Airofit is a new respiratory training device which measures lung capacity while fortifying the muscles we use to breathe. Originally developed as a medical tool to strengthen the breathing of asthma and COPD patients, Airofit has since found applications in everyday walking, and even opera singing. We caught up with Sean Coakley, a qualified Thought Leader with a degree in nutritional biochemistry, to find out more about the device, and to discuss the fine art of breathing.

Thought Leader

How a new respiratory device is strengthening anaerobic capacity

Airofit

Airofit is a modern device, it has a distinctly ancient lineage. In working to build anaerobic capacity by providing resistance to respiratory muscles, Airofit stresses a simple truth: healthy breathing remains essential to human performance.

Sean Coakley has made this age-old fact a core tenet of his professional and sporting life. From his early sporting successes to his discovery of yoga and breath training, Sean is uniquely qualified to speak about Airofit’s respiratory benefits.

In a wide-ranging and informative discussion, we covered everything from the biomechanics of the limbic system to the joys of meditation. Working with Airofit, Sean is keen for us all to forego the rush of worldly distraction, and to ‘kneel at the altar of the breath’.

You have spoken of the breath as ‘living between the mind and the body’. Could you talk about some of the nuances of breath training?

Negative patterns are built into the schema of how we breathe. When a stressful environment is brought upon us, it compounds the negative. It is so important to engage consciously with your breath—if you are not breathing slowly and calmly through the day, you are only hurting yourself: physically, emotionally, mentally, spiritually.

I have a degree in nutritional biochemistry, and a deep understanding of the cellular need for respiration, hydration, and fuel—these critical components. If these are not balanced, they can create a myriad of problems for human beings. These are a cohort of ancillary mechanisms in the world of the nervous system; there are thousands of processes each affecting one another. Breath just happens to be one of the more powerful of these ancillary mechanisms.

When you breathe in, you are taking in oxygen, and as you breathe this into your lungs, your capillary beds, and your alveoli—the little flower-like structures in your lung tissue—open, and that air transfers oxygen across the epithelial barrier into the bloodstream. Modern athletes might go into a lab and look at their VO2 max and their oximeter readings—which measures the percentage of oxygen coursing through their blood, and VO2 max measures the maximum amount of oxygen that an individual can utilise during the intensity of maximal exercise. As healthy human beings, however, we usually have high oxygen levels in our blood—so, rarely is oxygen the problem. What matters is whether that oxygen is reaching your muscular tissue to facilitate the creation of energy.

The solution to this is cool, and relates to the Danish physiologist, Professor Bohr, who discovered the Bohr effect. By shifting your breath mechanism to a slower rhythm, and breathing primarily through your nose, it allows you to breathe out slower, leading to slightly elevated levels of carbon dioxide in the blood. Carbon dioxide has a greater affinity with hemoglobin, which is found in the red blood cells. Modern athletic breath training is largely about getting you to tolerate slightly higher levels of CO2 in the blood, though it might make you feel breathless. As a free diver, if I am holding my breath for six minutes, my urge to breathe is not because I need oxygen: it is because I am trying to rid myself of carbon dioxide.

This is where it becomes a little counterintuitive. I am sure you’ve been told, if you want to relax: ‘take a deep breath’. Taking a deep breath is a sympathetic mechanism which ramps you up to acquire more oxygen. You already have enough oxygen; you are doing the opposite of what you need to do in this moment. The secret of everything is in the exhale—we should have been told to take a longer exhale to relax.

All the Olympians that I have trained are unaware of this because they do not have performance breath coaches.

Could you tell us in a little more detail about the benefits of the Airofit device?

There are several modules inside of Airofit, teaching you how to deal with breathless states, or the feeling of being starved for breath which you feel when carbon dioxide builds up in your blood.

As a free diver, I had to train myself—without an awareness of my own neuroplasticity—to change the way my brain thinks about CO2 levels in my blood. You can change the hardwiring of the limbic system, if you will, by continuous, slow, persistent training. The body does not have to panic at elevated CO2.

What Airofit and what my coaching with Airofit helps people to do is to break through the barrier by training people to be comfortable breathing less; to switch the wiring in the brain so as not to overreact to that moment. I got excited every time I say this: you have an opportunity to continue to breathe slow, and to facilitate the movement of oxygen into the muscles. This allows you to go further.

There is a triad of things you must work on when you are building respiratory capacity: strength, flexibility, and tolerance. I have been teaching breath performance for over 25 years, and I have tried every widget on the planet. If there is something I can put into my mouth or my nose to make me breathe better, I have tried it. Breath resistance training is not new; mechanically, it is not that hard to create resistance.

I love Airofit because of its specific training modules, which are designed to create tailored outcomes. Each of these modules is the result of deep scientific study; this means that what you are really getting goes well beyond the device itself: it is the modules and the expert coaching.

When you use the ‘Apnea module’, for example, which helps you with your breathless states, you are working with expert developers such as Alison McConnell. The rhythmic patterns involved in these modules are based on cutting-edge science and coaching, to determine better outcomes and guarantee progress. This piece of plastic is not all you are getting—what is cool is the science packed inside the app.

How do you feel when you use the device itself?

One of the beautiful things about the Airofit programme is that you follow a
When we are able to better understand and control our breathing, we can attune ourselves to the world around us. Pressure, volume, you have a recipe. Feel that by simply tuning in to sound, to take better care of it. If I can make you to pay attention to those things, you how smooth it is, its tonality. If you start with the intuitive mechanism of tuning for performance, it has so much to do its natural resting state. The nervous system, allowing it to return to means levelling the playing field for our are following their own red ball. This practiced meditation for years, they minutes each day. Anyone who has are happening as you follow the red ball. You are simplifying things for ten minutes each day. Anyone who has practiced meditation for years, they are following their own red ball. This means levelling the playing field for our nervous system, allowing it to return to its natural resting state.

Even if you are working with Airofit for performance, it has so much to do with the intuitive mechanism of turning out everything else, and consciously following the sound of your breath: how smooth it is, its tonality. If you start to pay attention to those things, you become more aware of it, and you want to take better care of it. If I can make you feel that by simply tuning in to sound, pressure, volume, you have a recipe to deeply understand your breath. By virtue of this, you breathe slower, you feel better. You pump out less adrenaline and cortisol into your blood stream. You become a human being again, and not that panic-junky that we all become.

I know I wax rhapsodic about it, but life should be that simple. Enjoy your breath, and everything else becomes easy. Sleep happens, nutrition improves as you take more time to appreciate your food, everything becomes more natural. You have a more rational mind, rather than an analytical and sporadic mind. A whole world of benefits arises from this.

Can you tell us who exactly might benefit from using the Airofit device? Christian Poulsen – the CEO of Airofit – is a very interesting character. He has diaphragmatically controlled people on this planet – because that is what they do. His friends gave him the prototype of this device, and lo and behold, he was able to hit a range of different octaves, and to hold his tone for longer.

Now, Christian’s three sons are junior national level swimmers in Denmark, and they recently found that they were not getting the athletic results they wanted. So Christian, as a good dad, gave the device to his kids to try – they changed little else, and they came home with seven gold medals at the next championship.

This was when the athletic image of Airofit was born – it has been so effective in relation to athletic performance – but we are not by any means simply an athletic performance company. You do not have a flow state, where I should be able to reach the heights of the opera singing – all this will do is compound the problems you are having in the first place. Slow and consistent and relaxed training wins the race, every day. This means you are communicating with your nervous system, and your nervous system does not like to be startled – we like to sneak up on the nervous system, and change it without it knowing. It must be changed over time.

Ultimately, my job is to get you to own the usage of your nervous system, so it isn’t owning you, and so you can recover when you aren’t working. Too many people have their analytical minds turned on all day and the sympathetic nervous system follows analysis. I am an analytical guy; I had to work really hard to gain control of my nervous system.

At the end of the day, 99% of the planet do not know how to breathe properly and they are suffering. With Airofit, I am speaking to people from all walks of life about breathing. It is truly worth the time and diligence to engage with the breath and to learn about it.

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Thought Leader

I love Airofit because of its specific training modules, which are designed to create tailored outcomes. My yoga teachers, during the monastic periods of my life, were ultimately trying to live between the sounds of their heartbeat. Believing in Einstein’s relativity – or the idea of time expanding and contracting – as a Yogi, I believe that the space between the thump thump of my heartbeat can expand so that it feels like its infinite. I am trying to delve so deep inside my own thought process to reach a flow state, where I should be able to expand and contract time at will.

In this world I am speaking of, of course, there is a lot of dogma: many will not touch technology. The beauty of what Airofit is doing is that it is bringing this kind of thinking to the masses. My job is to get normal people to breathe better – if I do that, I have achieved a pretty good thing for the health of the world.

I do not like using technology unless it benefits me. I began to come to terms with the fact that the Airofit device may not have to be seen as technology in a limited sense, but should rather be seen as a ‘bioadaptive mechanism’. In my mind, it does not conform to a traditional sense of technology; what we are utilising is a tool which allows us to remove the distractions that I bring upon my nervous system by following a source of light across a screen. Nothing more. This is ultimately about kneeling at the altar of the breath.

So, I like to change the tone of the conversation, reroute the term ‘technology’ to speak about ‘boethancination’, because at the end of the day that is what Airofit is about. I don’t feel that this is invasive technology – it’s ultimately about restructuring our habits.

How is your own work progressing with Airofit? By nature, I am a teacher. I am now the evangelist, trainer, and coach for Airofit. So, for twelve hours a day my Zoom calendar is full because I am teaching people around the world how to breathe better in order to achieve their specific needs. If I am not on the phone, I’m still this excited about breath – I love my job.

There are protocols that I have written, as a coach, that tell people exactly which modules to use, how many times a day, for how long, and at what resistance settings. I think of athletes as either sprint athletes, intermittent athletes (such as footballers), and the pure endurance athletes. Everyone who uses the modules is on an intelligent, progressive track settings. I think of athletes as either sprint athletes, intermittent athletes (such as footballers), and the pure endurance athletes. Everyone who uses the modules is on an intelligent, progressive track to get normal people to breathe better – all this will do is compound the problems you are having in the first place. Slow and consistent and relaxed training wins the race, every day. This means you are communicating with your nervous system, and your nervous system does not like to be startled – we like to