not yet know that such a link exists. The importance of practicing optimal hygiene may in fact be the biggest blind spot in medicine today. Unless this blind spot in medicine is adequately addressed, many therapies, drugs, supplements, and other regimens will ultimately fail.

The link between chronic infection, inflammation, and degenerative disease has been well established in recent years. And yet, most people do not yet know that by upgrading their dental and nasal hygiene practices, they can significantly impact their risk of heart disease, cancer, miscarriage, and diabetes – all conditions that are largely promoted as “genetically linked” in the media. The fact is that the genetic “link” may be that we inherited our microbial and mineral makeup from our parents, which in turn alters our genetic expression.

Seawater therapy has been wisely used for thousands of years as a safe and effective way of maintaining optimal health. By integrating QMP into our daily hygiene practices, we will be remineralizing our internal terrain and rebalancing the microbial communities living within our bodies – perhaps filling up this largely overlooked blind spot in medicine. An ounce of prevention is worth a pound of cure. 🌸