

Dear Reader,

Welcome to the COHERENCE Newsletter for September, 2008. Before I get started I'd like to take a moment to thank everyone for your continued interest and support. Special thanks to ISNR attendees and Dr. Richard Brown and his workshop attendees at Open Center, NYC. ***Thank you!***

In this month's COHERENCE Newsletter I'd like to wrap up the recent line of thinking regarding breathing, blood flow, conscious self-governance, etc. Next month I hope to share with you a snapshot of the study that Dee Edmonson and I are conducting where we examine the correlation between breathing induced heart rate variability amplitude and blood pressure. The thesis is this: ***Relatively high heart rate variability amplitude and relatively high blood pressure are mutually exclusive - they cannot coexist.*** I'm confident you will find it of interest.



As you know, I am obsessed (just ever so slightly) with the importance of breathing to health, well-being, and performance. This being said, I'm growing very confident that there is something even more fundamental to health than breath – blood flow. In fact, I am growing more and more convinced that the health benefits that accrue from Coherent Breathing are all, in one way or another, connected to enhanced circulation. Breathing just happens to be the lever that we can employ to affect positive changes in circulation and blood health. I believe that the practice of Coherent Breathing yields these circulatory benefits:

- **Increased blood flow/perfusion:** My present estimate is that Coherent Breathing increases the volume of blood flowing in the circulation by ~2.5 liters per minute (even when we are at rest or semi-active). In other words, the blood is moving more vigorously.
- **Reduced burden on the right heart:** Inhalation is the central mechanism by which venous blood *should* return to the heart and lungs. My father recently passed away of right heart failure. The attending physician in the ICU told us that his left heart was “perfect” (at age 85) but that his right heart was “worn out”. As we know, the job of the right heart is “venous return”. My dad was a very shallow breather. By the time he realized the importance of breathing, he was unable to breathe more deeply.
- **Reduced burden on the left heart and vascular system:** When the mechanical action of the dia-

phragm and thoracic cavity are moving the blood, the autonomic nervous system allows the left heart and vascular system to rest. (What this means to longevity we don't yet know.)

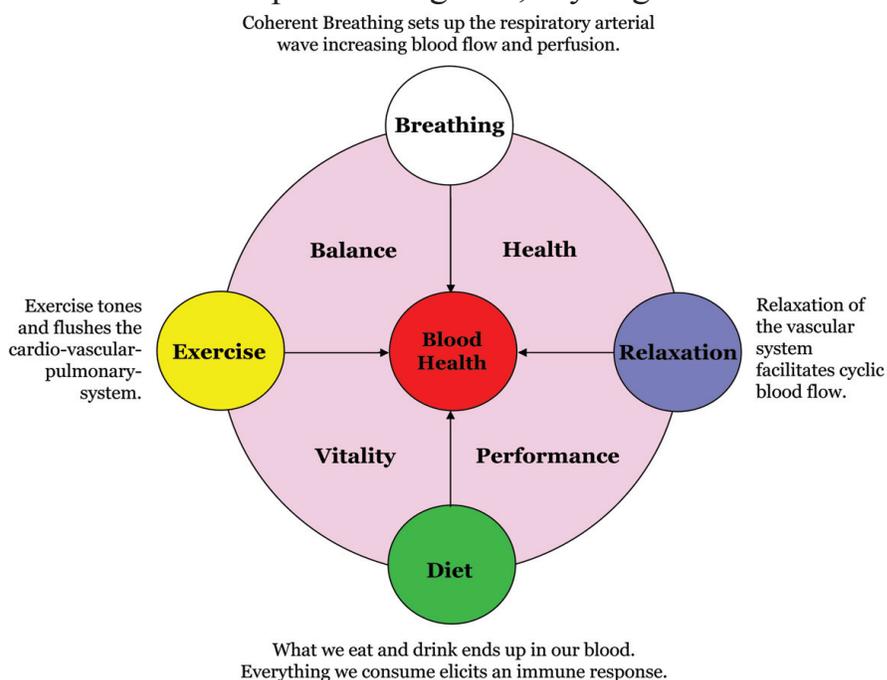
➤ **Reduced blood pressure:** When we breathe coherently, the autonomic nervous system relaxes the vascular system to facilitate the respiratory arterial pressure wave. This has the effect of lowering average blood pressure (and at the same time increasing blood flow).

The consequent autonomic shift that occurs to facilitate the respiratory arterial pressure wave moves us out of chronic sympathetic bias and the accompanying physio-psychology of angst, discomfort, and defensiveness. Improved mind-state elicits improved physiology. Improved physiology enhances our mind state, yielding a constructive feedback loop propelling us toward good health.

However, breathing and relaxation are only part of the “blood health” equation. If we want to maximize the outcome, diet and exercise are also critical. When we put them together, a synergistic effect occurs.

Exercise tones breathing - exercise and breathing move and flush the blood - breathing elicits relaxation - relaxation increases blood flow. Diet improves the health of the blood. Healthy blood enhances the health of every organ, gland, and cell in the body. Breathing AND blood health yield increased bioenergy and vitality. I believe that vitality has much to do with mind state. And of course, recognizing that proper breathing,

relaxation, diet, and exercise require self-governance, our ability to self-govern is strengthened, again yielding a constructive feedback loop. In retrospect, we've been taught that diet and exercise are very important to health. Yet, without breathing and relaxation they are insufficient. Together, diet, exercise, breathing, and relaxation form a complete recipe for health, well-being, and longevity.



Thank you sincerely for your consideration,

Stephen Elliott