Paleo Solution - 297

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Hi folks. Robb Wolf here with another edition of the PaleoSolution podcast. Today's guest has been on the show before. He was incredibly popular, Dr. Mike Hart, very knowledgeable about ethnogens, cannabis, supplements, HRT. We talked a lot about female hormones last time. We're going to talk a little bit about male hormones today and another of other topics. Doc, how are you doing?

Dr. Mike Hart: I'm doing great. How are you doing Robb?

Robb Wolf: All good, we're getting alternating snow and sun here in Reno so you can't really complain too much about that.

Dr. Mike Hart: Well I'm in London Ontario we usually have some snow by now but we actually don't have any right now. So I'm just loving this extended summer that we're having.

Robb Wolf: Yeah. I've heard everybody on the east coast is running kind of behind schedule on their polar vortices and stuff like that. So --

Dr. Mike Hart: I got a big Canada Goose jacket and I haven't brought it out yet. So I'm very happy that I have and we have them in the teams yesterday so it's great.

Robb Wolf: Awesome. Awesome. Hey Doc, remind folks a little bit about your background. You have a fantastic background spanning both medicine and athletics. Just remind folks a little bit about your background.

Dr. Mike Hart: Sure. So in terms of my academic background, I have a bachelor's of science in nutritional biochemistry from Memorial University. I completed my MD at Saba University and then I completed my family medicine residency at Western University in London, Ontario. Since that time, most of my research has surrounded hormone replacement therapy. So have a large hormone replacement therapy practice with both men and women. And then the other thing that I primarily do now is that I primarily see veterans that suffer from post-traumatic stress disorder and I use cannabis to help treat that particular disorder with the veterans. So that's kind of a little bit about my academic background and what I'm up to right now.

Then in terms of my athletics and things like that, right now I'm just a recreational hockey player. I'm training a little bit at adrenaline master training with Mark Homnick right now. I'm doing just some weight training on my own, a little bit of cardiovascular conditioning. So nothing too too serious just kind of keeping everything up and mostly focusing I the academics of my career right now.

Robb Wolf: Awesome. Awesome. Cool.

Dr. Mike Hart: Yeah.

Robb Wolf: Doc, how old are you?

Dr. Mike Hart: I'm 31.

Robb Wolf: Oh you're just a whipper snapper. I have ingrown hairs older than you. Okay. Okay, cool. So fantastic, cool.

Dr. Mike Hart: [Laughs]

Robb Wolf: So Doc, last time you were on the show, we talked a significant amount about women's hormonal replacement therapy and kind of some of the ways that the female hormonal axes can be disregulated. I've had people cranky at me in the past because I've not talked about that but the reason why I don't talk about it is I don't neither know nor understand it that well. So I thought oddly enough that it was better for me not to commentate on something that I wasn't well versed in.

[0:05:14]

But I do have a little bit better of a steeping and male hormone replacement. It's a really controversial topic.

Dr. Mike Hart: Yeah.

Robb Wolf: And I know some differences maybe Canada and the US but the US is getting very prickly on this HRT topic. You know, I guess a lot of different points that we could jump in on this but I guess first who are the folks that legitimately need hormone replacement therapy who are males and then who are the folks that maybe are getting put on testosterone replacement inappropriately like they needed to tackle diet, exercise,, lifestyle factors and that would have you know, probably fixed what they had going on?

Dr. Mike Hart: Yeah. Well I think it's a really good question and it's a good question and it's a good timing actually because we had some guidelines in Canada come out recently about CRT. So just to kind of break it up a little bit Robb, there are some people who have documented low testosterone below the normal range, total testosterone and free testosterone. Those patients absolutely are suffering from a testosterone deficiency. It would not only help their overall wellbeing and sex drive and things like that but it's also what help stave off diabetes, obesity and really anything metabolic. So that's kind of one group of people.

Then there's a second group of people that the guidelines have just come out in Canada that say that you can't treat someone who's low normal that' still expressing symptoms. So if someone has testosterone that's in the low normal range and I really apologize how Canada and the US have had different values at which --

Robb Wolf: No, no, you don't apologize. The only apology that needs to happen is on my part because we insist on using the only nonstandardized international units on everything from linear measurement to volumetric measurement. So we're the bad kids in that thing. So you --

Dr. Mike Hart: Well I can --

Robb Wolf: --don't apologize. [Laughs]

Dr. Mike Hart: [Laughs] but I can help you out maybe a little bit with your readers on that note because there is a great life extension article that has all the lab values and it's in American values. So we can attach that to this podcast.

Robb Wolf: Okay.

Dr. Mike Hart: But coming back to the patients that I usually see. So if someone is low normal, but they're still have symptoms of testosterone deficiency then it's okay to treat. But you need to determine as a physician or as a healthcare professional why this patient has low normal testosterone. I've written articles. I've been published in the Huffington Post and on Primal Docs that have stated ten ways on how to keep your testosterone levels high.

If you can do that then you should be able to keep going at least in your 30s or so to keep your testosterone levels peaked. Now once you get older, and we can't really do anything about our testosterone level declining by 1% every year after the age of 27 we can't do anything about that. Sometimes in life too there's so much stress and things going on but it's very difficult to follow some of the rules that I do put out you know?

So that's another group of patients. So the patients that are low normal they should really be advised to try other lifestyle factors before actually be putting on TRT.

Robb Wolf: Got you.

Dr. Mike Hart: And then – sorry go ahead Robb.

Robb Wolf: Just this maybe too early to ask this but you know the normal values and even the normal range for folks like I do some work with the military and you see these guys who predeployment they've got fantastic testosterone levels, post deployment it's literally perhaps five to ten times lower but they still fall within "the normal range." So within the

Canadian guidelines this would be a story well okay, the range is technically normal for the population but they're still exhibiting signs and symptom of inadequate testosterone levels and so it would be appropriate to treat.

The US is still very prickly about that and most doctors are particularly generally practitioners are super prickly around that topic.

Dr. Mike Hart: Yeah and I understand why they are because guidelines haven't come out and everyone is just basically trying to protect their ass more or less.

Robb Wolf: Right, right.

Dr. Mike Hart: But because these guidelines in Canada have come out recently then it's actually you know, up to us as physicians to decide whether or not to treat. Really it's our duty right now because it is within the guidelines to say, to treat if someone is low normal and they do have symptoms.

[0:10:01]

So it's not only something that we can do. It's something that we're really expected to do nowadays. I can't really comment to much on the US side. I don't know why you know, it's not maybe in and I haven't seen the US guidelines but I would be very surprised if some of the US guidelines didn't follow some of the Canadian ones now that they have made that particular statement.

Robb Wolf: They may follow suit but you know it's funny there's a puritanical culture in the United States that is really antagonistic towards that stuff. It gets into like sports stopping and all this other jive. It's really neurotic but I mean the US is just a neurotic teenager anyway on the best days so it's maybe not surprising. But I'm sorry in interrupted you. You were going into a third group of people that would you know, that you're seeing in the clinical basis.

Dr. Mike Hart: Yes and then you know if you have someone who comes in and they have "normal testosterone or normal high testosterone" that would not be someone who would be a candidate for testosterone replacement therapy. In that case, you would try to tease out their symptoms and you would figure that their symptoms are coming from something else. So if it was coming from you know, something like decreased muscle mass and not being able to decrease body fat, we know that that particular issue with that patient is not related to testosterone. We know it's related to something else. And then you would have to look at your diet and different types of factors. So just to kind of like summarize someone

who's absolutely low then for sure you can go ahead and start that patient on TRT, a big documented total and low free testosterone.

If you have someone however is kind of low normal, and they're still exhibiting symptoms then that's the patient that could really benefit from your lifestyle factors. And then you have maybe a third group of patients that will come in that really even though they're coming in and you're not replacing or you're not giving them any testosterone, you can still help that patient by teasing out what the actual issue is. By ruling out that testosterone is not the cause you're already kind of helping that particular patient.

Robb Wolf: Got you. Doc, how important are things like aromatase inhibitors to prevent unwanted cascade of say testosterone and estrogen?

Dr. Mike Hart: So I try to avoid to use aromatase inhibitors and really –you know, we should really talk about the dose just a little bit. So the PDR dose is so crazy and large. So it says 50 to 400 mg very two to four weeks, right, so that's ridiculous. So at the top end you're getting 400 mg every two weeks and at the lower end would be 50 mg every four weeks, right? So they're huge, huge ranges. So if someone is injecting more than 100 mg of test at one time then aromatase inhibitor often is needed. But if they're injecting less than that, they're injecting less than 100 mg aromatase inhibitor often isn't needed.

But that's still you can't just make it, even though I did make that statement it's still not something that you can say for absolutely everybody because if you have someone say who is a very obese person and they're taking testosterone, well all that adipose tissue has that aromatase enzyme that's going to convert testosterone to estrogen.

So that patient would be much more likely to have a conversion. So what I'm trying to say is that you should avoid being on it as much as possible and the best way to avoid being on an aromatase inhibitor if you're taking TRT is to lower your dose and to split your dose. So a guy –there's some really old school methods of getting like 400 mg at once every like four weeks. That's just way too much at one time. You know, most of my patients run between 100 to 150 a week and I got some guys even on less like 75 mg a week and we always split the dose to make sure that patients are taking it twice a week instead of once a week.

Now some patients will even be taking it like I said every two weeks, every four weeks but we know that half-life is only about six to eight days or 11 days depending on the study that you look at. But the way

testosterone works is that it peaks at around 24 hours and then it stays there for two or three days and then it starts to level down. So if you kind of can just keep it the peak range by giving a smaller dose twice a week then you're certainly going to minimize the estrogen effects.

[0:15:04]

Robb Wolf: yeah.

Dr. Mike Hart: If you're going to be given a large dose at once, if somebody is giving 400 at once in the next two or three after your testosterone is going to be through the roof and they would absolutely need an aromatase inhibitor at that point.

Robb Wolf: Okay and really I mean for general health maintenance longevity, really no argument for going super physiological on this stuff.

Dr. Mike Hart: No, no and patients will say that they feel fine on a dose that are 150 a week which is not a use megadose of testosterone. That's all that's really needed every to replace.

Robb Wolf: Got you. Got you. Doc do you do any tinkering with like trying to provide substrate for testosterone production and also things like HCG like trying to turn the axis back on doing like high dose DHEA plus arimidex or like a cycle of plus DHEA just to see if there's any way to turn the testes back on or turn that signaling back on?

Dr. Mike Hart: Yeah, absolutely and there are ways to do that and there are a lot of off label uses. I don't – you know, I haven't done it in my practice but if I understand the question, I'll be really getting that post cycle angiotherapy are really just trying to rev up the system again. There is ways to do that. There's a very good protocol that requires HCG, Klomid and tamoxifen. Now I haven't used that in my office but I know that it's something that has been documented in the literature. There's a doc online Michael Scaly that uses it a lot. We can go over that protocol if you wanted Robb.

Robb Wolf: Yeah I find that interesting like in some of the folks that I followed Doc. Parsley and some other people again like within the military scene in an effort to maybe not suppress says like the ability to have children in the future or something like that, --

Dr. Mike Hart: Absolutely.

Robb Wolf: You know, just turning the system back on and see if they can get it firing by using substrates like DHEA using maybe some Arimidex to block again

that conversion of DHEA and the estrogen and then also HCG or Klomid to try to at the brain level turn the testes back on.

Dr. Mike Hart: Yeah and I know that Michael Scaly has told me directly that he's had like 100% effective rate with this particular protocol of HCG, Klomid and of tamoxifen.

You know, if we can go over the protocol if you want. The HCG is just it's a 30-day protocol and so it comes in 10,000IU bottle where you would get 300IUs every third day. And then on day 21 of that particular – of after using your HCG which you would continue for the 30 days but on day 21 that' when you start your Klomid and your tamoxifen and you would take both of those for 45 days. Your Klomid would get 50 mg and tamoxifen would be at 20 mg a day. Those things will boost your LH and your FSH and that will help boost your testosterone again.

Robb Wolf: Doc remind folks of what HCG and what is it? So it's trying to mimic the effects of luteinizing hormone and then remind folks what luteinizing hormone does.

Dr. Mike Hart: Okay. So luteinizing hormone is going to send a signal to your testes to make testosterone. So when you're on testosterone replacement therapy, now I should say when you're testosterone replacement therapy so I'm talking about a dose of at least under 200 mg a week., generally people don't get completely shut down in that range. But for those who do, they abuse steroids or have done higher doses then you can completely shut down. And with that HCG does help and it can be very, very effective. So guys will use that not only when they are like post cycle but they also some guys use it during.

The only reason you would use it during is if you are someone who is using TRT and you haven't had kids yet and you want to stay fertile then HCG is a way to stay fertile. The other method is that or the other reason that you use it is it just helps grow the size of your testicles.

Robb Wolf: Okay.

Dr. Mike Hart: So some just guys are just really shy about their tentacles getting smaller when they use testosterone which is totally understandable and HCG can help remedy that particular situation.

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Robb Wolf: Got you. Got you. HCG has a protein moiety that is the same as luteinizing hormone right and so you get that's where it has the luteinizing hormone effects.

Dr. Mike Hart: Yeah. It's an LH agonist.

Robb Wolf: Okay.

Dr. Mike Hart: Is my understanding yeah of HCG.

Robb Wolf: Okay.

Dr. Mike Hart: Yes.

Robb Wolf: So Doc so kind of trying to weave together your work with veterans with PTSD and the cannabis story let's maybe talk about that specifically and then also you know, often is HRT getting incorporated in with the cannabis protocol?

Dr. Mike Hart: Okay, sure. so just to talk a little bit about the cannabis. So primarily as I said mostly guys that I'm seeing now are within the military and the thing that they really suffered from as everyone knows is posttraumatic stress disorder. So posttraumatic stress disorder when you're a veteran there's really two major symptoms that I see from them. One of them is that they don't leave their house. Like these guys will stay in their house like all day every day. I mean one of the main questions I ask of them is how many days a month they leave their house and oftentimes it will be less than ten.

Robb Wolf: Wow.

Dr. Mike Hart: Yeah so it's pretty serious and then the other thing of course is sleep at night. They're not not sleeping. So those are the two things that I really try to focus on initially. We know that cannabis can help with both of them so and you can cut me off here if I get into too much detail.

Robb Wolf: GO wild. GO wild.

Dr. Mike Hart: Okay. So in the daytime I always recommend CBD strains to a lot of my patients because it doesn't have the cognitive effect and you can still get a huge drop in your anxiety level. You know, THC can cause a drop in your anxiety level too but as we all know so you can also increase anxiety severely in some people.

So a lot of the other soldiers really need to stay away from high THC in the daytime and to stick more to CBD in the daytime to really kind of help calm their anxiety. However, there is no way that you can get the best

night sleep possible if you have PTSD without using some type of THC if you're having a really bad episode in that particular night.

A lot of the soldiers will say that higher THC at night is the only thing that really helps them put to sleep. The reason that I don't mind them having THC at night and having that cognitive impairment is because they are simply falling asleep. During the daytime, I want them to have as much of their cognitive faculties as possible so I try and minimize the THC that's recommended. I know your question was how does that tie into the hormones part.

So part of it is when we initially started them on cannabis, I can help them get to sleep again and sometimes that can almost --

Robb Wolf: Fix everything right there, yeah.

Dr. Mike Hart: Yeah. On its own. And then and now we are working or we're trying to work in collaboration with another physician to help treat their hormone levels as well. So right now my job is to really just get them out of the house and to sleep at night.

So on different populations you kind of have different goals for and when certain people get to a certain level then you can maybe introduce something else. But right now, if you're not leaving your house and you're not sleeping at night you know, things like decreased muscle mass are sort of lower on your scale. You know, everything else is --

Robb Wolf: Yeah because we're dealing with a stunningly high suicide rate and self-medicating with things that aren't improving sleep and improving health. So.

Dr. Mike Hart: And just to know on that suicide I mean like one of the reasons I got involved in Canada was because we have actually had more soldiers that have committed suicide than have actually died in the Afghanistan conflict, which is crazy.

Robb Wolf: Right, right.

Dr. Mike Hart: I've heard quotes in the States that it's like 21 vets a day that are committing suicide. So you know, obviously what these guys see overseas they're taking back home.

Robb Wolf: Right.

Dr. Mike Hart: You know, and it's not being adequately treated in most cases.

Robb Wolf: Doc are you using like cannabidiol oils or like what's the administration method with these?

Dr. Mike Hart: So there's a little bit of an issue in Canada right now but it's going to come to a halt very, very quickly. I can only issue dried cannabis but my patients can make it into oils if they want. So we have had some patients make into an oil and they have had a lot of success with it. You know, I've had more civilian patients than veteran patients that have used cannabis, cannabis oil. A lot of those patients have had success and we can talk about cannabidiol or cannabis oil specifically if you wanted to as well.

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Robb Wolf: Yeah I would love to get into that a little bit because I don't think that it's on the radar for folks that these things have really interesting immune modulating effects. I mean cannabidiol story the cannabis story in general is really fascinating and you know, cancer treatment, PTSD, epilepsy like a lot of the things that we look towards say like ketogenic diets as a therapeutic agent, the cannabidiol is really analogous there. You know, modulating immune response, there seem to be some antiaging properties to it. Yeah definitely fill us all in on that.

Dr. Mike Hart: Okay. So I think that the things that your audience would be interested in in terms of cannabidiol is that one is that I found that a lot of my patients have had a reduced hemoglobin A1c like it's lowering their insulin levels. And I mean this has been shown too in literature. I think it was a 2013 Harvard study that showed that patient s who used cannabis on average had lower insulin levels and ironically they had a lower BMI. SO that's one you know, really potent property about cannabidiol is that it can potentially really help with metabolic syndrome because it can help help control blood sugar levels.

Robb Wolf: Right.

Dr. Mike Hart: I will come back to CBD in a second cannabidiol but there's actually another cannabinoid that we've identified has really been brought into the forefront yet but THCB. That's supposed to have some anorexic properties to help people not eat as much at night. But coming back to cannabidiol the other thing that it can do as well as I touched on it just briefly earlier is that it can really decrease that cognitive impairment and also that paranoia type of effect that you can get if you do THC so that's another big thing it can do.

Everyone these days is suffering from some type of anxiety and cannabidiol is fantastic for anxiety. The way that works actually is it acts on your 5HT1A receptor that's the way that it works. A lot of people think that there's two cannabis receptors and that just attaches through to CBD2. But that's actually not the way that it works in terms of lowering your anxiety. It actually works in your 5HT1A receptor and that's the way it works there.

So I don't know if those are the main properties that you want to go veer with with cannabis. The other one too actually Robb that you probably mentioned is inflammation.

Robb Wolf: That was my next question like IBS, Crohn's like it's amazing for that.

Dr. Mike Hart: Yeah, yeah. Happy to ask you about this too because especially the IBS. So there's something called clinical endoicannabinoid deficiency. So some people really just do not have enough cannabinoids in their system. Like I had a patient this morning and they'll say that their migraine like it doesn't come down from a 10 to a 2 or a 10 to a 1. They'll say it comes down from a 10 to a zero. For patients like that you got to think that they are literally just deficient in certain cannabinoids and it's been linked to fibromyalgia. I know not everyone is happy with that particular diagnosis. It's been linked to IBS and it's been linked to migraines. So I think that we should really be investigating whether or not some people that come in and see us whether they really have an endocannbinoid deficiency. I don't know of any way for testing that right now other that just having your patient try it and see if they improve.

But if someone is improving from like a 10 to a zero, then you got to think that they were just deficient.

Robb Wolf: Right. Right and folks may not be aware that we can have essentially the analogous experience in our gut as what we have in our brain with regards to a migraine. Like you know, the alterations in serotonin, dopamine and whatnot and then these kind of uncomfortable consequences with vasodilation, vasoconstriction. That can happen in the gut as well which I would guess that this is some of what the cannabidiols are mitigating.

Dr. Mike Hart: Yeah. I mean we know that it helps at every level of inflammation and it's across all neurological diseases and it's really been across a lot of inflammatory diseases.

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So we absolutely know that CBD is a potent anti-inflammatory.

Robb Wolf: Doc, curious what's the position of the Canadian military with their soldiers using cannabinoids? In the US again it's you know, they'll send you to NICO to they'll do a million dollar workup on these guys that have PTSD. They'll send them back with literally like a small you know, backpack of pharmaceuticals which the workup is amazing.

In my opinion what they end up giving these guys is pretty much a waste of time. But if they were to test positive for any type of cannabinoids that person's career is done. What's the status of that in the Canadian military?

Dr. Mike Hart: So in Canada right now actually it's very, very different. So if you're in the military it's still very, very frowned upon. However if you left the military it's a lot different because Health Canada if you can believe it or not they actually cover veterans up to ten grams of cannabis a day.

Robb Wolf: Hmm.

Dr. Mike Hart: Yeah. So if you're a veteran and you live in Canada and you suffer from PTSD you're covered for up to 10 grams of cannabis a day. Although the only group in Canada that's been covered. I know ten grams is a ton and trust me I know because our family medicine guidelines say not to use more than 3 and our CPSCO guidelines they say not use more than 5. But now these guys who have serious PTSD sometimes they need to eat a lot of it so that will take up a lot more and they just have the worst symptoms. Right? They're not using it mostly for just for PTSD. Most of these guys are using it for chronic pain and for other things as well.

Unfortunately for pain and sleep are the two things that I found with my patients' edibles are much, much better.

Robb Wolf: Superior. Yeah.

Dr. Mike Hart: Yeah. particularly sleep because you need to sustain your system because if you're just going to. I mean there's nothing wrong with vaporizing. There's very minimal effects on the lungs there but still it's not going to sustain the system for very long so it may not be effective for sleeping at night.

Robb Wolf: Got you. Got you. Wow, interesting. SO yeah I mean it sounds again like Canadians 1 , US 0 on yet another topic related to --

Dr. Mike Hart: Well I don't know because you guys have more legalization than we do though.

Robb Wolf: That is a fascinating thing. So like cannabidiol oil you can order off of Amazon in the US.

Dr. Mike Hart: That's crazy.

Robb Wolf: So that is kind of a wacky thing. So it's like we just man, man. But it's changing . I mean it's actually changing all this stuff. It's changing much more rapidly than what I thought I would see in my whole lifetime. You know?

Dr. Mike Hart: Yeah. Yeah.

Robb Wolf: I mean --

Dr. Mike Hart: And that presents a challenge to all of us is that it's presenting a challenge to me now because my industry that I work in is changing and I need to change with it.

Robb Wolf: Right.

Dr. Mike Hart: You know, that's just the reality of what I'm forced to be in now. But I love the industry and I want to keep going with it.

Robb Wolf: Doc, what about your own kind of regimen supplements, nutrition and all that type of stuff? Like how – give us maybe a typical day, maybe you know, stretching out to a week. You mentioned you lift some weights, do a little bit of hockey and whatnot but what's your chow look like , what are your supplements? Why are you taking the supplements and you know, maybe just run folks a little bit through that.

Dr. Mike Hart: Sure. Okay. So every morning when I have a pretty set morning routine but every morning when I wake up, there's three things that I always do initially . This doesn't quite relate to the supplements but I always do at least 5 to 10 minutes on my heart rate variability monitor training. So I do that for 5 to 10 minutes and then I'll usually write in my gratefulness journal for at least another few minutes and then I usually try to read one passage from something that's very positive or even from – like there's a book actually Motivation Manifesto that I read earlier this year. Sometimes I read just small passages from that.

Then after that when I get into my supplements I take a probiotic on an empty stomach every day. I take vitamin D, I take fish oil. I don't necessarily take all of these in the morning at one time. but I'll take whey,

whey proteins, some grass fed whey protein, creatine is a supplement that I take and ashwagandha. So those are the main things that I take.

But in terms of my diet, when I start off I usually have coffee. Sometimes I'll do the bulletproof coffee where I'll put in the butter and the MC2 oil. Sometimes I don't do that. Generally around noon or so, I'll have my big huge super shake that I call it where I put in a bunch of different leafy greens, some apple, cinnamon, vinegar, a bunch of different thing just to kind of keep me going throughout the day.

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Then a little later on, I always have my favorite meal. I'll have a ton of eggs, I'll have –I would go easily through 2 dozen eggs a week. so I'll have four or five eggs in the afternoon. Then generally I'm playing a sport later on like today I'm playing hockey. Before I play hockey sometimes I will allow myself to have some gluten free oats, a little bit of Stevia. I find that to be okay. There's only three like herbs I really eat. Gluten free carbs, potatoes and a little bit of organic Jasmin white rice that's pretty much it.

Q so then after hockey or a workout I usually have another shake usually then I don't put too much in. So I might just have a few berries and then another scoop of whey. And then I have my kind of like my big meal at the end of the day. So that's when I generally have grass-fed beef probably almost more days than I don't. and then just a big load of vegetables and then either some sweet potatoes or some Jasmin rice. That's more or less what I eat throughout the day.

Robb Wolf: Nice. I mean you're doing a little bit of a mild fast with that. you're not getting many calories in early. It's pretty light eating with your initial shake and whatnot and then back loading the bulk of your calories later in the day.

Dr. Mike Hart: Yeah and that's what helps me. It doesn't work for everybody and I totally understand that. But you know, intermittent fasting and these types of diets, they really, really work for me. So I don't really want to change anything right now because I have really good energy and things are going well.

Robb Wolf: Uh-hum. It's awesome and you know when you're just super busy I think do you know the strength coach Dan John?

Dr. Mike Hart: Yup. Yeah.

Robb Wolf: A really solid dude and he made an interesting observation which was when your life is you know, really, really constrained, busy then you know

there's certain areas that need to be really tight also and usually nutrition and stuff like that. like that all goes in together but then I see going to play hockey that's a more open ended activity. You know, it's not like you're just drilling hockey or you're not going to like guitar practice or something. You're doing yet another like structured drilling kind of gig. But it seems like when your life is super busy that the busyness kind of extends down to the food and you just kind of have to simplify like crazy. And then interestingly if your life is a little more relaxed, you've got a lot more latitude just psychologically, psychically to be able to have a little more latitude and spaz out on your meals a little bit.

Dr. Mike Hart: Yeah. Yeah. I found that this is what's helped me over the past couple of years and I'm always open to reinterpretation. But a lot of people do – will find that if they eat lighter earlier in the day, they'll ache a little bit more energy which is contrary to what a lot of us have been told. But again everything that works with one person doesn't work for everyone else. But I have received a lot of good feedback about intermittent fasting and that type of diet.

Robb Wolf: Right, right, particularly it seems like you are – the place that I've seen folks get into deep water with that is if they're training particularly something like crossfit and they're trying to do that in their fasted window and it seems like you can get some HPTA access, you know, adrenal fatigue type stuff rearing its heard pretty quickly so, yeah.

Dr. Mike Hart: If I train really hard and I don't eat carbs, after four or five days I basically just feel like complete shit.

Robb Wolf: Right, shocker, yeah.

Dr. Mike Hart: Yeah.

Robb Wolf: Shocker.

Dr. Mike Hart: Yes.

Robb Wolf: You know, there are some people who are pulling that off but I again have not cracked that not. I have been doing I guess something not totally dissimilar. We usually do dinner around 5 o'clock because the girls go to bed pretty early. So I get up early because the girls get up early and I start cooking some stuff. now that it's getting into winter I do this nutty hot cereal which is basically blending up like a couple of cups of almonds and a couple of apples and very fat heavy but a little bit of carbs in there. I'll blend that up puree it cook it just like oatmeal. Have couple of pieces

of bacon but I usually won't have that until about like 10 maybe 11 a.m. Like that's my first meal. I have a half calf coffee before that and so I'm getting about a 16, 17 hour fast with that and then I unusually do some jujitsu around one or two p.m. and then I do actually my big carb and kind of caloric content meal after that and then I get home from all that stuff. Play with the kids. I help with dinner and then dinner is usually more protein and veggies.

[0:40:12]

And then depending on what I did that day and maybe what I'm doing the next day, I might have a little sweet potato or something like that you know, just a little bit more carbs to top things off. But that's been a pretty good middle ground for me. Cognitively I feel really good ketotic. I haven't been able to crack my performance nut completely on that but that middle ground seems to work well. I have good cognition, pretty good recovery, good performance while rolling and doing my conditioning work and that's been kind of my middle ground there.

Dr. Mike Hart: Yeah it sounds like so the big difference I think between your diet and my diet was that you eat a lot of your carbs I guess after that workout which obviously makes a lot of sense because your insulin will be really sensitive then.

But yeah I tend to eat mine later on in the night.

Robb Wolf: Right.

Dr. Mike Hart: That's the way that things have worked out for me and I don't really want to switch it right now.

Robb Wolf: I wouldn't blame you. I get that way too when things start working I'm just kind of like okay. Please don't let me go on a trip. Don't let me get sick.

Dr. Mike Hart: Yeah.

Robb Wolf: Exactly

Dr. Mike Hart: Yeah.

Robb Wolf: Awesome Doc, well it's been fantastic having you on the show again. I'm just so appreciate the work that you're doing and just very, very excited for the changes that are occurring. You know, talking about we talked to –on the last show too about ehtnogens and psychoactive substances and it seems like some cracks in the wall are occurring with that. There's

definitely cracks in the wall with regards to cannabis usage and all of these things seem to be getting out to the folks much more rapidly to the folks that really need them. You know, this military population is so underserved and really so incredibly impacted from the work that they do. A lot of the tools being used are substandard, there's a lot of money actually thrown at it but I think we can get a much further using some simpler tools that have more natural or integrative effects you know, and this is one of the interesting things with cannabis. It affects a lot of things in a synergistic and beneficial fashion. So we tend not to see these negative side effects that we see from a lot of pharmaceuticals.

Dr. Mike Hart: Absolutely and just one quick note on that Rob too there was a meta-analysis that came out this year in 2015 I think February or March sometime and it said in the study that SNRIs and antidepressants, SSRIs they're all largely ineffective for treating PTSD. They said there was a couple that showed a very small beneficial effect but basically for the most part they're ineffective. And when you think about it PTSD posttraumatic stress disorder is significantly significantly different from generalized anxiety or depression and a lot of these guys and girls are being put on antidepressants and antianxiety drugs where there's not a medication that was made for PTSD. A lot of these patients, a lot of the military doing much, much better on cannabis and there's evidence to show that as well. If you do a search on PubMed there's lots of evidence to show that cannabis is helpful.

Robb Wolf: Yeah, yeah. Well it's exciting time so --

Dr. Mike Hart: Yeah.

Robb Wolf: And it's like I said I didn't think I would live to see some of the changes that are occurring so that's very exciting. Doc, do you do any speaking? Where can folks track you down in real life or where can they find you on the inner webs?

Dr. Mike Hart: Well ironically actually I did some speaking last night but these are more local just a Canadian medical association accredit things. But we're hoping to do more speaking into the future but as of right now if you want to find anything that I'm doing you can find me online at DrMikeHart.ca. I post some blogs every now and then there. I also have a Facebook page that I use a little bit but mostly I'm using my Twitter, my Twitter handle is @DrMIkeHart. So that's where I post most of the findings that I have on cannabis and testosterone and everything else that we've discussed today.

Robb Wolf: And I follow you religiously so. [Laughs]

Dr. Mike Hart: [Laughs] (audio glitch) … all the time, yeah.

Robb Wolf: Awesome Doc, well it's been great having you on the show. Let's circle back again in a couple of months and get you back on here and talk about some more stuff.

Dr. Mike Hart: Well that will be great Robb. I really appreciate you having me on the show and I love to be on it again sometimes and I want to thank all your viewers for listening to us today.

Robb Wolf: Thank you, Doc. Will talk to you soon.

Dr. Mike Hart: Okay, Have a great day Robb.

Robb Wolf: You too. Bye-bye.

Dr. Mike Hart: Bye-bye.

[0:45:00] **End of Audio**