Trees & DLake Running Tips To Master Life
Transcript

[00:00:00] **Daren DLake:** Every runner, cyclist and triathlete I'm sure has seen it as a fun number. It goes up and down on their garment of smartwatch, depending on fitness. But like you, I had a lot of misconceptions about what to do with that number and exactly how to train with it, listen and learn as I stumble through what

I thought it was, and have Mike Trees ever so gently tell me how wrong. I am, and I promise all this will make you a smarter and possibly even faster runner on this episode of Trees and DLake.

What is up. Welcome to Trees and DLake in audio and video content series by Mike Trees and me, Daren Dlake runs. Here's Mike Trees, a 50 year plus pro runner and triathlete on how exactly we want to help you.

[00:00:48] **Mike Trees (@run.nrg):** And the aim of this podcast is to give in a lighthearted, amusing, and entertaining way, hints and tips to help you all run better and enjoy your sporting life more. So let's see how we can go with that.

[00:01:02] **Daren DLake:** What about me? I've been running and doing this endurance sport thing for 20 actually 26 years now.

I've run a sub three hour marathon and I've done an Ironman triathlon in 10 hours. Language warning On a few rare occasions, we sometimes use some bad words to get our point across. Apologies for that. And last point, we do all of that in a super short, sharp, and concise way because ain't nobody got time for that.

Okay. This was a wild one that I almost didn't put out. But after editing it and realizing there was a lot of great information in there, I let it slide and I said, here, I'm gonna give it to everyone. The reason why I wasn't feeling it was because I came in with the expectation that I wanted to talk about Vo2 Max workouts.

But then I realized halfway through us recording that I should have clearly explained what Vo2 is and what Vo2 Max is before even talking about Vo2 Max workouts. Because those three things are actually different things, and they're all interchangeable, you need to know advanced exercise science to get any of this. No, you do not.

But this is a great intro to a bit of the science behind why certain workouts do certain things, give you physiological adaptations and help you mainly race faster, feel better, get more fit and healthy in the future. I'd like to break down each part, which is the Vo2 alone versus the Vo2 Max and Vo2 Max workouts, and have them as their own separate pieces of long form content.

But this is just like a entry level. 1 0 1. Get to know everything about Vo2 Max. Oh, and a random fun fact about Vo2 Max. Did you know that a high V O two Max score actually correlates with health and longevity as you age? Yes. Even more reason to keep doing these intervals and base aerobic runs.

What you will learn in this, the difference between Vo2 Max workouts, Vo2 Max and Vo2. What to do with all this, why the aerobic engine is so damn important. A great car analogy of aerobic versus anaerobic energy systems and so much more. Let's get into it. So Vo2 Max, which the two is a number Maximum volume of oxygen.

It's basically, from what I can understand, it's your body using your aerobic engine, the oxygen to the point where it then, Tips over and is about to then start using glycogen for the majority of the energy, which is the anaerobic system. So the thing that tripped me up early on and what confused me was like, but I'm running fast.

I thought aerobic was running slow. But this is where Vo2 Max comes in and this is where the type of Vo2 Max workout you do the how long you're doing it and how fast you do it, and also the rest comes into play and that's what makes it then a Vo2 Max workout. Mike is probably already, "You need to make this more simple."

But lemme finish. How I liken it, and here's a good analogy is think of lighting a string that has different colors. So you light the string and it burns the string burns and just video. So and it's got different colors. And your oxygen, let's say your oxygen's blue.

All your systems, if you were to have oxygen, the string would be 70% blue, and then it would be 20% or so. It would be yellow, and then it'd be a little bit red, and those are your different energy systems. So Vo2 Max, it's actually burning the blue part, the oxygen part, right into the point where then it's like boom, and then tips over and you're, again, you're using your oxygen.

For energy, but as any endurance event you're doing, it's obviously a combination of carbohydrates, glycogen, and oxygen that you're using at the same time. And the Vo2 Max system is this one part that you can work for a certain amount of time. And I'll get into, I'll get into how long you can work in and all that later.

But Mike, he has to, he's like this is a hot mess. Okay, go.

[00:05:05] **Mike Trees (@run.nrg):** No, this is great. Now what you've done quite nicely is basically said that you've shown what I would think most people out there is, it's a term that everyone uses and writes about, but nobody really knows what it is or how it affects them.

And this is the whole point that we all think we know a little bit about it. So I think that the simple thing is to really get it back to basics. So Vo2 Max is the Maximum amount of oxygen that the body can deliver to the muscles. And when we talk about in science, we usually say it's the Maximum amount of oxygen the body can deliver to your muscles in a minute.

And it's usually expressed in liters. So it's the Maximum amount of oxygen in your body can get to the muscles in a minute. And then so we can compare it with other people. We tend to express it as a number. In relation to our body weight. So when we see a number of and say, oh, Your garment is a great example and I'll get onto that later.

Garmin says your Vo2 Max is 50. What it means is that you have 50 liters of oxygen per kilogram of body weight delivered to your muscles every minute. That's a Maximum amount that you can create so that if you are lighter, you actually need less. Net less than higher. So what will you have?

His large numbers people big athletes. The engine was a cyclist in the nineties, a huge guy and he had thousands and thousands of liters. His Vo2 as a liter presented, he was great. Also. His Vo2 Max was great. Now you've got. Top cross-country skiers, for example, is a number will be in the nineties.

So when we're talking about it, it's , the Maximum amount. An average person is around about 35. So a top cross-country skier three times, they can get three times more oxygen to their muscles per minute than an average athlete. We're not talking an average person, we're talking an average athlete.

So that's all we're talking. Let's make it even simpler again. So we've said that it's the Maximum amount of oxygen that the body can deliver to the muscles per minute. Why is this important? It's because the oxygen is used to burn the

carbohydrates, the fuel. So we need the two together to get us the energy to get us down the road.

So if we're taking the analogy of a car engine, the car needs the fuel to power the wheels. So the fuel is the carbohydrates and the fat. In essence, if we are running a marathon and I know we, we've discussed this and it's a big contentious topic, it's probably more carbohydrates than fats that we need.

So if it's our body it's carbohydrates. If it's the car, it's petrol or gasoline, depending where you come or diesel. But so the car engine needs to fuel, get the power to the wheels. Okay. And so the bigger the engine, the more power it can get. The wheels. So if our Vo2 Max is bigger, we've just basically taken the car engine from a 1.6 liter to a three liter engine.

So that's what we're trying to do with the Vo2. We're trying to improve it so we can get more oxygen in the muscles, just like we are building a bigger car with a bigger engine. The trouble is the bigger the car, the bigger the engine, the heavier the car is. So the heavier the car is, it takes more power. To get that car to work.

That's why it's always expressed as a percentage of body weight, because if it's not in relation to body weight it's meaningless. Because we are running a marathon, we have to carry our bodies the whole way down the route. So it's always expressed as a percentage of body weight.

So if we make the engine bigger than V2 Max bigger, but we are, we're big and heavy, then it's not gonna be as good as being someone liked. This is why. We have this problem with runners always trying to be lighter cuz they've realized that their Vo2 Max will go up cuz it's a percent of body weight.

So the lungs are still the same. The ability to get oxygen to muscles is the same, but the lighter body allows them to to go faster. And so that's simply put. So the oxygen helps us burn the fuel, then the blood delivers it to the muscles. And the half is the engine pumping the muscles. So the bigger and stronger the heart, the more oxygen and more carbohydrates we deliver the muscles.

That's probably the simplest way of putting it, an aerobic exercise. This is the next step. Aerobic exercise increases the size of the heart so that it can supply more blood, more fuel, and more oxygen to the muscles. And then this gets another

technical term. This is called the stroke volume. So if we can supply more blood and more oxygen to the muscles with a lower, easier heart rate, we can go faster.

As we keep building the heart rate up, we can go faster and faster. Already. You can see I'm getting more and more complex, so I'm trying to keep it simple. Back to you to then ask some more questions to keep this going again before I delve in a bit deeper.

[00:10:09] **Daren DLake:** All right. That you explained it way better than me and a whole lot of points that I did not bring up as usual.

So this is why we make a good team. I would say, so let, lemme just jump right into an example of, I guess you know what, I realize that this is actually about Vo2 Max workouts and to do a Vo2 Max workout, you need to understand Vo2 Max. But I'm more interested in Vo2 Max workouts. So that's why an increasing Vo2 Max, your Vo2 Max, which can be used in all forms of fitness.

So you breaking it down to the basics was necessary. Whereas I was getting ahead of myself, but I realized I got ahead of myself because I was talking about something. That needed more of a base. I was talking about something that had you were seeing the outside of it, but you actually needed the, to get the structure.

So an example of a Vo2 Max workout. There's a lot of them that can increase or maintain or increase your Vo2 Max for me is anywhere from three to five, five and a half minutes interval at your current 5K pace and or slightly faster. There's been a lot of studies that I've read and I've actually done it myself, where you can actually be on the lower end.

So it's a range. And you can still get benefits, which is beautiful. Whereas a lot of people are like, oh, if I go faster, oh this is something I know you love talking about. If I go faster, I will get more benefits. And with Vo2 Max, it's actually not necessary to go faster to still build up the Vo2 Max system because it's Z four.

As far as heart rate goes, you do need to be, you need to get your heart rate. Up to this certain amount, and Z four will be dependent for a lot of different people for a certain amount of time. And again, for me, a just a traditional Vo2 Max workout is interval three to five, five and a half minutes at around my 5K pace ish current, if I

know that one, if I've done some time trials with a three minute rest and two and a half to three minute rest.

The reason being you want to get your heart rate lower. So that you don't build up lactate. Lactate, because this is not a tempo run, this is not a lactate test or a lactate type of run that you need to start how do you put it? Being able to tolerate lactate. That's what you say.

You say, this isn't that type of workout. It's act for me. I like to do it. Early in my training blocks to get ready for race specific work. It seems to work really well for me as a, I wouldn't say a base. It's like I do base and then I do Vo2 Max and then I'll do race specific work. And I really like four to six weeks seems to be about the time when most studies have said that you don't get any more benefits.

You are, this is genetic. Your Vo2 Max is genetic. You can work on it. But you can't increase it that much more. And there's other ways of increasing other things like your lactate threshold and your running economy that actually will give you bigger bangs for your buck. So again, the Vo2 Max workout, you can maintain it, sit for four to six weeks.

And I'll let you go in. So what did you want to...

[00:13:07] **Mike Trees (@run.nrg):** I wanna simplify that again.

[00:13:09] **Daren DLake:** Right now is the part where I go, Hey, if you're feeling this, make sure you like, subscribe, rate this, share it out with your friends about how amazing this is. All right. While you should go out and do that anyway, how about I actually give you something that will help you? Is the running, health, fitness, and endurance sport internet too much, sometimes too much conflicting content on how to train, right?

Or you just don't have the time to read and watch the latest trends on how to, I don't know, carb cycle for your next marathon. Don't worry, I'll take care of all that for you by showing you how to train race and live 1% better consistently. To do this, just sign up for my free DLake Runs newsletter. I figure out this whole 1% better thing, so you don't have to.

By scouring the Endurance Sports Internet's deepest and darkest corner. Go to DLake creates slash news. Spell the normal way n e w s to be inspired and motivated on the regular and back to the show.

[00:14:05] **Mike Trees (@run.nrg):** I wanna simplify that again. So what you've done is, you've talked about specific workouts with the Vo2 Max.

So let's get back. When we do a Vo2 Max workout, what we're saying is we're trying to work at a pace which is carrying the, our Maximum amount of oxygen to the muscles per minute that we can cope with. Beyond that, we can't cope with it, so we have to then use. The anaerobic system to add supplementary benefits.

So we're trying to run at our Maximum aerobic pace. So that's the idea of a Vo2 Max workout.

[00:14:38] **Daren DLake:** Workout. Sorry. Keep that. That is different than a mafa tone run though.

Ah, yeah, no, that's, yeah.

Now, hang on. And that's a Maximum aerobic. Yeah. So this is where I got confused.

[00:14:51] **Mike Trees (@run.nrg):** Maximum fat burning, aerobic. So what, okay, what we're doing withone, he's trying to work at the Maximum limit of his fat burning and develop his fat burning, which is at a slower pace.

So that's an aerobic though. This is our Maximum. We are adding in, and now this is quite complicated. That's our. Vo2 Max pace. It's the Maximum amount of fuel and oxygen despite the muscles. We are creating lactic acid, but we're absorbing it at a pace as well. So we are not going into any depth.

With Theone idea of Maxim aerobic, he's not, he's trying to go to pace where we are not even building up lactate at all. So it's a much slower pace. It's just it. He's working at what we call the fat burning carbohydrate, glycogen burning threshold. So we are trying to burn as much fat for fuel as we can.

OnOne. Threshold with the Vo2 Max. It's pure carbs. We're burning. There's no fat burning here. We are going so fast. The fat as a source of energy he is imitable. He will be going on, but as a source, contribution is minimal.

[00:16:03] **Daren DLake:** But this is where it gets confusing. You just said we're burning pure carbs and this is where when I found about Vo2 Max years ago, and you're like, but we're still using the oxygen.

And I'm like, huh. So how explain that. We the oxygen is supplying the glycogen to the muscles. It's a combination of, it's supplying it to the glass. Gotcha. We want the muscles to use that with oxygen present. If oxygen is present, it's an oxidative process and can go on for a long time.

[00:16:32] **Mike Trees (@run.nrg):** So long as there's enough fuel there. Mato is talking about fat, supplying fat to the muscles, which throughout a different process is oxidized and provides fuel. But we have to work at a much lower speed to use fat as a fuel, but we can go on a heck of a longer using fats for fuel than carbs.

So if we were to run out. Fat we all have, even though we think we have no fat in our bodies, we have big supplies and can go for many days. It's just, it's more painful and it's a slow place. So yeah we are Now, you've now come taking my attempt to make it simple. Sorry. But, so we need to work at a pace where we are.

We're at the Maximum level of supplying oxygen to muscles to power the system, which, You correctly said is about our 5K pace. So I like to do the 5K park run once a week because it's a classic Vo2 Max session. You can break that into all the other elements that you did of five minutes with a little rest, which are intervals, which I do as well.

But a park run for me is just fun. I just turn up, I warm up chapter my mate. I run the 5k, the Maximum pace I can and I've got a great Vo2 Max session now. That's one. But we've also found that you can develop your Vo2 Max through aerobic exercise by going longer and slower. So even though I'm running.

It's what we call a math pace. The Maximum aerobic capacity or ima, or whatever you want to call it. We're trying to, we work at a slower pace zone two people will

call it the top end of zone two. It's an aerobic pace that still develops either the mitochondria development and the capillary development.

It still will increase. The heart size, the stroke volume, the amount of blood we can get to the muscles. All this helps us get more blood, more oxygen, more fuel to the muscles quicker so we can develop it through the high end work and the low end work. And I suggest that a combination of both is the best.

What I think we need is it both because both have different places, but you don't need to do that high end work. If you don't want to. If you're just after health benefits, the low end will do, but yet the Maximum racing potential you need to do the high end work because you've got to get used to running at race pace.

If you're gonna race at race plate, you can't. Always just train at a long, slow pace and expect magically to run really fast on race day. So we need to do, as you said both thresholds and you coming from the sprinting background you you like the feeling of working hard and a lot of runners do.

And those Vo2 Max sessions, they're rewarding. You don't enjoy doing them, but you have the gratification of looking at the times you've achieved and the fatigue at the end. And I find that for a certain kind of people like you and me, I find them more rewarding than just going for a two hour easy run.

Although these days I'm getting older, I am getting more into that. It's nice just looking at the environment and enjoying the seniors and running along. But

[00:19:37] **Daren DLake:** Yeah I love the, I love my Z one Z two runs. I've learned to love them too, but it's just more, I just sprinkle in these Vo2 Max workouts.

And I also found out that four hundreds 10 by 12, by 16, by four hundreds. Usually for me, I'll do four hundreds on what I do, 80 seconds, 70, 80 seconds with about 40 seconds rest, 40, 40, 50 seconds rest depending on whatever it is. And that, that's my favorite. Two minutes. Yeah. 80 seconds with 40 rest.

[00:20:07] **Mike Trees (@run.nrg):** And just do it a two minute circle. Keep going back.

[00:20:08] **Daren DLake:** Exactly. Yeah. A lovely session. I absolutely love that session. Fell in love with it. I was doing 400, 800 back at college, university. And I realized I liked that workout. I like the rhythm of it and how you keep building and in the middle you just get into this great groove.

And this flow. I get into a flow state on that workout particularly. But I found out that was a Vo2 Max workout too. And I was like, Oh, I did not. I thought that was an interval workout, but it if I was doing 65

[00:20:35] **Mike Trees (@run.nrg):** It's an interval workout, but it's developing a Vo2 Max as well.

[00:20:38] **Daren DLake:** Exactly. Whereas if I was just doing 42nd sprints all out and then having five minutes off, that's probably not gonna develop my Vo2 Max system as much as that 400 s and if I was doing 10 minutes. Which would be more of a temp run. If I was doing 10 minutes at my marathon, half marathon pacing, 10 K pacing, that probably wouldn't develop my Vo2 Max as well as a Vo2 Max specific workout.

So to do certain races, you need to do a little bit more of certain things at different times. I won't go into that because this will make the podcast last for two hours, and I know Mike probably wants to jump in. Guess I, yes. Let me, lemme say one thing about how to do it wrong.

So if you're doing a vo, so specific to a Vo2 Max workout, if I am, let's say I'm 10 weeks out from my main race, 12 weeks off my rain main race, and I know that my 5K pace is three. Current 5K pace is 3 35, so my range is anywhere from 3 25 to 3 40, 3 45 minutes per kilometer. That is my Vo2 Max range.

I do not want to go any faster or any slower than that range because then I'm not actually getting the most out of that workout for. For what I've prescribed, what my coach has prescribed, the training plan, et cetera, for that day. Will I get regularly just physically fit? Yes, but I personally don't like.

Having too much lactate in my system I don't do well with that. So going any faster actually would mess me up and going any slower. I'm basically in the gray zone at that point, which we've done a really fun episode on. And if I'm not specific, my

coach didn't tell me to get in the gray zone. I should not be in the gray zone, so I have to pick it up to get a bit faster.

And a lot of people, I've seen them. Do long. And another thing that they've done wrong is they do longer rest. And what I say wrong, it's, it just depends. So I can actually do a Vo2 Max workout five minute intervals and do one minute rest. But I'll do that two, three weeks out from a race with one minute rest because I'm trying to hold lactate and tolerate more lactate in my system.

Whereas 10 weeks out from the race, I'm trying to clear the lactate out that I've that I've developed. And if I only have one minute, one and a half minute rest. I'm actually not gonna get the benefits of that Vo2 Max workout, and I'll actually be working too hard. Maybe I will get the benefits from it, but I'll probably prematurely be working too hard, too early and I might burn myself outcome for six weeks when I really need to start cranking things up.

So that's another thing that you have to have the discipline to go look two and a half, three minutes rest, even though I feel fine in a minute and a half. Okay. I wanna go. It's ah this isn't, you're not supposed to do a nine outta 10 on this workout. I like to feel like a seven.

To an eight out of 10 on these workouts, and it's one of those where You have to do it enough to understand what an eight out of 10 feels like, because an eight outta 10 is I'm going hard enough, but you know what? I'm not going too hard. Great quote from Yaka in sson, I can't say the last name.

He said he never, ever goes harder than 87% in any workouts. He saves it for racing, and I absolutely love that it's 87%. It's just a weird number. Even on his hard days. 87%. So discipline. Discipline. And that's what I love about Vo2 Max. It's discipline. So Mike, you go and tell me what I said wrong

[00:23:58] **Mike Trees (@run.nrg):** With the Vo2 Max that we're talking about is when you're doing these sessions we'll break into two things.

A Vo2 Max session in my way of interpretation is a threshold session Yes. Where you are trying to stay using oxygen as the primary source of fuel. When you

shorten the rest too much, you need to supplement that. And lactic, the lactic system comes in and we build up the lactic acid.

Now, what we're trying to do with that session, Is, that's a, what I call a lactate tolerance session. So you're trying to go further with large amounts of lactate in the system before breaking down. So that's a different kind of thing. What you're doing, you want to make the engine bigger, which the Vo2 is doing.

But a lactate tolerant session is equally as valid because if I can actually use keep running at a fast pace with a lot of lactate in the body and use the glycolic system as well as we discussed in the previous podcast, we can use this. Anaerobic system as well to add more fuel and can cope with large amounts of lactate in the body, then I can keep going faster, longer.

Whereas an aerobic threshold session, a Vo2 Max is actually trying to make the engine bigger. At that very high speed. It's trying to make you more efficient and cope with that large amount in the body. So when you change it near the race, that's good because it's super quick to affect that over a short period of time.

The but the Vo2 Max sessions, they take a long time. We were talking about six months to really affect Vo2 Max. It's a long time to get much of a change in it with Vo2 Max. We'll come back. It's talking about delivering our, I'll recap oxygen to the muscles with each stroke. We want one pump at the heart to develop as much oxygen to the muscles as possible and get as much fuels.

The muscles as possible, and that's called the stroke volume. So for people who don't really understand that, another way of measuring your, if your Vo2 is going up or not, is actually if for the same run, your heart rate is coming down. That's a measure of your increased fitness because it means that your stroke volume's going up, you're pumping more.

Blood with each pump of the heart, which means your Vo2 must be going up as well. So that's another thing just for people to simply take away from here, think if I can keep doing a testone once a week and running around that, I'm doing it with a lower heart rate. I'm getting fitter. That's another good thing to do.

And the reason I say this is also your resting heart rate. If your resting heart rate gets lower, it means your stroke volume your mitochondria have increased

probably your cappi development's good and you're able to get more oxygen to the muscles with less pumping of the hearts.

So a lower of the resting heart rate is good and the lowering of the heart rate as you're running is good. And the reason I say this is because most people, and this is you'll, I'll let you jump in on this. Most people come to me and say, oh, my Garin says my Vo2 Max is such and such. I'm sorry, but.

In essence, I think that I'm not using swear words here, but I think it's bull. The Garmin estimation of Vo2 Max is a nice little figure to look at and chat with your friends over a coffee or a tea or a beer or whatever you want and say, yeah, but. Currently I'm doing lots of Ironman training and I know my Vo2 Max, I know I'm getting fitter, but my garin cuz I'm not doing intervals and garin likes intervals as a test via Vo2.

It's shocking. It was before I broke my leg. It said my Vo2 Max was 69 when I thought he was only about 60 and now it's saying it's 45 when I think it's copied somewhere between 60 and 65. So Garin as a measure of Vo2 Maxi is not very accurate, I think. Feeling is much better and monitoring your resting heart rate.

And your heart rate at the set pace is a much better way of monitoring whether your Vo2 Max is improving or not.

[00:27:58] **Daren DLake:** And a point on that is, The VDOT score, which is, and I didn't talk about this, I'll probably put it in the intro, which was developed by Jack Daniels, in the seventies.

And the VDOT score is based on a lot of different things, but it's probably it is more accurate than the garment because it's based on actual race that you did, or a time trial that you did. Yeah. Yeah. And then it then calculates certain things and it basically gives you what your VDOT score is now.

And it also tells you it's a race predictor in a way, whereas Garmin does do it, but it still is. It's getting better. It is getting better. Five years ago, the race predictor on Garmin wasn't great. And now it's much more realistic to what you're doing. But it's also a. Once you get super fit, this is the potential that you can potentially the fastest you can run.

And I've ran the Vo2 VDOT calculator. I've done a proper Vo2 Max test on a treadmill, as I'm sure you have. I've only done it once. Probably will never do it again because I'm getting older and I just realize I, I don't need to know it to, yeah, to train more. That's key. I think. I think a lactate threshold test is actually more important.

I'm actually gonna better one of those. Yeah, especially when I start doing 10 Ks and half marathons, I just seeing where my training can be more effective with that but it's interesting about the VDOT score because. I started you basically need to have a certain VDOT score to run a certain time.

If Garmin's saying your VDOT score is 40 and you're like, oh, I think I can run a 15 minute 5k. That's literally and sorry. If you run your times through the VDOT calculator and it's saying 40 you, most people I'm sorry. Most men cuz women's scores are lower. Most men at a.

40 V score or Vo2 Max number cannot run a 15 minute 5k. You have to have quite a high VTA unless your econ economy, running economy is through the roof. Even then, so I like to, I think it's really interesting that there's a correlation between times and v. Vo2 Max numbers slash VDOT scores.

And that most people, the majority of people fall in that number that is not Garmin. And I just really wanna say like the whole Garmin thing, like I basically, it kept saying I should be running a 14 minute 5k, and I just laughed at it. I was like, no. Yeah, like that. Like I am not anywhere close to running like 16 minutes, barely half, half 60 minutes.

Take Vo2 Max scores on your Garmin or your chorus or whatever. Even apple Watch has one, have an Apple watch now. And it is way off because it's not getting fed all the input data. So that's all my take on Vo2 Max. You wanna finish it? One? Yeah. Yeah. One closing statement.

[00:30:39] **Mike Trees (@run.nrg):** Yeah. I think that the takeaway is it's great for sports scientists to study, to look at human specimens. What's the biggest Vo2 Max ever recorded? What have sports people achieved and to try and correlate with with performance. But again, there are so many other factors that if you're.

Given a low video to Max and genetic comes a big play into it I remember when I was at university, I had a test of 70, I was told, yeah, 20 years old. That's as big as it'll get. So you are you are a good international a good inter college level learner. Years later in New Zealand, when I was a professional triathlete and well trained, my Vo2 Maxus, God is 84, which they said was off the scale.

And I think what. How come it's now 84? When I sold it, 70 was the Max. And then you read about Derek Clayton, who was the first man to run a sub two 10 Marathon Morrison world record holder. His Vo2 Max was 69, which was lower than my 70. And technically only good enough to be an intercollegiate runner.

So it's just one, he's obviously a very efficient runner and use very little oxygen to run. And so you can work on the efficiency, not just so to go quicker to sum it up. It's a, it's an interesting statistic and improving your Vo2, improving your oxy carrying capacity and your stroke volume is good for health and possibly for longevity.

But there are other ways to go quicker to become more more efficient in the way you run. So it's not the total predictor on everything. It, it's an interesting thing, but don't get too hung up on it. Is my final take.

[00:32:24] **Daren DLake:** This episode is brought to you by energy Coaching, which is Mike Tree's coaching service Mike coaches beginners to pros and all levels in between. No one is too fast and no one is too slow. All the coaches have a desire to learn and.

To improve with their athletes. Energy coaching focuses on the 1500 meters to marathon running and triathlon training. Energy coaching is usually overbooked, so Instagram and this podcast, venture Treason dle gives Mike and the rest of his energy coaching team a way to reach out to more people and help them.

Contact Mike and his team@nrgcoaching.com for more info. That's the letters nrg-coaching.com. No spaces for more information. Time. Time is a resource that no one can make more of. Not yet at least. So we appreciate you taking the time out of your day to listen, watch and generally consume all of this stuff.

Accessibility is pretty cool nowadays. So we have a transcript for all of the episodes. Make sure to go to the show notes section on this episode on whatever

podcast player you're listening to, or you can go to the description of this video on YouTube or just go to dle creates.com/transcripts. All of this was produced in Sydney, Australia, so acknowledge the Gadigal of the URA Nation, who are the traditional custodians of the land.

I pay my respects to the elders past, present, and emerging. A lot of people ask how they could support us, and I think the easiest way is to just share this out to people you know that would like. This. So whether it's a podcast link from Apple Podcast or Spotify or Google Podcast, whatever you're listening on or you're watching on YouTube, send then the link, or even the Instagram post, my newsletter, blog post, et cetera.

We try to make it super accessible. The second easiest way is to rate like or subscribe to this podcast and or video on YouTube or even subscribe to my newsletter. If you have any feedback, feel free to hit me up. Talk at dlakecreates.com. That's the letters T A L K@dlakecreates.com spelled all the normal way.

Train smart, race and live easy. Peace.