

[00:00:00] **Dr Mike T Nelson:** Welcome back to the Flex Diet podcast. I'm your host, Dr. Mike T. Nelson. On this podcast, we talk about all ways to improve performance, strength, add muscle, better body composition, and do all of it without destroying your health within a flexible framework. Today on the podcast, we've got Arctic Explorer Akshay and then also from Tekton, UJ and Mike Chesney.

[00:00:29] And we are talking about the role of ketones both as potentially as a diet and as a supplement to help Akshay cross Antarctica. He is working to be the first human ever to do a solo expedition unsupported and crossing the entire continent of Antarctica. So he will be doing this all while pulling all of his own gear.

[00:00:57] He will not have any supply drops or anything like that. He'll be navigating his own way. Pulling a massively huge sled, literally, across the entire continent of Antarctica. That is going to be happening this October. And I'm super excited to get together with the guys from Tecton, who are also helping with this expedition.

[00:01:21] I'm honored to help Akshay with his nutrition and some other components of his expedition coming up. And I wanted to have all of them on the podcast to discuss the role of ketones. And for actually just to give us some background on what goes into doing this historical event. And I think you can learn a lot from people who are definitely on the edges doing very difficult things.

[00:01:47] How do they prepare? What do they do? What have they learned in the process? And today's sponsors of the podcast are the Phys Flex Certification, which will open again this month. On Monday, March 18th, it'll be open for exactly one week through March 25th, 2024. This is the Physiologic Flexibility Certification.

[00:02:12] This is the official level two to the Flex Diet certification. The Flex Diet certification, as covers primarily the components of recovery via nutrition, although we do talk about sleep and walking and everything else. And once you've got your exercise and nutrition dialed in and sleep, around 80, 90%, the next question is what do you do next?

[00:02:38] So you want to move on and be more of a robust, anti fragile, much harder to kill, increase your recovery capacity. There's a bazillion different one things that are touted to you by gurus on the internet. How do you know what to do? So that's what I cover in the Physiologic Flexibility Certification.

[00:02:58] So it's everything from temperature differences, so both cold to hot, which obviously we'll talk about temperature differences here. Changes in pH, so everything from high intensity interval training, to zone 2 work, to breathing techniques. We also cover an expanded section on fuels. Focusing specifically on the extreme ends of that spectrum from lactate, which is a by product of heavy and high carbohydrate rate use, and then also ketones.

[00:03:28] Ketones are a by product of heavy and high fat utilization. And there are some benefits to both ends of those spectrums. And then pillar number four is breathing techniques. How do you regulate oxygen and CO2? Are there things you can do that more efficiently and see pickups in both health performance and Potentially even body composition because your stress is going to be lower So check that out go to physiologic flexibility calm to get on the waitlist and get all of the information on that I'll put a link to that down below Also check out drink element e.

[00:04:06] com. That's drinklmnt.com that is my favorite electrolyte that I am drinking right now. Today I'm drinking the raspberry. My general rule of thumb for most clients is to consume about one packet of Element or the equivalent, and one liter of fluid, ideally before you go to the gym.

[00:04:30] Sometimes that is difficult if you're training first thing in the morning. If not, then try to consume that before noon. And if you want to go even further to be more specific, consume about a third or maybe even half of that within the first hour after you get up. What I've noticed is most people feel a lot better, energy levels more consistent, training performance is much better, even in kind of thermo neutral climates if you're exercising inside of a gym.

[00:04:59] Obviously, this is a hugely benefit if you are exercising outside or in different conditions, especially heat and humidity. So check them out. Go to drinklmnt.com forward slash Mike Nelson. You'll be able to get a free sampler packet there. And it is probably the one supplement that I've used literally every day for coming up on over three years now.

[00:05:25] I got a little freaked out when we went to Mexico for two weeks and I thought I didn't pack enough elements. So I had to ration them out a little bit while I was there. Also, I wanted to make a note that the guys from Tecton are going to be on here. Tecton is a company that I am a scientific ambassador to, so full disclosure.

[00:05:46] I am also an ambassador to them, so I'll put a link there if you want to check out their product and get 25 percent off with my link. I think I do make

some income from that. But it's super interesting. It is an exogenous ketone. So you can use ketones as a supplement to put you into a state of ketosis without having to do a ketogenic diet.

[00:06:09] Now again, there are times that a ketogenic diet can be beneficial, mostly for pathologies. I've done a whole programs about the use of ketones and ketogenic diets for traumatic brain injury and concussion for the Kehrigh Institute, where I'm an associate professor. But with this drink, you can also put yourself into a state of ketosis.

[00:06:27] You can get high levels of ketones within about 20 or even 30 minutes of just consuming the product. That's why we have UJ and Mike Chesney on here also to talk about the potential role of ketones. When you're doing exercise. And again, the benefit of using it as a supplement is you don't necessarily have to do a ketogenic diet.

[00:06:49] You can get high levels of ketones via a supplement, which I find just absolutely fascinating. Enjoy this podcast with Akshay, UJ, Mike Chesney, and myself. And if you want more information about how to properly use ketones, make sure to check out the Physiologic Flexibility Certification. If you want more information on Tekton, there'll be a link down below.

[00:07:12] If you're looking for electrolyte supplementation, check out the link to Element. Enjoy the podcast.

[00:07:17]

[00:07:17] **UJ:** Akshaya, how's it going, man? You moved to Alaska

[00:07:20] **Akshay Nanavati:** already? Yeah, I'm in Alaska staying at a friend's cabin here right outside the lake and so I'm outside training every day. Yesterday I was out with a 330 pound sled for four and a half hours, so it's hard work, but good training and great to be here.

[00:07:37] Where you at in Alaska? It's called Big Lake, so it's just a hour and a half north of Anchorage. Okay. Yeah. Nice and chilly, Ben. Yeah, it's it's a good training area. It's perfect training ground. I'm very blessed for my my friend lending me his cabin here. So we have a place to stay. My wife is up here with me.

[00:07:58] We're up for the next two and a half months and I'm here till mid March and then April I go to Alaska for sorry, not Alaska, to Iceland for a solo expedition. So next three, four months we'll be all training for Antarctica.

[00:08:14] Nice,

[00:08:15] **Mike Chesne:** nice.

[00:08:15] **Akshay Nanavati:** Thank

[00:08:16] **Mike Chesne:** you. Yeah keep the fingers, keep them fingers and those ears

[00:08:18] **Akshay Nanavati:** covered. Absolutely. No, I don't want to lose any more. At least. So that's the worst part about it. Yep. But it's great training. I love being by

[00:08:31] **Mike Chesne:** two worst parts.

[00:08:35] **Akshay Nanavati:** Hey, Dr. Mike,

[00:08:36] **Dr Mike T Nelson:** good to see you guys. How are you guys? Good. How are you? Good. You're looking warm in Alaska there.

[00:08:46] **Akshay Nanavati:** Yeah, feeling very good. Good to be here in Alaska. I'm right on a lake, so it's just a perfect training playground. Literally I walk out and I'm skiing, oh, nice. So it's a beautiful spot to, to train for Antarctica.

[00:09:00] **Dr Mike T Nelson:** Very cool. Yeah, I'm sorry my home state of Minnesota let you down with the snow.

[00:09:05] **Akshay Nanavati:** No, I know. It's very shocking.

[00:09:08] **Dr Mike T Nelson:** It is

[00:09:08] **Akshay Nanavati:** actually. Is there finally snow out there now?

[00:09:12] **Dr Mike T Nelson:** There's some, but really not that much. It's weird. Like we had so much the last couple of years that this is very odd for this time of year.

[00:09:20] **Akshay Nanavati:** Crazy. Yeah. All worked out. Yeah.

[00:09:26] **UJ:** Yeah. All right. Let me do some quick introductions because I don't know if everyone's met everyone, but we've also got Dr. Mike Nelson, who is trains extreme high performance folks. He's a science advisor. We've got Akshay, the star of the show, who's going to cross Antarctic on unaided.

[00:09:43] We got Tiffany, who's our head of marketing. She's just joined about a few weeks ago. And then Valeria, who's heads up our public relations and Kate Williams, who does content and writes blogs for our team. And you've obviously heard Mike on the phone. He's the co founder and he's the guy who created the ketone molecule that we are all here to talk about as well.

[00:10:07] **UJ:** Awesome.

[00:10:09] **Dr Mike T Nelson:** Awesome. Yeah. No, I'm just recording this for whatever, however we want to send it out for clips or I can send it out on the podcast too. And just whatever way works for that.

[00:10:21] **UJ:** All good with me. Yeah. We probably take some clips and cuttings and, use them in different ways. I'm sure Tiffany and Valerie will think about that offline.

[00:10:33] **Akshay Nanavati:** Awesome. Thanks everybody for the time. Great.

[00:10:37] **Dr Mike T Nelson:** Yeah, and I'm ready when we want to start. And then I was just going to have people who are mainly on the call, just intro themselves. So if I send it out as a podcast, that way people can connect the name with the voice in case we don't use as much with video.

[00:10:53] And yeah, I just had a couple of basic questions and I'm good for about an hour. If you guys are, and are there anything else you guys need from this?

[00:11:02] **UJ:** Sounds good. Yeah, I'm good.

[00:11:06] **Dr Mike T Nelson:** Cool. I'll just do a short pause and we'll just we'll just kick it off.

[00:11:13] All right, Mike, you're in charge. Yeah. So I'm here today with it's going to be a very cool call. We're going to talk about a solo crossing of Antarctica and how potentially ketones may help with that. So we'll start with

the two main guys on the ketone side if you guys want to introduce yourself and we'll go down the line from there so that way if people are listening on audio they can associate the name with with the voice in case they're not watching it on video.

[00:11:42] **UJ:** Mike, you go

[00:11:43] **Mike Chesne:** first. Sure. My name is Mike Chesney. I am a 25 year military veteran. I retired in 2010. Spent The majority of my military career in special operations, I was a army ranger and then special forces ended my career in a special mission unit ended up after I retired, getting into healthcare consulting and then got into performance nutrition and and ended up getting involved in the key cone space, mainly as a, an adjunct to to energy for.

[00:12:21] For people, for human beings. I met up with my co founder Udayan Jatar, UJ. It's been eight years now and we have been pretty much joined at the hip in business ever since. And I'll let you J. He's got a very storied career and and both marketing and how does this

[00:12:45] **Akshay Nanavati:** feel like that? You don't get

[00:12:51] **Mike Chesne:** off the ride that went in the car seat.

[00:12:55] A little bit of background noise there. Do you like do you like it like this?

[00:13:03] **UJ:** Is that you on your

[00:13:04] **Dr Mike T Nelson:** side, Mike? I'm not sure. Someone's not on, not talking. If they can just hit mute. We just had some background noise. . Go ahead. Uj.

[00:13:15] **UJ:** I think Mike, you might need to mute yourself

[00:13:18] **Dr Mike T Nelson:** before I phone. Oh, maybe it's his phone. I think we're good now.

[00:13:24] **UJ:** All right. Mike, thanks for that introduction.

[00:13:27] So my background is in, developing and launching new brands, new products since I was 18 in college, doing door to door sales and then went to

work with Procter Gamble and then Coca Cola and developed new technologies. Like coke freestyle and other stuff that was intended to help people get healthier by giving them better choices I was trying to move the coca cola company into non carbonated non sugary non caffeinated products With mixed success is what I would say.

[00:13:58] And so I left Coca Cola in 2008 and, worked a lot in the nonprofit sector is focused on health and well being. And through that network of scientists that I was training, I got introduced to Mike, a very convoluted way. And as he said, we've been working together now for over eight years.

[00:14:16] And what really appealed to me about this business is that it was really about a mission to help people with PTSD, especially veterans. And my family's background is all military going back to World War One, actually going back to the 14th century, but we won't go there. And the in some, I've got a great affinity for people that are willing to risk their lives like Mike has done.

[00:14:39] He's a double purple heart. He won't tell you this. But it's really important for me to be able to support people who are willing to put their lives on the line for other people. So that's why I got involved in this business about eight years ago.

[00:14:55] **Dr Mike T Nelson:** Yeah. Thank you so much. And actually, give us some of your background.

[00:14:59] I know you've spent time in the military and have been doing a lot of, let's say different exploration missions before getting ready to undertake this next very large one.

[00:15:09] **Akshay Nanavati:** Yeah so yeah, thanks. Thanks everybody for being here. My name is Akshay Nanavati. I was in the Marines for six years, did one tour in Iraq, seven as an infantry non commissioned officer.

[00:15:19] I struggled a bit after coming back from the war, was diagnosed with PTSD, depression, heavy drinking, until I was on the verge of suicide after drink, like binge drinking liters of vodka for five days in a row. And coming out of that, I found my peace through these explorations of the edge. I became an adventurer and ultra runner.

[00:15:39] I built a brand called fear Vanna wrote a book around that, and I've done series of adventures all over the world from climbing mountains in the Himalayas to an expedition in Antarctica two years ago. Where I lost a couple

of fingers to frostbite been out in the Arctic, and just multiple other expeditions, including a ski crossing in Greenland, all leading up now in 2024, November of this year, to do a solo 110 day, 1700 mile, coast to coast ski crossing of the entire continent of Antarctica, which has never been done before.

[00:16:08] So that is my, that has been my direct focus for the last four years, but in many ways, my entire life has been leading up to this big journey.

[00:16:17] **Dr Mike T Nelson:** Wow. What? When did you have the idea of crossing Antarctica? I'm always curious what, did you just run out of other things to do and thought, Hey, Antarctica, nobody's done this before, let's try

[00:16:30] **Akshay Nanavati:** that.

[00:16:31] Yeah, the crazy thing is when I was in Iraq, I wrote this in my journal that one day I want to do a never before accomplished expedition in Antarctica. And I don't remember writing it. I remember rereading my Iraq journals a few years ago, and I saw that in there, which it blew my mind that I wrote that.

[00:16:46] But I wasn't consciously aware of that. And it, hit many ups and downs after the war, but directly. It came to me about four years ago because part of the inspiration is it's the last great feat in Antarctic exploration that hasn't been accomplished yet. People have crossed Antarctica with kites and dogs.

[00:17:04] People have done, multiple varied expeditions to South pole. But a full coast to coast crossing without kites or dogs has never been done. So part of it was just the appeal to push the boundaries of human endurance in a way that has never been pushed before. I'm also drawn to the pursuit instead of doing it with kites and dogs, which requires more technical finesse.

[00:17:22] When you're man hauling a 400 pound sled with all your supplies, it's just pure suck. It's just pure suffering. And I'm drawn to not the suffering directly, but what that gives me access to the monotony, the struggle, the suffering, both mental and physical. It allows you to open doors within yourself, into the human soul, into the spirit, to transcend that suffering.

[00:17:45] And I was drawn to the transcendence. It's my own journey to awaken that inner Buddhahood that we all have inside of us. And this is stretching it to the absolute limits. And like I said, it's never been done before for a reason.

[00:17:59] **Dr Mike T Nelson:** Very cool. And I know you've done some Unconventional things like people would assume you've done a lot of Arctic exploring and done a lot of work there But you've also done crazy things.

[00:18:09] Like I think it was seven days in complete darkness. Is that correct in Mexico?

[00:18:14] **Akshay Nanavati:** The first time was seven days in complete darkness and isolation in Germany Okay, second time was ten days in complete darkness and

[00:18:21] **Dr Mike T Nelson:** isolation days. I'm under undershooting it

[00:18:23] **Akshay Nanavati:** here That one was in Mexico. So the second time I did the darkness retreat was in Mexico.

[00:18:29] So yeah, I've done all these different things from the darkness, from running ultra marathons, from Arctic and Antarctic exploration, all in this kind of continued quest, you could call it for enlightenment, for transcendence, to tap into the depths of the human soul and to hear those things, to add, to, to.

[00:18:46] To discover things that you can only discover in that struggle. You can't find it in the mundane. And to go see what I find out there.

[00:18:56] **Dr Mike T Nelson:** After the darkness one, what was the biggest thing you walked away with that? Because I, on my brain, I'm thinking most people probably can't relate to crossing.

[00:19:08] Large stretches in the winter, if they're in a warm climate, but people know what it's like to be in dark. If their power goes out for a couple of days, but to willingly subject yourself to that for 10 days, just to, I'm curious what you learned

[00:19:23] **Akshay Nanavati:** during that process. I the biggest draw for it both times was, in darkness, you're shutting off your visual sense, which is one of the primary ways in which we engage with the world.

[00:19:33] So even in the smallest way, like right now I can look and say, there's a wall, there's a window. So my mind has somewhere external to latch onto. In the darkness, you have nowhere external to go, so you're forced to go within. And in addition to that kind of journey within. They say that when you're in extended periods of darkness, this is pitch darkness, right?

[00:19:51] You cannot see your hand in front of your darkness, that your brain starts to release DMT. So you experience these hallucinogenic light shows, which I experienced both times. And the lights are as real as any lights I'm looking at right now. In fact, the brightest white light I ever saw in my entire life was during the seven day darkness retreat when it was so bright that I was shielding my eyes.

[00:20:09] And it was blinding me. That's how bright this white light was while sitting in a dark room. So I got a lot from it. I was journaling both times and just continuing to see what answers I would find within. Like I got to process a lot of my experiences from the war, the survivor's guilt.

[00:20:26] I wrestled around with that. The second time, especially I went in as training for Antarctica. So training for solitude. So I was cultivating this character. I had what I perceived to be a conversation with God that left me bawling in tears, so I just got to open new doors within myself that allowed me to embrace new areas of the human experience that I hadn't before.

[00:20:48] Specifically around, when I wrote Fearvana, for example, Fearvana is very backed by research. Everything is scientific, everything I had to explain, even if not to anybody else, but to myself before this, both times in the darkness, it allowed me to. Embrace the mysticism of the human experience.

[00:21:05] Call it God, the universe, consciousness, this, the, those, all those moments where we can, we all can relate to or something happened, you're like, that's so wild that happened, in the simplest, smallest ways to the biggest ways, like, when I was in Iraq, my bomb, my vehicle drove over an active IED that didn't explode for some reason.

[00:21:21] Why did that happen? I don't know the answers, but there's mysticism to this world and the darkness kind of allowed me to embrace the not knowing all the answers and allowing to a surrender to the magic of the universe, the magic of God, whatever you want to call it, and embrace that and tap into it as a tool, even as I continue these journeys.

[00:21:41] **Dr Mike T Nelson:** Because as you said, you're doing this solo, there's nobody there, no even dogs to talk to and you're also pulling all of your own gear. So everything that you would need food wise, which we'll get into here you are bringing the entire time from start to finish.

[00:22:00] **Akshay Nanavati:** Yep. I'll be dragging all my supplies, food, fuel, tent, clothes, everything in completely alone for 110 days.

[00:22:07] Portions of that journey, I will be geographically the most isolated life form on earth because Antarctica, there's no, there's only penguins in kind of one corner of Antarctica, but most of Antarctica has no life at all. So As alone as you can get, and that's part of the draw as well, because in that silence, you get to hear things that you don't hear in the decadence and the distractions of normal life.

[00:22:28] And that's, it's profoundly beautiful to, to navigate that, to see what is revealed in these moments. Awesome.

[00:22:37] **Dr Mike T Nelson:** How do you go about figuring what to bring on that? Because I would imagine like literally every single ounce has to be justified because the amount of weight. You're going to be pulling especially at the start.

[00:22:52] Food with some of the items will be consumable, but some of them are just a raw fixed cost the entire

[00:22:59] **Akshay Nanavati:** time. Yeah. And it is, ruthless with weight cutting to be as, literally cutting tags off my shirt. I'm not even taking extra shirts. I'll be in the same shirt for the same, for the hundred.

[00:23:10] I'm taking one extra pair of underwear, but otherwise I'll be wearing one underwear pretty much for the whole time. Minimal weight, even my toothbrush, I've sawed in half to save a few more grams. I've cut the zip zipper handles of like most of my zippers, including on the tent, and then you tie a string directly to the kind of zip instead of the handle.

[00:23:27] So by. Cutting off the handles, you save even more weight. Cutting off the handles on my tent allowed me to save 35, 40 grams. So everywhere where you can shave off grams, I've been doing that. The biggest weight is food. And the second heaviest is fuel. Now, the good thing is, as you said both of those, you get used every day.

[00:23:45] So as I eat food and as I use fuel every day to light the stove, cause I like the stove to boil snow for water. That is the sled is getting a little lighter and lighter every day, but the rest of it, like the tent and the minimal extra clothing you have, like your, your mittens and the down jacket, things like that, those will be consistent throughout the journey, but it's come with a lot of.

[00:24:05] practice. I've done a lot of polar expeditions before. I've learned from polar mentors and friends on how to be better with weight cutting. And then

even with food, I went spent, weeks, months research, you've helped on Dr. Mike as well, in figuring out, how do I find the most Weight efficient foods.

[00:24:23] Cause that was something like one previous expeditions. For example, I would take, let's say salami and cheese. It's a very common food to take in put on the pole on polar expeditions. It tastes great. It's great for morale, but here's the thing that I didn't think about until this expedition, because now the weight is even the weight matters so much more than a shorter expedition.

[00:24:39] Whereas like in cheese, for example, you might have, and just throwing out a random number, you might have 10 grams worth of protein, carbs, and fats, but for those 10 grams, the serving will be 20. So that's a huge discrepancy of water weight or whatever it is that you're not the, of the macro nutrient way to actual weight ratio, right?

[00:24:57] Not things you think about in the normal world. Cause why would you, and even on most expeditions, I never really went that ruthlessly scientific before this, but on this expedition, just because of the weight is so heavy. It's It'll be not only the first crossing of the continent, it'll still be the longest solo expedition in history, both in terms of distance as well as time on ice.

[00:25:16] So inevitably that becomes one of the heaviest sleds that somebody's had to drag at the start, right? So I needed to be just as ruthless as possible on how I can shave off weight, especially with food, because that is the heaviest thing in the sled. And so I studied, where the foods with the highest macro weight to actual weight ratio, the highest calories per 100 grams, but at the same time, you can't just drink straight oil, right?

[00:25:39] Although oil, speaking of oil, is part of it, but that can't be your whole calories. So getting a good macronutrient breakdown of proteins, fats, and carbs, and then how to be as efficient. This is the end of the video. I'll see you next time. It's really unique, like even right now I'm up in Alaska training, dragging, like yesterday I was out with 330 pound sled for four and a half hours, and I'm constantly trying to get fat on top of this, so I'm just eating like an animal to make sure I can stay fat, because I will lose weight out there, like 100 percent I will lose weight, and I need weight to lose.

[00:26:27] **Dr Mike T Nelson:** Do you know about how much weight you expect to lose over the course of the trip?

[00:26:31] **Akshay Nanavati:** I think I'll lose 40 to 50 pounds 40 at the minimum. Wow. From day one, I'm at a deficit, right? I'll be burning eight to

10,000 calories a day and eating at the highest 6600. I'll start a little slower because your body when you're out there, you just can't consume 6600 calories on day one.

[00:26:48] So inevitably, on every expedition before this, you have had leftover food. But to be weight conscious, again, I'll start with about 5000 calories and work my way up to the 6600 number.

[00:27:01] **Dr Mike T Nelson:** How did you find out about the role of ketones or what kind of made you look in that direction?

[00:27:09] **Akshay Nanavati:** I believe it was through actually before you introduced me to it, I have a friend of mine who introduced, who mentioned it to me, and I didn't know too much about it, hadn't heard, was fairly ignorant, and just heard, but didn't go down the rabbit hole he's a keto, keto expert, Drew Manning he had this whole brand Fit2Fat2Fit, And then you mentioned it to me and then I learned a little bit more from UJ about the science of it and how it could make an impact.

[00:27:34] And, especially again, an expedition of this magnitude, every 1 percent could make you're looking for that 1 percent edge to really pull this off successfully. So when you introduced me to it, then I got connected to UJ and just learning more about it, it looked like a very powerful weapon in the arsenal to be able to pull off something like this.

[00:27:53] Very cool.

[00:27:54] **Dr Mike T Nelson:** I'll ask UJ or Mike, whoever wants to jump in, or both of you, like, how, what do you think is the main advantage for ketones here, and maybe just give a short little background on ketones if people are not too familiar with them.

[00:28:08] I think the biggest

[00:28:09] **Mike Chesne:** thing that the ketones are going to give you is and to put it simply, you just get more bang for your buck when it comes to the ketones, and that's the simplest way to, to say it. You just get more energy out of the ketones than you do out of. Any other energy source, any other food, any other macronutrient and ketones truly are a macronutrient.

[00:28:33] They're not a micronutrient. Human beings have survived on ketones throughout history. I mean for Throughout evolution, human beings have lived

on ketones as pretty much a primary source of energy. It's only been in the last, hundred years or so, maybe even less, that the human metabolism has changed to start burning more carbohydrates than it does ketones because people eat these processed foods.

[00:29:08] They eat, three meals a day versus one meal every two to three days, which is what? We'll call it caveman days, which is back in the times, which is what people normally lived on. Until this, industrial revolution and people started working shift work and eating three times a day and that kind of thing.

[00:29:29] And until the agricultural revolution, where we started growing all these carbohydrates for people to eat on a regular basis, people ate meat and they ate animals nose to tail. And though that. That type of diet fed people on their own body fat. So human beings lived on ketones, which is, your liver produces those when your body is in, is in a deficit of carbohydrates and protein.

[00:30:02] So the ketones themselves. They burn more efficiently. You get more energy out of a single molecule of beta hydroxybutyrate or ketone molecules than you do out of a glucose molecule or protein molecule or any of that. That's what you really get. from these ketones is just more efficiency. And that's what you're looking for in an expedition like this or any really any endurance event or endurance type activity that you're trying to do.

[00:30:37] You want an efficient fuel and ketones are the most efficient fuel that we have out there.

[00:30:46] **UJ:** Yeah, I think, into for perspective, to just put some numbers behind Mike's point on efficiency and effectiveness. Ketones burn less they burn 0 ATP to be converted into ATP of energy and they create more energy in ATP terms. Then glucose does, especially under exertion. So that's why, I think the efficiency and effectiveness of ketones is really important.

[00:31:13] And to Mike's point for all those millions of years, humans created more than 180 to 300 grams of ketones a day. One apple and a banana will kick you out of ketosis. Now getting an apple and a banana in prehistoric times is not easy in the same place. But now of course it's really easy. So That's where these ketones are so powerful in terms of efficiency, effectiveness and then for the benefits are recovery and, potentially, and more energy.

[00:31:43] So the recovery aspect of the thing is equally as important for the day after a long day of hiking.

[00:31:53] **Dr Mike T Nelson:** Yeah. Did you want to, have you been able to play with any of them yet, SK and what were your thoughts or how do you see them bidding in.

[00:32:00] **Akshay Nanavati:** Yeah, I played with them. Usually it was very kind to send some of the cans in when I was in Arizona, right before coming up here, I got to play with them a bit while tire dragging, that it's the core training when you don't have snow is.

[00:32:13] Very heavy tire around. And live in Arizona. And live in Arizona where there is no at all . Exactly. And you, and it was, so I would, I was experimenting with, especially later towards the end of a session to have some and see how it affect my energy. And there was, and it's a, there was a difference in energy as I would move through, especially some of the longer sessions.

[00:32:32] So as we were messaging now, the key is I wanted to experiment with, because the other challenge is I can't take liquid. Liquid in Antarctica, everything freezes. In the cold, everything is a challenge to do, right? Everything. The littlest things you can think of. So right now I think working with all of y'all to figure out a solution that could get me, one, I could experiment with it in Antarctica, because I don't want to go any, take anything to battle to Antarctica that's untested, right?

[00:32:56] So testing it, and luckily I have enough time on ice. I'm spending the next two and a half months here in Alaska. And then Going to an Iceland for another month, and I'm actually now also just last week have added another expedition into the training program. I'm going back to ski across Greenland in September to spend another month just on ice again, more time on skis.

[00:33:15] So to get a version of the ketones that I could play with an experiment with. In polar conditions, but just playing with the cans. It was great. It was I really enjoyed it in those conditions and now just figuring out a way to, to replicate that in the polar polar regions. Yeah.

[00:33:34] My hypothesis is

[00:33:36] **UJ:** that there's got to be some product that you can combine ketones and carbs because in a form, of course, it's not going to be cans and liquid. Yeah. But Find a way to get the carbs and ketones to work together and to Mike's point, it is a macronutrient. So

[00:33:51] **Akshay Nanavati:** yeah, I think some sort of L is what we're sorry.

[00:33:54] Go ahead, Mike. No,

[00:33:55] **Mike Chesne:** that's exactly what I was going to say. I think the key to success in the cold is going to be some form of a jail and then we'll talk to our other science people. And

[00:34:05] Maybe look at a glycol, a very small amount of glycol or something in it that's something that's not going to upset your stomach to to help keep it from freezing.

[00:34:16] Something that's not going to be, not going to have any effect on your body chemistry or whatever, but something to keep it from help keep it from freezing.

[00:34:26] Yeah.

[00:34:28] **Akshay Nanavati:** Go ahead. No, sorry. Go ahead, Dr. Mike.

[00:34:30] **Mike Chesne:** I was

[00:34:31] **Dr Mike T Nelson:** just going to say how do you view the use of different fuels when you're on ice, both in terms of the physiologic response, and then also like we talked about with this, the psychology of it too, because you are going to be out there all by yourself, like in, in theory, people would be like I'll just take a multivitamin and drink oil or, all these crazy ideas, but.

[00:34:55] There is also the aspect of you're a human, you have psychological things. You're the only person out there. You're literally doing the same thing day in and day out. Like, how do you balance that? Yes, I need fuel for physiologic things, if I have a nervous breakdown day seven that's not going to help either.

[00:35:12] Like you need the kind of the psychological, just small things I would imagine looking forward to at the end of the day.

[00:35:18] **Akshay Nanavati:** Absolutely. Part of it is like in terms of food, I'm by no means a nutrition expert. So learning from people like you or our mutual friend, Zach has helped. And I have a ton of friends who are in nutritionists and experts who helped me with that arena.

[00:35:31] And then part of it was experimenting. Like I had an initial game plan that I took to the Arctic when I was at the Arctic last winter and certain things I was like, yeah, I'm not doing that for 110 days. So one of my morale foods, for example, is jalapeno chips. I absolutely love at the end of a 10, 12 hour day of skiing, when I set up my tent, it takes a little while for snow to boil.

[00:35:50] So while my snow is boiling to get my dinner ready. Just eating jalapeno chips. No words can express how good they are for a day of skiing. Getting that salty flavor, that spice. So those, so certain things you're taking morale, but they're also actually quite weight efficient and and high in, in certain, in, in the calories per a hundred grams.

[00:36:09] So it was looking at all those factors. Like when, essentially when it came to food, it was weight efficiency, macro to actual weight ratio, and then certain, like to a certain degree of taste, can I endure this? For 110 days, because certain even some certain freeze dried meals that I taste tested, I was like, yeah, I'm not eating that for a day, freeze dried foods were really good.

[00:36:28] And I was like, Alright, I can do that. So you do have to find something that you can endure. The one thing the Marines did teach me, Mike, I'm sure you can relate to this, being in the military teaches you to eat a lot of crap and just stop giving a shit. And you can just do it for months on end, you know, grateful to the Marines for that, because it definitely did help with help with that.

[00:36:45] But the other psychological element is, I'm actually, have any of y'all seen the movie Cast Away with Tom Hanks? You know how he has his little Wilson, his volleyball. I'm actually taking my own kind of quote unquote Wilson. It's a little stuffed pillow with, it's a laughing Buddha that's on, in the front of it.

[00:37:01] And and why a laughing Buddha? It's the two most important tools for me out there. Is one, you have to have a sense of humor. When things get bad, you absolutely had, things do get rough out there. You have to be able to laugh about it. So the laughter is that. And two, as I mentioned, is like awakening my own inner Buddhahood, right?

[00:37:18] That's a big. Spirituality, the spirituality of this journey for me. So hence a laughing Buddha that I named Bodhi. Bodhi in Buddhism is short for a Bodhisattva, which is in Buddhism. It's a being that's attained enlightenment, but chooses to sacrifice nirvana to help others who are on earth, who are suffering.

[00:37:34] So it's a concept I deeply resonate with. So I have my little Bodhi. It's like my Wilson that I talk to. It's a, it's absolute madness, but I'm, when I'm cooking in the tent, I have my boat Bodhi sitting there and we're having conversations and I've experienced this on my previous solo journeys. It is incredible how quickly you lose the sense that you're talking to a stuffed pillow and it becomes as if we're having a conversation in so fast to the point that the last time I was on a solo expedition, I was six days in and usually I'm cooking in the vestibule of the tent where there's snow and everything.

[00:38:04] I'm boiling the snow. And usually after I come back in, I bring Bodhi in and we quote unquote chat for a little bit before I sleep in my sleeping bag. So on day six, I forgot to bring Bodhi in. And I opened, and I, as I was going to bed, I realized I left him in the vestibule. I opened the tent door, grabbed Bodhi, and I go, Bodhi, I'm so sorry, I didn't mean to leave you out there.

[00:38:22] And six days in, and when I said that, I actually felt genuine guilt, like I left a friend or a public something out there. And I, and then immediately it hit me, I was like, oh my god, I'm only six days in. So part of it like that's a psychological element, but the other part is I'm actually deep. I'm actually genuinely excited about the solitude because it allows you to have what I call these spiritual downloads.

[00:38:43] When you're out there alone, even out here training in Alaska, cause I'm on a lake. So I don't really run into people. I'm on my own for these hours. I talk out loud to myself and. To me, I'm having dialogues with God. Sometimes they're deep. Sometimes they're complete nonsense and I'm laughing to myself like a maniac, but you get to have these really beautiful moments of silence that are of course, at times hard, like sometimes.

[00:39:05] The loneliest I've ever felt will be on some of these trips. So you'll go through some of the loneliest, like it's like on expedition, everything in life is dialed up the volume. So the highs are so high, the deep moments are so deep, but the low moments are also incredibly low. And that's part of it though.

[00:39:21] The navigation of all those highs and lows is this beautiful, it's like a microcosm for lifetimes worth of experience in this one moment, and that's part of the draw. Yeah. I think about

[00:39:33] **Dr Mike T Nelson:** that with. Life in general about variability that the average person has, maybe some highs and some lows, but it's in the middle of the scale where I would imagine out there, like you said, the highs are

extremely high, the lows are extremely low, but I think having that contrast, at least in my limited experience.

[00:39:53] Gives me more appreciation for the highs and the lows and the whole arguments and philosophy of do you need some of those lows to appreciate the highs, so it's super interesting.

[00:40:04] **Akshay Nanavati:** Yeah, when I came out of the darkness, we were mentioning earlier, what I learned from the darkness, one of the most profound moments of that entire journey was actually coming out.

[00:40:11] And when I first came back into the light and the way the light looked in just those few seconds, I had never seen the world and the light look that bright. I had tears coming out of my eyes and I literally in a very visceral way felt a steep sense of gratitude for all the suffering I've ever experienced in life because in a very concrete, knowing kind of way, not just a conceptual thought.

[00:40:30] I recognized and understood that you cannot really see the power of the light unless you've first been in the dark, literally in that case, but obviously figuratively as well. And so that contrast is what gives life more flavor and fuel. And so it's so valuable to play on all edges. Summits and the valleys.

[00:40:47] Yeah, that's that's

[00:40:48] **Mike Chesne:** profound and a lot of people never realize that. You cannot appreciate the light until you've seen the darkness.

[00:40:55] **Akshay Nanavati:** Absolutely. You get it. You

[00:40:56] **Dr Mike T Nelson:** know it, brother. And you mentioned some of your experiments did not go so well. Do you want to share any of those that did not go so well?

[00:41:07] **Akshay Nanavati:** Oh, like in, in during my training, I've experimented in the training portion. Yeah. Yeah. Yeah. I think I've shared this with you. How, when I've come constantly playing with and how to figure out different internal tools to navigate the mind during, these moments of being in the quote unquote, the pain cave.

[00:41:21] So once, for example, I was on an ultra run, I think it was like a 72 mile run. And I put all these audio books on my on my iPod that were very

dark. So one was about the Holocaust. One was about a child soldier. Two, I think, were about a young woman who had been sex trafficked like, trafficked. And the pro the premise was, I'm gonna listen to these dark books when I'm deep in the suck, and it'll give me perspective on my pain, that it could be, I've this is what I'm going through is nothing compared to what these people have endured.

[00:41:47] One was even on the Holocaust. And I started listening to these books when I was deep in the suck and the aloneness of the, this wasn't a sort of a structured race. It was just me doing an ultra marathon on my own. So night had hit, I was dark, I was alone. I was deep in the pain cave and I started listening to these audio books and instead of giving me perspective on my pain, I just went.

[00:42:04] Deep into the deeper into the suck where I just went into this rabbit hole of humanity sucks. The world sucks. Everything is evil. And it was funny later on to think about that. I was like, yeah, that did not work too well at all. I do think to like having that perspective and I still have those books too, but at that particular time it was not helpful at all.

[00:42:23] It just sent me way deeper into the darkness, into that pit that I was in mentally. And so it was a good learning, but that's the only way to learn. How to navigate the pain cave is to actually be in it and to experiment. Because you're often doing different things that are actually very opposite.

[00:42:37] Like sometimes, when I'm in the pain cave, I'm going deeper into it. I want to feel the pain. I'm calling forth more pain. I'm putting my consciousness on my pain and I'm like, this is awesome, bring forth the pain. Other times I'm doing the exact opposite and escaping from the pain. By listening to music, by thinking the opposite.

[00:42:52] Now Here are these two, quote unquote, weapons to navigate the pain cave that are exact opposite, but both have their place. And so over, decades of doing these different things, I've figured out and different tools to navigate that. And out there in Antarctica, especially even while in training, you're going through these moments of mental suck a lot.

[00:43:12] And so you're, you find the different tools to navigate that. And sometimes these tools are exactly the opposite of the other one, But all, they all have their place and you learn the more you play in the playground to figure out which one to use, when to use it. And

[00:43:26] **Dr Mike T Nelson:** that kind of goes back to your, it's almost like you're adding to the contrast.

[00:43:31] You're, you have a way of making the highers high and the lowers even lower. So you're broadening that variability I would imagine from one to the next.

[00:43:40] **Akshay Nanavati:** Yeah. And that, again, gives life more flavor to to have deeper summits and higher, higher summits and deeper valleys.

[00:43:49] **Dr Mike T Nelson:** What questions, UJ or Mike, do you have or other comments?

[00:43:55] **UJ:** One of the things I think that really resonated with me when I first spoke with Akshay is his own self effacing, view of himself before he started doing these incredible extraordinary feats. And, one of our mantras at Tekton is that everybody is extraordinary.

[00:44:18] They just don't know it. And it's just a matter of A mental shift sometimes that allows you to go in and change your own self belief of who you are and then be able to go out and do really amazing things. And I'm curious, Akshay, what was that kind of turning point for you?

[00:44:42] **Akshay Nanavati:** I love that mantra. I love that ethos.

[00:44:44] And to your point, often when I share this, so when I do talks, people will say, Oh, you're special, you're unique. And I cannot stress enough how far from the truth that is. I have flat feet, I have scoliosis, I have a blood disorder that transports about 25 percent less oxygen through my body.

[00:44:59] In fact, this was all disqualifying from the military. I, it took me a year and a half to fight my way into the Marines because. This was all disqualifying. I had to get a medical waiver. And the only reason I got in was it was a post nine 11 world. So here's a young kid who wants to go infantry.

[00:45:11] Eventually they found a place for me. But the point is there was, I'm not physically gifted far from it. I also, as a kid used to be scared of everything, scared of open water, scared of Ferris wheels, forget about even a rollercoaster, and so I cultivated this like after joining the Marines is what.

[00:45:27] The Marines birthed everything about who I am today, and it's one of the things I'm most proud of in my life because that's where I first learned the

beauty of suffering, of adversity, of going to war with the self, not just to find something greater in yourself to transcend it, but doing it for something and someone else.

[00:45:42] As Mike, when you're in the military, you're living for the good of the group. Your well being doesn't mean shit. It's about the men in the mission. And so to experience that, to live in that. It then got me into the place of confronting my fears. After the Marines is when I got into every sport you can think of outdoors to confront all these fears I had, because I was scared of Heights.

[00:46:00] So I went rock climbing, skydiving, mountain climbing. I was scared of open water. So I went scuba diving, cave diving, all of it. And it birthed in me all of that, but. The point is that I cultivated this and built myself into this one step at a time. And I fell a ton. Even after getting sober, I broke my sobriety.

[00:46:17] God knows how many times, so far from perfect. And it's far from been a smooth ride, but you keep fighting, you keep building, you keep in it when you fall. You fall, it's human, right? But you rise back up and you look for a new lesson and then you'll fall again, but then you rise back up again.

[00:46:32] So it's nothing special at all, which is why I deeply resonate with that ethos Tecton. It's that, that everybody can cultivate that, I don't believe there's an inherent self defined. I have believed there's a self to create and who you choose to be every moment and every day you go to war with yourself, you're creating an identity.

[00:46:49] You could creating a self that ultimately you want to be for yourself in the world around you. Beautifully said. Thank you. Yeah,

[00:46:57] **Mike Chesne:** And I like the fact that you point out something that I think a lot of people miss is a lot of young people these days and all days, they miss the fact that everybody is an individual for the majority of their lives until they find something.

[00:47:19] That makes them a part of, we in the military call it a unit or a an organization, something bigger than themselves that's important. And for young people these days who don't have that and all they understand is what it means to be an individual and what I can get or what I can give or what I can do.

[00:47:44] Until you see, like you said, that me personally, I'm nothing, but me as a member of a large group, now I'm something. Now I am a part of something bigger than myself, and if I contribute as a member of that bigger thing, now I make a difference. Now I really can do many more things than I ever thought I could before.

[00:48:14] And it gives you perspective of what it means to be something bigger than just yourself. And it gives you focus. It gives you and it gives you confidence. And a lot of young people these days just don't have that. I'm the same way I went in the military and enlisted. I was a non commission officer just like you.

[00:48:36] I did that right out of high school. Coming out of high school, I had no direction, didn't know what I wanted to do, where I wanted to go. But when I went into the military, it gave me that. It gave me a direction, made me something, made me a part of something bigger than myself. And I've always appreciated that.

[00:48:54] And it gave me the confidence and the self confidence to know that I can accomplish anything that I want to as long as I put my mind to it. And it's all about, like you do now, it's all about mental focus. I am no physical specimen. I'm not, I was a mediocre athlete in high school. But I still tried.

[00:49:18] I worked really hard, but I'm not genetically predisposed to be a professional athlete or anything like that. But once I learned that if I just keep working at it, I can do pretty much anything I want, just like you. If you put your mind to it, and you take one more step, That's how you walk a thousand miles, and you eat an elephant one bite at a time.

[00:49:46] As long as you keep taking bites, eventually there's going to be nothing left. Just keep doing it, and keep your mindset right, and you will accomplish what you want to accomplish. And I think that when you said it that way, the Marine Corps gave you that and the Army gave it to me. It gave me the confidence to do whatever it is that I wanted to do and whatever I wanted to accomplish in my life.

[00:50:12] And I think a lot of young people these days just miss that. And

[00:50:16] **UJ:** maybe it's something that they need. Absolutely. I think the sense of purpose is such an important factor. And once you find it, it's, I've seen this in many different fields. I was actually a college athlete, not very good,

transforming from a quote unquote, dumb jock, as my family called me into a, a guy who did an MBA and went to work for Procter and Gamble.

[00:50:41] Was a mindset shift, as Mike said, and starting to become more self aware and understand your own self limiting beliefs and then how do you overcome those and become more conscious about what makes you perform better and Overcome your own barriers is so important and in every field whether you want to be a chef you know a relatively safe profession compared to you and Mike but It still needs you to overcome that and be more self conscious, self aware.

[00:51:18] And, what am I a bigger, what am I a part of that's bigger than myself? What do I do that limits my ability to be really extraordinary, which I'm born to be extraordinary as a human. And in that vein, I'm really curious to know how do you, cause I love your comment, Akshay, about.

[00:51:38] Realizing the deeper depths and the higher highs and how some things worked one time did not work another or sometimes how you need to use two different things. That level of self awareness is obviously really critical for any real meaningful self change. And just to say one thing is that I find That when you are that self aware, when you take something like tectons, exogenous ketones, you start feeling a little bit more focused, a little bit more, you become more aware of your surroundings in a way that is almost like being in the zone.

[00:52:15] And that's what's helped me to figure out, Hey, I need to sleep a little bit better. Here's what I do that affects my sleep and I don't sleep well enough. So I start cutting things out. I start adding things. To move that along, changing my nutrition, changing my moving and exercising.

[00:52:33] How do you monitor your own feeling and how you're feeling physically, mentally and emotionally? And I would add spiritually during the day. Is it journaling that helps you do that? Or what process are you following? to monitor yourself,

[00:52:49] **Akshay Nanavati:** great question. To that point.

[00:52:51] Yeah. It's about constantly figuring. I view, I view it as a, the mental approach is experimentation and playfulness. So when you approach life with everything is an experiment, you tweak, you figure out, and then also having a playful attitude to it, it makes the journey a little lighter because we all know life can be heavy from time to time.

[00:53:08] So making a little playful and approaching it with curiosity. Okay. So like people ask me, for example, who will you be on the other side of Antarctica or what's next? My answer is I have no idea, but I'm genuinely curious to find out. So in the day to day process of going through that, like I do journal, not as much in the normal world, but on expedition for sure, to keep track of any insights, the spiritual downloads.

[00:53:30] And even on the day to day in training, like when I go out yesterday, I'll track, okay, I dragged a 330 pound sled. This is what I had. How did I feel? What could I do better? So usually I'm always looking for I to simplify it. All growth happens in a meta level two ways. Find what's working and do more of it.

[00:53:48] Find the problem, fix the problem. So I'm always looking for what's working. What can I do more often? What's the problem to fix? And then being systematic about what's the one problem to fix at a time, and embracing that and focusing on that. So right now, for example, I'm being very.

[00:54:04] Not that this is something I haven't trained. You have to train this to do what I do, but I'm even refining it is like being very present in the moment when I'm dragging, when you do what I do, you're moving very slowly. It's like a, it's not an exciting sport to watch by any means. It's a guy plodding along incredibly slowly.

[00:54:21] And so your mind like navigating that dance with time is. Everything in endurance sports, right? It is everything. If your mind starts thinking about hour 10, when you're on hour one, you're going to break, or day 110 when you're on day one, right? And so bringing it back to the here and now, what can I do to be more present to be more in this, and doing that when I'm out on the lake here in Alaska, so there's always that systematic approach of one problem at a time to fix.

[00:54:49] Okay. Got it. This is a dress now. I'm good enough. Move on to the next one. But looking for problems are not a bad thing. That's another thing. That word feels like bad. Everybody wants to get to a point where there's no problems, but you could have 0. You could have a million dollars.

[00:55:02] You're going to have problems, right? The point is not to eliminate problems. As I like to say, progress is not the elimination of. Problems. Progress is the creation of new problems. So am I having a new problem that I wouldn't have six months ago? So I'm in a way better place now, mentally, physically, spiritually than I was just even a few months ago.

[00:55:17] So now what's the next way to up level? How do I get even more present than I was before, so things like that is how I'm approaching it and then tracking and using the data to, to improve. Cause you need the data to, what you measure, you can improve. Having data of what I need to improve to in order to keep up leveling all oriented towards the craft.

[00:55:37] That's another key point is clarity as to what it's oriented towards, because for me, it's a very specific outcome. How do I become the person be the person can see across Antarctica? If your goal is different to be a chef the methodologies might be a little different, but show it's oriented towards an outcome so that the problem to fix and the things that are working are unique to that.

[00:55:57] Particular craft that you're training for makes sense.

[00:56:05] **UJ:** So one of the things that I think, we've got a few minutes. So maybe I can add a couple of thoughts in there in terms of the training timeframe. Because regardless of whether we can ultimately get the ketone into a form that you can carry on the expedition itself for the training timeframe.

[00:56:22] One of the advantages of our ketone is that. It can be consumed at very high doses. Similar doses as what your own body would have made for centuries, for our bodies would have made for centuries. So if you have to have 180, 300 grams a day, it's the products actually safe up to 200 times or what's in one can per day.

[00:56:43] And so it will be interesting to figure out how to get you the right form and in the right quantities that you can use for testing endurance, recovery, mental focus, things like that. How does it help you get through the dark times in your mind? How does it help you recover the next day faster with less pain or soreness?

[00:57:06] Yeah. And how did, how does it help you get more distance in a day, et cetera, et cetera. So those are all things that would be interesting to test.

[00:57:16] **Akshay Nanavati:** Yeah, I think it'd be great to experiment, especially go out a long day and, four, five, six hours in, then have some and see how it shifts that energy when you're starting to feel some of that fatigue, because that's the big thing in polar travel is, when you're out there for 10, 12 hours, where's the end of the day, it gets hard, you're struggling.

[00:57:31] And If you can move a few inches faster per step, you can, that distance adds up and if I can get more distance, especially if I can move at hour 10 at the same pace and moving on hour one, that's going to make a world of a difference to people because the biggest thing is can you pull off the distance?

[00:57:47] Antarctica is not as dangerous as people think. It's not like free soloing up a rock wall. It's just a lot more suffering. So that's the thing, the biggest challenge in this, there's of course, multiple things. It's not to say it's not. Entirely dangerous, but is can we can I pull off this distance in the desired time frame?

[00:58:03] That's the biggest thing. I'm most I'm not as worried about the solitude. I'll thrive there. I'm good I've trained in the cold. It's just can I cover that distance in that time frame? And so that's where I think the tech talk could really help is get that energy in order to be able to move You know, an hour, 10 hour, 11 at the same way and then recover faster so I can get back in the fight the next day and still cover that net designated time the distance in that timeframe.

[00:58:29] **Dr Mike T Nelson:** Yeah. One thing I did real quick is that from the literature and just my little experiments with it now too, is that it appears to be more helpful under higher levels of fatigue. I don't know if it's an exponential thing where you just you feel it more or whatever, but I've noticed that the same amount on days I'm feeling pretty good.

[00:58:49] I'm like, Oh, that was good on days where I was more, I'd say below baseline, it feels like it gets me back up to baseline much more effectively. And so I think about that with training with athletes is like you said, you're going to hopefully then have more days that are more consistent, so in my brain, that's how I think of it.

[00:59:09] It may not give you a huge level above baseline. There's probably some benefit there for sure. But even if you can just take those days that were very low and get back to baseline or a little bit above, you can then do that day in and day out. Those small changes, like you said, add up over time, like in

[00:59:27] **Akshay Nanavati:** a huge way.

[00:59:29] Absolutely. And in Antarctica, we always like to say there's no easy days, there's just less hard days. So if you can even get to the baseline every day, that's a huge a huge benefit for sure. So you're

[00:59:41] **Mike Chesne:** doing, is it going to be averaging about 10 hours of movement a day, or 10 to 12? Is that,

[00:59:47] **Akshay Nanavati:** that your goal?

[00:59:49] Yeah, I think it's going to take, because I have to average about 16 miles a day to cover the distance. Now, without a sled, not really that big a deal in the grand scheme of things with the 400 pound sled. It changes things dynamically. So I don't think at the start of the journey, I almost certainly barring like getting epic snow conditions where I somehow can cover it.

[01:00:11] But it started the journey. You're almost certainly not going to cover be able to cover that. That kind of daily average, but after the south pole, after the half halfway mark, you're now going downhill. So now you can pick up some time, pick up some speed, pick up a, get more distance in that time, as well as of course, the sled is significantly lighter.

[01:00:29] So I'm estimating, at 12 hours at the max, ideally. Now, if it gets to a point where I'm way behind after sack, the only place you can sacrifice is sleep, which is obviously less than ideal because even at eight hours of sleep at night, right now, the kind of game plan is 12 hours of skiing at the max eight hours of sleep and four hours of 10 time.

[01:00:46] 10 time is. Setting up the tent, breaking down the tent, boiling the snow. That just takes as long as it takes. There's not a whole lot you can do to speed up the boiling, the snow time. So four and four hours is also moving efficiently of 10 time. So that's the breakdown that I have, but if I can get, let's say 10 hours and cover that and get an extra hour of sleep, that's a game changer.

[01:01:06] But the only place that I can sacrifice in order to move more is sleep, which obviously you don't really want to do unless it comes down to it. So the game plan is to start with about. nine, 10 hours, work my way up to 10 to 12 and ideally not have to go more than 12 in order to cover the distance.

[01:01:22] But that also, that is very variable. If you get soft snow, you're in a world of hurt, so it depends what Antarctica throws at you. The every year, the conditions are going to be different and you get what you get and you have to deal with it. Okay.

[01:01:36] **Mike Chesne:** How much water do you melt

[01:01:38] **UJ:** per day? Go ahead.

[01:01:39] I was going to ask about sleep, but go ahead and ask about the water first.

[01:01:43] **Akshay Nanavati:** I'll be just one of that. Yeah, I'll be drinking about three, three to three and a half per day. And then not, and then there's a little bit extra that you put into the freeze dried food that said that, but in terms of actual drinking, it's about three to three and a half.

[01:01:57] Leaders,

[01:01:58] **UJ:** Talking about sleep because I find that it might be one of my most important health and being tools that I have and also for performance mentally the next day and, dealing with the emotional trauma of dealing, running a entrepreneurial startup with a lot of people with a lot of different opinions and different experiences.

[01:02:20] And so if I don't have good sleep, some of my derailers come out, I become impatient and, other. I'm sure Mike has a list of things he can bring up, but it would be, it's interesting to me to know, one of the benefits of having dekon, the ketones, is that it doesn't have any caffeine or sugar.

[01:02:38] So the caffeine part is especially important to me because if I have any caffeine after 12 o'clock, I see a noticeable difference in quality of sleep. And the later of the day I have it, it also then affects the quantity of sleep. So how do you monitor the quality of sleep? And what do you do to try to improve that, Akshay?

[01:02:58] **Akshay Nanavati:** Out on expedition or sort of in the day?

[01:03:01] **UJ:** Practice, during practice and preparation and then, of course, during the expedition.

[01:03:06] **Akshay Nanavati:** In on day to day, like in, in training, I'm more than eight hours. I want to get as much sleep as possible because my mentality initially was okay, sleep, what you sleep on expedition.

[01:03:15] So if I'm not going to get more than eight hours, I don't sleep more than eight hours, but my friend who's a trainer, his counsel was invaluable in that. You don't want to enter the expedition under recovered. That's the battle.

So the battle you're going to inevitably suffer more, you're but for training, you want to be in a hundred percent.

[01:03:30] So with that in mind, I sleep as much as I need to sleep. Sometimes it's nine hours, sometimes it's 10 hours when you're pushing as hard as I'm pushing. But in, in the field, I don't have the luxury to do that, especially on an expedition like this previous expeditions on when I've done shorter ones.

[01:03:45] We don't ski as long. So sometimes I'll even get nine hours and you have that ability. So here is just one of the things I'm even kind of training is training my mind to be able to go to sleep instantly as quickly as possible, because, you're going to have hard days out there and then your mind starts thinking, Oh shit, I got to do this whole damn thing again tomorrow, and we all know, the dialogue, your mind's going to go into and to master the ability to shut that off and shut off and go right to sleep. Is a skill like anything else, so even training, the ability to sleep is something I kind of work on and practice here. I have sleep rituals for the polar life of how to be as efficient as possible in getting to sleep and refining that because one of the hardest moments in Antarctica or in polar life is the mornings is you're almost always under recovered and you wake up and if you let your mind start thinking about all the suck you have ahead of you, it's brutal, so yeah. So even in the mornings, I'm training myself because even this I can't tell you how many mornings here in Alaska, I wake up and I don't want to go out for four or five hours even here, and drag that heavy ass sled. And then I'm like, All right, you got to navigate this. This is the moment.

[01:04:47] This is what it's all about, so training those little moments of the mental dialogue from falling asleep to waking up. That's the biggest moments like that's the hardest thing out there is the waking up. And so it's all tied to your point UJ about the sleep. Routines and sleep cycles and being as efficient and being as a even for example, when I'm out there, I sleep in my polar pants instead of some polar explorers will take them off and just sleep in the long Johns to me, that's, I'm wasting energy taking off and taking them off and putting them back on.

[01:05:16] Cause you're doing this all in a tent, remember, right? So you're not exactly standing up with a chair and all that you're in a tent. So it's a little harder to do all this. You, and I don't want to, I don't want to use. Even 10 more calories than I have to, because I need to conserve energy. So I'm going to, I'm going to get comfortable sleeping in my polar pants, my sleeping bag.

[01:05:32] I got a sleeping bag. That's 2.2 pounds lighter. It's a minus 10 degree sleeping bag and a set of a minus 40. So it's not rated as warm. But now I can sleep in more layers so I can still be comfortable, still get that good night's sleep, but my sled is lighter and I'm also being more efficient with energy consumption in the process.

[01:05:50] But I have to train myself to be able to sleep that way, so all these expeditions I do is training is practicing those skill sets.

[01:06:01] **Dr Mike T Nelson:** Awesome. Anything else from you guys? Oh, it's been a

[01:06:06] **Mike Chesne:** great Yeah, I appreciate it.

[01:06:08] **Akshay Nanavati:** Appreciate all. Thank you so much for the support, just to add about what you said, Mike, that it's your part of something. I'm alone on the ice, but I couldn't do this without people like y'all and the countless other people.

[01:06:19] Like it is taking an army to come together to. Pull off a feat of this magnitude. And I'm just very grateful to all of you and to just to everybody who supports this in so many ways it makes something impossible possible when people come together for something bigger than each individual self.

[01:06:35] And it's not just about me, this journey, right? What the stories we tell, the things we do will leave a mark on the human consciousness and together we can do that. So I'm just very grateful to all of you. This

[01:06:44] **UJ:** is what we founded Tecton for. I'm really grateful for the opportunity to work with you on this.

[01:06:49] **Akshay Nanavati:** Thank you. Thank you.

[01:06:51] **Mike Chesne:** And I appreciate, look, I appreciate your story too. Been there, done that. I appreciate you coming back from that dark place. I

[01:06:57] **Akshay Nanavati:** get it. Likewise, brother. Thank you.

[01:07:01] **Dr Mike T Nelson:** Yeah, I appreciate the, everything you're doing and sharing that it's not always been easy. Cause I think some people from the outside looking in are like Oh, okay.

[01:07:10] That seems like a kind of crazy task, maybe it was an athlete all the time and never had any hardship where that's 100 percent not the case. And it's a lot of training. It's a lot of diligent effort. It's years and years, put in to get better at something, which I think is very motivational for other people of doing whatever tasks they

[01:07:26] **Akshay Nanavati:** decide to do.

[01:07:27] Thank you all for the support.

[01:07:30] **UJ:** so much. Thank you, Dr. Mike. All right.

[01:07:33]

[01:07:34] **Dr Mike T Nelson:** Thank you so much for listening to the podcast. Really appreciate it. Huge thanks to Akshay for being on the podcast here. If you want to support him directly, Via fundraising or any other method. We will put a link to all of his information Which is great So you can help support him directly because it is not a cheap endeavor to try to cross Antarctica and he is also Doing all of the fundraising himself at the same time As of training as when we were talking about here.

[01:08:07] He was up in Alaska training and has a few more other stops before the big crossing starting this fall. If you're interested in learning more about Tecton, the new source of exogenous ketones, check out my link below. I full disclosure, I am a scientific ambassador to them. So helping them both on the ambassador side and advisement on scientific studies.

[01:08:30] So we are in the works of, right now we've got about four studies plus a bunch more they've already had underway. So we are trying to quantify what are some of the benefits of ketones. So hopefully we'll have a lot more information on that coming out soon. And then the Physiologic Flexibility Certification opens again March 18th for exactly one week through March 25th, 2024.

[01:08:55] Go to that link below, [physiologicflexibility.com](https://www.physiologicflexibility.com). There you'll learn about all things to increase your ability to recover faster, be more antifragile. And robust, just generally a lot harder to kill. So this is everything from advanced breathwork to true high intensity interval training, sauna, cold water immersion, and much more.

[01:09:20] And just like the Flex Diet certification, we have a whole bunch of special interviews in the program also. We have the background of why Physiologic Flexibility is useful. We have the details on each individual component. Again, there are eight total components there. And also we have explicit action items.

[01:09:42] So you will know exactly what it is you need to do for yourself or for your clients in each particular one. So go to PhysiologicFlexibility.com. Thank you so much for listening to the podcast. As always really appreciate it. Huge thanks to Akshay, UJ, and Mike for coming on the podcast once again.

[01:10:02] If you enjoyed this, please forward it on to someone you think may also enjoy it. You can leave us whatever stars you feel is appropriate, or even a short review on iTunes or whatever podcast player you listen to goes a long way to helping us get better distribution of the show. Thank you so much, really appreciate it.

[01:10:22] Talk to you next week.

[01:10:23] You know something? That was a sweet number. It sure was. You know something else? What? I hate sweet numbers!

[01:10:30] **Nancy:** This podcast is for informational purposes only. The podcast is not intended as a substitute for professional medical advice, diagnosis, or treatment. You should not use the information on the podcast for diagnosing or treating a health problem or disease or prescribing any medication or other treatment.

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