

With the world basically coming a part at the seams, Nuk and I have decided to “stay the course”, at least for the time being. Whatever course that might be we are not exactly sure, although things are certainly becoming more clear by the day with regards to our brain, despite how unclear everything else beyond our aluminum walls appears to be. We’ve expanded our pantry/walk in closet while also acquiring a new portable hyper baric oxygen chamber as we prepare to hunker down for the foreseeable future here in the desert and mountains of California.

In this week’s post we will be talking about hyper baric oxygen, why it was prescribed, and why I think (although early days) it poses some amazing potential in helping to heal the brain both physically and psychologically. We also touch lightly on stimulant medication, as the last few weeks have been rather educational for me in understanding my brain’s reliance on them and why they were first prescribed some 42 months ago. Much of what I discuss is really designed for people out there who have whacked their head recently or perhaps more than a decade ago, are struggling and might be looking for alternative modalities outside of what your doctor is prescribing you. In any event thanks for reading no matter your history, have a great weekend and be safe.

Hyper baric oxygen therapy (HBOT) has been around for over 100 years and was first successfully used in 1917 to treat decompression illness sustained from diving accidents. The modality has started to appear as an “off label” medication to treat a variety of injuries and medical conditions that are often linked to aging. HBOT increases the amount of oxygen your blood can carry throughout the body thereby helping with the repair and function of damaged tissue to promote healing and fight infection. In recent years, the technology has started to make inroads into the Traumatic Brain Injury (TBI) community, but still remains “off label” and not recognized by the federal drug administration to treat TBI. HBOT has also gained global recognition for its positive effects on people suffering from Dementia, Depression and Post Traumatic Stress Disorder (PTSD), to name but a few.

After seeing the SPECT scans conducted by the Amen Clinic, they suggested spending two hours a day (one hour per session) in “the

chamber" for at least three months to help with restoring higher levels of blood flow in various parts of the brain. Specifically, the therapy is designed to help with the functionality in the prefrontal cortex (PFC) and at the stem of my brain known as the Cerebellum. Today we are going to focus only on the PFC... What does it do and why does this matter? To go back one step, in last weeks post I mentioned the overlay in symptoms between attention deficit hyperactive disorder (ADHD) and post concussion syndrome (PCS)... It turns out, as I'm told, that this part of the brain is precisely where that overlay happens and thus where the common mistake occurs in the diagnoses of one vs the other. When I went to my doctor in July of 2016 I was struggling with a lack of focus, was easily distracted, always felt disorganized, would show poor judgment on occasion and had impulsivity issues up the wazoo. I would classify the latter two as being more prevalent and worrisome within my personal life and the first three being connected to my job. Regardless of the root of the issues, I was immediately diagnosed with ADHD (along with 30,000,000 Americans according to Joe Rogan - this is a separate topic all together and has become an increasing issue in our society especially with children but also adults... Heck, even the leader of the free world appears to be an easy target for critics who suggest he can't function without Adderall. Let's hope he doesn't stop now. I digress...)

After the "diagnosis", life no question got a lot better... Shocking. See point above re: addicted population and for those who don't know or understand the stimulant world: (1) That's probably a good thing and well done; and (2) Just consider how you would feel after pumping your brain with neurotransmitters like Dopamine and Norepinephrine which allow you to feel good and stay on task... Are you getting a sense? This is not to say that people don't have ADHD, but if my personal experience, coupled with the statistics, is any indication, than I would have to think that an over-diagnosis has become common place in our society here in the west. In any event, as it turned out, I didn't have ADHD (nor do 30 million Americans) but I did have a whimpering PFC which, as the result of heading a soccer ball or hitting the snow a few two many times, had been limping along for years but had finally had enough. That part of the brain was in need of some attention that apparently exceeded the remedies that the magic pill could provide.

The HBOT is certainly starting to help, and so is a better understanding of how important it is to sleep, exercise (especially intense cardio), meditate and eat well - all of which can have a distinct impact on your executive function, impulse and mood control. To that end, while the therapy has had some great success in scattered clinical trials with increasing blood flow in the brain it's also received some good press with patients who were experiencing PTSD-like symptoms. As I understand it, the findings have uncovered significant improvements for patients in various emotional functions as well, specifically within their deep limbic system (charged memories, sets emotional tone, bonding, flight or fight response, appetite/sleep cycles, sense of smell/libido) that may have been comprised due to experiencing trauma. I've had a difficult time understanding this trauma piece and its potential impact on the brain. As I've mentioned in a few earlier posts, I was only ever provided with amazing opportunities in life and have had wonderful support from my family and friends along the way which I feel very grateful for. When we think trauma, we automatically veer towards physical abuse or soldiers watching horrific acts play out in combat, but I don't think we consider enough how historical events; both physical and emotional that might have merely overwhelmed us and forced us to "disconnect" even for a small amount of time, could possibly be tied to mental suffering. I can imagine this piece could be difficult for a lot of people out there, who perhaps suffer but are terrified to bring up something that happened in their past. They may also justify their continued silence by comparing the broad term of "trauma", in the way that society has dictated it on a macro level, to their own personal experience on a micro level.

As always, thanks for reading and let me know what you think.

Scott