

Paleo Solution - 261

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Robb Wolf:

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Howdy folks. This is Robb Wolf, another edition of the Paleo Solution podcast. I am very excited to interview and spend some time today with one of my personal heroes Dr. Fred Hatfield also known as Dr. Squat. Dr. Hatfield has authored an amazing assortment of books including Power Lifting A Scientific Approach, Body Building: A Scientific Approach. My personal favorite Sports Science book ever written which is Power: A Scientific Approach and then he has also recently completed The Complete Guide To Dumbbell Training A Scientific Approach. You are the cofounder of International Sports Science Institute and just generally one of the most knowledgeable dudes on the planet about strength and conditioning. Dr. Hatfield, welcome to the show.

Dr. Hatfield:

Hey, Robb, thanks for having me.

Robb Wolf: Oh just a huge honor to have on the show. Doc, you – I had a powerlifting, short power lifting career in my youth. I won a California State Powerlifting Championship and I had some very good coaches but I've got to say that your training methodology and recommendations were probably 80% or 90% of the success I had. So I just wanted to thank you for that and could you give folks a little rundown in your background? You have an amazing athletic and coaching history.

Dr. Hatfield: Oh wow. [Laughs] Where do I start? I grew up in a Connecticut orphanage and did a lot of farming, farm work, you know baling hay and all that kind of stuff. I was a pretty strong young man. And a couple of teenage boys were working out in the garage and I was on my home from school. I stopped and I looked at what they were doing. I was about 11 or 12 years old at the time and they called me up there and said hey let's see if you can lift this.

And you know, it was a pretty easy thing for me to do because I was like I said a pretty tough guy. I could throw bales of hay up in a truck by the time I was that old. And so I put it over my head a couple of times and they just sat there with their mouths open. Couldn't believe what they were looking at. So it was all, that's where it all started you know. I got the iron bug. It stayed with me forever. I was a gymnast all through college but even while I was a gymnast I was bodybuilding. In fact, I went head to head with Mike Katz.

Robb Wolf: Right.

Dr. Hatfield: Mr. Connecticut and he won but I beat him out for most muscular.

Robb Wolf: [Laughs]

Dr. Hatfield: [Laughs] And so and let me see. I entered my first, my first Olympic weight lifting competition and body building competition in my junior year in high school and I broke all of the state records and won teenage Mr. Connecticut that night. So it was –you know, I had a nice beginning. I had some good friends that brought me along a guy by the name of Peter Thorn. A lot of people may recognize that name. He was intimately involved in power lifting for several years. He was the director of the YMCA. He coached me and prodded me and helped me a lot in my younger days.

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And then you know through the Marines then into college where I was a gymnast as I said all through college and I liked college. I liked learning. I knew that I did not want to go to a high school or a junior high school and

teach physical education. That wasn't my stick. So I stayed in school and you know, I guess I was too lazy to go to work.

Robb Wolf: [Laughs] Working smart yeah. [Laughs]

Dr. Hatfield: And I ended up doing my doctorate from Temple University back in '72 or thereabout. And I wasn't good enough in Olympic lifting to make a team. I tried hard. You know, and then at the 1976 Olympic trials I thought for sure that was going to be my year but everybody is as good as any of the other guys in 181 so I bombed out the snatch and that was the end of my Olympic lifting career. I immediately quit and went into power lifting and inside of a year I was breaking world records. So I stayed there.

Robb Wolf: Doc, when tell folks kind of the thought process you had when the thousand pound squat seemed like this unattainable goal and now I remember reading an article where you were looking at your current body weight and looking at where folks were lifting and you kind of extrapolate forward and you said hey if I got my you know, my body weight up to X then my backsquatch should be Y. And you ended up successfully squatting 1014 pounds. Walk folks through that. That's a really amazing piece of history there.

Dr. Hatfield: Well you know, it was a simple exercise and logic for me. You know? I just I had lifted in the 165 and the 181 and the 198 and I saw that the line was going in a certain direction you know? When I connected the dots. So I just extended it out assuming that I would maintain a lean body mass of you know, somewhere's around less than 10% body fat.

And I figured that as the magic number, less than 10% At 250 pounds, 255 pounds I was hitting a thousand pounds theoretically.

Robb Wolf: Right.

Dr. Hatfield: That's exactly what I did. I mean it just worked that way.

Robb Wolf: And

Dr. Hatfield: It took a long time to put that kind of muscle mass on thought. It wasn't like it is nowadays with the and even ten years ago you know, massive amounts of antabolics involved or any other number of drugs. Back then that wasn't typically done.

Robb Wolf: Right, right. You know, doc was this some of the time when you came up with the idea of the zigzag diet? Was that part of how you were able to gain that, that body weight while maintaining the lean muscle mass and then also let folks know about what the zigzag diet is. That's been something that has influenced me in my whole career.

Dr. Hatfield: Well you know, again here we have some logic that you've got to walk yourself through. If you are on a negative calorie diet, you're going to lose fat but you're also going to lose muscle. If you're on the positive calorie diet, all the time you're going to gain muscle but you're also going to gain fat. It's just the way the body works. So you've got to zigzag your caloric intake based upon your anticipated window of three hours activity. And so if you're going to be training hard, you eat a little bit more. If you're going to be lying on a couch watching TV, you eat a little bit less, if anything.

Robb Wolf: Right.

Dr. Hatfield: And just do that on a day-to-day, meal-to-meal basis. You eat for your upcoming activity level and when you look at it on a weekly schedule there are periods where you're going to be training hard and there are period when you're going to be training easy. You zigzag though your calories for those days. And lo and behold what you find out is that you can lose muscle but it's far, far less in fact I've found that I was able to gain muscle while on a zigzag calorie diet. When you add up the total number of calories that you've taken over the course of a week's time, instead of on a day-to-day basis what you'll find is that you can actually put muscle on and take fat off at the same time. That's the only way I have ever found where that's possible.

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Every other diet has deficiencies in respect to losing too much muscle. Ask any body builder in contest preparation they'll tell you, you know, at 240 pounds, they were way more muscular and then they get themselves down to 210 or something like that and they've lost a huge amount of muscle. It's true they lost a huge amount of fat too, but an unacceptably high amount of muscle mass was also lost.

So work with Tom Plats a lot. I work with Lee Haney a lot. In fact, after Lee's first Olympic weight lifter or Olympic, Mr. Olympia competition where he won in a body weight of 220 pounds thereabouts, 225. I said Lee you know you were fantastic three weeks ago when you weighed 20 pounds more. What happened you know?

Robb Wolf: Uh-hum.

Dr. Hatfield: And so I started working with them the way I worked with myself, the same way I worked with Tom Platsky and a few other guys. And the following year, and for the next five years after that, Lee came in weighing 240, 250 pounds or more and much more ripped and shredded than he was at 2:20. And that's the end of Lee Haney's story. You know after that, the guys were coming in weighing you know, 20 or 30 pounds more than even what Lee weighed and shredded but then we found out that they were using IgF1 and all kinds of other powerful anabolic agents like insulin and so forth which is very, very dangerous. But we didn't want to go that route. So we stuck with the good roads, the straight and narrow road and everything worked out fine. [Laughs]

Robb Wolf: I would say so Lee won eight consecutive Mr. Olympias?

Dr. Hatfield: Yes.

Robb Wolf: Yeah, yeah I would say it worked pretty well.

Dr. Hatfield: And he's also doing a huge amount of aerobics. I got completely away from aerobic training.

Robb Wolf: Doc, you know it's interesting because now when we understand leptin and some of the brain hormones that regulate body fatness and metabolism we definitely get this sense that the body doesn't like anything chronic. It doesn't like chronic caloric deprivation. It doesn't like chronic calorie excess. So it's interesting you know on kind of a logic and coaching based format you really figured out how to skin that cat in an amazing way. You know don't send such a caloric overload signal that the body starts getting you know, not so thrifty with protein, not so thrifty with calories and just kind of burning off excess energy but also not so caloric deficient that we're sticking the body into a starvation mode and just you know, matching activity level with food intake. You mentioned that you really geared things towards what the activity was that you were coming up to. Was the backside of that true? Did you – was the post workout nutrition just as important or did you feel like the preworkout nutrition was more important?

Dr. Hatfield: Prewriteout nutrition was far more important.

Robb Wolf: Interesting.

Dr. Hatfield: It was far more important than the post. In the post exercise period your big job is to make sure that whatever it is you have done or are about to do, you're going to control the catabolic response.

Robb Wolf: Uh-hum.

Dr. Hatfield: And that's easy to do with just making sure that you're branched chain aminos are high in your blood. You know, the blood borne amino pool is there. And to me that's really all that's necessary. You know there are – guys have gone way overboard with their –they're trying to get cute with physiology. And it's you don't have to do that. Just you know, I mean all of the great body builders of the past had literally no training in physiology. They knew a few things but more often than not they knew enough just to hurt the chops.

Robb Wolf: Right, right.

Dr. Hatfield: And you know, I remember one such case where a guy was talking about aldosterone and all kinds of other things. I knew very well who this guy was, what his background was and he didn't know what the hell he was talking about. So to me the best way to approach your diet is even if you're a competing body builder but anybody in general is to eat enough for what you're going to be doing and when you're not doing anything, eat less or nothing.

Robb Wolf: Right.

Dr. Hatfield: It's really that simple. Why get cute with the whole hormone thing and of any –you know, there's a few exceptions of course. You want to promote anabolism and you want to avoid catabolism and there's a few little tricks like the zigzag diet and the amino acids and so forth.

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But beyond some simple measures that are all written about it in my several bodybuilding books, the science hasn't changed very much since then.

Robb Wolf: Right. And definitely the coaching hasn't changed.

Dr. Hatfield: Yeah.

Robb Wolf: Practical application.

Dr. Hatfield: Yeah. [Laughs] You know, the funny thing you mentioned that Robb. You know, I know all of the guys that are out there that have developed a real

good rapport with the athletes and wowed them with their understanding of body physiology and you know, what, you know the funny thing is? Almost none of them are built.

Robb Wolf: Right. [Laughs]

Dr. Hatfield: And I'm saying to myself well how do you know? How do you know that's going to – you've never done it on yourself. I'm one of those guys that I'm a little cranky about it. You know, you're going to know a lot more about the ins and outs of training science if you've done it yourself.

Robb Wolf: Right.

Dr. Hatfield: You can't just rely upon watching somebody else do it. that's not the best way. The best way is to do both. You have to have a little bit of knowledge but you also have to have done it in the trench.

Robb Wolf: You sound remarkably like one of my best friends John Wellborn. [Laughs] You guys which I know you were on his power athlete radio and they had a blast having you on there. You guys sound very, very similar.

Dr. Hatfield: Yeah that was a fun interview. I'm waiting for him to call me back again one of these days but it's alright. I do a lot of these interviews mostly you know, short interviews with the local guys and stuff like that like running a podcast that out of their home.

Robb Wolf: Nice.

Dr. Hatfield: And I don't have any problems doing that at all. I like doing it. I feel that it's important for guys like myself who have been around forever and ever to give back to the sport. I can't lift anymore so I might as well try to help somebody.

Robb Wolf: Well you've definitely helped me incredibly and to the degree I've been able to help people you know again you've been kind of the foundation of my learning. So I really appreciate that. You know something that's interesting to me is your physical development as a kid and an adolescent and then going into young adulthood. You know the hard physical labor and then getting into gymnastics and whatnot. I mean clearly that was a huge factor in your success. Given how sedentary our lifestyles are today, how do people replicate some of that? Like I do a lot of writing and I do a lot of blogging. I've noticed that just my base level of activity is so low now that it's quite difficult for me to get in and train the way that I once did. Just because my activity level is so low. Like what can you

recommend to folks in this modern age to get that GPP, that general physical preparedness that you got from Buck and Hay?

Dr. Hatfield: Okay. I'm going to say something that I never thought I would say but you know, I really love crossfit.

Robb Wolf: Uh-hum.

Dr. Hatfield: Now if they had, if the crossfit movement were available to me as a boy, I would have won everything.

Robb Wolf: [Laughs]

Dr. Hatfield: I did all of that stuff.

Robb Wolf: Right?

Dr. Hatfield: I could hold a cross for nearly a minute on the rings. You know I could do overhead press with 275 pounds for 375 pounds. I could all that kind of stuff. I can do backhand springs, backhand, back somersaults. I could stand on my hand. I could do anything that crossfit is doing and do it much better than anybody who's doing it today even the champions.

Robb Wolf: Right.

Dr. Hatfield: And so having said that, the only thing I have to say is that that was my lifestyle when I was a boy. I hung out with guys all of whom could win at crossfit nowadays. All of them. It was a handful of maybe 8 or 10 guys that I hung out with on a regular basis when I was a boy. All of them could do that stuff. We did do it. Waiting for a bus at a bus station, I'd grab a hold of the pole and my body would be extended up horizontal to the ground and it's called a flag. I could do that. I even did chin-ups in a flag position.

Robb Wolf: Oh wow.

Dr. Hatfield: [Laughs] So I mean but see all the guys were doing that kind of stuff and it was part of our lifestyle. And so I like the crossfit movement. The only thing I have against the crossfit movement is they get overzealous in their repetitions and the speed of their movements and how many chin-ups can you do in not chin-ups, what? Keep-ups can you do.

Robb Wolf: Right.

Dr. Hatfield: Or how many snatches can you do in a certain time period. That's dangerous. Now you're messing around with the very fine technical movements and you could tweak something very easily and often guys are doing that. So I'm fundamentally opposed to that kind of stuff but there are others ways of doing crossfit that I'm really all for it.

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And then you know, there's another guy out there by the name of Jeff Turner. Interestingly Jeff Turner was the first guy ever to get certified as a personal fitness trainer in the history of the world.

Robb Wolf: Huh?

Dr. Hatfield: We trained Jeff. In fact he was my protégé for like three, four years while I was coaching elite athletes. When Dr. Aria and I started the international sports sciences association, which was the first certifying body for personal fitness trainers. We're the first. WE started this industry.

Robb Wolf: Right.

Dr. Hatfield: Jeff was our first student. Anyway so Jeff is doing a thing called fit to play which I'm absolutely in love with. And basically what he does is he takes his group and they go out on the woods and they jump over trees and they climbed trees and fences and they dig holes and they do just play stuff. You know? How fast can you climb that hill, how fast can you climb down that hill? You know, just stuff.

Robb Wolf: Right.

Dr. Hatfield: That's fun to do and he's getting remarkable success. And when he deals with kids, his complete and total focus is on movement efficiency and that's something, that's not being taught in the schools today. Nowadays and even when I was in school the gym teacher would throw a ball out and say okay let's play half basketball for 45 minutes or something like that. And movement efficiency is not – has never been taught and Jeff spends a huge amount of time teaching that. And that's the answer to your question. That kind of stuff free ranging movements like you find in fit to play and free ranging multiplicity of movements that you'll find in crossfit training. I'm a big believer in it.

Robb Wolf: That sounds great. I completely agree. I was in on the early stages of crossfit and loved the concepts of gymnastics, Olympic lifting, power lifting, track and field but always liked looking at it a little bit more from a

block-periodized approach. You know, kind of taking each one in a little bit of a chunk really focusing on technique and then moving on.

Dr. Hatfield: Yeah, yeah. You see they made a big mistake in their marketing. They should have gone that way and in fact they still could go that way if they wanted to back up and take a deep breath. But their wads their workouts of the day often are really stupid and ill-informed and put together in a very haphazard way.

And so you know, I'm opposed to that kind of stuff. You know, we have learned a little bit after all from science and injury prevention is a very important part of training and they're completely disregarding a lot of basic fundamentals.

Robb Wolf: Well I definitely you're singing to the choir on that with both me and most of the folks that listen to the podcast. Let's talk about one of your really outstanding athletic successes training Evander Holyfield where we're talking about a you know, boxing is about as rough a combative sport as you could find.

Dr. Hatfield: Yeah.

Robb Wolf: It maybe even worse than mixed martial arts these days and you know you had to take him from an already elite level of boxing technicality but bring that technicality up, increases power, increases muscle mass and then also when you first started with him, he didn't actually have much of an anaerobic engine.

Dr. Hatfield: No, he did.

Robb Wolf: Yeah.

Dr. Hatfield: He would faint in the end of a very – of the later rounds. He punched like a girl you know. He used his arm instead of his whole body and legs. You know? he was a mess when I got a hold of him. Plus the fact, you know, he was very light. He was you know floating around 200 pounds. He was trying to be a heavy weight in a cruiserweight body , you know, and so I had to put some msucl eon the guy. But make him faster and make him and teach him how to punch.

Now I am no boxing aficionado. Yeah I don't even presume to teach anybody how to box. He had his coaches that did that for him. What I did was I put a huge amount of power behind each punch, which he simply didn't know how to do. I had impulse inertial technology installed in this

gym. So that I could teach him how to put his right hip thrusting forward before his punch to create a stretch reflex in his shoulders and the viscoelasticity component transferred through his shoulders down into his punch.

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And he was hitting with twice the amount of force. The reason that I know this is I hooked up some real simple accelerometric technology to the bag that he was punching so I was able to measure the precise amount of force that he was using to hit that bag with. And I doubled the amount of force.

Robb Wolf: And Doc, walk through what you did with him. You had again kind of a blocked periodized program.

Dr. Hatfield: Yeah.

Robb Wolf: Walk folks through that because I think that you know, both when people are training themselves and oftentimes training athletes or trying to do everything at once and you really --

Dr. Hatfield: Yeah.

Robb Wolf: --separated out different characteristics and went after him in a very strategic fashion. How did you tackle that? Well how did you tackle that?

Dr. Hatfield: Well I trained for quite some time in the Soviet Union before the wall came down and there were still Soviets and Dr. Yuri Verkhoshansky took me under his wing. He's probably the greatest sports scientist ever to live and I just hung on every word that he taught. We became fast friends and after the Soviet era, I used to go to Rome Italy and hook up with the guy and just talked training for hours into the night. The guy was just brilliant and one of the things that he taught me was pulled training. You sync all of your bodily resources into a single component of fitness that you needed. Like for example limit strength first you know and then eventually starting strength and then eventually at the very end you would add the component of amortization.

For example in running, your foot hits the ground and your knee bends the then you have to stop the descent of your body by pushing off the ground. That's called amortization and the amortization resembled a check mark.

Robb Wolf: Uh-hum.

Dr. Hatfield: You follow what I'm saying?

Robb Wolf: Yeah.

Dr. Hatfield: When you take a look at a strength curve, it looks like a sideways "S". Well I didn't want a side wards S for many of my athletes. What I wanted for myself it well, I wanted a checkmark. You follow me?

Robb Wolf: Absolutely.

Dr. Hatfield: Very pointed end on that amortization or transition from down to up. And that was extremely important information that I got from Yuri and that's what I trained. That's the whole basis of periodization. You cannot train checkmark until you have the wear with all to accept those kind of forces in a much stronger and resilient body. You try to do checkmark training, you try to do amortization training initially, you're going to tell yourself apart.

Robb Wolf: And Doc, for folks they might be more familiar with that speed work, plyometric work. It is kind of – it's some of the activities folks might be more familiar with and --

Dr. Hatfield: Yeah.

Robb Wolf: --in your Power: A Scientific Approach, you know, I think you start the book off with basically saying speed is king and --

Dr. Hatfield: Yeah speed is king.

Robb Wolf: Yeah and all of your emphasis was on speed and power production. It's interesting you know there's some great methodology out there, west side barbell training and they had speed work and what not but I found your methodology really interesting in that it was, it really boiled down to whatever it was you were doing, do it at you know, within really solid technical parameters but as fast as you possibly could. If you were benching --

Dr. Hatfield: Yeah.

Robb Wolf: You benched explosively. If you were squatting, you squatted explosively. If you went up the stairs, you didn't amble up the stairs. You flew up the stairs.

Dr. Hatfield: Yeah I know. I did not learn that in the soviet union. I learned that from my old coach, my old Olympic weight lifting coach, a guy by the name of Joe Mills from Central Falls Rhode Island. Joe Mills was on the Olympic years and years back in the '30s for great Britain. And he told me a story once that really resonated with me. I'll tell you that story now.

Robb Wolf: Okay.

Dr. Hatfield: He said I was with a bunch of my buddies he said and this is during the war here and we're going to see who could piss up the side of that wall over there, highest of all.

Robb Wolf: [Laughs]

Dr. Hatfield: You know, so I'm sitting there listening to this story with a big grin on my face is that's the kind of story that Joe Mills used to love to tell. So anyway everybody had their turn and then it was Joe Mills' turn. Well he took a run toward the wall, a flying leap, got a stream going and released right at the top of his leap. He everybody by like ten feet.

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[Laughter]

So well clearly the moral of that story is that everything you do in the world of sport in order to optimize massive speed and power you have to summate the forces. You can't do a force and then stop and try to add to that force because if you do that, the force is gone. So you have to summate forces. The speed of Joe's run together with the elite, together with the pinching off of the stream all added one to the other and that's why he won. That's what you have to do when you punch, when you swing a golf club. You know, when you put the shot you go across the circle you build up as much speed as you can and then your rotating body adds to that speed and explosive push with the legs adds even more to that speed. You see what I'm saying?

Robb Wolf: Yeah.

Dr. Hatfield: So the forces are added together one upon the other then you've got power. Only then will you have power. Evander did not know that secret. He punched as hard as he could with his arms and he wasn't knocking anybody out with that kind of a punch. But when it came from the bowels of being all the way from his legs up through his twisting torso, into his glove, shoulder and then glove you know now he was punching with tremendous power.

Robb Wolf: Doc how would you balance and how did you balance with Evander that you know generating this max powered generation that checkmark type amortization with conditioning? I think that this is where folks and even myself, I do old guy Brazilian jujitsu a lot of that progresses at a modest pace but then you have these scrambles where it's essentially a max effort and super quick hip movement and hip switching. There's this tradeoff between you know, being explosive enough to get the job done that you need to do but also not gassing yourself --

Dr. Hatfield: Yes.

Robb Wolf: Then having the recovery there? How do you balance that?

Dr. Hatfield: You have the trains work. [Laughs] And for example that's what I did with Evander, that's when I did I was training, you mentioned jujitsu, clearly you're going to know the next day might throw Hickson Gracie

Robb Wolf: Uh-hum.

Dr. Hatfield: From Brazil. Well Hickson came to me and I worked with him for a long time and then you know, he couldn't stick around here in Florida so when he moved back to California, he worked with a protégé of mine, a guy by the name of Charles Staley.

Robb Wolf: Yeah.

Dr. Hatfield: Well basically, what I did with both him and with Evander, was I put them through three-minute drills where I would you know, take them through various bodily movements. Maybe related but maybe not related to the sport of boxing.

Robb Wolf: Uh-hum.

Dr. Hatfield: Like climbing ropes, like sprints, like medicine ball stuff. In any event, over the course of three minutes I would get their heart rate as high as I possibly could. Typically up around 180/190, yeah 180, 190 beats a minute or even 200 beats a minute in some cases. And then they only had one minute to get it back down to a manageable level and we used all kinds of biofeedback techniques and psychological strategies, taught them how to do that to get their heart rate back down to under 120 before the next round started. Then they would do it again and then again and again and again. And slowly the anaerobic threshold was moved back so far that they were able to hit and strike and punch and move with the same quickness that they were able to move at the

beginning of the round. And it's hard work. Hickson Gracie told me. He said I had never worked so hard in my life right. [Laughs]

Robb Wolf: Oh I believe it, I believe it.

Dr. Hatfield: The greatest jujitsu guy in the history of the world telling me something like that. Let's see Hickson had a big problem. When he came to me he said look all of the guys that I'm fighting now, they outweighed them by 30, 40, 50 pounds and he said there's only one way I'm going to be able to beat them and that's to be stronger and faster. He was right. And that's what we did, that's what you worked that.

Robb Wolf: Doc, what's – this is something that's interesting for me too so within the realm of sports we have these said principles, specific adaptations to impose demands so we make an argument that you should do a ton of specific training on a given sport and clearly you need to build a very solid technical background. But as a coach where do you look at that person and then say okay now we need to move back in do general training? We need to do something like a three-minute drill that doesn't really relate to the movement specifically of the sport but is building this anaerobic engine.

[0:35:14]

Dr. Hatfield: Yeah.

Robb Wolf: Like where does the said principle start and stop in coaching?

Dr. Hatfield: Well okay. The said principle is grossly misunderstood by most people. Very few coaches understand it and they apply it in the craziest ways. Like one time I saw a guy training a professional baseball player, a pitcher going through the pitching movement with a weighted pulley.

Robb Wolf: Uh-hum.

Dr. Hatfield: And his argument was well the said principle says I have to replicate the movement. Now it doesn't say that. It doesn't. That's not the said principle. What the said principle is is you develop the same kind of neural output.

Robb Wolf: So --

Dr. Hatfield: You follow what I'm saying?

Robb Wolf: I do.

Dr. Hatfield: The nervous system and it has nothing to do with the actual movement per se. So you know so we – so that's we do. we don't try to – trained Sid Fernandez and Sid you know I don't know if you remember him. He was a left-handed pitcher for the Metz years ago.

Robb Wolf: I don't, I don't.

Dr. Hatfield: He was a damn good pitcher. He's from Hawaii but his fastball was subpar. It was in the low to mid 90s which for those guys that's pretty good but Sid wanted to go over 100 miles an hour. So I said okay you know, we're going to do this step by step by the numbers and gladly over the course of time we got his fastball up to 103 miles an hour. He could do that practically at will and he could do it in the later rounds too. in the late innings. And basically what you had to do is move slowly. You asked the question how does the coach know when to go from one to the next? Years of experience working with athletes. You get a feel for when an athlete is ready to go from pulling his efforts in one area and changing and then concentrating on a completely different area. The coaches will tell you well I can't do that but guess what we were working before is going to go away if I go on to a different kind of activity. No, it won't. It doesn't go away. It stays.

Robb Wolf: Right, right.

Dr. Hatfield: It stays for weeks and weeks and weeks. So training, you know, limit strength, which is your base, and then move on to speed strength. You're not going to lose limit strength overnight. If you continue this to train speed/strength, you would then begin to lose when the strength after months but by then the season has gone by, the competition has gone by and you can back off and do your building again. As far as what it is you build in the off-season I'll tell you what you build in the off-season. You build your weaknesses.

Robb Wolf: Uh-hum.

Dr. Hatfield: And pretty soon as your weaknesses become strengths, what are you left with? Only strengths.

Robb Wolf: [Laughs] But that's a patience, can't do it all one-time approach. I don't know how fired up people are about that. [Laughs]

Dr. Hatfield: I don't care. That's what my athletes do and that's what they've always done and I've trained a lot of elite athletes over the years and that's how I did it with every single one of them with great success I think.

Robb Wolf: Clearly, clearly you have a pedigree that is really second to none. Doc, I know you have a short period of time here and you have some stuff that you need to get out too. We're going to have links to all of your books but in particular your new book, the complete guide to dumbbell training. I wanted to ask you really quickly to talk about that book. Why a whole book on just dumbbell training?

Dr. Hatfield: well you know, in my opinion dumbbell training is far and away the single best form of weight training that you can do. I'm not opposed to bar training or machine training but on a scale of good, better, best, dumbbells are the best. Here's the reason why. Each arm has to act independently.

Robb Wolf: Uh-hum.

Dr. Hatfield: And so synergistic and stabilizer strength is improved whereas it is not with a bar and never at all with a machine.

Robb Wolf: Right.

Dr. Hatfield: It's really quite that simple. I wrote an article one time called stand and deliver it.

Robb Wolf: Right.

Dr. Hatfield: I made the argument get off of your butt, stand up and do your exercises while standing so that you can develop all of the synergistic and stabilizer muscles that you're going to need in your sport. I get real tired or watching boxers for example lying on a bench doing endless bench-presses with the excuse that what was the movement that I got to do in the bench in a fight.

[0:40:05]

Not it's not. You're not going to be lying on your back punching up.
[Laughs]

Robb Wolf: [Laughs] Right. If you are things have gone horribly wrong.

Dr. Hatfield: Things have gone horribly wrong. So you got to use common sense.

Robb Wolf: Well as they say it's not very common these days.

Dr. Hatfield: Yeah common sense it's not very common.

Robb Wolf: Well Doc as I said in the opening you've been an incredible inspiration to me to the degree I've been effective as a strength and conditioning coach. I give huge credit to your background. This evolutionary medicine certification that we've been working on we have a dietary intervention in that and I mentioned your zigzag approach, extensively. I cannot thank you enough for everything that you've contributed to my life and to numerous other folks.

Dr. Hatfield: Right. That's so kind Robb but I'm going to tell you something. You and I are going to have to back on the air one more time because you wouldn't talk to me at all about the single most important element in training in athletic success.

Robb Wolf: Do you want to leave that as the cliffhanger for our next show?

Dr. Hatfield: Yes.

Robb Wolf: Okay. So the cliffhanger is we need to open with the next one on the single most important element of athletic and training success. I like it.

Dr. Hatfield: I did.

Robb Wolf: I like it. Awesome Doc and maybe next time you come on, we'll let folks know you're coming on and we can get some questions from the listeners and then maybe we can run through a few of those too.

Dr. Hatfield: That would be great and maybe we'll have more time next time too.

Robb Wolf: Okay. Sounds fantastic. Well folks check out Dr. Fred Hatfield's new book, complete guide to dumbbell training, a scientific approach. Please for the love of god check out all the other books that he has. If you were a strength and conditioning coach or take any of your trainings seriously it's some of the best material available. You can check out more of Doc's work at DrSquat.com. We'll have links to all of that in the show notes. Doc, thank you, enjoy the rest of your day in beautiful Florida and I'll talk to you soon.

Dr. Hatfield: One more thing.

Robb Wolf: Oh yeah.

Dr. Hatfield: DrSquat.com is still up but it's going to be undergoing radical change very soon because the nutritional supplement line were sold and I no longer do supplements. [Laughs] So you can go the supplements, the guy that

bought the company from me. His name is Brian McEwan and he's at Pro Power Supplements Online. Right.

Robb Wolf: ProPowerSupplementsOnline.com. Okay.

Dr. Hatfield: Yeah. And don't forget to go to ISSAonline.edu.

Robb Wolf: Okay.

Dr. Hatfield: If you're interested in learning more about getting certified.

Robb Wolf: Fantastic and we'll get that in the show notes too.

Dr. Hatfield: Beautiful.

Robb Wolf: Awesome, Doc. Thank you again and looking forward to chatting with you soon.

Dr. Hatfield: Thank you, Robb.

Robb Wolf: Okay, take care. Bye-bye.

Dr. Hatfield: Bye.

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