

## **The Primal Blueprint Podcast – Episode #7: Primal Blueprint Fitness with Mark Sisson**

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Brad Kearns: Welcome to another Primal Blueprint podcast here in the Malibu studios. I am host Brad Kearns with our favorite guest, Mark Sisson. And I have to say before we start, thank you so much to the listeners because we're going up the charts on iTunes. What do you think, Mark?

Mark Sisson: I think it is awesome. We debuted at number 1 last week with podcasts under the category "Health". I am very proud of that so let's see if we can keep that up.

Brad Kearns: [00:00:40] So today, let's do a podcast on the Primal Blueprint fitness strategy. One of the main things that we've seen with our guests at Primalcon and our readers, there seems to be distinct group of people who are quite hardcore, they are really into the cross fit thing, they are working out like crazy, they are from the endurance scene where they are training for the incredible endurance feats and are immersed in a really intensive schedule, or on the flip side, we have people that are busy, maybe not so athletic, and they are just doing their perfunctory approach to exercise where they go to the gym a couple of times a week and ride the elliptical, read their magazine and go home. We want to get more people into that sweet spot where they are embodying the three Primal Blueprint fitness laws. We talked about those on our previous podcast. Why don't you just briefly go over why those laws are so important and what the benefits are of training in those categories and then we'll talk about some approaches to get into that sweet spot.

Mark Sisson: [00:01:33] Well, presumably, we all do this exercise thing because we want to be healthy and because we want to and we want to be fit. We want to look good naked. We want to have more energy otherwise we would just sit on a couch because it is there, and not work out at all. So there is this broad spectrum of people who are ranging from couch potatoes to the over-exercisers and you are right, there is a sweet spot. Where is the ideal place to be? It does come back to evolution and the fact that the

Primal Blueprint laws that say move around a lot at a low level of activity. It is sort of emulates what our hunter-gatherer genes expect of us. Our genes expect us to be moving all day long. To not be sitting, to not be lying down, to not be standing still so much, but to be migrating, foraging, climbing, crawling, all the things that hunter-gatherers did for two and a half million years. So that's kind of the first expectation that we are trying to fulfill for these genes is a means by which we can move around at that low level of aerobic activity for a lot of people that just means walking a lot. Turns out that all the years I had spent as an endurance athlete and all the miles I ran, walking still is one of the healthiest and most healthful activities that a person can undergo. So we look for ways in our lives to incorporate that first law of exercise which is to find ways to move. I have a stand-up desk and it has been a boon for me. It is amazing how my hips have opened up as a result of not sitting all day in front of a desk and I am to stand and I am able to shift positions a little bit. I take a break every once in a while and walk around the house like go in and grab something out of the refrigerator, or whatever. I am always moving even on a day that I am working relatively hard. Down at my office we have tread-desks or treadmills for people who want to be active during the day and able[00:04:03] to do that and are able to put in 6 or 8 miles just walking while they are working. So there are ways in which we can figure out how to get this low level of activity handled without having necessarily to go to the gym. On the other hand, if you are an avid jogger or cyclist and you want to get out there and do some of that low level activity, that's another alternative method. That's another way of doing it. So that's sort of the ground work. Now there are three components to the Primal Blueprint exercise pyramid and that first one covers sort of that low-level aerobic activity.

[00:04:04] The second level is finding ways to lift heavy things. At that is where we're looking at, again, if we were emulating the hunter-gatherer who had to lug a carcass back to camp or hunter-gatherer mother who had to carry the kids around or building the shelter or moving rocks or climbing trees, whatever it was that our genetic recipe expects of us in order to maximize health, maximize fitness, maximize fat burning and all the things that we want to do in the sweet spot. It turns out that research shows us that two session a week are probably optimal for most people, maybe three, rarely four. If you start to get into more than four sessions a week, of resistance training in the gym you start to encounter a situation where the body can recover quickly enough. The reality is the reason we want to work out is to stress the body enough so that the body responds genetically by taking those epigenetic signals by telling the genes to direct the manufacture of new muscle tissue, to make those tissues stronger, to increase the number of mitochondria which produce the energy in the body. All of these are just our way of manipulating the signals so that we get what we want. So that we get that strong lean fit happy healthy body. The danger, then, is really not doing enough (that's not really a danger), but if you don't do enough, you don't maximize your ability to arrive at that ideal body composition and if you do too much, then you tear it down because you don't give your body enough time to recover.

[00:05:38] And then just to finish off the triad the third thing is sprint. Once a week or maybe twice find a way to raise your heart rate to near maximum for anywhere from 10 seconds to 50 seconds or a minute. A couple of times in the workout. That is one of the

most efficient workouts. that you can ever do. It doesn't matter if you are sprinting on the beach or on the track or if you are on a treadmill, or on a bike, or an elliptical, or a rowing machine. You can get to that point in doing this all out sprint effort and manifesting all of those genetic signals that you want to give yourself.

Brad Kearns [00:06:19] So speaking to the devoted fitness enthusiast for a moment, we see a lot of people making that mistake of transitioning out of the optimal zone and getting into a chronic pattern. Specifically, for endurance people, you mention this in detail in the Primal Blueprint, there is a distinction point where you get an aerobic benefit, it is low level. It is not stressful. And then as you get a little bit faster; a little bit too fast, (you made the cutoff point of 75 percent of maximum aerobic heart rate), then you start getting in to a chronic pattern. Can you talk about the physiology a little bit of why that is so important to moderate pace?

Mark Sisson: Sure. That's not to suggest that you should never go out and run to a tempo run of say 75 or 80 or 85 percent of max heart rate. It is just that what tends to happen in the endurance community is that you tend to do too much of that. So you think if I can run 10K, that means I must be able to do it every day. There was sort of conventional wisdom 20 or 30 years ago was more miles is better, the more you can handle the better athlete you can be and the faster you would race. It turns out that in many cases, what that would do is tear your body down, and yet if you just step back and say, what are we trying to do with exercise? Yes, we want to love it, but we're are doing exercise and presumably when we are going exercise it is not necessarily pleasant. It can even be painful. We want to derive a benefit. We want to improve as a result of having done that. So my take on this is what is the minimum effective doses? What is the least amount of exercise that I can do and get the result that I want to do? That comes back to this whole point of recovering. If you can't recover for the workout sufficiently, then it is not time to do another workout on top of that. It is the accumulation of these workouts without recovering, that leads to over-training, that leads to injury, that leads to burnout. It happens so often in the endurance community, but now I am starting to see it in the cross-fit community. Three days and one day off is a very heavy load, even in spite of the concept of a 12 minute workout or 17 minute workout. If it is entirely glycolytic and you are doing microtears, if you are damaging the muscle in any way, shape or form, however intentionally, then you are not giving yourself enough time to recover, eventually these insults add up and you fall apart.

Brad Kearns:[00:08:48] Well, here is the issue. and we have it a lot, when you were coaching me when I was racing as a professional triathlete, is you are out there, you love it, you are highly motivated, you have goals and you also get that endorphin rush and the flood of cortisol in your bloodstream after so many chronic workouts where you actually feel great and you are buzzed and you want to keep going and you keep pushing yourself and don't know the damage that you are causing.

Mark Sisson: It is chasing a high. It is very similar to what an addict is looking for when using substances. You literally are chasing a high. I remember when I was finally decided not to compete any more, mostly because it was forced upon me as a result of

over-training and injuries, but I still had this Jones for the endorphins. When I couldn't race as an elite level as a marathoner, I just shifted right over to riding a bike because my injuries were affecting me so much on a bike. I was still putting in 15, 20 hours a week of cycling and then I got into triathlon, and then I got in to inline skating because I was chasing that endorphin high all the time. I realize that now when people talk about the runner's high in glowing terms and they look for it and they think that it is a good thing. They assume that because I have these endorphins and because I have this runner's high that kicks in every time that I work out, it must be good for me. If you take this from a evolutionary perspective, why would the body create a feel good hormone when you are nearly dying. When you are pushing yourself so hard that you are out of breath and your brain is otherwise telling you, "Slow down, man, you've got to stop. This is not good." And yet you have this feel-good sensation. Well, from an evolutionary perspective, if I am being hunted by a saber-tooth tiger or I have been running from something that is trying to kill me for the last half hour, it makes sense that I would have some form of endogenous chemical that would allow me to continue to feel good about life and to look forward to living and to be euphoric rather than just give up and drop dead or be a deer in the headlights. And that is sort of the evolutionary nature of endorphins in my theoretical interpretation is that it is this once-in-a-while kind of thing that would be generated by the result of a life or death situation. On a daily basis, we create a life or death situation because we are chasing that high. Literally, until we had access to cheap calories that convert in to glucose rather quickly, a la grains and sugars and things like that, you couldn't even contemplate the idiocy of going out and running hard every single day for fun. It's a very recent adaptation. Well, so we take this back to what is the take home message about what you should or should not do as an endurance athlete. The answer is that you should train the different component parts of the event that you are planning to race, for instance. So you should do a little bit of speed work. That is the sprint we talked about. You should do a little bit of lifting and maybe focus on squats, lunges and things like that are weighted in favor the lower body. You should recover in between workouts so that every once in a while when you decide today's the day I am going to go out and run a hard 5 miler as hard as I can. That's fine and that is not considered chronic cardio unless you decide that you are going to do it again and again and again day after day.

Brad Kearns[00:12:21] So when you say should you are making the critical assumption that the listener is interested in building their health, pursuing their peak performance, doing the best they can as opposed to just having a compulsive outlet for their energy every day and then blowing their system out with a chronic pattern.

Mark Sisson: I always ask people who want to get my advise on endurance training is why do you want to do this? Why are you feeling compelled to go run a marathon? or a half marathon? Is it because it is a lifetime goal, a bucket list item, a notch in your belt? Is it because you want to prove to your ex-girlfriend that you are worthy and that she shouldn't have left you? Is it because you are trying to prove to your parents? I am not suggesting that there are right or wrong reasons. I just want you to understand for yourself why you are trying to do this. If you tell that it is because it has been a lifelong goal and I want to see what I can do and I want to test myself. That is great. Now we

can talk about how you get to that point. But it is very important that people, when you elect to pursue a goal like this I think it is important to understand why you are going to pursue that goal. And then with your whys in place, allow yourself the luxury of training as little as possible to achieve that goal. Well, if you tell me, "I want to be a world-class athlete, and I want to win a gold medal in the Olympics." I think that's great and I will support you in that but you have to decide right away if there are going to be costs to that. Your health is going to suffer. Your family life is going to suffer. Your work is going to suffer and you may or may not achieve your goal. But just recognize that at some level of this tremendous amount of output there is going to be a time where you are going to break your body down, you are going to get sick more often. Is that worth what you are telling me you want to pursue? If you say it is all worth it and then I am fine with it. But a lot of people think I am going to start running because it's part of an anti-aging strategy. I want to live healthy. I want to start running marathons. Running marathons is not really the ideal anti-aging strategy. If anything, really training for marathons the way we used to, ages you as rapidly as anything I can think of. So I don't want to take away your goal, but what I will say is let's figure out a way that you can train that will enhance your health, that will still allow to toe the starting line and do very well against people in your age group and have you recover faster once the race is over and have you go about the rest of your life. This is really the challenge with the Primal Blueprint and this style of training and eating, is how do we orchestrate a training program that gets us the greatest amount of benefit for the least amount of pain, suffering and sacrifice.

Brad Kearns: [00:15:15] Okay let's say I am going to buy in now. I realize that my three days of high intensity cross-fit style workout off with one day off and then back in to that is overdoing it. Most listeners will have a track record of illnesses, injuries, setbacks, declining fitness performance, so we are buying in to the idea that slowing down and backing off is a good idea that's going to help us reach our goals and enjoy it more. What are some of the ways, for example, how can you tell if you are overdoing it when you you're flooded with stress hormones and feeling good?

Mark Sisson: Well, there are a lot of new techniques now. In the old days we used to just our heart rate in the morning and if we woke up with a resting heart rate of 5 or 10 beats higher than normal, that was suggestive of the fact that we were overtrained. Now we have heart rate variability programs that take a look at the metronomic function of the heart and single that out as indicative of an over-trained condition. But I think the real essential of training for me is the development of an intuitive sense of when it is time to go hard and when it is time to back off. What I have seen with elite athletes over the years is that there are many of them who have decided it is really not about the miles, it is about the key workouts. How often they can fit a key workout in and go hard when they go hard and rest when they rest. They intuitively know if they wake up on the morning of a day that was planned to be a hard day and they don't feel it, they don't grunt through it. They don't struggle through the workout. They will take the day off or they take the day easy and intuitively over time, they develop a sense of when it is appropriate to go hard or when it is necessary to back off and I have seen not just the efficiency of that in terms of training and the reduction of miles but the extension of careers and I have seen

athletes maintain their health where there are others around them who are falling apart because they have been overtraining.

Brad Kearns: [00:17:15] In the Primal Blueprint 90-day Journal there is a scoreboard and chart every day that you log in and you asking the exerciser to give a 1 through 10 for the daily level of energy, their level of motivation, and their sense of how their immune function and then to match the difficulty of the workout, with the point scores. Is that helping them get to an intuitive approach?

Mark Sisson: Yes. I do think it is critical to track every variable that you possibly can if you are a real serious athlete, and even if you are not. That's why we did the 90-day Journal that offered so many options of recording weight, heart rate, and a scale of 1 to 10 of how you feel about this, that, and the other thing over the past few days so that over time, you do develop this intuitive sense of how you are feeling and when it is appropriate to go hard and when it is not. In my own training, as I have gotten older, I realize it takes me more and more time to recover from a full body resistance training workout at the gym. It used to be that it would take me.....well, when I was a kid, I'd do it every day....and then it was every 48 hours, and then in my 40s and 50s, it was every 72 hours. In other words, I couldn't repeat, didn't want to repeat any kind of a weight training session even if I wasn't doing the same movements within 72 hours. Now it is up to 96 hours so that every four days it is plus or minus, usually it is plus, so I don't go less than every four days, but sometimes every 4 or 5 days. That's when I go to the gym and hit the weights hard. For me the weights is push-ups, pull-ups, dips, lunges, squats, things like that and in many times they are weighted. Today, I did a heavy leg day which included some very weighted squats. I won't be able to do that again for another week, partly because as we speak, it is Wednesday, and I will have an ultimate Frisbee game on Sunday. I won't be able to do anything again to my legs, and I won't want to, until I finish that ultimate game which will take two hours. Then that will take me one or two days to recover from that. So I won't do another heavy leg workout for another week. All of this even though my mind says, "Geez, Mark, you should get in the gym. I still Jones to go in to the workout but now I spend most of my cognitive time convincing myself it is not yet appropriate. It is not time to go back and hit it hard. I do like hitting it hard when I am in the gym. I don't like just going through the routine. I like trying to maximize the work that I can do. In terms of upper body, I can recover every four days so I'll do the push-ups, the pull-ups, the dips, which is the mainstay of my routine in the gym. I'll do those hard one day and then I won't be able to do that again for at least another four days and I recognize the fact that I can't do it again for four days is actually a good thing because I know that that is my body recovering, repairing the damage, getting stronger and doing all the things I wanted to do as a result of that hard work I did four days ago. And then my sprinting is these days, because I run hard during my ultimate games, I do have one sprint day during the week and it is typically on a stationery bicycle at the gym because it is easy for me to do and again I can control the joint pounding that way for myself. So I'll do a hard interval day and I'll separate it away from the leg day. So I did legs today, so I can't do interval workout tomorrow. So I have developed this real sense of intuitively knowing where to put workout, when to take days off, and I am able to adjust that based on whether I am feeling 100 percent, or just showing in the gym and not

having it. There are many days at the gym where I just turn around.....well, maybe not many, but days where I go, "I am just not feeling it today," and rather than slog through the workout, and just go home or I will go for a hike. That is my fallback position, because I can always go for a hike. I can always do a long slow easy kind of thing. It comes back to intuitively knowing your body. Intuitively, having understood over years and years of recording the different variables, and ultimately arriving at this knowledge of I know what happens when my heart rate is high. That doesn't work. I know what happens if when I am fasting. Here is what I can do and here is what I can't do. Being able to adjust the workout on the fly, not necessarily because that is a good or bad thing but that is as opposed to having someone, some trainer to whom I pay a lot of money, develop a schedule. Here is what you do today. Here is what you do the next day and here is what you do the next day. In my mind it is much better and much more efficient to be able to adjust your workout because you know enough about your body.

Brad Kearns[00:22:11] Okay, Mark, you and I both know there's a lot of gung-ho listeners out there who have trouble embracing that kind of timeline with these long waiting periods between intense workouts. One thing that you brought to the triathlon community many years ago that kind of revolutionized the idea of how to train was that....look see what your performance standard is. How fast can you climb up that favorite hill of yours? Or in the cross-fit case, how many pull-ups can you do one effort max? If you do those check points regularly and fall short, that could suggest that you are in a chronic pattern where you are not benefiting from your workouts any more.

Mark Sisson: Exactly. The idea here behind training theoretically is to get better at what you do, to be more efficient at movement, to either run a faster time, jump a higher height, lift more weight, whatever it is. Even at my age, where I don't set personal bests any more, I can still use that benchmark concept as a way of judging my relative fitness over the years and months and as a means of determining whether it is appropriate for me to go really hard on another workout. So I come and go in cycles where I'll hit relative personal bests, and then going any more than that, is going to break me down because I am 60 years old. You do hit a point in your life where you cannot add more weight to whatever it is that you are doing infinitely. So I use those little cyclical benchmarks, for me, like for instance on the day that I am doing intervals, I am accumulating wattage in miles. I know what my watts are. I know my miles are. I am able to use one workout as a comparison against a prior workout to see if I am in the same range or if I am doing a little bit better. You are right. Over time, if you are not improving, and you are decreasing, then something is wrong with your training. That means taking a step back and going, okay, what variable have I overlooked.

[00:24:15] Am I sleeping enough? Sleep is critical. I have said it many, many times, and I will not ever stop repeating it because the more we look in to sleep as a function of health, and it is a variable that is so important in achieving good health, it is really right up there, like almost number one. So sleep is one of the first things I look at. Not just the quality of sleep that I am getting but and not just the amount of time, but when I am not getting quality sleep, that is also indicative. In other words, it is not the lack of sleep that is causing the problem, it's the problem that is causing the lack of sleep. So I have to go

back to figure out the problem. Am I overtraining? Is the overtraining what is causing me to not sleep well because they are so inter-related? There are so many of these variables, we call them complex equations, that would be  $n=1$  concept is about. The more you know about all of the variables that are in your own unique equation, whether it's your body type and your composition of Type A, fast twitch, slow twitch, muscles or whether or not you are predisposed to Type 2 Diabetes, your age, your sex, your weight, your height, all of these different variables add up to a long complex equation. Once you change one variable, you have to have a look at what you do downstream that is going to effect your workout as a result of another variable. so if you are a person who is starting out very overweight, you can't train hard in the initial stages. You have to be very careful about how you ramp up your sprinting, for instance. It might be that your knees are an issue. We all have this unique equation and it behooves us to understand as much as we can about each of these individual variables.

Brad Kearns [00:26:01] Well Mark, how about we finish up with you giving us a typical week of your fitness regimen. I know you don't have a typical week, but as close as you can get to some patterns that have been working for you.

Mark Sisson: Well, I'll go back to this week. I did a two-hour hike on Saturday. That's the day before my ultimate game. That allows me to... first of all just to get out in to nature, which I think is a really critical among all of this talk about stuff, time in the gym, I find it hugely important to get out in to nature and to get out in the quiet and to be alone with my thoughts. It's also where I get a lot of great ideas for books and for blog posts and things like that. So that was probably a two-hour event that included uphill jogs, 50 meters to 200 hundred meters. I played ultimate on Sunday. Monday, because my ankles are a little chuffed from the work that I do, (I play with minimal shoes (5 fingers) which is quite a workout on the ankles), I rode the bike easy on Monday. I did a heavy full-body routine on Tuesday which included multiple sets of wide-grip pull-ups, multiple sets of dips, multiple sets of push-ups and different with my hands at different widths, and ?. What else did I do that day? Some lunges. That was Tuesday. On Wednesday I hit the bike for intervals really hard and was in and out of the gym in probably 35 minutes, but it had to be one of the toughest workouts I did all week. Thursday, I took off. Friday, I paddled and so Friday went for a nice ocean paddle for about an hour and a half. While that's a great workout. I was telling you, Brad, that nothing pumps me up more than literally the muscles in my arms and shoulders than a paddling workout. It doesn't feel like a workout. It doesn't feel like a session. That brings us back to Saturday and I did another hike. So that's my week. It changes from week to week. It changes if I travel or as my work schedule and work load increases or decreases. The bottom line that in my world, that is my sweet spot. So I feel like I am maximizing my fitness at the same time, I'm optimizing my health. I think that is probably the goal of everybody who is undertaking the Primal Blueprint. Whether you have competitive goals or whether you just want to look good naked, it's finding this sweet spot that works for you and doing that so that on an intuitive basis, day to day, week to week, you know what you are doing and you feel good about what you are doing.

Brad Kearns: Thank you for listening to the Primal Blueprint podcast with Mark Sisson. We just made a special announcement this week on Mark's Daily Apple about all of the events and commitment that we have to live experiences in 2014. I know you love listening to podcasts but we hope to touch you directly somehow with the many events that we have announced especially the Primalcon lineup. The first one at the time of this airing...there are very few seats left.....for Primalcon Tulum on March 1 through 6. We have also announced a new one on the east coast, Primalcon Mohawk on June 5 through 8. That's in upstate New York. And then our fifth annual Primalcon Oxnard, September 25th through 28th in Southern California. We also have the Primal Play Day, the Primal Transformation Retreat, the Primal Transformation seminars, and many other options that we hope will peak your interest. Thanks for listening.