

Paleo Solution - 230

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Robb: Howdy folks, Robb Wolf here. I am your host for another edition of the PaleoSolution podcast and today it is my huge honor to have back on the show coach Christopher Sommer founder of the GymnasticsBodies training system coach of many elite level gymnasts and generally all around good dude and fantastic friend of mine. Coach, how are you doing?

Christopher: I'm good this morning Robb. Thanks for having me back.

Robb: It was a kick having you on the first time and the folks had lots and lots of questions and comments and seemed to get a lot out of the first go around with you. So before we started recording, I was talking to coach a little bit about – so we hosted a gymnastics body seminar at North Cal Strength and Conditioning, had a really fantastic time. I ended up doing oddly enough more calf raises than I've done in a long long time and was a little bit broken off from that but have actually continued doing some calf raises.

But you know, because my main sport of activity lately has been Brazilian jujitsu and a little bit of Thai boxing, I've been getting back into that just a smidge, I was really looking at what I could pull from that full seminar and you know, make it my own because all of it is fantastic but I was trying to think of the most time expedience things that I could pull out.

And also from a pre-hab rehab standpoint like what were the things that would be really, really helpful and so you have a whole sequence basically starting from fingertips to toe nails of wrist prep, elbow prep, shoulder prep.

Christopher: That's a good way to put it.

Robb: Lots of prep. And the things that seem to get beat up on me in particular are my shoulders, my neck and kind of thoracic mobility because you're in a kind of rounded forward shrumped posture a lot. And so the things that I started doing, coach you showed us some vide of some your

athletes doing dislocates, not big strap in 240 pound dudes but guys that are under 150 pounds doing a shoulder width dislocate holding an Olympic bar.

And I was looking at that and I was kind of like I don't know if you could break those shoulders. You could drop them off the empire state building and everything else would break except their shoulders and so I started working in both supinated and pronated dislocates and I started really aggressively putting back in some skin to cap progressions and I mix these both throughout the day and I do them as a warm up and cool down elements whom my two days a week of weight lifting type stuff that I do and it's been shocking how much better my shoulders feel, the mobility...

Christopher: That's not been a long time right Robb? It's just been a few months.

Robb: Just a few months. And I don't know if it's because I eat reasonably clean or because I've had good mobility in the past but the benefit was mediate. I mean it was just absolutely within two days my shoulders were feeling a ton better and I don't know if somebody say – and also here's maybe a side thing. I don't really do much bench press like for vertical pressing I tend to do more like hovering planche push up type stuff. I'll do dips but I don't do a ton of bench and so I don't have really huge chest development. So that maybe of the reasons why I'm able to get some quick relatively easy gains out of that stuff.

Christopher: It's going to be in super time. Yeah. We run into people who a lot of times what they think is a shoulder issue is either a bicep tendon issue or a tight chest issue but it manifests itself as shoulder pain.

Robb: Just that impingement kind of process...

Christopher: Yeah. They'd get in there and they do all their shoulder work but they're treating the symptom. They're not treating their problems so they never get relief.

Robb: Right.

Christopher: So we found that you were right. That was a good choice. That way to dislocate is probably your best bang for the buck if you will. You're going to choose a single exercise for shoulder work. We found – and that is if I had to choose even for conditioning wise, if I had to choose one exercise

for a shoulder girdle to build strength, mobility, mass, I would go with the way to dislocate especially once the load starts going up.

Robb: Right.

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Christopher: And then get into the area of 25 pounds plus then it's amazing how hard the traps work through dells work and the medial dells are works are working. It just doesn't seem like it should be and I think sometimes people discount it because they're used to just using a light broomstick and they kind of just wiggle back and forth a little bit trying to loosen up. But once you add weight, it's a completely different beast.

Robb: And coach, you went over this in the seminar but do you mainly use them in the warm-up phase, in the cool down phase, I could see an argument for using them in both phases.

Christopher: Yeah. We've done it in both and sometimes we'll mix it up just to mix it up for a little mental relief for consistency generally well most of the time put it in what we will call pre-strength so we took you guys through a little bit of that at Nor Cal so basically you have your dynamic mobility warm-up and then we go into pre-strength which for us will be lower level exercises kind of prepare the body for working out. Rope climbs, we didn't get to hand stand, 30 hanging leg lifts. We'll also put that weighted shoulder work in there. Seems to be a nice place for it.

Robb: Right. And coach so you which I have never done the dislocate with I guess a supinated grip. I've always been a pronated grip so you would actually have folks put that bar behind the back, grab it in a palms up position and then work them front and back from that. So that was a totally different stimulus. I'm curious, do you progress load or bringing the hands in, which one is a good preference and I'm guessing that because you used weights as a stretching modality which I think blows people's minds and so there's probably a little bit of interplay between both of those but could you talk about that a little?

Christopher: Absolutely. So basically we just had a young man on the forum. We're a little proud of our forum, we just went over a good bit actually, 13,000 forum members so we've got – we've been there good many years now. I think we're 5, 6 years in so we have a nice wide range of very

experienced athletes we're training and then people who were new coming in.

And one of the questions was just that. He's like coach, how do I build this up? And he's like I'm working really hard and my shoulders don't feel good and so after we talked and we find out he was trying to treat it like conditioning so he'd kind of done everything else backwards. So what we told him was there should be no pain, there should be no clicking, there should be no grinding. We need to slide that grip out as wide as you need to slide it until that shoulder pivots smoothly.

And after he went to that, he wrote me back and he's like coach, I'm so wide now that I'm merely hitting myself in the head with the bar and my hands are so wide. He says is that correct? As long as your shoulders are smooth, so that's fine. So what I want you to do now, you got to start with the minimum of 2-3 pounds. So we have to have those muscles activated. They have to be under load. They have to be working. They can't just be sitting there being placid and inactive.

So minimum of 2-3 pounds either a single bar without much weight or a wooden dowel with some weight in the center. It doesn't matter as long as there's load. Then gradually over until we start super wide. Gradually over time, start with a nice wide warm upset, over time work that grip in so that the hands ultimately we're looking for just maybe a hands with outside shoulders.

Robb: Okay.

Christopher: So once that gets in, keeping that same grip over however long it takes. Right? We're not in a hurry. It's not like we get to push a reset button if we mess up. So we're not going anywhere. This is our deal. So we take our time. It takes a couple weeks, great. If it takes a few months, whatever. But we work it in 'til we get to that width. Once they get to that width and it's comfortable. There's no grinding. There's no carrying on. There's no changing in posture.

Sometimes we'll get people who they want to snap hollow and round which means they're trying to use their lats and their chests. We want that nice and upright, shoulders neutral. Just only shoulder work going up and around. Once they hit that, add weight, slide back out wide again, start the process over.

Robb: Okay. So with first with no clicking, grinding, sheering of gears, move it in to approximately a hand with outside of shoulder width and then reset...

Christopher: Reset again.

Robb: It's funny. It sounds incredibly like an old Clarence bass like you know, just old school weight lifting stuff of start with the weight until you can get three sets of 10 with it and then add weight and then start over again.

Christopher: Isn't it?

Robb: The rest of that stuff...

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Christopher: That's an excellent point actually. Because what we found out – and I think we might have touched on this last time because most people structure their training to my mind. Most people structure their training incorrectly. They structure their training based on how quickly their muscles are going to adapt to a new load rather than how quickly their connective tissue is going to adapt.

Robb: And you did mention that. Could you give us a reminder like...?

Christopher: The dates, how long it takes.

Robb: Yeah.

Christopher: So if I'm working muscle, it's going to take me about 90 days to see a nice increase in strength, all the molecules and you're better at this than me but for my understanding, all the molecules and muscle tissue are going to completely replace themselves in 90 days or so. It's going to take me 200 to 210 days to replace all those molecules and connective tissue. And then for bone tissue, it's going to take me two years.

Robb: Okay.

Christopher: So if I only base everything, if I'm always riding the edge on muscle tissue and I keep increasing load and I keep increasing load and I keep increasing load I'm going to get a further and further gap between how quickly my muscle tissue is strengthening and adapting and how much slower my connective tissue is strengthening and adapting.

And that's where the people who are kind of riding that edge how fast can I get to where I'm trying to go. Those people always end up getting hurt. It's not the muscle tissue. Their muscle tissue is fine. It always manifests itself as joint pain. My elbows are killing me. My shoulders are killing me. It just says that they're in too big a hurry. They're focusing on muscle tissue at the expense of giving their connecting tissue a chance to catch up.

Whereas if you flip it around the other way you get that connective tissue, they watch connective tissues, everything good there. Then muscle tissue is easy to develop. There's no pain. There's no stress. There's no injury. You're happy. You're working out because what they forget is if you're pushing – you're riding that razor at how fast can I go? How fast can I go? Your chances of getting hurt really increase. And once you're hurt, now you're not making any progress. You're done. You're dead in the water.

Robb: And going backwards.

Christopher: Well, exactly. So if I have a little ding and I'm out for a week, well I'm not only out for that week but then when I come back, it takes me another week to get back to where I was. So that was a two week loss just to get back to where I was. And if it's a bigger ding, one of the more serious and it's two weeks, three weeks, four weeks out, it's going to take me 2-4 weeks to get back to where I was again. I could have a two month window of just last training time just to get back where I was with no progress. So in the long run, there's really not any benefit to how fast can I get there.

Robb: Right. Coach you know, you look around the inter webs and you look at stuff like west side barbell and you've got things like the Bulgarian method and Olympic weight lifting where there's a fair amount of variation and loading and volume and intensity and everything and you talked to me a long time ago about you tried to take say a set load. Let's just say 100 pound stand press just for [Cross-talk] folks wrap their head around. But instead of being so focused on progressing that load, your thought was to try to make that static load become inconsequential to your system before regressing the loading and...

Christopher: Exactly.

Robb: Talk a little bit about that and how does that then dovetail into the joint prep and the connective tissue prep and also like how does that kind of compare and contrast, people – I would probably stick myself in this category at various points, too much variety. People get bored. They're trying to get some new stimulus but that was something that it really – it took me a while to wrap my head around it but when I really start thinking about it from kind of an allostatic load, trying to take something and just work hard into a given load and then make it inconsequential.

So it really wasn't a stress anymore. Everybody's talking about stimulus and you need to send stimulus to cause an adaptation. But what if the adaptation is that something that was challenging at one time is now absolutely inconsequential?

Christopher: I'll be a little reverent almost but it's kind of we live in a fast food culture. It's an MTV 30 second little commercial where everyone wants everything right now. I got to have it now. I need to be entertained right now. I need progress right now. I had one young man who wrote me and he's like coach, gymnastic strength training is my life. I love this better than anything but I'm frustrated that my lack of progress, I've been working and working and just don't think I'm going as fast as I should.

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I said okay. How long have you been training? He said three weeks. I said I'd tell you what big man, you train for a solid year and if you're still having issues you come and you let me know. Because we look at our training in one year blocks. Because if you think about it, that's how long it takes to really show significant improvement. I can be more neurologically efficient. I guess more muscle strength but as far as my physical structure, my connective tissue which bone is a type of connected tissue, that's what supports everything else. If that breaks down, I'm done. I don't get to play. I don't get to participate. I sit on the side and get frustrated.

So what we look at with training is we always want to go through overload, load and under load meaning that when I start a cycle with an athlete, we want that particular exercise to be hard for him. I want to be busting his balls. I want him really working hard. But we're going to leave it exactly the same. We're not going to change sets. We're not going to

change sets. We're not going to change reps. We're not going to change load. And he's going to just ride this cycle of adaptation usually somewhere between 8 and 12 weeks where it's going to stay exactly the same and I would make my athletes – and they're happy at first to stay with it because what was killing them is now moderate effort.

Robb: Interesting.

Christopher: But where the recovery happens is during the under load where your body has adapted to this. It's no longer straining the body. There's no longer effort. It's just kind of like you know whatever. That's where the recovery happens. That's where the super adaptation happens. As for you're getting your best results for what you were doing but that's always where people cut short.

Robb: And they would be inclined in maybe pre-emptively increase the load.

Christopher: Well my guys weren't – most people will because I'm not there. My guys would have to beg to increase load, increase to a harder exercise. They would beg. And that's how long has it been? Well it's been six weeks. Get away from me. We're not going to even talk about it.

Robb: Right.

Christopher: So we would have to watch them. Once they went through and had been 10 weeks or so, sometimes a little less, sometimes a little more but once they were there and they had done finished the body adapting and recovering from that overload we had done before, we'll set a new bar. And so we may settle on. So if we were doing dead lifts for example and warm up, we might have an athlete who oh, let' see, let's take Heath. He's a very light athlete. We use dead lifts not for conditioning if you will but as pre-strength as a warm up.

So he would start he may be weighed a bit over 100 pounds. We started with 135 pounds. He just stayed set of three, some weighted shoulder work, a set of three, we didn't do any warm up. He would do that each day of training. He rode that for 2-3 months and at the end of that time he's like coach I don't even feel this. Fine, how long has it been? We've looked at it. He said can I crease load? I said absolutely you can increase load. So he went to grab a 5 or a 10 I was like what the hell are you doing?

He says well, I was on 135 – I said we're going to go to 185. He's like coach, there's no way I can go from 135 to 185. Dude, trust me. He put his 25's on each side, came off where he's like coach, I'm freaking out right now. I don't feel this. Can I put more? I said well, probably could but we also have to plan for some fatigue that you're going to feel by the end of the week rather than being fresh at the beginning of the week.

Robb: Right.

Christopher: What we'll do is we'll ride this 185 for 2-3 months and then we'll reset again. We probably end up being 225 we're still there. But it's very comfortable. There's no stress. There's no mental stress. It just kind of becomes – you get up in the morning, brush teeth, you shave. It just kind of becomes automatic the body's not stressed out. You're not mentally fatigued and more importantly we're not tearing that connective tissue apart.

Robb: And really that's sending a very consistent load so it can adapt to it.

Christopher: Exactly right. And it was no warm up sets. I mean they just didn't need it because you don't have to warm up to walk.

Robb: Right.

Christopher: That's just how their body was designed. They just body adapted to the load being placed on it.

Robb: Right. Interesting. Coach, because I know lots of people are busy, you have kids, I have a kid and second kid.

Christopher: I have two you can borrow.

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Robb: Over an amount for a very low price, they're well behaved. I found it more and more difficult to carve out a specific block of time to train and part of that again is because I'm going to Brazilian jujitsu so that's kind of my class time, I've got 20 minutes going there, 20 minutes coming back so I have limited time otherwise. And so what I've been doing is trying to just grab a set, I'll do a quick circuit of say like a squat, a press, a pull and then some sort of a trunk movement and then pump through a set of dislocates and I'll be working, set a timer for 45 minutes to an hour, run

upstairs, hit one of those, one day I'll get on set of that stuff. Another day I'll get 6 or 8 sets of that stuff. Do you have a preference one way or another of?

Christopher: Schedule is best?

Robb: Yeah. Breaking it up throughout the day, getting a dedicated block of time. It seems like for a conditioning effect or even I could maybe argue for a hyper trophy effect, you might want that fatigue. You might need all that stuff in a block of time but for general work capacity and strength and particular, it seems like breaking that stuff throughout the day wouldn't be a bad way to go. What are your thoughts on that?

Christopher: I've been blessed, I've been very fortunate over the course of my career to have a chance to interact with Olympians, Olympic champions, Olympic coaches from all over the world from early 80's up through our current group. And it's surprising how much variation there is in their training. At an upper level, it's very important that what you're doing matches your recovery ability as an athlete.

So for example we had Olympic champion in '84 could train once a day. That was the most his body could tolerate. We've had other Olympic champions that train three times a day and their bodies thrived on that. A good friend of mine André was on the Russian '96 team. Andre actually did well on once a day training even though in Russia it was pretty much mandatory that you will train once a day. But his body didn't do well with it.

So he was actually excused from morning training to get extra recovery and is performing – and at the end of the day it's not did I follow this exact training program that someone spent a gazillion hours writing out. The important thing is how is my body responding to this training program? And since he was one of the best in the world, once a day they say we're going to make an exception and leave it be.

Robb: John Wellborn was having dinner with Romanoff and Romanoff said that a number of athletes would lie to their coaches. They would say that they did the work that they did but Romanoff came up with – Wellborn calls this the big monkey small monkey phenomenon. And the big monkey are these people that just do really, really well on volume. the little monkey like the volume ends up crushing it.

But in particular the Russians had found that these multiple training sessions were really, really beneficial at least for some people and so they kind of use a blanket approach for folks but this was specifically to Olympic weight lifting but a lot of these people then they would talk to their teammates and get their teammates to cheat and cover for them. They're like dude, I'm not – I'm still going to perform well but if I [Cross-talk] I'm going to be a smoking burned out husk. So that's interesting.

Christopher:

We see that a lot. And then some people, so like Allen right now is at OU. He's doing great. He's doing 10 workouts a week. He's probably training 30+ hours a week. He's one of those athletes that the more time you put on him, it's like a dry sponge soaking up water. For him, it makes it very easy to plan his training. We've also had other athletes that had a dramatic drop in the quality of their performance if I increased them from 12 hours a week to as little as only 14 hours a week. So a 2 hour increase, it just crushed him.

Bilozerchev, he's a good friend of mine, '83 '87 world champ. Gold medalist in '88. Dmitry is interesting in that he trained three times a day but he was only in the gym. Usually we go in and we go 2-3 hour blocks at a time. Dmitri would go in and he'd be done in 45 - 55 minutes in each block. And kind of interesting, his coach is a genius. His coach – I think he's the only one.

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Alexander's the only one who's ever produced world and Olympic champion for men and then he also switched over and he just did most – he also switched over and did it with the women as well. And part of it is he is just a genius at making sure the body has adapted to the training loads being placed on it.

Robb:

And not being beholden into a specific schedule and template and all that stuff clearly.

Christopher:

Not a bit. And then planning long term. A lot of people will go in and they approach their training very much with this exercise dyslexia, this ADHD where they have a training program that they followed today. But that training program, they did today or maybe even this week if they're super tough. It's going to be completely different from what they do next week.

Robb: Right.

Christopher: And then next month. Rather than this is what I'm going to do for a year. because if it takes my connective tissue 200-210, so we're looking 6-7 months to adapt to a training load if I'm constantly changing my load and I'm constantly changing my exercise and my volume and my intensity, everything is changed, changed, changed. How does the body have any chance to actually adapt to what I'm doing to it?

Christopher: Right.

Robb: I'm constantly starting over. I'm really getting nowhere. But the one, notice if we were in that situation, what's the one tissue that does get better is muscle tissue because that one's a short one. That's only we're looking about at 3 months. So if they can get along – they can get by with that. But if they keep bounce, bounce, bounce, the connected tissue it's going to go.

Robb: Coach, for the – gosh, I don't even know. I know the answer to this. I hesitate to even ask it. Before that, the ADD crowd, so these folks wanting to bounce around, they're doing some cross-fit, they're – is there kind of a program minimum that people could stick in that would...

Christopher: Absolutely.

Robb: Some of the evilness of bouncing around there. Like for me it's dislocates and skins the cats are just amazing for the issues that I've got that going on in Brazilian jujitsu. Is there just kind of a general program minimum that somebody could plug in?

Christopher: Absolutely.

Robb: [Cross-talk] some of the evilness they have bouncing around there? To me it's dislocates and skin the cats are just amazing for the issues that I've got going on in Brazilian jujitsu like is there just kind of a general program minimum that somebody could plug in? You've seen themselves a little bit.

Christopher: Absolutely. That's what our very first introductory courses do, our foundation courses take about 20 minutes to get through a workout. And they set their days based on what their recovery handles if it's going to be a three day week or four day week or five day week. It's all provided

from. It's about 20 minutes and we'll get people who just start and they're like coach, this is not enough work for me. I said trust me. You're going to be fine. Just do your thing. If you have that much energy left after you're done, go do whatever it is you feel like doing afterwards. That is the time you're going to go play, get a little variety, do some new things.

But I said for that 20 minutes you're going to take care of your business. We're going to provide all the programming, everything, sets, reps, what mobility you're going to do, everything is done. You put that 20 minutes in then you do whatever you want. And we constantly get people who are like coach it's not enough. I said trust me, come talk to me in a couple of months. They'll come back in a couple months and they're like I cannot believe how much better I feel and how much stronger I am.

We get people just putting on crazy muscle and they're like coach I don't understand. These exercises are not nearly – these beginning ones are not nearly as intense. I don't feel like they – I ask well what you're doing is you're now feeding different tissue. You're building the structure that's going to allow you to safely do harder work later. We're building the physical structure. We're not trying to rip it down. So they get a couple months in and then there's like good lord and then once they have...

See the hard thing is getting them to stay consistent long enough for that first month or two to get solid results. Once they can stay in the process long enough where they say wow this is awesome. Then they're good to go. But it's that kind of introductory window where they're used to bouncing everywhere you got to sit them down say you know what, I need you to pay attention. Coach, it's really, really boring. I said do you want to be entertained or do you want to train? You got to make a choice.

I'm not going to entertain you. If you want to go play, there's plenty of other things to go play. If you want results this is how it happens and for that 20 minutes if you're bored, suck it up.

Robb: Put on some better music.

Christopher: Exactly. And some of it, it's what we run into is they look at all these exciting exercises being done and they want to jump right into that but we found that most adults have severely compromised shoulder mobility.

They have severely compromised thoracics mobility in the thoracic spine. Basically they're frozen in place. And we have to repair that.

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So we get people who bicep tendon isn't good. Chest isn't good. Pectorals may – everything is just completely totally screwed up. So we take those 20 minutes a day and we're just repairing. And then once you fix that weak link, then instead of the body fighting itself when it's trying to perform and condition and workout, now all your energy can go towards accomplishing what it is you're trying to do instead of fighting itself holding itself back.

Robb: Interesting. Coach, so I've had some clearly really good success again with the dislocates and the skin to cap progressions for jujitsu. Another really common injury area in grappling is the knee.

Christopher: Absolutely.

Robb: What can folks do pre-hab, rehab strengthening I mean the standard deal is squat, lunge, dead lift varieties unto that, do some general you know mobility work, foam roll the IT band, but I know you go a wee bit deeper than that.

Christopher: We do. And I can't take credit for the series we do. This series that we employ was taught to me by a good friend of mine Rumen who was the Bulgarian Olympic coach for the women's team in Bulgaria, the 70's and the 80's and so way back when – a long time ago, way over 10 years now maybe 12, Allen was a little guy. He's maybe 6 or 7. Long before winning nationals, long before you know being on national team forever.

He's super strong, crazy strong for his age and he started to get some knee discomfort. So sometimes we get kind of a – I'm not sure what the medical term is but around between 7 and 9 sometimes there'll be kind of pre-adolescent growth spurt a little bit. It's not a primary growth spurt. But there can be some joint discomfort and it's not as extended as when they hit 13 or 14 you have that two year window there.

But obviously this was a young man that at six, I identified as potential national champion, potential future Olympian. Obviously he was going to be a US national team member so I need to make sure I do things right.

And what I'm not concerned about at that time is how strong will they be? How many rope climbs will it be? What I'm worried about is how healthy are his joints going to be because all the rest of it is performance is going to come from there. So I know his knees are starting to get to him a little bit you know, warning flags are going up. I'm just like good lord.

Luckily, Rumen was visiting at the gym so when I visit with rumen, he gave me an entire knee series that conditions, specifically conditions MCL ACL meniscus goes in there. There's some secondary – we have a cap series we do for Achilles tendon. This series drove orthopedic surgeons crazy because of an orthopedic surgeon, they would be completely thrilled if you died with your joints and never having been used. If you could just still have the brand new tag on and just put you in the box, no wear, no tear.

Robb: Right.

Christopher: Their second advice after that, well if you're going to actually use it, then they want you to pretend that you're going to do your athletics in a static environment. There's not going to be any lateral changes of motion. Toes are always going to track exactly over the feet and that's just not the case. It never happens, not ever. So we have to plan for – we have to go on specifically condition meniscus through a range of motion that is different than that first – and I apologize, I know it's a podcast but these are all shown in our courses. I don't really know how to describe them in words but they're all included there. We do them at their seminars. But we have inside squats, twisting squats, skiers that we do.

All of these are designed because the tibia comes up and to the knee and it pivots. Your joints are supposed to pivot and a lot of people they just – they do their squats so what happens is I get these primary movers, extremely strong and then these supporting structures have never been worked on. So then what gets injured? Obviously it's the supporting structure. Very few people go down because oh, I rip my quad. That almost never happens.

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So it's my meniscus went – my ACL went. My MCL went. Same thing with shoulders. That's why the weight dislocates in the rotator cuff work we

do is so important. Everyone wants to focus on primary mover, well that's great. But you're not going to tear the primary mover, we're always going to tear the weak link in the chain which is going to be the rotators. So you have to – internal, external, you've got to get in there and you have to prepare this so that when it is under load or you happen to go pass the lower range of motion you didn't intend on, your body's ready for it and you don't have a catastrophic injury that results.

Same thing with knees. The knee is if you think about it, a very unstable joint. But we pretend that it just pivots into a squat or a dead lift without any lateral movement and it's not the case. If you watch someone, probably the best one to see this in action is to go on YouTube and look up an old slow motion video of the old Detroit Lions running back Barry Sanders. And just watch the angle of bend as he makes a lateral cut of what the knee does in real life – our eyes not fast enough to see it. But when you see it in slow speed, you see that knee going through more range of motion than you would ever have imagined but we're not preparing it for that.

Now when we're kids and we're running around and we're jumping, we're raising hell, we're climbing on this and climbing on that and doing other stuff, our knees are naturally articulating through that range of motion so they're healthy. But when we get older, we're adults, we're doing desk patrol, we're working, and then we're not even playing ball or anything like that on a regular basis. We're sitting at a desk and then for exercise, what are we doing? We're going, we're standing up tall whether our knees in a straight line, we're squatting down and we're standing up.

There's never anything per lateral motion until we go out and we try to play but then now these connected tissues haven't been said, right? They've not been stretched. They've not been conditioned and weekend warrior syndrome. Yeah I tore my ACL. What were you doing? I was playing a little soft ball. Really? Softball's that big a load that you blow your knee out?

No you just had an unhealthy joint and then when you went to use it, that unhealthy joint failed and it was unhealthy joint failed and it was unhealthy through disuse.

Robb: Interesting. Coach, what about the low back? So many people L4 L5 disk – L5 S1. I'm a recipient of that. I feel like my back was absolutely bomb proof doing it from your standards, it's a very, very low level gymnastic stuff but I was doing some capoeira. I had a really nice press L set to a handstand on paralets and then I got exposed through some glut hand sit-ups and it was a very reasonable first exposure of 75 reps 2 times amidst a workout and...

Christopher: 75 reps sound like a lot.

Robb: I'm being completely a smart ass. It was absolutely ridiculous. And ended up with abdo tried pulling a heavy dead lift almost 20 days later and for the first time ever on a dead lift failed and I failed with a flexion injury and the back has never really been quite the same since then. Getting a standing work station has helped. Doing some different stuff has helped but what do you see – being – sitting, clearly lack of other mobility are all factors in this but what are you doing to help keep your athlete's backs strong?

Because you have a great break down of you know like when somebody's doing a tumbling pass and they're being exposed to multiples of their body weight you know and transmitting through the knees, ankles into the low back and we don't see gymnasts with a lot of back injuries. So I find that pretty intriguing. So the mobility and strengthening clearly is doing something really, really good there.

Christopher: Even after all these years, as a national team coach I was very unusual in that I was always adamant about building physical structure first and then to my mind that meant that pre-hab had to be a major priority. If the athlete's not healthy and he can't without pain perform his drills and go through his workout and I can't get 100% of that athlete and we can't make the progress we would like to make and we start a training cycle a year ahead of time.

So if we finish championships in August, we go home, we take a little break for that week and then we immediately go into our next training cycle for the year everything based on doing well that next championship the following August. So we're never in a hurry. As far as lower back is concerned, two things come to mind. One is we were religious and just

meticulous about it. We always use Jefferson curls but we perform them a little bit differently – it's an old power lifting exercise.

[0:40:17]

The way Jefferson curl is performed just kind of going over real quick is they stand up tall. They have a weighted bar in their hand, chin comes down, we try to keep pelvis tucked under. Chin comes down and then instead of just bending over, think of the string of pearls that curls down forward one vertebrae at a time. All the way down.

Now we want to see that bar for them we're going to put them on an elevated surface, a bench, cement block, whatever, something stable for the listeners who are going to go out and try to do it on a bosa ball, that's a bad idea.

Robb: Somebody will do it.

Christopher: I shouldn't have to mention it but yeah I do. Something stable, go down to at least hands under the feet. And then reverse it, curl back up again. That was part of our pre-strength for years and years. Start very light. You may start with five pounds. What will happen is eventually we want you to build up to a minimum of half body weight my preference is you build up all the weight to body weight.

Now we have a physical therapist Mark Collins on the forum very sharp man who has a lot of success using our back protocols with his older clients who come in because interesting – this staggers my mind. I don't understand how they could come up with such a half ass makes no sense therapy but I guess in what Mark told me is that they were taught to always maintain a neutral spine. Everything you do should be neutral spine, neutral spine.

And so my question to mark was what athletic event can you do with the neutral spine? Do we see children running around in the playground all maintaining neutral spine? Can you throw a ball with a neutral spine?

Robb: Can you hula hoop with a neutral spine?

Christopher: There's nothing you can do. Your back, those joints are made to articulate. They're made to extend all the way back in an arch. They're made to contract all the way forward to a hollow. If you don't train it of

course the back hurts. It's like you voluntarily put yourself into a body cast and everything is breaking down. Of course it hurts like hell when you're starving it to death from movement.

Robb: And coach to your point, if we train people only in that perfect idealic situation then what – is it really surprising that the one time the person gets squirly, picking up a bag of cat litter out of their car and they step on a rock or something icy and they wiggle around a little bit that something goes south with that.

Christopher: And exactly and notice when that happens, did this – that Jefferson curl is going to work all that connective tissue, tendons and ligaments in between each of the vertebrae. So if someone can have this beautiful – and notice gymnastic strength training is very different from say we're doing a dead lift where they want to have an anterior pelvic tilt. They want that arch in the lower back. But gymnastic strength, we want to go the other direction. So it may be an interesting story here is that Allen goes to University of Oklahoma. He's their number 1 recruit last year when he was a freshman. He'll be a sophomore this coming year.

So the majority of the last two Olympic teams, most of the member's either in the competitive team or the alternates came out of OU. So they have a great track record. Their athletes come out super strong and part way through this season I got a stunt visit with Allen's mom and she told me Allen has a back injury. It's like really? And no one had told me ahead of time so by the time I found out they were 30 days into this.

We sent some therapy, some Russian medical massage. We sent a therapist up for works, got a lot done for him. When he came home to train for the summer, we checked his back and interestingly his strength as far as arching and your traditional conditioning, the strength was good. But when I put him into a posterior pelvic tilt, so where the body will be hollow and under load, his back was very weak.

Whereas when he was training with me, there's a lot of our body line exercises we do on our hand stand course that are designed to build kind of that hollow back strength that regular kind of traditional exercises don't get and interestingly where that weakness tends to occur is right at the bottom of the thoracic spine and then where the lumbar starts.

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So we did that with Allen. He's like wow that's hitting the spot right there. And then we had always done side levers on the stall bar when they were little guys. And a lot of people thought and I think maybe even the athletes thought we did side levers because they were cool. Now it's nice to know Allen's older. He's in college. We can talk about the where's and the why's and not just do it and be quiet.

Robb: Right.

Christopher: So I say you know Allen I know you guys had a good time. But we do side levers because they're essential to build that oblique strength. So I said I'm curious. I'm curious. Now Allen could – when he was training with me, now this strength is being rebuilt now. We're over that story. But he could stand by a stall bar which is basically a big ladder bolted to a wall. Grab it and he could just pull himself up sideways, inverted and then lower himself back down. He would do that for reps.

Always started with the easiest variation for him. Obviously he's a world class athlete so it doesn't apply to everyone else but for Allen, super easy variations. He just jumped upside down supporting himself. And before he'd even started coming in to the side lever at all, that entire side of his back that had been injured, just a cramp on him.

And he came down, his eyes were just big as saucers and he was like that just hit the exact spot where my back has been sore. Now the reason I mention that is we have a world class program here where he obviously does a great job, multiple Olympians but they weren't doing the same...

Robb: Some holes in the thing.

Christopher: Some holes and prep. Now luckily these are small things that Allen can do on the side and other people listening and that I can do on the side as well and that's what foundation is for. So it's not complicated. You got to feed the muscle. So I just in fact I just had a little conversation with Allen this morning. How is it going? It's been a month or so. How is it feeling? He says it is so much better. Is it back to where it needs to be? Not yet.

I remember how slowly that all adapt. So he'll be – championships coming up in August. We're late June now. We'll probably be 85% by middle of August which given our 3 month window we had, that's reasonable. That's probably about the best we can hope for.

Robb: Right. It's so interesting and you know what, again side levers, windshield wipers, front levers, back levers, all that stuff at one point was – I wouldn't say inconsequential for me but it was pretty darn easy because I had done these basic progressions, you know again, very low level gymnastic stuff and then just a capoeira, it's a back alley gymnastics at best but there's some good stuff lurking in there and overall produced some pretty good physicality in me.

I remember the first time that I tried doing an overhead squat, I had to tap out on it 275 pounds because it was the most that I could rack jerk from behind the neck. I just couldn't get more weight overhead and that was 170...

Christopher: I was going to ask with that body weight. So you just jerk more than 100 pounds body weight.

Robb: Right.

Christopher: Wow.

Robb: Yeah. From behind the neck is a lot easier than from the front like I would...

Christopher: I'd have to take your word for that one big guy.

Robb: But you know, it was interesting like this was at one of the early cross-fit gigs but I found the overhead squat just kind of – I did not a laughable thing but I got no stimulus off of it. It wasn't enough to stimulate my legs and because my thoracic mobility was so good from doing tons of back bends and...

Christopher: Because you were doing the limber work back then. I remember.

Robb: And so that thing was inconsequential for me. I just didn't really get anything out of it and now that I'm not doing all that stuff, it's pretty damn hard now so you know it's...

Christopher: But you know the good news is it doesn't take much time.

Robb: To get back. Yeah.

Christopher: It doesn't take much time. So we've got one of our students John, John Douglas on the forum in Australia. Very good student, very meticulous,

never rushes, very detail oriented, not afraid to get in there and actually do some sweat. He has been getting it back into – because in our foundation course, we start opening up that thoracic spine as one of the mobility elements because you have to be able to move. You have to be able to go flexion down the pipe. We've got to be able to extend the spine.

[0:50:00]

So he got invited into a cross-fit gym and I think he was just shy – he hadn't touched a barbell before. He was just shy of – he's not an only gymnast by any means, not even remotely close, just what he's done with us as far as gymnastic strength training and he was just under a double body weight dead. And he wanted to go a bit. More as a coach – I didn't really feel it but we consider that limber work not only just for mobility but you're also articulating the spine under the low. Think of it as the opposite of the Jefferson curl.

So if you can express strength throughout a full range of motion using a load of body weight, is it reasonable to assume that with greatly reduce ranged of motion like a dead lift that I could do multiples of body weight, of course? It makes perfect sense.

Robb: And it's almost like starting dead lifts in a deficit in the way. Which interestingly when I competed in power lifting, I squatted with a narrow high bar stance through 80% of my training. I did dead lifting off a deficit for about 80% of my training. And then when we got ready for a...

Christopher: How much was the deficit?

Robb: Usually about six inches.

Christopher: It was sufficient.

Robb: It was a decent deficit so that it really changed my starting position. I mean it was such that the bar was literally like on my feet. I get there, there really wasn't too much further that I could go with that. But then when I started pulling, I would squat and dead lift a sumo in the meats and because I have [Cross-talk]

Christopher: And that was just nothing at the meat was it?

Robb: It was like cheating. And I never missed a lift to do lack of depth because I had the mobility even in the sumo – the mobility was easy and so we would start getting some rough ideas of where my sticking points were and we would work a little bit of isometric stuff using power rack for my specific sticking points and this was a long time ago so we didn't have west side barbell stuff but I followed Fred Hathfield and he talked about compensatory acceleration, trying to move weight as quickly as possible. And so I did some power cleans amidst that and you know, did pretty well with that.

Christopher: You were California state champion. Weren't you?

Robb: As a teenager yeah.

Christopher: That's a big deal.

Robb: The best that I had was 181 was 565 squat and dead lift and 345 bench. My bench was never anything to ride home about. That's kind of an interesting thing my pulling strength has always been a lot better than my pressing strength and one of the things that when I was really working on a one armed chin, you gave me some insight of just accumulating time hanging in that one arm chin position. Low and behold like I was just doing my regular weighted chins and what not and then doing quite a lot of volume of hanging.

And then one day one of our clients asked me what the heck are you doing there all the time? I'm like well this thing's supposed to develop some connective tissue strength and some proprioception, so that you work towards a one armed chin and they're like well is it working? And I was like I don't know. And I didn't – I actually like did win then. So I've been in and out of being able to get a one arm chin and usually one of the primary pieces that I need to do was some static work.

And I remember again when I was doing capoeira that I did tons of time on my hands. And this was the only time in my life that I had a significant – I weighed 170-175 pounds, had 190-192 pound standing press.

Christopher: Okay.

Robb: And what's going on with those locked out end range positions like the o-lifters back in the day used to do really heavy lockout and gymnasts seem

to have very, very impressive pressing strength. The only time that I've had decent pressing strength was when I was spending a ton of time on...

Christopher: Spend time. Yup. The joints adapts. Everything comes from the joints.

Robb: You feel like it's more of a joint prep deal. That's interesting.

Christopher: It is. So we've got some great movement courses that are on the way. You guys got a bit of a taste at the seminar and what we do is everyone wants the high speed elements. Everyone wants to light their hair on fire. Everyone wants to go out and they want to tumble and they want to do all this stuff but you know, where the courses start with, obviously locomotion, the bipedal work on the legs you know is that comes pretty easy. Everyone's used to walking around.

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But they first need to accumulate time and a bunch of different drills and support and in suspension. If you can't hang, how are you going to handle multiples of body weight when we start doing explosive suspended work? It's not going to happen. You're going to explode. And so when we're at a seminar, we'll show some of our national team athletes tumbling and you're going to come down as they go around off that hand spring, when they jump out of that back hand spring into a double layout, double twisting, double back, whatever happens to be, that's 10 times body weight that their body was exposed to in that fraction of a second.

So 150 pound athlete, that was 1500 pounds of pressure that physical structure just handled and not just handled one time but in the course of a workout was exposed to it over and over and over again. That's where you get very, very strong when you get to that repulsive work. That repulsion but first things first. First, we have to just like you say, we got to accumulate time on our hands whether it's in support, when it's in suspension. Then once we've gone through you know, same drills with everything, start easy gradually work our way up through more intense elements.

Once we have the good locomotion strength basically there's no jumping. There's no hopping. There's no straight arm repulsion, once that's good, then we can move to the next category then we can work on explosive strength then we can bump to the next category and we can do

repulsion. And you know my opinion is not following that protocol is why there was all those Achilles ruptures in cross-fit a few years ago.

They fatigued the Achilles by doing high rep dead lift – and I think cross-fit has the great idea. So I don't want to slam on cross-fit. The reason I'm mentioning this is this programming was flawed because the physical preparation wasn't done ahead of the time. They pre-fatigued in Achilles and then on a 225 pound dead lift and then had them do box jumps. Well it's a race. So what they were doing is they weren't just jumping up and stepping down. They were jumping up jumping off punching off the ground to go back up.

So we took someone then whose connective tissue wasn't ready for this kind of training. Now is a gymnast going to notice it? He's not going to notice it a bit or it's only going to be a few times body weight. He's used to 10 times body weight. But for your regular adult who's used to walking around with just regular body weight and suddenly I put him there where he's getting 2 and 3 maybe even a bit more multiples of body weight as he's punching down in a fatigue state, yeah that Achilles is going to go. I think they had 9 ruptures that year.

Robb: Right. And I mean even if you had like a boxer or a wrestler who does 20 minutes of rope skipping like you've got some base level conditioning there that you know is probably going to help that a lot.

Christopher: Yeah. That's a good point. Jumping rope is awesome. I love in fact they have found in older populations increased bone density and we show these at the seminars but they actually get better increases in bone density in older women jumping rope than they do from lifting weights.

Robb: Which plyometric loading like how do you load all the way from literally the last digit of the toes all the way to the atlas and the skull? How do you load all that with one movement?

Christopher: And I think probably the way to make it clear for people is that the bones are not where they think they are. We think that they're rigid and they're strong and that increasing bone density means that I'm going to be firmer and stronger like a bar of iron. But go on YouTube. Look up high speed photography. There's a very good one I think they shot someone breaking a brick, just a karate 2000 frames a second and they'll show you

at regular speed. They'll see the hand go through the brick. We've all seen it 100 times. No big deal. Wow he's strong.

Then when they show you at 2000 frames a second you see how fluid the bones are. That's what it means. That's what it means when we increase bone density. It means that bone now articulates. That bone moves. That bone bends and then it comes back to shape. So to my mind, this is why as we get older, this is why people fall down and get brittle. It's not they're not strong enough. Their connective tissue has lost their elasticity. So instead of bending and coming back it bends and then snaps.

You can only see that – it's fascinating. You can go and watch all these different clips and the body is very – it's got to be the high speed photography at least 2000 frames a second but you'll see the bones do things. The first time I saw it, it just blew my mind. It literally blew my mind. You're kidding me. And then we'd be at Olympic training center, we would watch very high speed of someone hitting a spring board for vault.

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And you would think the vault goes down and the board comes up and it's not the case at all. They come and they land and you can see all the bones shifting and bending and then rebounding off. You can see the spring board collapsing way forward to the end of the boards and then coming away back again and it was on the backward weight that the athlete was actually thrown off.

But our eyes – we can't process it. We can't see it. So sometimes our training protocols aren't reflecting what's really going on with the body biologically.

Robb: And again I've got to say that the biggest thing that I feel like I've lost from being more sedentary not being in a gym everyday from sitting down, writing and...

Christopher: Steal your things.

Robb: [Cross-talk] And all that stuff is the mobility piece and as strong as I was before, probably not. And here's the interesting thing and I guess this is

what I circle back around on and the point that you made without that joint prep, without that connective tissue prep, I'm just not going to get back to that same level of strength.

And a much higher likely of a wide variety of injuries all the way along and so the time spent benching and shoulder pressing and squatting and dead lifting is – clearly it's better than doing nothing and there's a certain mobility element that's...

Christopher: It's good. It's not a waste of any means. It's just insufficient all by itself.

Robb: Right. That's interesting. Pretty damn interesting. Well coach, we could go on for hours because really when I talk to you, this is my chance to – this is all rouse to make it look like we're doing it [Cross-talk]

Christopher: That's true for both of us. We have a good time.

Robb: Coach, what else do you guys have cooking? You guys have stall bars available now. You have some hand stand blocks. I know that you guys just released a couple more modules. What else do you have cooking?

Christopher: Goodness we have got a lot going on. So obviously we travel all around the world. I'm just getting ready to heat out for a two week trip to Europe. We've got multiple seminars we're doing over there. We usually head to Europe once a year. September we head out to kind of northern Asia, Japan and Korea. Some large seminars there. November generally we head out towards Australia and New Zealand. We have our foundation courses out.

Now our courses, they're the closest I can come to replacing me being there and working with an athlete. So we very quickly realized that the written word only was insufficient to express everything I wanted to get across so our courses are hosted online. They're very multimedia heavy. Everything is videoed. Lots and lots of photos. And then even that is insufficient. For example one of the exercises is we do an arch body hold. So an athlete will lay on the ground with their stomach and lit their arms and legs up and arched their back, hold for time.

I think last time I checked the discussion on that was 27 pages long on the forum. I have never seen – I remember just watching this grow. You've got to be kidding me guys. This is slightly harder than pulling your socks

on in the morning. And it was crushing these people and so what we found is that this combination of the online courses put in with the private forums that support them allow people to get together, work with athletes who've been through it, explore for themselves where they're having issues. We found out through all that that it's primarily an issue of tight psoas and tight hip flexors for these adults.

And they literally couldn't put themselves into an arch and so it takes probably their slowest rate of return is the first six months of training at least perceived rate of return because they're doing so much rebuilding and restructuring and then once they kind of get over the hump if you will, that's kind of their Wednesday of the week then everything else speeds up and suddenly they're happy and everything goes but there's just so many years of damage that it takes a while.

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So our courses, work in line with our forums, our private forums to support them. We've got our foundation courses. We have our handstand courses. Now we do of course hand stand work. Some people come to it because they want to learn a handstand but before we ever allow an athlete to do a handstand, we do risk mobility. We work on the elbows. We do shoulder girdle mobility. We're working on lower back, pelvic work, all of these occurs to make all those areas healthy so that they can do a high quality handstand later.

But even if they wanted to go do the hand stand work, the mobility is golden. We teach them. We release rings one, how do you use rings correctly? Some of them maybe shocked to understand that a muscle up is not the be all and end all of ring strength. In fact as far as gymnastics are concerned, we don't even rate a muscle up. Even an iron cross is only rated a B and our ring strength goes all the way up to G. so A, B, C, D, E, F, G. So a cross that everyone thinks is so unattainable is actually a fairly low level skill that is achievable by someone who's at least average athletic ability.

We've got movement courses that are being released. We've got some specialty course coming out. My staff will beat me up if I go into too much detail on these. But we're aware that some people want to make this their main modality of training and then other people like yourself,

they want to know what are kind of the greatest hits that I can do and then integrate with what I'm currently doing.

Robb: Right.

Christopher: So that's where our foundation courses come in. Do you have 20 minutes? 20 minutes to rebuild your elbows, rebuild your shoulders, rebuild your knees, rebuild your lower back. Is it worth 20 minutes to you to be healthy and increase your athletic performance in your favorite way of conditioning? If the answer is yes well then the question becomes what are you waiting for?

Robb: Why aren't you doing it?

Christopher: Exactly.

Robb: Well you know it's been really interesting for me just I've tried pulling two things out of just dozens if not hundreds of things that we we're exposed to at the weekend course. I said you know, I really think that my shoulders, my thoracic mobility or the big problems that I'm encountering in jujitsu right now I'm going to tackle those and the results have been fantastic. Just feels so much better. And I noticed that it's helping a number of other things that I have going on.

And so the next thing that I'm going to really layer onto that is some specific work for so as hip flexors and low back and also starting to joint prep my knees a lot more aggressively because everybody in jit seem to stand up with some cranky knees and I would – at some point some days I'm kind of like I don't know why I'm doing this because I want to be healthy and mobile my whole life but the bugger is that I actually really enjoy grappling.

Christopher: That's the kicker. Exactly.

Robb: Yeah. That's the one thing that I really enjoy and kind of like maybe I should do masters track and field or something which would be cool but it just doesn't spin my propeller the same way.

Christopher: It's not the same spark.

Robb: Yeah.

Christopher: The mobility is critical. The way I try to explain it to our people if you haven't taken care of your mobility, it's like trying to drive your car with the parking brake on. Your body fights itself. It fights itself. You can't get the best benefit out of what you're doing. You make your body mobile, get the joints going. It's like taking that break off.

Robb: Right. Well coach it's awesome having you on and again

Christopher: Enjoy it Robb.

Robb: For hours but let's shoot for another 2-3 months down the road and get you back on and maybe what we'll do with the next one, we'll do a blog post letting folks know a blog post letting folks know that you're coming on and then maybe we can open it up to some questions and we'll go beyond just you and I rattling and actually me just capitalizing your time and stealing your...

Christopher: No not a bit. That's how I got it. I pestered so many people over the years so it's simply my time to pay back. I love that idea about the questions because sometimes we get great questions that they're having trouble like I would've never in a million years guessed that someone would have trouble with an arch body hold.

Robb: Right.

Christopher: Would've never crossed my mind and 27 pages later and I mean people carrying on – it was just ridiculous. We learned so much.

[1:10:00]

Robb: The funny thing with that is that I would prefer doing – holding a back bend. I would do those – while lit on fire relative to doing an arch body hold. And so...

Christopher: You did have a little taste to that.

Robb: And so I'm just kind of like oh, okay. And in my head I'm like oh it's both working hip extension and posterior chain, so I'll just do more back bends and you know, almost certainly what I'm doing is I'm just sticking off of connective tissue and I'm not actually addressing...

Christopher: It's in the back bend it's actually that lower back's working in a totally different way.

Robb: Right. And I tell you I would do back bends lit on fire over doing arch body hold...

Christopher: The mind's a funny thing right?

Robb: Yeah.

Christopher: I always get people telling me that we're rational animals because no we're not. We're rationalizing animals. We will make any excuse we can to get out of what we don't like.

Robb: Yeah and I'm very good at it. Just enough to be able to explain it away.

Christopher: [Cross-talk]

Robb: Well coach, congrats on the success you've had with this and thank you for the hard work you've been chipping away at this for a long, long time and have just never let the grass grow onto your feed on this and this has just grown into an amazing resource, an amazing community highly recommend it folks.

Get signed up with the foundations one at a minimum when you come to town. Definitely folks need to get out and check out the gymnastics body seminar. I know that you also have a certification program for folks that are taking this into another level so if you're thinking about how to round yourself out as a strength and conditioning coach, highly, highly recommend looking into that too.

Christopher: Excellent. Yeah we've got some great people involved all around the world now. I will warn people ahead of time like anything else we do we do it right the best of our ability so our certification program is tough. It's tough. It's certainly not show up, sit down, pay a fee, move on. Ours is going to require quite a bit of long term blood, sweat and tears.

Robb: Cool. That sounds good. Coach we'll talk to you soon and thank you again for being on the show.

Christopher: Thanks Robb. I enjoyed it big guy.

Robb: Take care. Talk to you soon.

Christopher: Bye.

Robb:

Bye.

[1:12:36]

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