



EXERCISE WHILE YOU REST WITH THE CVAC POD

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The CVAC pod may look like it came from space, but it's actually a breakthrough conditioning technology right here on planet Earth.

As an integrative physician, health nut, and athlete, I am always searching for natural modalities to boost wellness and fitness. A few months prior to opening my integrative practice, I discovered some information concerning a device called the CVAC pod. Aside from looking like it may transport me to the moon, the strange object piqued my curiosity in regards to its potential use in my own life, as well as the lives of my patients.

The Cyclic Variations in Adaptive Conditioning (CVAC) pod creates an atmospheric workload, which provides the stressors needed to provoke improvements similar to the effects of aerobic and anaerobic exercise. What does this mean, exactly? The pod effectively simulates exercise, without the exercise. That doesn't mean it's a replacement for your workout (there's no replacement for sweat), but it can be used in conjunction to help athletes avoid overtraining.

So, how does it work? This high-performance altitude simulator creates changes in temperature, air density, and pressure, ranging from sea level to 22,500 feet above, almost as high as the tallest peak in the Andes mountain range. In essence, it is a hypobaric chamber that prompts the body to compensate for the stressors incurred, which results in conditioning and strengthening of the body from head to toe. It is effective for the same reason athletes who train at high altitude get better workouts, only the effect is compounded: in CVAC, your body is constantly challenged; during a 20-minute session, the altitude changes between 200 and 400 times.

I've used the CVAC extensively in my practice, and have worked with everyone from pro athletes to regular Joes. They've discussed with me at length what their positive experiences with CVAC were like, but everyone has a slightly different take. Former NFL player and current Saskatchewan Roughrider Clifton Smith summed it up best:

"My experience inside of the CVAC Pod was interesting because I came in not knowing what to expect. I have a case of insomnia and arthritis/tendinitis in my knees. After my first session in the pod, I slept like a baby that night and my energy improved. After a few more sessions, my tendinitis improved during my training to the point that after a few weeks, my trainer said I looked night and day with the cuts I was able to make, and he was really impressed with my athletic ability without a lot of pain. The pod was a great experience in the end because of the improvements I felt in my body and the energy that I had on the field — and running around with my kids."

Without understanding exactly what's going on with the pod, the whole thing can feel a little bit like a futuristic tale, so I'll explain in more detail. Let's get technical for a second: Time in the CVAC pod makes mitochondria, which are powerhouses of the cell involved in ATP production, more robust, which hastens recovery from muscle injury, biogenesis of new cell growth, and lymphatic drainage and toxin removal. A CVAC session places a natural and tolerable stress on the body by dynamically cycling physical stressors like barostress (pressure), thermostress (temperature) and transient, pulsatile hypoxic stress by changing altitude. The body reacts to that stress by improving cellular function. This, in turn, enhances athletic performance and physical endurance. This same effect occurs during exercise, which can be accompanied by muscle tearing, joint stress, and lactic acid buildup, except CVAC sessions are much easier on the body, and allow an athlete to continue to improve energy production on the days he or she needs to rest to avoid overtraining, according to CVAC founder Carl Linton.

The ability to work out and rest simultaneously is ideal for working through an injury. The pod was instrumental in my work with pro boxer and Rocky Balboa star Antonio Tarver, with whom I used the CVAC pod to help facilitate recovery from a fractured thumb. His regular physician referred him to me for treatments during his recovery period. After several treatments with the pod, Antonio's X-rays showed accelerated recovery, and his healing time was markedly reduced.

"The CVAC pod's high-altitude simulator mechanism allowed me to maintain effortless physical conditioning since I couldn't actively train," Tarver said, "which allowed me to be victorious in my last fight, complete with a KO in the 7th round." I couldn't have been more thrilled to help him achieve it.

While it's a new technology, the CVAC pod has been shown in early studies to be just as useful as we've experienced in my practice. Pilot studies have demonstrated a consistent increase in VO2 max — a measure of the maximum volume of oxygen that an athlete can use — in athletes whose only change in training regimen has been to introduce CVAC sessions. Specifically, in a study at the University of Hawaii, young elite athletes received CVAC Process exposures for eight weeks. After only 40 hours of CVAC exposure, the athletes experienced on average a 5.2 percent increase in VO2 max.

Likewise, an unpublished pilot study out of Stanford University demonstrated the results of four young elite athletes who experienced, at altitude, a 20-percent increase in peak power, a 12-percent increase in blood oxygen saturation, and an 11-percent increase in cardiac output. A validation study performed at the University of Hawaii demonstrated that the challenge created through the transient episodes of lowered oxygen may be the reason CVAC allows the body to become more efficient at utilizing available oxygen.

Closer to home, these studies all match up with my patients' personal experiences. "Regarding athletic performance, I have thrown over 75 innings the past year with very minimal soreness following each outing," Jim Kearschner, a patient and Men's Senior League Baseball Fall Classic Champion, told me. "I have used the CVAC pod before and after games with great results — it helps reduce inflammation in my joints. As a result of great sleep, I have been able to function at high levels and with increased clarity and awareness."

Athletes aren't the only ones who can benefit from use of the CVAC pod. Anyone can, especially the deconditioned, and those with certain medical conditions such as diabetes and fibromyalgia. People with obesity, chronic pain, and amputations can have a very difficult time exercising, but CVAC provides the necessary controlled stress that exercise provides to result in cellular and mitochondrial and metabolic efficiency, without the muscle tearing, joint stress, or metabolic waste accumulation found after typical exercise. I have even found CVAC beneficial for patients with asthma and allergies. In fact, it would seem CVAC is well tolerated by just about everybody, from children to the elderly, and there are no contraindications. Additionally, recent evidence shows that the pod may be very beneficial in concussion injuries.

While the pod may look a little intimidating and otherworldly, CVAC technology has been identified as having no significant risk to people by numerous Human Research Protection programs at top universities, including Stanford, UC San Diego, Florida State University, and the University of Hawaii. I really believe that anyone and everyone can use the CVAC pod and gain benefit from it. I call it physical and spiritual reawakening and conditioning — it feels like a dance in the air! Personally, it has improved my sleep and energy levels, and all three of my active boys (ages 5, 7, and 9) use it to improve their athletic performance and recover from muscle overuse during sports. The CVAC is a truly phenomenal tool in my practice, in my own life, and in the larger athletic community.