

CONNECTING THE SMALL DOTS OF INTERDEPENDENCY

By Misha Sakharoff, Denmark

Looking at life with the eyes of an engineer

Engineers love interdependencies. Looking at life with the eyes of an engineer means having a constant urge to connect the dots in order to enhance something of value. I work in the area of human health where most of the research is done by the medical industry and at university level. Practically all of this work is made by specialists that have deep insight into their own often small area of knowledge. Basically, it means that most of the science that is being produced in this way lacks different degrees of interconnection. The highly specific nature of scientific studies lacks assessment of interdependence with other areas of life. Sometimes the scientific setup of a study reminds one of a situation in which we do not see the whole forest because of all too many trees. This situation is getting acutely worse when the study setup is influenced by industry interests.

Generalist vs specialist

The nature of scientific research is to go in depth and delve into minuscule details only visible and understandable by a very narrow field of specialists. When most of the science is being made in this way, an urgent need arises: the need for a function connecting the dots of different aspects of health into practically doable patterns. We could call it a protocol of interdependence which is a role that we Buteyko practitioners must take on our shoulders. It's an uneasy job, because it still requires a degree of specialist knowledge in different areas together with the ability to constantly maintain a helicopter perspective. Human health is full of paradoxes and constantly changing paradigms that are all subtly interconnected and interdependent. It requires innate curiosity and constant openness to be able to navigate in this ever-changing environment full of paradoxes.

Sleep quantity versus quality

One of those paradoxes that I think requires a huge paradigm shift is sleep. More concretely long sleep versus optimized sleep. In other words, a paradigm of quantity versus quality. The science is mostly, if not exclusively, working with the direction of sleep stating that you need to have a certain amount of hours' sleep, instead of working with the different lifestyle aspects of the optimization of sleep quality. In my own practice, I have seen



several cases of a healing effect where optimization of sleep leads to the absence of dreams, with full daytime functionality and elevated and sustainable levels of energy.

There are many white spots like that which have never been researched by science, simply because there are too few people that have experienced the effects of integrative health work as in this example.

Sleep philosophy

Sleep is interesting to work with because it's built by nature in a way that is connecting the dots. Philosophically speaking, sleep is in the position of linking the effects of two different days together. In this position the time of sleep has an innate natural transitional effect that can both degrade or upgrade the quality of life and health. My daily work is to integrate different areas of health into a stable process with strong healing properties. This medicine-free process has to be strong enough to allow the parallel use of medical standards of care protocols that sometimes can be counterproductive. To be that strong, my protocol has to help my clients slowly change the basal functions of the body instead of healing the symptoms. Understanding how to enhance sleep can mean a lot; in some cases even a difference between life and death. When we work with sleep we are stopping the detrimental domino effect where the positive results of one day's health work are inhibited from being passed on and enhanced by the following day. In this way we are reversing the unfortunate situation where these positive results of one day's work are fully eradicated by dysfunctional sleep.

So what is functional sleep?

Dr. Buteyko made an extensive amount of research that he also applied in practice. He connected the physiology of breathing with profound understanding of the value of nutrition, movement and mental work. His ingenious concept was to connect all of these factors with the restoration of health and immunity. Sleep was one of the most important factors supporting his work with patients. If he was active today, he would surely give us more inspiration in connecting the dots of all the latest

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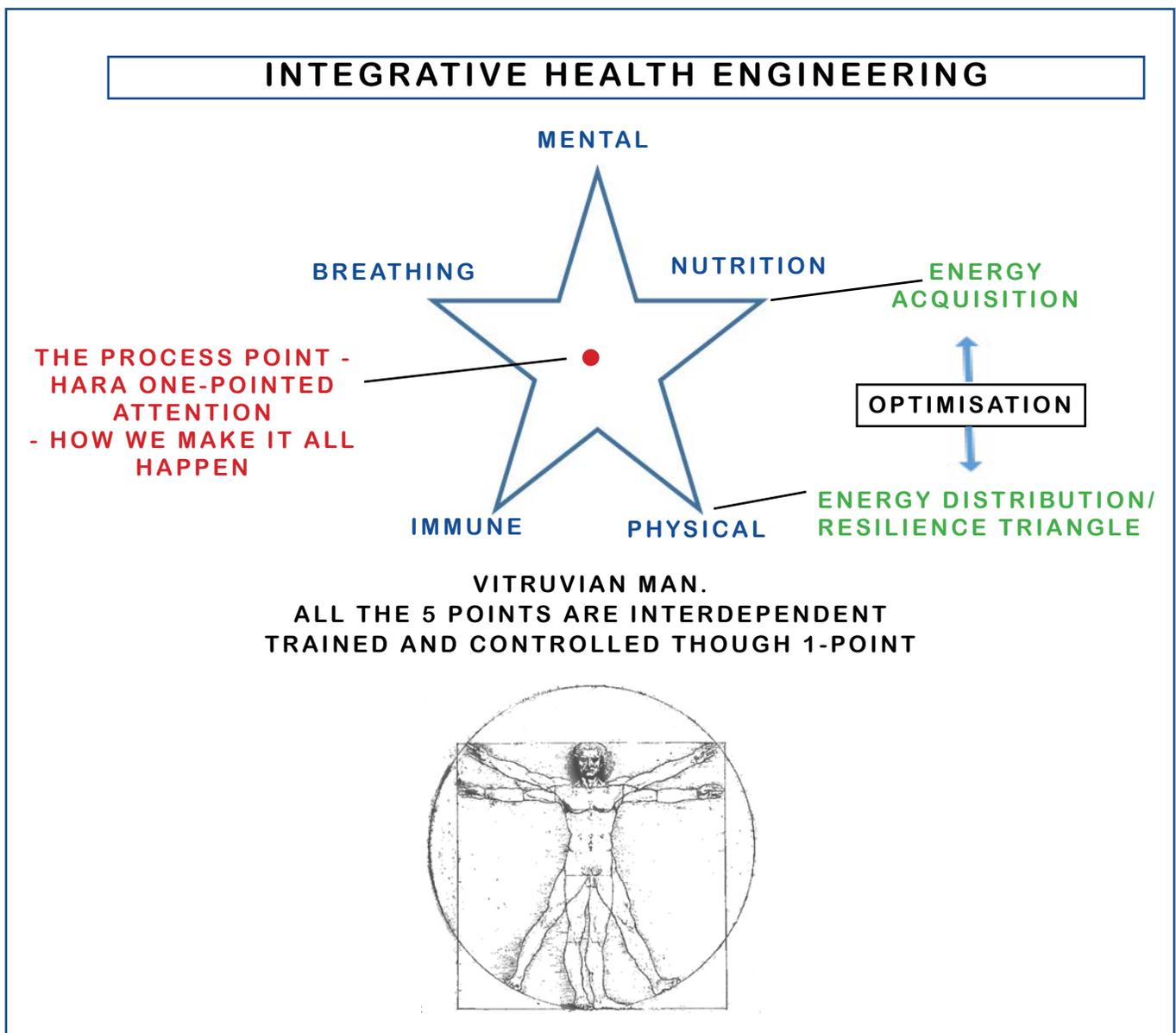


20 years' scientific research into his holistic understanding of human health where body, mind and social factors connect into one strongly synergistic structure of interdependence. I think that we, as practitioners, need to absorb this inspiration from the Buteyko world and use our daily experience with clients to form integrative concepts connecting the dots. Lots of inspiration in my own practice came particularly from Dr. Rakhimov's books that take the Buteyko legacy further, explaining very well many theoretical and practical aspects of 'sleep hacking.'

Timing of meals

In my everyday practice I see how the timing of meals

and of intake of liquids has a profound effect on quality of sleep and on healing of my clients. Our bodies can be either in an anabolic or a catabolic state. When we are digesting food, the body cannot cleanse and regenerate at the same time. And we should really understand and implement the lifestyle change required to use the night as fully as possible for cleansing and regeneration. Latest research suggests that brain cells shrink to 60% of their size during night time in order to facilitate a better flow of intracellular fluid between them, thereby optimizing nightly detoxification of our brain. ([NIH Record.](#)) However, if the digestive system is working because of a late meal the brain cannot enter the catabolic state to regenerate and detox. Simply because the cells of the



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digestive tract amount to about 90% of the overall cell population of our nervous system as a whole. So when the digestive tract is working during the night, the cells of the digestive tract are constantly communicating with the brain, not allowing the cells of brain to shrink in size and promote the cellular cleansing and detoxification.

Autophagy

This overall negative effect is promoted by the lack of another valuable cleaning pathway called autophagy. This stands for automatic phagocytosis, which means that the cell can clean the intracellular fluid of debris and toxins by simply devouring them. One of the strongest pathways of autophagy is called CMA. It starts working optimally about 10 hours after the digestion process has stopped. Under a normal western lifestyle, that is virtually impossible because we tend to eat too late and this kind of autophagy will never have a chance to even start. We are not even talking about letting it work for several times a day providing for daily detoxification of our body with no need to think about using detox cocktails and treatments made available by industry. Our body has all the built in processes we need to constantly detox and reinforce our body on a daily basis. We are just not good at letting the body do it.

Satiety synergy in practice

Autophagy and cellular cleaning can be resurrected during the night by changing the timing of the last meal and by introducing intermittent fasting into our new lifestyle. The easiest way to do that is to optimize lipolysis (fat breakdown) by introducing low carb/high fat nutrition as a standard of daily care. Simply because this way of eating spares you the struggle of a constant state of hunger. One gram of fat contains almost 2 ½ times more energy than one gram of carbohydrate, which by the way, is not an essential macronutrient at all. We cannot be depleted of carbohydrate because a body can produce glucose itself.

Fear and stress inhibits fat breakdown

Another aspect which is crucial for my work, especially with cancer, is chronic stress. Chronic stress hormone Cortisol triggers high levels of insulin. Insulin is a powerful inhibitor of fat breakdown. I see that many terminal cancer clients I work with are under constant chronic stress and fear of death. It means that you cannot

achieve any good results with a TKD (Therapeutic Ketogenic Diet) simply because you cannot optimize lipolysis unless you work with minimizing chronic stress response in these clients. To achieve this I use one-pointed attention training inspired by internal martial arts, old Samurai legacy and newer Aikido mental techniques. Training of constant mental focus in the Hara point below the belly in combination with structured movement with right posture promotes relaxation of the diaphragm and creates powerful synergetic effect. My concepts PAR (Progressive Active Relaxation) and UShape Communication are a part of my psychophysiological stress management that I used previously in my Dancing Sword practice for professional artists and athletes. Now I made them available as an integral part of my 50 weeks' video programs in three languages for health and athletic performance on sakaroff.com.

Optimized energy

When we introduce a low carb/high fat diet and optimize our body's fat-burning ability of both dietary fat and our own adipose belly fat, we gain a whole line of positive effects. Our energy levels during the day become much more sustainable. We never experience a lack of energy anymore and the state of hypoglycemia is not possible anymore, simply because of the fact that carbohydrate is not a main source of energy anymore. Its place is taken by fat so that we can run without exhaustion for many hours and actually days, according to the latest research and the vast body of evidence on ketogenic low carb/high fat diets. This happens without ever experiencing hypoglycemia, as a result of highly optimized fat breakdown after a period of enzymatic keto-adaptation. When we add moderate levels of everyday exercise and structured movement supervised by a health professional, we promote movement of lymph to take the toxins out of the body. At the same time, we are healing the gut and stopping systemic inflammation thus stopping the negative process of constant self-poisoning, with toxins seeping back into the blood plasma and intracellular fluid through the walls of a leaky gut.

How does all of this connect with breathing?

I have seen a number of cases where I have witnessed a strong synergetic effect from combining Buteyko breathing, extensive use of breathing devices such as Frolov and a training mask, together with daily work on changing lifestyle habits and patterns. Here, I mean habits of thinking, movement, nutrition and sleep.

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Beautiful correlation

One of the strongest examples of this is a beautiful correlation between therapeutic ketosis, intermittent fasting and rising morning CP. Therapeutic ketosis is characterized by the relationship between serum concentrations of glucose and ketone bodies. Modern science defines strong levels of ketosis with therapeutic effect by the ratio between ketone and glucose measured in mmol/L (millimol per liter) around one. In my practice, this ratio is always supported by a parallel rise in morning CP. At the same time, we see other positive factors such as better and more sustainable energy levels during the day, less chronic pain, stronger mental state and naturally shorter sleep. I actively use the experience from the Buteyko method to gradually alter my clients' sleeping patterns to wake up earlier and earlier. In this way, we neutralize the detrimental effect of the blood pressure rise, higher pulse and hyperventilation during the early morning hours.

How does all of this correlate with actual science about stages of sleep? Not really well. As far as I know, there is no scientific research available yet connecting the dots of cellular cleansing, diurnal changes in the brain flow, nutrition, lifestyle patterns with duration of sleep vs predominance of particular stages of sleep. Fortunately Dr. Buteyko did a lot of inspiring work with sleep as a part of the big physiological picture. Scientific research shows that cellular cleansing/ detoxification is only possible in the deepest stages of sleep stage 3 and 4. The strongest factors that influence the occurrence and timing of these two stages are nutritional and lifestyle patterns. Tailoring the slow change of these two factors to each of my clients' lifestyles is a big part of my work. I see good correlation between stable low serum glucose, high serum ketones, rise of morning CP and shorter natural sleep duration. To assess improvement of sleep quality I use 3 markers: ratio of morning to evening pulse getting lower (slow transition from >1 to <1), gradually shorter sleep duration and earlier waking hour. I see the support of the slow transition to an earlier waking hour around 4:30-5:00 a.m. as a strong factor towards synergetic effect of health improvement, neutralizing the detrimental effect of morning hyperventilation.

Work with cancer and lifestyle diseases

All of this work connecting the small dots of interdependencies are of very big importance when you work with serious illnesses such as cancer. Normally, cancer has been accumulated into a concentrated community of cells during 15/20 years before the outbreak. So we are dealing with very stable conditions and dependencies that are hard to change unless done gradually and consistently over time. The biggest effort here is to create daily communication including large amounts of nudging, listening, learning and education. That's why I can only afford to work with 10 clients at a time with 1:1 sessions, including weekly sessions on Skype or live and daily reporting through my online tool with 15/20 daily measurements of training progress. All in all, it creates good progress for my clients with a big help from their family and relatives that are also highly involved in our work, which is an absolute prerequisite for success. All the above relates not only to cancer, but also to all the lifestyle diseases connected with chronic inflammation, which can be stopped by engineering a personal tailored integrative healing process for each client. 🌸

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Misha has an MSc. in Engineering from Moscow, but is now based in Copenhagen, Denmark. He converted engineering and project management career to educational-inspirational work in 2008, and has practiced Buteyko for the last 8 years, taught by Sergey Altukhov and Artour Rakhimov. I call myself "Integrative Health Engineer", though one of my clients prefers "Spontaneous Remission Consultant" after 1.5 years of daily teamwork. Author of DancingSword mental resilience program for artists and athletes, Ki-Kaizen Energy Process, Sakharoff Resilience & Health Recovery Protocol as well as concepts of Progressive Active Relaxation, 3D Multiple Purpose Exercise and U-Shape Communication.

