



Hello all,

Welcome to *Swan & Stone, Volume 1, Issue 9, Coherent Breathing, Sinusoidality, & Resonance*. In recent issues you may recall me carrying on about the physics of Resonant Breathing and the sinusoidal outcome as it can be observed in the Valsalva Wave that is produced by the action of the Thoracic Pump and the heart rate variability (HRV) cycle that is its outcome. Click on Figure 1 for a new YouTube video that discusses “Sinusoidal Breathing”. You can also find a new training product at [COHERENCE](#), that makes this method clear. This subtle understanding is important to Resonance.

The fundamental reason that breathing in a regular way that engages the diaphragm to a significant extent results in a sinewave in the circulation is that the physical construct of the chest, and the rest of the body, for that matter, is arranged to “vibrate” in a manner that is completely consistent with the fundamental vibratory signature of nature – which is sinusoidal. It turns out that all matter is vibratory, and all systems that are arranged of matter express vibration as a function of the complex interaction of the vibratory nature of the elements of which they consist. In the human body, there are many systems and subsystems that demonstrate vibration and therefore resonance – I dare to say that every organic construct, and every system comprised of those constructs, including cells and their constituent DNA are vibratory. The universe and that of which it is made is vibratory. A reason that the *sine* is the signature is that it is self-sustaining.

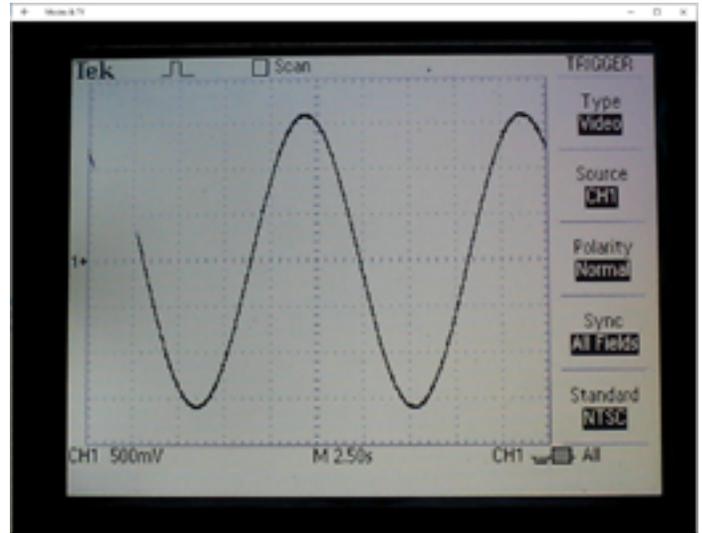


Figure 1: Sinewave Produced By Function Generator

Referring to the chart, [“The Physiology Of Resonance”](#), of Issue 8, the vibratory elements or sub-systems of the body that we are employing in the practice of Coherent Breathing are the diaphragm, the chest, the abdomen, the heart, the arterial tree, the venous tree, the capillary circulation, the extra-cellular fluid environment, the intra-cellular fluid environment, and last but not least the brain, the nervous system, and consciousness itself, as the control of the diaphragm is a function of both conscious and sub-conscious guidance exerted by the brain via the phrenic nerve, resulting in the autonomic nervous system swinging like a pendulum (sinusoidal action) between sympathetic (vagal withdrawal) and parasympathetic (vagal assertion) emphasis. As such, the fundamental job of circulation is to facilitate motion of the 42 liters of fluid that exist in the body. When fluids do not move, disease results. The #1 mortality risk world-wide is hypertension, which lays waste to 9 million people per year via its myriad affects including damage to the heart, brain, arteries, and organs. Yet, hypertension itself is not a “disease”. It is a symptom that circulation is not functioning as it should and the fluids of the body are not moving. Hundreds of millions of people suffer from this condition which fundamentally results from lack of knowledge and understanding. Even the CDC admits that 95% of instances “have no known cause” – an absolute absurdity. The Yellow Emperor figured it out 7500 years ago – today it goes by the general diagnosis “blood stagnation”. Diaphragm movement is the way to fix it and Resonant Breathing is the most potent form of diaphragm movement, as it takes advantage of the body’s natural vibratory capacity to set up wave action in the circulation that facilitates fluid motion deep into the parenchyma. Remember that there are thousands of miles of capillary blood vessels in the body, many of which are so small they cannot be seen with the naked eye. Their job is to facilitate the aqueous intercellular and intracellular environments of all of the functional tissues of the body.

The action begins by inhaling deeply, emptying the venous tree and filling the lungs with air and blood. This is followed by an equal exhalation which sends oxygenated blood into the arterial tree. By initiating this action, the wave is established and fluids begin to move. This can be done as a “practice” or “all the time”, circumstances permitting.

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