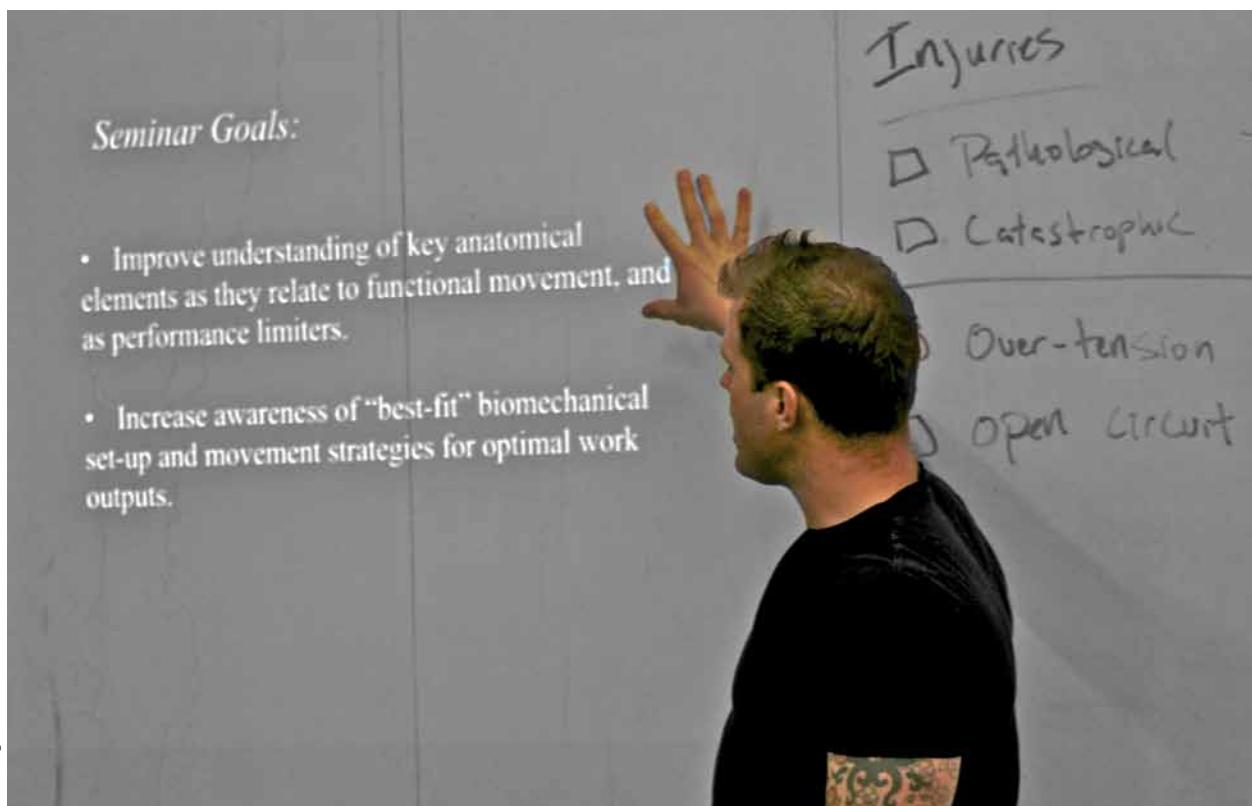

THE CrossFit JOURNAL

Manage Your Own Business

Paul Southern presents a Q&A with mobility maven and original supple leopard Kelly Starrett.

By Paul Southern CrossFit Pleasanton

August 2011



All images: Paul Southern

Kelly Starrett received his doctor of physical therapy degree in 2007. His popular Mobility Seminars sell out worldwide. His MobilityWOD.com site had more than 600,000 visitors in its first 80 days. Kelly's background as an athlete and coach includes high-school and college football, paddling whitewater slalom canoe on the U.S. Canoe and Kayak teams, and leading the men's whitewater rafting team to two national titles and competition in two world championships. He also owns and operates San Francisco CrossFit.

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To say Starrett is in high demand is an understatement. In the last two weeks before our interview, he was in Scandinavia, Chicago and Los Angeles helping athletes improve. This is in addition to being a father and husband, running a burgeoning gym, and also rehabbing athletes as a doctor of physical therapy. If you have ever attended one of his seminars, checked out his MobilityWOD site or had a chance to talk with him, you will understand why Starrett is in demand: he has a really big brain.

And sure, there are a lot of big-brained people just hanging out at coffee shops near colleges, sneering at dumb people and doing nothing for mankind. But Kelly has a higher purpose. He is taking very complex ideas about human performance, rehab, kinesiology and health and breaking them down into single-serving sessions of legit-ness for anyone trying to improve his or her human condition.

If your knee bothers you after a workout, is it ebola? Should you run to a surgeon to fillet you open and remove the evil gnome under your patella, or should you learn how to manage your own business? I'll take the latter, and K-Starr is showing the way.



Uneducated guesses suggest knee trolls affect one in 10 Americans.

As a physical therapist and coach, Starrett works with athletes at the top of their game: professionals, Olympians, state champions, CrossFit Games winners, record-setting powerlifters, etc. He sees a lot of these athletes as Ferraris driving around with the handbrake on and a tree branch dragging under the rear differential. These athletes are operating at a ridiculously high level, and they still have so much more to give if they could just get into better positions.

I got Kelly on the phone for half an hour to talk to him about mobility, nutrition, mechanics and all the other aspects that help you “manage your own business.”

Kelly, I’m wondering if you can clear up some confusion. What is the difference between your mobility research and the stretching poster that came with my uncle’s Bowflex?

I use the word “mobility” and not “stretching” because stretching doesn’t work necessarily. Stretching typically refers to a muscle. Muscular stiffness and muscular position is complicated. It’s based on the joint position, neuromuscular control, midline stabilization and can just be how glued down you are from the workout the day before. So when you are just looking at muscle length, it is a short alley. What we really have to do is focus more on position. What I consistently see is that really good athletes, especially strength athletes, are potentially working at the limits of their position, and if we can’t optimize position, then we have really lost the chance to optimize mechanical advantage. We’ve lost the chance to optimize the best length-tension relationship of the joint, the musculature that affects the joint and the soft tissue that supports the joint.

“If we can’t optimize position, then we have really lost the chance to optimize mechanical advantage.”

—Kelly Starrett



A superfriend will gladly help you lock your ribs down while you hunt the supple leopard.

Can you give me an example?

Classically, I see guys that get short in the hip capsule. As soon as we improve their flexion by mobilizing the joints into the back of the socket—by using a movement bias, working on hip flexion—we are then challenging the hip-capsule tissue. Suddenly, that joint rests more mechanically efficiently in the back of the socket. The hamstrings have a better mechanical advantage, the leverages improve and I'm un-impinged, so I have more movement and set-up options. God forbid I'm flipping a tire and not just lifting a barbell. We see athletes working at the end range of their mobility anyway. When you are at the end range of your muscles, you're weak and soft there too. You just don't have a lot of length-tension overlap. ...

We make fundamental (Type 1) movement errors all the time. For example, if you are overextended in the thoracic spine (upper back), if your thoracic spine is stiff, and you tilt the whole thing (rib cage) back and you look like you are broken at the bottom of your rib cage, well it turns out that your lower traps just don't turn on very effectively. Then, if you can't stabilize your scapulae, you can't provide a very stable platform from which to press off of. The basic pieces of this are: what are the limiting factors towards getting athletes into a good position?

Is throwing a leg up on the 12-inch box at the gym for a little 10-second hamstring stretch going to get you to your next PR or work out that hammy pull from last week's co-ed softball train wreck?

Traditionally, athletes come to mobility and come to these issues only as a way of getting out of injury. And that is a fault of physical therapists and physicians and chiropractors alike that they do not impress upon the athletes that this is an issue of performance. And it is very simple. Pain—yes/no—is not a sophisticated enough mechanism to drive ... change about performance.

What is a significant thing is that if you have a capsular problem in the hip and we notice that you cannot get into a good position, and we get you to work on that, then we see an immediate change. We expect that your pain should resolve. We expect that your dysfunction should resolve. That is the easy stuff. But more importantly, if we are doing the right things, we see a change in power output, we see a change in strength output, and we see a change in work capacity. Choose your piece. That is how we know this stuff works.

So the right mobility work can help someone become a world-class athlete?

What's nice is that when we are chasing an idea of the best joint congruency, safest joint position, most integrated spine—these are also all the ways that I create the best leverages and best mechanics in the human being. Right?

(Powerlifter) Mark Bell deadlifts in a way that he loads all his tissues in order. He is able to keep his spine neutral. He loads his hips early. He tensions at the knee and hamstrings by tensioning in the right order. It speaks to his mechanical efficiency and his prowess.

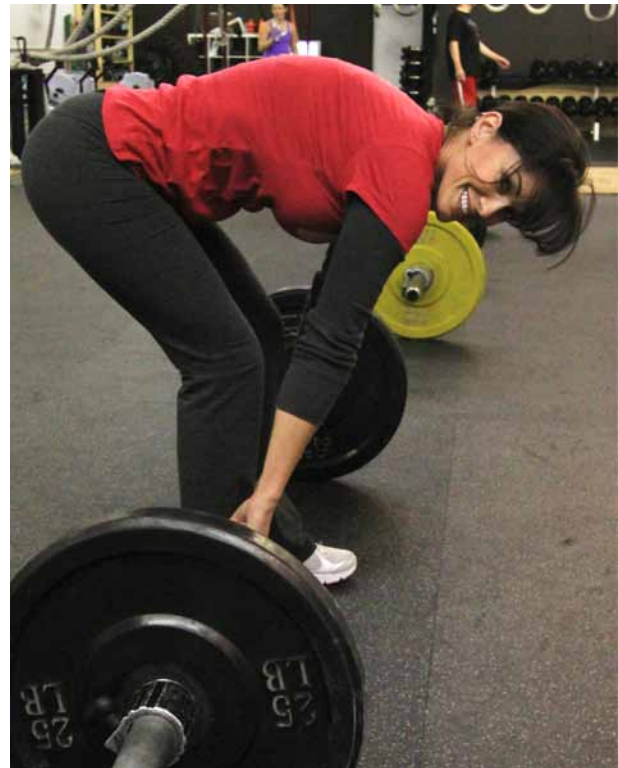
Now what we need to say is that if athletes cannot get into these good positions, then it's not an issue of working harder or pulling more effectively. The coach cannot cue an athlete into a better position, although cueing could be an issue. If we get an athlete into a better position, then we see a commensurate change in power output, in wattage, in poundage and in rep count. At the same time, I am also going to capture tissue health, tissue mobility, tissue extensibility and injury prevention. I expect that. But by focusing on performance first, I'm going to get those other beneficial things as a derivative.

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—Kelly Starrett

So how do we get athletes to mobilize their areas of restriction?

We know how to eat (theoretically), we know how to train, we recover, we obsess over the details, we watch weightlifting videos, and yet when we have knee pain we don't understand where to start. Or we don't understand how we are being inefficient or how we are running around with these brakes on. We used to play this game with rental cars a long time ago, uh, er, I mean, I have heard about this game In the game, you keep the gas pedal



Part of lifting is getting into a position of mechanical advantage. What does this athlete need to do to maximize that advantage?

floored all the time in the rental car. By the way, I'm not saying you should do this. But it has happened. Potentially. So you keep the gas pedal floored and then accelerate and decelerate with the brake. Right? You can run the car that way, and it is very hard on the car. It's called Gas'O Brake'O. And, potentially, one of my friends got out of the car after doing this and a bystander said, "Senior?"

My friend says, "Yes, sir, I am a professional actor and stunt man. You can tell I am the best in the world ... "

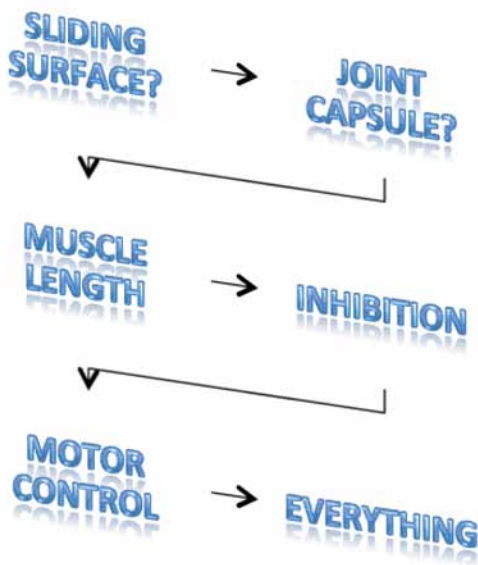
"No, no, Senior. Your wheel is on fire."

What happens is that a lot of athletes are playing Gas'O Brake'O. When we have pain or tissue failure, most of the time, 99 percent of the time, it is not a traumatic someone-rolled-into-my-knee injury. It is an issue of having a SLAP tear because I was in a bad position and there was translational loading, or I had to make a movement compromise based on my poor mechanics. So if we focus on the mechanics and we focus on positioning, then we can see changes in force production and we have tissue protection.

We play Gas'O Brake'O until we have a shoulder problem, and then we scramble around figuring out what's up. If you tweak your back or tweak your shoulder and miss a training microcycle or a training cycle and you have to lay off heavy pressing for two weeks to recover your shoulder, I'm two weeks ahead of you. If you can't stabilize your back because your hips are tight and you have a little back tweak, I get a week ahead of you training, and you can't catch up. There are only 52 weeks in a year, and if you give up a week, I've got you. Especially since the difference between first place and last place is one percent. The difference between gold medal and not-gold medal is very, very minuscule. And so why are we not paying attention to these little details?

Uh, "potentially" we had an off-road track that we took rental cars and golf carts on when I was in high school. Potentially. It's possible that it happened. I know that you have a CrossFit or conjugate way of approaching mobility. Can you talk about that?

We don't do the same training model every single day. Why should I mobilize or stretch the same way every single day? And we don't. It doesn't work. Athletes don't do it. So now we have these big strong athletes with huge work capacities playing Gas'O Brake'O, wondering why they tore their labrum, wondering why they have an impinged hip capsule. These things are so easy to spot. We are talking about issues of longevity, and we are talking about issues of performance, and they are one and the same.



Follow the path to mobility ... and performance.

How do you break down what needs to be done for an athlete?

Walk around and look at these guys. They are so tight. It's no wonder they can't get into good positions. It's no wonder they are making these movement compromises. They can't externally rotate the shoulders effectively. They can't generate a lot of torque on the set-up for the squat, the deadlift or the press. These are issues that are easily dealt with.

What I encourage my athletes to do ... especially those obsessed with lifting, obsessed with poundages, obsessed with wattage, obsessed with reps ... is systematically look at the tissues that are limiting this piece. And what do I need to get in there? And it is not just stretching. It's not just foam rolling. It's not just capsular. It has to be a system-wide approach. And why don't we take a system-wide approach? That's how we train.

So the questions are:

1. Is it a sliding surface problem? That is why we see ART guys, that's why we do rolling (foam roller), and that's why we unglue ourselves with lacrosse balls and massage.
2. Is it a joint-capsule problem? The joint capsule can be mobilized by the athlete.
3. Is this a muscle length problem? Rarely is the muscle length the issue, although it certainly can be. Usually it is a complex interaction of all these things.
4. Is it that I'm not in a good position and can't recruit the right musculature because I am "positional" inhibited?
5. Or is this a motor-control problem? Athletes are making very fundamental movement errors based on overextension or they are rounded when they pull because they are missing hip flexion.

It could be any of these things. Once you start to systematically deal with this, then suddenly mobility is about how you get into that good position, and then where does that lead? What I am a big fan of is working on mobility a little bit every day. If you try to mobilize, or stretch or treat the whole body every day, it is impossible. But if you have three movements that you are going to do one day, then you can systematically think about what tissues are restricted, what movements you are going to be doing (in your workout), and then I can just do that 10-minute piece. Suddenly I have a conversation with my body that is dynamic and sophisticated.



K-Starr on the job, making people more limber.

How do you sell mobility to guys who don't want to take the time to do it?

It's easy. We get athletes thinking about these details, and it is not overwhelming, and we change behavior because we tie that behavior into issues of performance. So if I am a strength coach and I get my athletes performing more effectively, then they are more likely to manage their business again (mobility). Most of us stopped stretching and stop mobilizing because we didn't see the benefit. And selling mobility based on what may or may not happen 20 years from now, that's just crap. No one gives a crap about that, and neither do I. Even though I see all the herniated discs, I see all the tractionees, I see all the torn labrums. Right? That's the problem. We live for today, we don't live for tomorrow. We need to get athletes to change their behavior and look at tissue health.

... We have a concept called "no days off." And if you are really trying to find out the limits of human performance, there is no such thing as a day off. There is no such thing as a non-training day. Your non-training day is recovery. It's some sled dragging. It's turning the ship around ...

It's getting ready. It's cultivating position. If you sit at a computer all day long, in a chair hunched over, why are you surprised that you are having a difficult time jerking 350? If you are sitting down all the time in a flexed position with a rounded back, why are you surprised that you round your back all the time when you squat or deadlift? So what we are saying with this no-day-off concept is that I'm always mobilizing, I'm always cultivating position, I'm always cultivating tissue health so that I am always ready to go when it is time to fire my guns.

"If you are really trying to find out the limits of human performance, there is no such thing as a day off."

—Kelly Starrett

There is a really great cyclist who said, "Whoever trains the hardest wins." And people were like, "What about over-training?" He said that if you over-train, then obviously you did not train hard enough to train that hard. ... What's preventing you from training that hard? Tissue recovery? Joint position? Injury? Nutrition? Not good enough. We can do better than that. There is no such thing as a day off anymore.

I just had a strength-and-conditioning coach from a university in Nebraska. He came to one of my seminars. In one week he said he averaged about four-to-six PRs for his team. He just had 56 PRs in one week with one swimming team of 26 athletes. It's an issue of, "Are the athletes in good position? How do we get them in good position?" Warm-up, recovery and mobility is how we get into a good position. I don't know what the percentage is on that, but he goes from four-to-six PRs to 56 PRs in a week with one team. And that is the idea. If we can make these ideas about performance, then we are going to capture the imagination and the interest of the athlete.

I tell all the people I work with, "Sell injury prevention to the coach." But it is all about performance to the athlete, and it should be for the coach too. And it is very simple to stick a lacrosse ball into your ass and open up your hip capsule and unglue your posterior chain. Lo and behold, you're pulling heavier weights. Why is that confusing to us?



Eat like a human, not an ignorant teenage human.

What part does nutrition play in tissue health and recovery?

If I'm walking around chronically inflamed and not seeing the correlation between my ability to recover from a difficult workout and the foods that I eat and the quality of the nutrition that I eat, then that is one of those very simple things that is easy to turn around quickly. And if I can't correlate my chronic dehydration and my junky torn meniscus with the fact that I am chronically inflamed and I look like a doughboy, then that is a real problem.

And what we are saying is that if you are serious about seeing where you can go and what is possible, then food is the most powerful drug on the planet. You should be eating like a human being: more of a Paleolithic model or a model that at least controls insulin. It's still huge amounts of meat, huge amounts of vegetables, high-quality fats. You've just gotta eat like a human being, not like an infantile teenage human being. If you really need to add the calories, a shot glass full of olive oil will do it for you. You don't need to eat the pizza; you need to eat a steak and a shot of olive oil. Eat three avocados and 12 eggs and tell me you're still hungry.

Kelly, this all sounds very illegal. Are you telling me that I'm allowed to mobilize my own hips without a license?

Human beings are wired for movement. We're not wired for musculature. You don't need to have a year of gross anatomy. You need to understand that squatting is flexion, abduction and external rotation. What are the pieces that I can mobilize and change? We should be able to take a crack at it. I can do CPR. If you pass out with an airway obstruction, I can trach you (cut a hole in your neck and insert a straw). If I have a cut, I can clean it up with soap and water, but if I have knee pain I have to go see a doctor? That's not good enough. We should have basic ways to solve our mechanical problems, and that is the mandate of the athlete. To the extent that we have failed to make the case for it is my fault. It's the fault of the performance-focused physical therapists. When we start looking at these issues, I can start putting athletes back on the field and into the competition who are healthier and can do it longer and can get into a better position and express more strength.

“It’s not enough to go get on a treadmill for five minutes and then go lift heavy weights. We really need to think about positioning and mechanics.”

—Kelly Starrett



About the Author

Paul Southern, CSCS, owns and operates [CrossFit Pleasanton/Reactive Gym](#). He has been a coach for the last 13 years. Before that, Paul served as a Fleet Marine Force Grunt Corpsman and led his team of corpsman to the Pacific Fleet Corpsman Cup Championship (a physical performance and skill-based challenge for the best corpsman). Paul is a lifelong learner. He has a bachelor’s degree in liberal arts (magna cum laude) and also studied pre-med at Hawaii Pacific University.

Although sometimes it is nice to have a 100-kilo physical therapist that can squat 500 lb. dig into your hips. That helps. But you should know where to start to be able to maintain yourself and get into a good position. And that is a conversation that we have lost because we don’t take a holistic view. It’s not enough to go get on a treadmill for five minutes and then go lift heavy weights. We really need to think about positioning and mechanics. What is preventing me from getting into a good position? We see athletes that cannot express how strong they are all the time because their mechanics suck.

With the MobilityWOD.com, you take these complex ideas and break them down into single-serving mobility nuggets that are easily digestible for people. I like the fact that this allows someone to manage his or her soft-tissue business without needing a degree in physical therapy.

Concerning the MobilityWOD, it gives athletes a place to start. You can’t train the whole body in one single day. Let’s just take one piece at a time and work on all of the issues.

In 80 days, we have had over 600,000 visits. I’m getting e-mails from Iraq. I’m getting e-mails from the Texas Rangers, Special Forces. Guys and gals are using this and seeing a difference in their position. As a coach, it takes care of so many things that you see come up in your gym. If you are doing a good job with strength and conditioning, you should be finding all of the holes in your athletes. That is the definition.

The goal in any good strength-and-conditioning system is to exceed the previous efforts of my athletes every single day and to find out where they have holes so that they don’t fail—in life or in sport or in game or in mission. When we find those problems, what do we do about them?

