This is one in a series of free resource notes drawn from my personal experience and professional practice to support your goals. Please browse the others at <a href="live-dreams.com/resources">live-dreams.com/resources</a>.

Health and Harmony, Wil

# **Respiratory Health**

# **BACKGROUND**

This Resource Note has been on my mind for years, but with the appearance of the Respiratory Corona Virus and COVID-19, I decided it was time to share some important information that is helpful for keeping our respiratory system healthy and free of infections.

In performing body work I have found that a significant number of clients present with various forms of sinus and airway problems that are exacerbated by the time spent face down in the face cradle, which especially in the beginning is a large percent of the initial sessions since most come in saying: "neck and shoulders!". When clients finally flip over onto their backs many mention that they can no longer breath through their nose. Fortunately gravity begins to help settle the congestion in a way that opens the passages and I typically do a brief massage of the sinuses and facial boney structure to support this process.

I have been through a series of experiences that have caused me to learn a lot about our Respiratory System. In high school I could hold my breath for long periods using breath holding as a meditative practice, and even won a statewide breath-holding competition. I became a scuba diver in 1969 and have a long history of underwater activity, including 3 years in Diving Physiology research, and culminating with free diving in the Bahamas to 60 feet. During this time, I began to get frequent colds that lasted 10 days and were debilitating. As the stressors of life piled on my immune system weakened, and beginning in my mid-forties, I experienced chronic recurring sinus infections. I had many appointments with my ear nose and throat doctors, antibiotic prescriptions, office procedures to scope and scrape my sinuses, and 5 sinus surgeries. Though out this time I explored many options to care for my sinuses. Once I transitioned from the stressful life of an engineer to that of a massage therapist in 2010, I expanded the scope of how I cared for myself to include my emotional being. Today I am quite healthy, but my sinuses still require care and attention from the invasive trauma and infections.

The goal of this resource paper is boil down all that I have learned into a short overview of what I found most valuable so that you can consider what you might be called to try out for yourself. The underlined words are active links to information online. The PDF file of this document, available on my website, allows you to click on the links to see the referenced information.

# 2020 PANDEMIC

The 2020 pandemic is caused by a novel coronavirus, designated as 2019-nCoV or officially as SARS-CoV-2. The disease caused by the virus is referred to as COVID-19. While it is a virus, and shares many characteristics with other viruses, including the common cold, it has several properties that differentiate it. First is the ability of 2019-

#### Disclaimer

nCoV to spread very effectively due to its long incubation time no or limited symptoms so that the infected person does not realize that they need to take precautions to prevent transmission. In fact it seems that a significant percentage of infected people may never show symptoms yet be able to spread the virus.

It is believed that much like the common cold and seasonal flu, the virus initially establishes itself in the mucous linings of the upper respiratory system: mouth, throat, and sinuses. The other differentiator is that when it becomes well established, it settles into the lungs, and degrades the ability of the lungs to supply the body with oxygen and eliminate carbon dioxide, to the point where a mechanical ventilator is required to keep the patient alive until the infection can be overcome by the patient's immune system.

I am not going to address all that one should do to prevent contacting the virus and boost immune system function to improve outcome if COVID-19 develops, since this information is widely available online. However one approach I adopted recently is the use of whole food based Juice Plus products for supplementation. This may become critical if the Pandemic begins to impact the food supply. If you are interested click on this link for <a href="Nutrition and Supplementation">Nutrition and Supplementation</a> and give me a call to discuss.

This note will address ways to support your respiratory system which are equally applicable to the common cold and season allergies!

# CARING FOR THE UPPER RESPIRATORY SYSTEM Irrigation

Our nasal passages and sinuses are lined with mucous membranes and act to filter the air we breath and drain the contaminants (dirt, bacteria, viruses, etc.) into the stomach where they are digested and disposed with no adverse affects. If the mucous becomes thick and does not flow down the throat to the stomach and if the mucous membranes and underlying tissues become swollen then breathing becomes labored and the defense provided by the filtration process becomes impaired.

THe most effective technique to clean sinuses is to irrigate or flush them with a Neti Pot. Will you drown or choke? No, this practice dates to ancient times in the earliest written records of health practices called Ayurveda from India around 8,000 years ago. It will allow you feel better.

https://en.wikipedia.org/wiki/Nasal\_irrigation https://yogainternational.com/article/view/the-history-science-of-the-nasal-wash

In fact if you received sessions from me at the Chopra Center when I worked there as a Healing Arts Master, I would have instructed you in the use of a Neti Pot. The following is the manufacturer of the Baraka Neti Pot we provided at Chopra and I have come to like it over all the others I have tried: <a href="https://www.sinussupport.com">https://www.sinussupport.com</a>. They have a good explanation and instructions here: <a href="https://www.sinussupport.com/neti-pot-education-page/">https://www.sinussupport.com/neti-pot-education-page/</a>



Today there are products for this purpose in all the major drug stores over the counter. This link from the FDA provides good guidance for safe effective use of the Neti Pot. Please read this before proceeding:

https://www.fda.gov/consumers/consumer-updates/rinsing-your-sinuses-neti-pots-safe

If you get real serious about frequent sinus irrigation the Hydro Pulse system from <a href="http://www.grossaninstitute.com">http://www.grossaninstitute.com</a> is amazing. Also this website is a wealth of information.

So before I go further, I want to address the elephant! Will you drown or choke? The simple answer is no, as long as you trust that this has been done for thousands of years and that it will allow you to feel better!

Aside from the guidance on the FDA website above, I want to mention that the water should be as warm as you find comfortable. Heat warms the tissues which helps with blood flow to the tissues and it is good blood perfusion that brings the immune system cells to the tissues to fight and invaders or inflammation.

What to put into the water? Three properties are addressed: pH, ionic content, and lubrication. Yes our bodies are mostly water, but there are also dissolved salts and maintenance of narrow range of pH around neutral. Hence you should add some salt and baking soda so that the water will feel comfortable to the tissues. How much? Well to a degree that is a matter of taste. And then the water should ideally lubricate the mucous to help restore healthy flow. I found (by using XLEAR® described below) that Xylitol, a sugar alcohol used as a sugar alternative is effective (https://xlear.com/xlear/faq#what\_is\_xylitol). I combine equal parts salt, baking soda and xylitol, mix them thoroughly and then add about a teaspoon of the mixture to 8 ounces of water. This solution is not being swallowed and we are not baking bread so in my experience the ratios are not critical. If you get serious about this you can also consider adding essential oils and what I found to be very effective and convenient is Alkalol® (https://www.alkalolcompany.com).

My personal routine is to boil the water for coffee in the morning and boil extra for the Neti pot. I pour the hot water into a glass and add the powder mixture described above. I bring that into the shower where my Neti Pot lives face down. I rinse the Neti Pot with a small amount of the solution and then fill the Neti Pot. By the time I am starting to enjoy my shower the Neti Pot is at a good temperature and I use it standing in the shower. Thus I don't have to worry about splashing and spilling and cleanup is a breeze, compared to trying to do this over the sink.

CAUTION: When you start reading about the subject on the internet, you will find that people advocate irrigation with a wide range of substances. Research carefully as most are not supported by data and evidence.

# **Sprays**

No matter how much you come to appreciate the use of the Neti Pot, the day arrives when one just does not want to bother, or there is not time in the day for the routine... such is life! This is when sprays are a great backup. They are not as effective as irrigation but they are helpful. I use XLEAR® (xlear.com) spray. It costs a bit more than the plain saline sprays, but the lubrication provided by the Xylitol makes all the difference. One spray of XLEAR® will in the morning clears the buildup of crusty or stick mucous hanging around from the night before.

If your passages are inflamed from allergies or infection, then starting with or ending with an over the counter 12 hour decongestant spray can be quite beneficial. Using the decongestant spray first can allow the XLEAR® to find its way better, and in other cases using the XLEAR® first will allow better penetration by the decongestant spray. In writing this note, I just discovered that XLEAR® offers a decongestant spray with Xylitol.

# Gargling

Gargling with warm salt water is a great way to clean the back of the throat and at the same time warm the area and increase blood flow to support the immune response.

# Hydration

Staying hydrated is vital. Even when healthy we should drink half our body weight in ounces of water. For example a 150 pound person should drink 75 ounces or 2 1/3 quarts of water daily. Hot lemon water and herbal teas are a great way to hydrate and heat the throat at the same time.

# Heat

There are unsupported claims circulating on the internet that hot air can defeat COVID-19, which are "debunked" and the use of heat is not being promoted as a viral treatment.

However there is a role for heat in self-care. Steam rooms and hot air saunas are great and have been used for centuries, though they are not readily available during this era of social distancing, unless you are fortunate to have them in your home.

In this section I present ways that we can take advantage of heat to increase circulation and support metabolism.

#### Hot Showers

Hot showers loosen up stiff muscles and is when I like to use my Neti Pot. Even if you don't adopt the Neti Pot, enjoy the steam, with intentional deep breaths.

## Soaking

It is very beneficial to do hot soaks if you have a tub. I recommend them after my therapeutic bodywork sessions, and they are beneficial to support respiratory health. Carve out time to relax, dim the lights or better still light some candles, play quiet relaxing music, and most important add a generous amount of Epsom Salts (Magnesium Sulfate) or even better Magnesium Chloride such as <u>Life-Flo's Flakes</u>. Consider adding essential oils to the water and breath in the benefits of the oils along with moisturizing humid air. Google "essential oils for breathing", or "congestion", or "sinus" etc. to discover infinite options to explore.

#### Inhalation

Inhaling warm humid air along with various essential oils is very beneficial and comforting. Pour the hot water and oils into a pot or basin and place your face over the vapors arising from the basin. Cover you head and the basin with a towel to make the process more effective. And don't forget the approach form year ago of rubbing Vicks onto the chest and neck and eaten into the opening of the nose.

#### Compresses

When soaking in a tub and setting up a basin are all too much to muster if you are feeling exhausted consider using a cloth soaking in hot water as a compress on the forehead and cheeks. Essentials oils and products like Vicks are a good complement to this activity.

# Far Infrared Heating Pad (Biomat®)

There are wide ranging benefits to warming the body, particularly when it is done in a safe effective way. Far Infrared energy waves travel into the tissues before they are absorbed and converted to heat, warming from within, rather than by contact with a hot object like the wires in common heating pads and blankets. A introduction to this product which I use all the time is available on my website: My Biomat Story. There is more to Biomat than the

heat, like the negative ions that combat inflammation. I am so completely sold on the benefits of this product that I sell them. You may contact me directly or order them from my line store: My Online Biomat Store.

# Massage and movement

It is important to know that you can do physical intervention for yourself to positively impact you upper respiratory health. In addition to the information presented below, there is a resource paper on the website dedicated to general self care: https://live-dreams.com/resources.

## Sinus and Head Massage

There a four pairs of sinus cavities in the head: <a href="https://en.wikipedia.org/wiki/Sinus">https://en.wikipedia.org/wiki/Sinus</a> (anatomy), but only the Maxillary Sinuses are can be readily impacted by self massage. Press your finger between the side of your nose and your cheek bone (<a href="https://en.wikipedia.org/wiki/Sinus">experimentation of your nose and your cheek bone (zygomatic bone)</a>. Your finger is contacting the Frontal Process of the Maxilla just above the upper jaw. Try pressing into the head and then angling out toward your ear, pressing against the cheek bone. Try adjusting the orientation of your head as you do this: laying on your back, on your side and looking down and up and well as being erect. Often this will facilitate the movement of mucous. If your tissues are inflamed, you may find that the tissues is spongy, and this pressure will help with circulation into these areas.

While the other sinus cavities are deep and behind bone, massage of the rest of your face, scalp and ears can feel amazing and be beneficial. Use your finger pads to press into the tissue with some pressure and then form circles, moving the tissue by keeping contact with the skin rather than sliding over the skin.

#### **Neck and Shoulders**

Tight muscles in the neck and shoulders can lead to headaches and exacerbate the discomfort from inflammation or infection in the upper respiratory system. Stretching the neck to maintain flexibility and range of motion should be a part of daily movements to stay healthy.

When tightness develops then more focused intervention will be beneficial. There are many approaches to consider, but my favorite are Lacrosse Practice Balls. You can use these balls for face and scalp massage, but I introduce them here as they are great for working the side of your neck. Press the ball into your neck at the base of your ear, and rotate it into the neck as you drag it down the neck to the top of the shoulder and collar bone. The Champion Sports brand is white and readily available through Amazon, search for "Champion Sports Soft Lacrosse <u>Practice</u> Ball, Pack of 12, White".

#### Body

Often when we have respiratory health problems, rest in advised and highly beneficial, but if that is all we do, then the long periods of immobility lead to a stiff body and poor circulation. So do some stretching and movement even if it seems challenging due to the accompanying feeling of fatigue and aching. Keep in mind that "MOTION IS LOTION" for the body.

One of the most useful self massage tools are the Lacross Practice balls introduced for neck massage above. They are soft but solid, which allows them to conform the bones (such as scapula and pelvis) and allow the fascial aspects to be ironed out, with gradual steady pressure and your breath. Playing Lacross balls are not recommended, as they are really like round rocks and could lead to self bruising. I suggest buying a dozen practice balls (or 2 if you have a dog that likes balls) and put two in various strategic locations: beside your bed, in your car, at you office desk, and in your suitcase, so that you have them when you need them.

#### Vibration

When nasal passages and sinuses are impacted, vibration can be used to help mobilize the problematic mucous. You can create vibration in your head by making sounds. It might seems a bit weird at first unless you are singer and then it will come naturally. Take a deep breath and make sounds as you slowly exhale, like eeeeee, aahhhh, ohhhh, etc. Create resistance by pressing your tongue against the roof of your mouth or tensing face muscles. Play with the pitch from super low to super high squealing. Different frequencies will resonate with different physical dimensions in your anatomy. By sweeping the frequency up and down you can address the different parts of the system.

#### **Breath**

At the heart of Respiratory Health is the breath, which is vital for a healthy body and mind!

#### Mechanics of Breathing

Consider taking intentional full breaths periodically to exercise the lower respiratory system and give the body some extra oxygen.

There are two parts to inhalation. The rib muscles expand the volume of the rib cage which draws air into the increased volume of the lungs. Often this is the only way we breathe. Chest breathing is shallow breathing and does not completely flush the lungs. The second part of inhalation involves contracting the dome shaped diaphragm muscle that forms the floor of the chest cavity. The when the diaphragm contracts, it pulls down and this also increases the volume of the chest cavity, pulling air into the lower parts of the lung. For this part of inhalation to happen it is necessary for the abdomen to protrude in order to make room for the diagram to descend into the abdominal cavity. Done correctly one should show a classic Buddha Belly, though perhaps not quite as much in the image of Buddha at the right. If you are sucking in your belly and putting all your energy into lifting your ribs, you are limiting the potential depth of your breath, and this is called reverse breathing.



A good sequence to practice is to first draw down the diaphragm, allowing the stomach to protrude, and as the expansion is near complete, lift and expand the upper chest with the rib muscles.

NOTE: COVID-19 seems to do the most damage in the lower parts of the lung.

Consciously exercise the full inhalation cycle frequently to maintain good respiratory health. Note that exhalation happens effortlessly so we don't need to worry about that.

# Free Diving

There is a growing movement to do breath-hold free diving in so many different ways and for so many different reasons. As I mentioned in the introduction, my underwater activities culminated in breathily diving to spearfish in the Bahamas when I was working in underwater systems design in Florida. Diving to 60 feet with just a low volume mask and long flippers required mental focus and physical exertion. When ready to ascend, I would push off from the reef and rise about 10 feet from the momentum of the push but then had to swim up until my lungs expanded enough to become buoyant. The water was crystal clear and the psychological and emotional rush was amazing.

Competitive Free diving has been around a long time. The movie Le Grand Bleu (The Big Blue) is a beautiful and mind-blowing introduction.

Trailer: https://www.youtube.com/watch?v=pvU\_qqOnlAM

Epic Scenes: https://www.youtube.com/watch?v=NP6BtzdS-qY - Beware, spoiler alert at the end

Biographical Movie about the man represented in The Big Blue: <a href="https://filmstransit.com/dolphin-man/">https://filmstransit.com/dolphin-man/</a>

Search Free Diving on-line and you will find endless amazing videos to watch. Here are a couple to get you started:

https://www.ted.com/talks/guillaume\_nery\_the\_exhilarating\_peace\_of\_freediving

https://www.youtube.com/watch?v=uQITWbAaDxo

## Yogic Breathing

Searching online will reveal a wealth of information on this subject, for example <a href="https://www.doyogawithme.com/yoga-breathing">https://www.doyogawithme.com/yoga-breathing</a> has a set of instructional videos, and explains: "Yoga Breathing or Pranayama, is the foundation of your yoga practice. It begins with deepening your breathing with the 3-part breath, then moves into more advanced breathing exercises such as Kapalabhati and the Alternate Nostril Breath. Pranayama also goes hand in hand with the Asanas. These two Yogic Principles together are considered as the highest form of purification and self-discipline, covering both mind and body. Our Pranayama videos will guide you through the steps that you need to understand in order to do the breathing exercises effortlessly and effectively."

#### **Breathwork**

Breathwork has continue to grow in popularity since the 6o's. The link gives a good starting point to learn about the various approaches: <a href="https://en.wikipedia.org/wiki/Breathwork">https://en.wikipedia.org/wiki/Breathwork</a>. Search online (Facebook, Meetup, etc.) and you will find many opportunities to explore this experiential process. Here are some other links:

http://www.holotropic.com

http://www.stanislavgrof.com

https://www.wimhofmethod.com/breathing-exercises

#### **Optimum Oxygenation**

Patrick McKeown has developed an approach to breathing re-education that he documented in his book, *The Oxygen Advantage*. His technique teaches a new way to breathe, combined with specific exercises designed to improve blood chemistry and increase oxygen flow to all of the body's systems, leading to increased endurance, strength, and power. Learn more here: <a href="https://oxygenadvantage.com">https://oxygenadvantage.com</a>