

EPISODE 231

[INTRODUCTION]

[00:00:10] AVH: Hey everybody, welcome to Paleo Magazine Radio, I'm your host Ashleigh VanHouten and I'm really excited to share today's podcast with you. I know I probably have to stop saying things like "this is one of my favorite interviews ever" or "this one's really important" because I feel like you're going to stop taking this seriously at some point.

But it's just a reflection of how excited I am about my job and all the amazing smart people I get to talk to because every week is just a new learning opportunity that inspires me and excites me and I'm just always so pumped to share this information with you. So just know that when I say this is one of my favorites, I mean it. Even if I say it a hundred times, I mean it when I say it.

All right, with that out of the way, today, I'm speaking with Rob Wilson. He is a coach with Power Speed Endurance, which is a programming, coaching, and educational platform for developing sports performance, fitness, and health not only for athletes, for high level endurance athletes but anybody looking to improve their health and fitness through increased movement efficiency and better mechanics.

The founder of Power Speed Endurance is Brian McKenzie, who you may remember from its original iteration as CrossFit endurance and his work on the amazing book, *Unplugged* and our subsequent interview about that book. If you want to go back and listen to my interview with Brian, hear about his background, the work he does and how he likes to swim with sharks like a perfectly normal person, you can check out that episode of Paleo Magazine Radio, it's episode 181.

But, one of the big elements of increased movement efficiency is focused on breath. That's oxygen and CO₂ efficiency, optimizing your breathing during exercise, and basically any other time and that's where Rob comes in. He has 15 years' experience in manual therapy, he co-owns CrossFit Virginia Beach with his wife and he's worked with Kelly Starrett on the MobilityWod staff, which by the way is another fantastic podcast guest that I had. So you can

check out episode 200 for my interview with Kelly Starrett, AKA the supple leopard, AKA, the king of mobility.

But, back to Rob, he now teaches these art of breath clinics for Power Speed Endurance. He's just super knowledgeable, really well-spoken dude, you're going to learn a lot during this podcast and also just like feel calmer when he's explaining these things to you, at least, it worked for me. I was like, taking these like deep, slow breaths and like slowing myself down when he was talking which as you can probably guess isn't something I do a lot.

Anyway, we're going to get into the fundamentals of the Art of Breath seminar that he teaches and what you can gain from being more mindful about your breath. But before we get into it, I want to read an iTunes review because they are awesome and they mean so much to the podcast. They help spread the word, about all these awesome guests that we're getting, all fantastic, free information that these guys are giving out.

So, if this is your review and you're listening, please reach out to me on Instagram @themuscle Maven, and let me know the review so I can send you some awesome Paleo Magazine gear because you took the time to spread some positivity in the world and that's not a small thing.

This review is from Paleo in PGH and they say, "Thank you Ashleigh," spelled correctly so check on that one. "Thank you Ashleigh and Paleo Mag for having such an amazing and informative podcast. It broadens my knowledge of paleo, motivates me to continually improve my health, and even inspired my future career. Without this podcast, I would not have come up with my idea for a gym pharmacy grocery store — I'm a pharmacy major — with paleo morals to help people improve their health through diet."

Okay, that's awesome! That idea sounds awesome and you can totally just send my royalty checks for when you make millions of dollars with this fantastic idea, you can send them right to me, no problem. But in all seriousness, that is a super cool review. I really, really appreciate you taking the time to do that and please do reach out to me on Instagram and tell me more about this cool gym, pharmacy, grocery store idea because it sounds like something that I would never want to leave.

Anyway, the reviews mean a lot to me, thank you again and with no further ado, here is my interview with Rob Wilson.

[INTERVIEW]

[0:04:20.5] AVH: All right, Rob, welcome to the podcast! Thanks for being here.

[0:04:22.7] RW: My pleasure, thanks for having me.

[0:04:25.4] AVH: Before you get into your sort of intro and tell us a little bit more about who you are, what have you been up to lately? Are you travelling a lot or are you kind of at home working or what are you up to these days?

[0:04:36.0] RW: Right now, I'm at home. I'm usually sort of — travel is very busy for us. There's a huge wave of interest in the work which is wonderful but is requiring quite a bit of travel and so I would say, every two to three weeks I'm out of town.

[0:04:51.1] AVH: Is that like on a plane?

[0:04:52.1] RW: On a plane, yeah.

[0:04:52.2] AVH: Yeah, okay. All right, we'll get into maybe some breathing techniques for the stresses of travel too as we go on because I have a lot of questions for you but I guess before I get into any of my selfish personal questions, I would love for you to give our listeners a little bit of your personal background, who you are, what you've done and what has brought you to work with Power Speed Endurance and then what that's all about.

[0:05:17.2] RW: Cool. All right well, so hopefully I won't get too long winded. It's been kind of a circuitous path for me to get where I am now, my professional background is as a manual therapist. So that's my professional training, is manual therapy and I've been doing that almost 17 years, which when I say out loud makes me feel really old.

It's the only profession that I really have ever had. I never had another job, I never had another career. I started doing manual therapy when I was about 20 and I've been in the movement and manual therapy space ever since. It's been an obsession, my whole life even before I was a professional. I've always been interested in human movement, exercise physiology, human performance and optimization, regulation of the mind and things like that and then I just found a way to make it what I did for money.

[0:06:07.2] AVH: Can you explain just for our listeners, before you go any further, exactly what manual therapy means because I don't know if I've heard it described that way before.

[0:06:15.2] RW: Yeah, like soft tissue therapy is really my deal. So I went to massage therapy school but I often don't say, "Hey, I went to massage therapy school," mostly because when people conjure up an image of what they think about what their experience is like when they go to a massage therapist, it's often more of a relaxation-based therapy. To some degree, in my field, everybody has to sort of pay that due, no matter what direction you want to go. But basically a year out of school, I was doing pain relief and structural integration work.

So I was really into myofascial release, I had some really amazing, very serious neuromuscular mentors. I've studied craniosacral therapy, a full range of muscle energy techniques including PNF and on and on. So basically, it's where the practitioner uses their hands to get a specific physiological reaction in order to either reduce pain and/or restructure the function of the body.

Yup, you know, I've always been obsessed with this kind of thing and in addition to manual therapy, my wife started CrossFit Virginia Beach in 2006 and I've been involved since 2007. I've been a strength and conditioning coach on top of that for quite some time and so, combining the movement, screening and all the observation of movement in this environment and seeing people for manual therapy has given me a pretty amazing perspective and that sort of led to my relationship with Dr. Kelly Starrett.

So if anybody's familiar with *Becoming a Supple Leopard* or you know, any of the other work that Kelly has done for MobilityWod.

[0:07:54.3] AVH: I tried to become a supple leopard, we have her on the podcast and I'm trying really hard, but easier said than done I think sometimes.

[0:08:01.1] RW: Kelly is an amazing guy, eh is every bit as genuine as he seems. He and his wife Juliet are really wonderful people and have been very good to me for a very long time and Kelly has been a tremendous influence on me as a professional for sure, and I was lucky enough to be part of the original MobilityWod staff. So I traveled with the MobilityWod staff and presented with them and that's actually how I got to meet Brian. So probably, it's been maybe four or five years since I started to get – I will say, get back into breath work. I just started connecting certain things and it really just led to more and more questions and Kelly and Brian McKenzie of course have been friends for a very long time. They're very close and Kelly said, "You have to talk to Brian."

We ended up getting on a phone call and it turns out, Brian is like my brother from another mother. We just hit it off right away, our personalities just mesh in addition to our professional interests, we just get along really well. We hit it off and I ended up teaching at XPPT with him a little bit and then he said, "Hey, do you want to come on board and be part of what we're doing?" And I think it's pretty fair to say, at this point, I'm doing quite a bit more with Power Speed Endurance and UnScared, either one of us could have possibly anticipated at first meeting. But it has been a fantastic ride and I'm doing really wonderful work with a really great team. So I feel very fortunate.

[0:09:30.8] AVH: That's awesome. Can you tell us a little bit about what Power Speed Endurance is?

[0:09:36.8] RW: Sure. Power Speed Endurance is most technically is an online platform for human performance. If you go to powerspeedendurance.com, there's everything from coach's consult to daily programming and Power Speed Endurance is sort of the offshoot of Brian's creation, which would be originally was called CrossFit Endurance and not to pigeon hole, but it was basically taking a more broad and general human performance take on preparing for endurance sports and that's really what Brian got really well known for.

Then he decided to move the company into an independent space from CrossFit and the name is from his book *Power Speed Endurance* and it's really just more of a philosophy and more largely, it's about, it's very skill-based and it's very based on the idea that learning should be the paramount driver in everything that we do and it should not be only about what is the outcome but what ultimately are you getting from the process.

But Power Speed Endurance as far as how it operates is a business that offers online subscriptions. You know, we have The Art of Breath seminar that's hosted through Power Speed Endurance but at its core, it's a philosophical approach to human performance for sure.

[0:10:58.9] AVH: Got it, okay. So your work with them, would you say it's like a breakdown of part sort of individual coaching, part teaching some of these seminars and traveling around and doing that kind of work? How do you break down the work that you're doing right now?

[0:11:13.4] RW: Me specifically, I came on board originally as part of the coaching team. But I am the cofounder of The Art of Breath seminar. So Brian and I created this approach to breath work and the way that we're teaching it together and in addition to that, I'm a head coach for all of the breath work in Power Speed Endurance and I direct all the education.

So any of the seminars or anything that are currently being offered, educational platforms, especially around breath work, I have a hand in. I had some hand in the way that the tactical program was structured because a lot of my work experience is with tactical athletes and in addition to that, I also am helping to develop a team so I have some hand in developing new instructors, new staff members and sort of curating our staff.

[0:12:09.6] AVH: All right, so I'd love to kind of really like drill down and get into the nitty gritty of what The Art of Breath seminar is and talk about breathing and why it's important and all the different kinds we can get into it as much as you'll allow me to ask you questions. But just to kind of start like high level, one of the things that I think is interesting being in sort of a health and fitness space is that it seems like health and wellness and even performance is on one side of the coin like very simple. Not to say it's easy, but there's some simple, like overarching tenants that are going to work for most people to make people feel better and perform better.

On the other side of the coin, it's also very complicated because when you get — when you start to kind of reach higher levels of health and wellness and competence and learning, there are so many layers and intricate ways that you can kind of fine-tune and tweak and make things better and all of the stuff. On one hand, it's like, when people are just starting out being healthier, it's like, "Okay, sleep and move your body and maybe get some sunshine and eat real food." Like pretty simple stuff that's going to work for most people.

Then you get to the other side and there's like all of this sort of really interesting complicated learning experiences you could have and personalized ways to improve things. All that to say, and I love that part and I like that you were saying one of the things about Power Speed Endurances, it's about learning, right? It's about learning and evolving and moving as you go.

But I guess one of the things I'd like to start with is the people that are coming to you or even the seminars that you're teaching to different places, do they tend to be folks who are already pretty far along and pretty sorted out in terms of health and performance? Or is it a wide range as people who don't even know, like, "What? I'm breathing. Of course, I'm already breathing. What do I need this for?" What kind of folks are you dealing with when you're talking about this Art of Breath?

[0:14:04.0] RW: Well, we have a full gamut of people who are interested in what it is that we're offering, all the way from people who are just sort of generally interested in health and wellness. We had one seminar where a guy came because he had just quit smoking and we wanted to understand how to sort of reinvigorate his pulmonary health and we have that all the way to people who are a professional athletes, professional fighters, firefighters, military, it really runs the full gamut.

What we're fighting though is that breath is very easy to take for granted because it's automatically regulated most of the time and so most folks don't really realize how powerful it is in directing the operating system of their physiology and even if they already have some awareness around it.

Some people who are already to some degree educated breath practitioners. When they come to us, it's because they're trying to look for a new way to communicate their experience to

people that they're teaching. I think one of the things that makes what we do different is that we're not trying to reinvent the wheel. Is that people have been paying attention to the breath work and breath practice for a very long time and an enormous variety of applications.

What makes it hard is that these cultures that have used these things are separate from one another and they use different languages to describe their experience. When that happens, it makes it seem like they're doing something different but the reality is that the same physiology governs all of our bodies and if you understand the baseline physiology, then you can create a language that is secular and universally applicable. So it won't matter if you're a yogi or if you're a free diver or if you're a firefighter or a soccer player or whatever. It's understanding the mechanisms that drive the reaction that you want and then applying them really as simply as possible.

Kind of go back to the premise of your question and there's always a revolving door of simplicity and complexity with anything and what ends up happening is things seems simple then they seem complicated, then you understand them better and they seem simple again. I always like this quote by Bruce Lee that said, "Before I understood the martial arts, a punch was just a punch. a kick was just a kick. When I practiced the martial arts, a punch was no longer a punch, a kick was no longer just a kick. But now that I understand the martial arts, a punch is just a punch and a kick is just a kick."

[0:16:44.6] AVH: Okay, this is very cool. All right, I guess what you're saying too is that what you're providing is this sort of universal resource but in a language that's kind of almost more maybe, again, universal but pragmatic and — so it encompasses things like mindfulness and meditation and maybe even yoga or like yogic practices and things like that. But it's like this one sort of universal straightforward language that we can all understand and get behind, right?

Is that right? Because I think one of the things that really appealed to me when I was learning about some of the stuff personally is I've always had a hard time with yoga and with the sort of like more woo-woo side of it. I just kind of wasn't really into it, but I always recognized deep down that there was value in this sort of mindfulness practice and the breathing and the paying attention to your breath and all that stuff. I just couldn't get behind the yoga practices that I was trying. I just wasn't enjoying it, it was distracting to me, I didn't like it.

When I approached the breath work from a really, I feel like a lot more pragmatic, “Here’s how you’re going to breath and here’s why and this is why it helps you.” That I could get behind and I could really find a positive kind of response from it. So is that what you're trying to do is kind of create this sort of language and this practice that can kind of just be the same level for everybody to understand and get their heads around?

[0:18:09.8] RW: Yeah, exactly, because then we can talk to each other and once you can communicate, then you can actually find best practice. But if everybody is describing things differently, then it becomes very difficult and I actually just wrote a poster, sort of in this vein the other day and, you know, the yoga community has a lot of value and I mean, traditional yoga, I mean, there’s also sort of like the Instagram excuse to wear tight pants in front of a camera yoga. Which is not yoga, it’s just moving around to get –

[0:18:39.5] AVH: Looking cute in tight pants.

[0:18:40.9] RW: Totally, which, whatever, if that’s your jam then go for it. But, the real traditional practice of yoga that dates back some 10,000 years has not made it through the annals of history because it didn’t have value. It would have gotten erased from, as technology got better, it would have gotten erased. But it has such intrinsic value that it has stayed around.

Now the issue is that, yoga, because it comes from an eastern tradition that’s very old, it uses language that’s based on stories and imagery and we live in a culture in the west that is based on measurement. We like data, we like things to be measured and so when we ask someone about something like kundalini, they might say, “Oh the chakras and this and that,” and we sort of disregard it as woo-woo bullshit and then forget that it’s based on an actual experience that human beings have had for quite a long time and instead of maybe getting fixated on the language instead, to try to understand what’s the experience that we’re trying to replicate or understand and that it has some basis in physiology and that if we can understand it then perhaps we can measure it and come up with a better description that is a little bit more universal so that we can all garner some benefit from it.

And when we talk about yoga practice, whether it's like some slowness, for some people, that's just doesn't integrate well with their personality, they don't want to go slow. But ultimately, everything is breath practice because everybody is breathing all the time. So breath practice is just a matter of deciding, I am going to be aware of my breathing in this moment and directed in a specific way, in order to get a specific result.

It's not any different than having a physical practice, a strength practice where now I have some relationship with how my body should be moving and it gives me some awareness about how I move through space. But if you squat down as you're walking down the street to pick up you know, your phone if you drop it, nobody stops and gets into it like a formal squat position and braces their abs and squats down because that's ridiculous.

Your body has some automatic relationship and if you move too far outside the spectrum of what you have given as "correct" because you have some awareness of that, your brain will go, "Hey, you're too far outside. That thing is not good for you." The same thing will start to happen with breathing. For the most part, 99% of our breathing is done without any necessary conscious intervention. But once you have some awareness of it, it can become an indicator of when you're going too far outside of the spectrum of what's good for you. Then you go, "Oh, I'm reacting in that way that I don't want," and then you can intercede on your own behalf before it becomes too hard to manage.

[0:21:35.5] AVH: Okay.

[0:21:36.6] RW: That makes sense?

[0:21:37.5] AVH: That makes sense, that makes a lot of sense. I would love for you to talk a little bit about again, just start high level and we'll get into it, what The Art of Breath seminar is, what it covers and some of these like sort of basic concepts around breathing and maybe the different gears. You don't have to give it all away because I think that it's certainly useful for folks to go and kind of take the actual course or do some of the videos and stuff like that, you don't have to give it all away here.

But if you could kind of just introduce us to what this seminar kind of covers and what it talks about and we can kind of take it from there.

[0:22:13.7] RW: Yeah, and I'll say this is that, it's impossible to give it all away. It's unbelievable. I mean, I study this stuff and pretty deep detail. I probably spend somewhere around two hours a day reading about these stuff and it leaves me with more questions every time because it is so unbelievably deep of a rabbit hole that anytime I think I've made progress, I just open up another door that is another rabbit hole onto itself.

[0:22:42.3] AVH: But as someone who loves to learn, do you kind of like that? You kind of like that don't you?

[0:22:46.2] RW: That's my favorite space in the world.

[0:22:46.9] AVH: Yeah.

[0:22:50.0] RW: Being in that sort of white belt space is the best thing for your brain and there is research to back that up, there's no question about that, that new learning that continues new learning keeps you good at learning and it is one of the things that is a hallmark of neurological health is we age. The keep the beginner's mind is not just some silly adage; it is an actual – it has a measurable effect on our brain function long term.

[0:23:18.9] AVH: More simply, it's like a fun way to go through life, right? How fun is it to think you know everything and to feel like, "Okay, well I'm sorted, I don't need to read a book or learn anything or try anything different." Like that's a really boring way to go through life.

[0:23:31.7] RW: Totally, super-boring and it's incorrect.

[0:23:36.2] AVH: Yeah, it's wrong. It's the wrong way to do it.

[0:23:37.9] RW: It's wrong, it is wrong. Yeah, I mean, there's no way to know everything that the world has to offer because it's changing. You know, as far as The Art of Breath is concerned, the main idea is, like I had mentioned to introduce a conceptual approach to breath practice and to

show where the breath practice is historically have been desperate to show places where they connect.

So some of the language that we have developed around that are for example, the three pillars that we look at when we talk about breath work and really, this could be applied across the entirety of human performance. These three pillars are state, mechanics, and physiology. State, what we're really talking about is a condition of being, simply defined. What is your mind doing and how is your brain reacting? Specifically, with breath work, what is the feedback loop that's going on and how can we indicate what state of mind we're in and then how can we shift that using specific breath protocols?

Then we have mechanics which is basically the feedback loop I have with. "Well, how's my body moving, what's my neurological control? What's my position? How can I use my breathing to optimize position and how can I use breathing as the indicator of when I'm not in a good position or an optimal position as far as my energy use?" Then physiology is really the chemistry, "What's going on under the hood? How do I use breath as a metric for my physiological health and at the same time, use it to maximize things like energy system output?" What's really interesting is that those three things are completely integrated with one another. They don't exist separately, right? They're just conceptually separate but ultimately, if you affect one part of the system, you affect the entire system.

So you cannot make any adjustment in mechanics without also making a change simultaneously and what's going on in your brain and what's going on in your physiology because they're intimately connected because that's how brilliant nature is that you affect one, you affect all, the idea behind The Art of Breath is to offer some baseline education around the mechanics of those ideas, what they are and how they function in our bodies. Then to talk about how they integrate and ultimately, to give people who come to the seminar an experience that allows them to feel it for themselves.

So we tried to focus on – in the one day seminar, in the introductory seminar, to have lots of practical time so that once we introduce a concept, we can leave it a little bit open ended so that the user can decide for themselves. I don't want to be preachy about it when we're at a seminar,

we just sort of introduce a concept, "Here's why we talk about this the way that we do conceptually, now, let's do a thing and then you can feel it and make a decision for yourself."

That is kind of another theme that we work with in The Art of Breath and we're largely Power Speed Endurance and UnScared is be the end of one is that ultimately, your whole life is your own personal experiment and it's more important for you to understand concepts and then to be able to use those concepts. One thing that we say that we say at the seminar is, it's like, if you have a method, that's like paint by numbers, right? No matter what everybody gets some version of the bunny rabbit at the end if you connect the dots and the order that they're given.

Instead of that, we want to give people an empty canvas and some brushes and a pallet and say, "Hey, if you combine blue and yellow, you get green but the amount of blue and yellow changes what shade of green and this brush gives you this kind of appearance on the canvas." But I don't want to tell people which one they should and should not use. I want to say, "Here are your possible options, then you paint and decide what you want." Because ultimately, that's what everyone is doing anyway and anything else is just fooling yourself.

We're all applying it in our own life, how we want. But having some more awareness around it, allows you to be more specific with the kind of inputs that you have in your, whatever if it's just your training, so that you can more accurately predict the types of outcomes that you want and then you're navigating sort of regardless of whether it's breath work or not. Then you're navigating through life a little bit more accurately and then it's much easier to connect outcomes with decisions and then shift back and forth and so really, underlying all these art of breath is the philosophical component.

Now, the mechanics of the seminar, it's lecturing and experience of those three pillars and at the end of the day, I think one of the thing that makes our specific experience a little bit different is we put people under stress on purpose. There's training modules at the end of the day, because I feel like one part of breath work specifically that has been ignored is how do you use it when you're already stressed? We talk about it a lot to prevent stress and then to deal with stress once the moment has passed. How do you operate in real time? That's like, how do you prevent a car crash, what do you do after you've crashed your car, but not how to be a better driver.

What we try to focus on is the sort of real life, real time and good context of athletics and human performance, in real sport, in real training time, “How do I manipulate my breath so that I don’t go in to the red?” And whether that’s some of the executive in a boardroom meeting or an athlete who is in the throws of training or high level competition, “What do I do in real time? I think that is one gap that we are specifically filling that perhaps hasn’t been looked at in breath work quite this way. At the end of the day, we really kind of put people in the frying pan a little bit and let them feel how to use it in real time so that it’s very obvious how potent breath work is.

[0:29:50.7] AVH: Yeah, I love the concept of learning and then doing because I’ve had this experience as well like we mentioned earlier. I was able to go through some of these breath work with Brian McKenzie a couple of years back and it was like some of the most eye-opening, incredible life experience I’ve ever had. Knowing what your body is capable of and knowing how you can make yourself feel and how your body can change, strictly through breath.

It truly is something that you have to physically do before you can understand. Because someone can go through the seminar with you, Rob, and then tell their friends about it and people are like, “That’s cool, I guess meditation mindfulness is pretty awesome stuff.” But you have no idea until you go through it.

Anyway, I want to get more into that. But first, just from like a very general perspective I’d love for you to talk about why different situations require different types of breathing. Because I think for a lot of people who really are new to this concept and just know that breathing happens automatically and we take it for granted and basically, we’re told as we grow up, for any situation, “Just take a deep breath,” right?

Like, “Maybe you’re stressed out or maybe you are excited about something or you’re getting ready to work out.” People just think, “Okay, I’ll just take a deep breath,” and they don’t think about, “Is it mouth closed, is it mouth open? Do I breathe a lot or less or do I, you know, everyone just kind of thinks, take a deep breath, that sorts it out. More deep breaths, more oxygen, better, right?” But there’s obviously more to it than that.

Can you talk a little bit about why different situations and different physical requirements require different kinds of breathing?

[0:31:31.3] RW: Well, simply put, the human body is self-regulating but it's not self-optimizing. If it was, we wouldn't need to train anything. It is self-regulating in that it has many deep mechanisms that allow us to navigate the environment and mostly automatically. But we know that if we offer some training to the system, then we can be more specific with the kinds of outcomes that we get and here is a simple example.

If you have somebody who is illiterate, they can still navigate through a city. But if you know how to read, it sure is easier and anyone who has ever traveled through a foreign country, knows that that's true right away. If you can't read the sign there, it's really hard. Why is that? Because reading is a valuable skill, involved in modern navigation. That is a human construct, nature did not teach us how to read. Words are made up and so our breath protocols, because the idea of a breath protocol is to purposefully engage in a pattern that will get a more specific result, faster.

You don't have to teach a child how to run but if you want to run at the Olympics, you better do some work on running, right? That's where the sort of idea that breath work is important, is because I have this resource that is - it's literally completely integrated with my brain on the very deepest level and it's organizing everything from how I physiologically react to emotions, what's going on in my environment, and all of that is happening in real time. Your body is constantly adjusting your respiration rate based on not just what is happening but what your brain predicts will happen and so what is really cool on a very simple level is that very small adjustments garner huge differences because your body adjust all systems simultaneously.

So one example that you brought up when you are setting up a premise for the question is mouth open versus mouth closed, and when people ask me, "What's the simplest thing I can do?" Right? Because I gave you a complicated philosophical answer and I did that on purpose because it is important to understand why but when people ask me, "What is the simplest thing I can do?" It's like keep your mouth shut. Unless you are talking or eating, keep it closed and here is why: it is because your nose is the part of your face that was made to deal with air and so there are systems on top of systems that are meant to organized airflow and to deal with the chemistry in the air, the immune function, oxygen absorption, all of that stuff happens in your nose.

Your mouth has very, very few mechanisms and has salivary glands that will moisturize the air a little bit but nothing like your sinuses do and so simple things like closing your mouth. But what that also does is if you close your mouth and you try to do it while you're training it is harder at first, then because it is restricted airflow your diaphragm will also get stronger. Because it is restricted airflow so your diaphragm has to work harder to draw air in. So you will get a stronger diaphragm. You will also breathe slower and fuller, which means that the feedback loop to your brain says, "Hey we're calm."

So now you have a mechanical component because it affects your diaphragm, you have a physiological component when you use your nose because of the chemical component that is involved when air passes through your sinuses, and then you have a state component because slower breathing tells your brain, "I'm calm." So it's just something as simple as keeping your mouth closed throughout the day and then while you are exercising especially at lower intensities does all of those three things simultaneously and that is how we started to figure out these pillars because it affects all three at the same time and that is something as simple as keeping your mouth closed to start is a super powerful way to start shifting your experience around training especially.

Now we could get far more complicated with protocols in both sort of seated formal breathe practice and you mentioned the gears. There is all kinds of rhythms and things that you can get in and be fancy and adjust your metabolic outputs through breathe work. But simply just keeping your mouth closed in general is enormous.

[0:35:49.5] AVH: I think that piece of advice, just keep your mouth closed is probably very applicable for all areas and situations of life. So if people take nothing else from this, it's keep your mouth closed. I think that is probably a good lesson for most of us to learn in a lot of cases.

[0:36:03.0] RW: Well nobody was ever called a mouth breather and thought it was a compliment.

[0:36:07.0] AVH: Yeah, exactly and most people, I think we all have regrets about certain times when we opened our mouth when we shouldn't have. Okay, so I have a practical, selfish example that maybe you can talk me through. In a few weeks, Alex and I are going to run this

military 5K race and he's a runner. I am not so much. I try my best but I am not really built for it. So it is not something that's ever been super enjoyable for me, but I wanted to really challenge myself and try to run this quickly, which for me will probably, if I am lucky about 25 minutes.

So in my head, I am thinking, "This isn't a sprint. This isn't a 100 meter sprint. It is also not some long, slow, sustained endurance cardio thing that you can do for ever either. It is that weird in the middle where I feel like my heart is going to explode for 25 minutes." So can you walk me through how I could – what kind of breathing techniques I can use to prepare for this, to do while I am running the race, before I am running the race, maybe as I am training, leading up to it? What are some things I should be thinking about and aware of while I am running?

[0:37:15.4] RW: Sure, are you running currently to prepare for this event?

[0:37:19.0] AVH: Yes.

[0:37:19.7] RW: And how frequently?

[0:37:21.8] AVH: I would say generally what I have been doing for about six weeks is I will do one interval training thing a week. So it might be like 400's, 10 times 400 at the race pace or just amass 5K over the course of – I will try to do three to 500 meters at the race pace or faster and then walk for a minute to catch my breath and then keep going. So I will do an interval run and then I'll do probably around a 5K and try to be close to the race pace. Or start slower and end up faster. So bottom line twice a week I am running. I might be doing one other day a week where I am doing spin class or some other cardio thing.

[0:38:05.0] RW: Okay. So first of all on your interval day try to keep your mouth closed and it will be much harder and you will not like it and the first you do it, you'll be made at me and that's fine. But try to keep your mouth close as much as you can, unless you feel like what we would call the feeling the air hunger, right? So when you start to feel a little bit of air hunger then use your mouth only for exhaling still inhale through your nose, exhale through your mouth and so you feel that initial drop in heart rate and then go back to your nose.

[0:38:36.3] AVH: And what's the difference, for people's understanding between air hunger and just being lazy, feeling a little bit tired so I am just going to start gasping through my mouth? There is two different feelings there.

[0:38:47.1] RW: It is pretty simple in reality. The first one that you feel is a lie. The second one you feel is a half-truth, the third one, there is something going on and I mean of course, there is some individual variations in that. But generally people, we stop ourselves at the first sign of discomfort. We're like, "Oh that doesn't feel good. This isn't what I am used to. I have to go a little slower. This doesn't work for me," whatever the little story that we tell ourselves that seems reasonable when we try something new.

But, you know, air hunger is, "I have to do this," that's when you do it right? You take your couple deep breathes, you let off some exhaust through your mouth and then you go back to nasal. For now I would say because it is new for you in particular, on the recovery breathe how you want and so your heart rate gets down and then as soon as you can't close your mouth and try to breathe slower and slower to get your heart rate down on your long day, nose only no matter what. Any other endurance day, nose only no matter what and it will suck at first.

But what will happen is your carbon dioxide tolerance will get really high and that is the very first component and in my opinion the most important component of aerobic efficiency is actually to become more tolerant of carbon dioxide. Because what makes you hyperventilate it not really oxygen it's carbon dioxide. Your carbon dioxide level gets higher than you're accustomed to or that your body can handle and as a result, you start offloading carbon dioxide. The downside is that often we continue to offload it beyond what we require and it starts to affect our ability to absorb oxygen.

[0:40:30.6] AVH: Okay, interesting. Yeah and I have been because I have been following you guys for a while, I have always tried to do the kind of breathe in through the nose at the very least and then out through the mouth when I get tired. But I guess — okay so then another question is, so the day of the race, are all bets off and I can half way through when I am trying to gun it and get my PR can I just be a nightmare and breathe in and out through my mouth in survival mode just to get it done? Or do you recommend keeping some kind of semblance of my dignity and not doing that?

[0:41:04.4] RW: An easy way to think about it is if you are a car and if you are in fifth gear and you just hold it in the red, eventually the engine will blow up. Now if you are a good enough driver to know when to back down then you can put it in the red because you can shift back down but if you are not sure because you are not really a runner, you don't have as much connection to your cadence and the feel of pace then what I would recommend is staying short of that redline unless you can physically see the finish line. Because if you go, "Oh there is this hill that they were talking about," and then you go over the hill and you're like, "Shit that is not the hill."

[0:41:45.1] AVH: Then you're screwed, yeah.

[0:41:46.9] RW: Yeah, exactly then you're screwed and so to me — because look, here is the thing yeah, great you PR on the run but I mean what's the prize?

[0:41:56.3] AVH: You feel like garbage and almost die afterwards.

[0:41:59.8] RW: Yeah, exactly and so go out there and if at the center of your purpose for doing the run is to learn something about yourself then I would say, try to operate within the confines of the parameters that you're trying to learn about but if you are making good time and you're like, "I want to really push it and see where my redline is," then you can go for it as long as you accept the consequences of doing that then there's no problem.

I think it is good sometimes to test yourself and see where does the cliff really fall off, but that should be a rarity. I think though that if you do the things that I've recommended you probably be pretty surprised about how fast you'll be able to go and not redline.

[0:42:43.4] AVH: Yeah, I like this idea. I mean I do see it as if you are doing it the way you mentioned, sort of closed mouth, if you can't sustain whatever pace I wanted to doing that then maybe that means you are not ready to do that in a race. Because like you said, I am trying to improve my performance and my abilities. I am not trying to just any means necessary blow myself out to get 30 seconds faster on a race.

So I like this concept and I guess I also like the idea of having this in my back pocket that if I am familiar with the redline, if I know how that feels and I have been training properly it's like you're training with a gasmask and then the actual race you have it off and so it's easier. Although isn't there – I am going off in another tangent now but people who trained with those gasmask things on, is that a thing? Does that actually work or is it just something people do for a big result?

[0:43:35.1] RW: The training mask like the altitude training mask? So that is a device that we used to play with a bit and first of all, it does not simulate altitude. You have to be able to adjust air pressure in order to stimulate altitude. Because there is not less oxygen in altitude, it's less pressure that's what makes it hard to breathe at altitude and so the altitude training mask though what it does do is it's a resistance breathing device that will help you strengthen your diaphragm and your inner coastals.

So those muscles will get stronger and it can help you be in a better position to optimize ventilation when you are training. But I would say like if you are out on a run, it is probably unnecessary and you could get at least as many benefits just by breathing through your nose because really all it is, is trying to draw the right amount of volume in through a smaller hole. That's all it means and so if you are using your nose and you're pushing your pace through your nose, you are going to get the same results. But then you also get the benefits of breathing through your nose that are provided just because of the way the physiology is made.

[0:44:48.1] AVH: Right, so a cheaper and less attention grabbing way of doing it is using it properly.

[0:44:53.2] RW: Yeah, I personally have come to like the training mask as a corrective. So when somebody has a mechanical disruption that they can't seem to overcome, the training mask provides a really good tool for finding the diaphragm and if you are on your own, you don't have access to one of our courses or something like that, then the training mask can be like an initial breakthrough tool to feel your diaphragm actually work and go, "Wow, okay now I notice I really am starting to know what that feels like."

When you see people on Instagram or whatever and they are back squatting heavy with the training mask on that's dumb.

[0:45:31.4] AVH: That's a bit much. Okay. All right, well thank you very much for your advice on that. I am going to keep you posted to let you know how it goes, because I'm going to take your advice and see if I crush my time or at least make my time, fingers crossed. I'd like to move from questions about performance breathing to some of the more maybe mindfulness, relaxation and just overall health benefits of certain kinds of breathe and one of the things I really wanted to touch on because it was just the part of it that excited me the most when I was going through the XPT breath work stuff with Brian and Laird and those guys was you can speak obviously more eloquently about what type of breathing this was.

But I remember it was a 30 minute session that by the end of it I had tears running down my face, my entire body was tingling and numb, I felt super high and euphoric at the end of it and I felt so good. I am not somebody who is really into drugs but I would chase that feeling if I can get it just from breathing. It was incredible how it changed how I felt and how my brain worked and everything and I remember after that one or maybe it was a slightly different kind of breathing exercise, we were holding our breathes for over two minutes and if you told me to do that right now, I can maybe hold my breath for 30 to 40 seconds. It is incredible.

So can you talk a little bit about what I was experiencing when I having that really euphoric crazy breathing experience. What was I doing?

[0:47:03.2] RW: Well so we classify – we'll call that purposeful hyperventilation. So there is a Wim Hoff method and a holotropic breathing would fall into this category and that is a basically a purposeful speeding up of the rhythm and depth of breathing and honestly, what happens is that from a physiological perspective you drove your pH into a very alkaline state and as a result your brain chemistry started to shift and in our opinion what we know more and more is this is not something you want to be doing with great frequency.

People do get into it because it makes you feel super awesome and high all the time, but physiologically driving your brain towards too high of a pH or too low of a pH. It is really important to understand what it's doing and it is not wrong. It's just to know why and so what happens is a reason you can for example hold your breath for so long and like I mentioned

when we were talking about the running is that the main indicator of when to breathe is carbon dioxide and carbon dioxide is the waste product of aerobic respiration.

So when your body is using oxygen as its fuel source, the mitochondria use oxygen to make ATP and then the waste as a result is carbon dioxide and we exhale it and there is balance in the system, a very small continuum because carbon dioxide is acidic and oxygen is alkaline. There is a pretty tight continuum of what is optimal in order for our body to maintain homeostasis and then once it goes out of that there are reactionary mechanisms that take place to try to re-engage that homeostasis.

So when you super ventilate because you are inhaling so much and so deeply and you are exhaling so frequently, we drive our oxygen way-way up and our carbon dioxide way-way down and so what's happening is that the signal to breathe is put on delay and this is why we say never ever do that kind of breathing before swimming because it is a much higher potential of black out and so people actually have shallow water blackout problems with this if they weren't being very cautious.

Some people black out when they do this super ventilation stuff and the reason it makes you feel so high is because when you take in a shitload of oxygen and then you hold your breath and there is limited oxygen supply your body drives it toward your brain and so it makes you feel really good. So you get a release of serotonin and there is a place for this. It's just like anything else though, it's timing and dosage, right?

So super ventilation is super important. Like for pain relief, it is unbelievable. Unbelievable how powerful it is for pain relief. It is super potent, people have had enormous success with it and autoimmune dysfunction. Stanislav Grof who was – I believe he got his doctorate at Harvard University. He is the founder of holotropic breathing, which is a super ventilation technique and he was one of the very, very early pioneers of legitimate psychedelic research for psychiatric uses in the 60's.

He was using LSD in clinical trials and things like that and when it got banned, he started to look towards shamanic cultures because that is where a lot of psychedelics come from and what else did they use in that culture in order to help people deal with mental health disorders. You

have to have something and part of their shamanic practice was very fast and deep breathing and so what he found was people were able to access deeper parts of their subconscious brain as a result of these guided hyperventilation practices because of what it does to your brain chemistry.

And it sends your emotional and limbic systems haywire for a short time and so it breaks down some of the barriers that we have during a normal conscious breathing states. So sometimes these are classified as none ordinary states of consciousness whether it is through extrinsic resource like a drug or intrinsic resource like meditation or breathe practice and these things can have tremendous value and they are giving insights into our own behavior.

But like anything else, they have to be used with care and intelligence and I think having guidance with people who understand how and when to use them is important. Otherwise, they become just like any other resource like this. They can become very easy to abuse because it feels so good and what most of us want is to feel good and so it is really easy to sort of chase that feeling and it can become just another avoidance tactic and sometimes, hey that's okay.

I am not saying any of this with any kind of value judgment. I am as guilty of it as anybody, certainly I'm at least as guilty as anybody and that's how I know is because it can very easily become a crutch and so it's important to know why are you doing it, what are you getting out of it and then once you get that thing to move on because to me the real power of the breathe practice is to be able to sit in the middle of the discomfort and not use it as a way to go away and escape and chase the high.

But instead to understand that we can be in an environment of complete chaos and sit right in the middle of it and have a full experience of it and be able to have some measure of control of our reactivity to that environment with something that is very, very simple. Now that being said, sometimes you want to go a little bit deeper and if you are somebody who enjoys some pretty deep personal exploration then breathing styles like that can be incredibly valuable but I would highly suggest getting some guidance around when it's to be applied and how it can be used well.

[0:53:06.5] AVH: Okay, everything you are saying makes complete sense but I got to say you are bursting my bubble a little bit. I am thinking, “Oh man I finally found a way to get high without taking any drugs. A perfect answer.” I mean it sure it sounds hell of a lot better to me than taking LSD or Ayahuasca, but I completely agree with what you are saying. It can be super effective but used responsibly and with some guidance and understanding.

[0:53:31.5] RW: Just like LDS and Ayahuasca, that was a sacrament that you have to earn. It just sort of became the cool shit to do in Silicon Valley but those are very serious practices and you can tell when people go too far and it just becomes another way for them to escape and avoid their shit. But with that being said, there are times in life when things are – when you are sitting in the frying pan a lot and you need to get out, that can be a valuable skill to have and I am no one to say when somebody should and should not do it. I am just saying know why and do it intelligently.

So some people need that breathe practice more frequently than I might right now. I don't know next week I might get into some life experience where I go, “Man I need that,” and I have done that. I have gone to places where, “Hey, right now I need to go deep and I need to feel this certain way and I need to experience this certain thing,” and then once I get the lesson out of it now, great.

Because I've had the same kind of emotional experiences from breath work and I grew up surfing and Laird Hamilton was a hero of mine and I've known who Laird is since I was 11 and then getting to go train at his house was super amazing and then I cried in front of him during breathe work and I was like, “Cool I got to cry in front of Laird Hamilton today.” But of course he was super awesome and totally stoked and I saw some cool stuff and it was really great and amazing and all of that but now, the whole point is to go back into the world and use it.

You know if you just keep going to that place because it is comfortable and it is not actually challenging you, the real good shit is going, “Cool, I feel good and I learned something and now, let me, when I get into a challenging situation with my wife and we're having a disagreement can I actually apply it? If I can only apply it then it doesn't matter.” Sorry not to get off on too much of a tirade.

[0:55:39.1] AVH: No that is actually a perfect segue to my next question because I do want to – I don't want to keep you too long and I have a couple more questions that I want to get out before we go but I think to just close up a little bit on this conversation about the breath work is that it is important for our listeners to know that this stuff isn't just about improving your physical performance or deep mental health practices and things like that. But that breathing and being mindful about your breath and being aware and a little bit more educated about how important it is that reverberates through your entire life and all of your actions and everything you do and how you feel and it can be obviously used for non-athletic stuff too.

So anything. You can bring it into like you said, your interactions with your spouse or your family or at work or any kind of daily stress. So I know that this is a complicated and big question but just I guess for people who maybe are thinking about maybe taking this seminar. Or who are very interested by this conversation and want to get started, what are some high level ways that people can just start being mindful of their breath, things to think about, things to do in their daily life that are going to help them feel better and be more aware of what they're doing; close your mouth?

[0:56:53.0] RW: Okay, here's two things. One is if you just take five minutes in the morning and even less than that, three minutes and just sit down somewhere quiet even if you don't know any fancy breath protocols and just paying attention to your breathing, just tune into it for two or three minutes and just see how it feels. Is it fast, is it slow, is it shallow, do my ribs move? Just start paying attention to it and then what will happen is your brain will start to create a relationship with how you're feeling when you're relaxed.

"Do I feel tired this morning? Is my breathing different when I am really tired and I didn't get enough sleep than it is when I feel awesome? Did I roll out of bed and my dog took a dump in the middle of the floor and the plumbing is busted and when I go do my breath practice, how does that feel? Wow it feels different when I breathe and I am stressed," and then you will start to catch it in real time. Somebody says something to you at work and you go, "What?" And even if you don't behaviorally react your systems still might react to it and you might go, "Hey you know what? I don't want to do that. So I am going to shift my breathing to the way it feels when I am relaxed."

Slow it down, breathe through the nose, a couple of slow breathes and then move on and it starts to become this little lever and I like to say this since both the gas pedal and the speedometer, how about that? So I can tell how fast I am going and then I can decide at the same time. That is the beautiful thing about the breath, it is the gas pedal and the speedometer at the same time. But you have to pay attention to it, you know? So just doing some slow breathing in the morning when you are just paying attention to it is a great way to start.

Now if you want to get more specific than that, we go a little bit more high-level, I am going to do a shameless plug, you can go to our website, Power Speed Endurance, there is a breath test and it is free and you can just Google "Power Speed Endurance breath test". It will take you directly to the page and take a little test. It gives you a score and then it makes some recommendations for breath rhythms and then you can start to play and just starting to feel it will be transformative all on its own and some people do that and that is good enough for them forever and that is great. If it just makes you a little bit more patient and nicer of a person and then it's beautiful and if you want to go deep, then you could go deep. But just learning how to breathe slower and buffer your stress and your reactivity a little bit is really tremendous.

[0:59:16.2] AVH: Awesome, yeah. I think that's, I mean just paying attention, slowing down and paying attention is something that maybe people throw that phrase a lot and maybe it sounds like it is common sense but it is something that in our world, especially today with so many distractions and so much instant gratification, it is a conscious thing that people need to put effort into to pay attention.

[0:59:37.0] RW: Well, of course and so here is something that I have been, some ideas I have been toying with really. So we have this really wonderfully intelligent colleague, Dr. Andrew Huberman, who is a scientist at Stanford University, one of his specialties is neuroplasticity. So the ability to purposefully change the hardwiring of the brain and what we find in adults that is required in order to make a permanent change in synaptic connection is literally attention. It is literally attention like not figuratively.

Your ability to focus on the thing that you are trying to change is literally the thing that decides whether or not you change it and I was thinking about this recently and I thought about that phrase you said we take for granted, paying attention, right? That's because learning is

transactional. You have to pay attention in order to get something from the experience. If you don't pay then you get nothing. So that's a saying we take for granted all the time but if you want to learn and change, you have to give something and that is your attention.

[1:00:41.0] AVH: So good, no such thing as a free lunch right?

[1:00:43.1] RW: 100%. Life just doesn't work that way.

[1:00:45.7] AVH: Yeah, the sooner we get over that and just start maybe deciding what is worth paying attention to then we are on the right track. Okay so I'd love for you to, you mentioned this before talking about Power Speed Endurance and unScared and when I think about UnScared, first of all I totally want one of those T-shirts because they're badass but it makes me think of the conversation I had with Brian about his swimming with sharks and testing his heart rate and breathing or whatever.

But explain what UnScared is, is that a part? Is that a different kind of part of power speed endurance or what is it?

[1:01:18.3] RW: Well yes, so UnScared in its modern formation is the business wise, it is the company that overarches everything we do. So that is the umbrella company for Power Speed Endurance, art of breathe and all of our projects. But UnScared originally started out as a joke between Kelly Starrett and Brian and then it just started to take on this life of philosophical meaning where basically the premise is this sort of white belt walking towards things that make you uncomfortable and finding deep learning experiences purposefully and in fully engaging them.

[1:01:58.8] AVH: Okay, awesome I think we should all aspire to be as UnScared as possible in our daily lives and I think that that's a fantastic place to end off so I don't keep you here all day. But I would love for you, first of all Rob thank you so much for taking the time. This is hugely instructional for me and I am sure that our listeners will agree and I would love for you now to do some more shameless plugs and tell us, you mention powerspeedendurance.com but where else can we maybe find out more info about you and then if there's any events coming up or things that we should know about, tell us about that?

[1:02:31.6] RW: Okay so the next seminar is September 15th and 16th in Manhattan. So we'll be in New York City on those dates and then what we are offering an exposure seminar, which is heat and cold in Scottsdale, Arizona on October 6th and then in mid-November we are in Milford, Connecticut and then Oahu to finish out the year.

If people want to know more about our dates and our offerings, you just go to powerspeedendurance.com/artofbreathe and all of our dates and registration information is there. If you want to find more of our work or what we are doing thinking about I am @preparetoperform on Instagram. Brian is always posting interesting stuff he is @_brianmckenzie and then of course @powerspeedendurance.

[1:03:23.3] AVH: Awesome, thank you. Are you in New York a lot? Because I divide my time, I am in Canada half the time and New York half the time so it would be great to at some point maybe in the new year come to one of your classes or seminars.

[1:03:34.3] RW: I think we might be developing some relationships there right now. I am not there a ton, but Brian might be there more frequently. Of course, yeah definitely we can keep in touch about that for sure.

[1:03:46.4] AVH: We'll figure it out. All right Rob, thank you again so much for your time and I am going to keep my mouth shut and keep you posted on how 5K goes.

[1:03:53.4] RW: Awesome please do, thanks again. Buh-bye.

[1:03:55.6] AVH: All right take care.

[END OF INTERVIEW]

[1:04:00.7] AVH: All right everybody thanks as always for listening. I hope you enjoyed it. I love when podcasts give me these really useful one liners that are applicable in pretty much in every situation, like "close your mouth". When has that every not been good advice right? But seriously, if you are working with Power Speed Endurance or if you have taken The Art of Breath

course or if you are just trying to take some of their tactics and use them in your workouts and everyday life let us know. Let us know how it's going. We want to hear from you.

So send us a message on social media @paleomagazine or me personally @themusclemaven and let's chat and in the meantime just take a deep breathe, keep your mouth shut and that's it for me. Make sure you're subscribed to Paleo Magazine Radio on iTunes, or Spotify, or wherever you listen and I hope you join me next week and I hope you have an awesome day.

[OUTRO]

[1:04:46.8] AV: Paleo Magazine Radio is brought to you by the Paleo Media Group and is produced by We Edit Podcasts. Our show music features the song *Light It Up*, by Morgan Heritage and Jo Mersa Marley, and on behalf of everyone at Paleo Magazine, thank you for listening.

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