Kelly Starrett

Hey, it's Yuri, and I'm super excited for today's Fat-Loss Summit interview. I'm excited for all of them, but this one is really special because I'm talking with one of the smartest guys when it comes to making sense of the complexity of this amazing body we have.

Kelly Starrett is our guest today. He's going to help us understand how the muscles move, how they operate, how you can improve performance and prevent injury, the insertion points of different muscles—all that complexity, I love that stuff, but for the average person, it's overwhelming. Kelly is one of the guys who makes all of that complexity dead simple to understand, and he's been doing it for years.

He actually has a doctorate in physical therapy. He's one of the first Crossfit athletes. He now runs a very successful practice in physical therapy, as well as a Crossfit training and education center out of San Francisco Crossfit. You're going to see he's the real deal. He's a two-time *New York Times* best-selling author. *Becoming a Supple Leopard* is an amazing book. He also has a more recent one about how to run properly, which has become a *New York Times* best-seller as well.

What's awesome about Kelly, as I've said before, not only is he extremely knowledgeable, but he makes it easy to understand for you. He's also the founder of Mobility WOD, which you can check out. If you want really cool videos on how to loosen up your body, stay limber, improve your posture, decrease stiffness, improve your performance, Kelly is the guy you want to speak to.

Today we're going to be talking about something we all do every single day; it's a really nasty habit. We spend about seven to nine hours every single day doing it, and it's really hurting our ability to lose weight. We're going to be talking about sitting. You might be thinking, *Here we go again with sitting*, but I'm telling you, what Kelly is going to share with you today is absolutely mind-blowing. He's going to show you how to move away from sitting all the time in a way that's easy and more of a no-brainer than you can possibly think. What's really cool is that when you spend a little bit more time standing, even if you don't even work out, you can help your body burn more fat.

This is going to be a lot of fun. If you follow any of Kelly's stuff, you know what I'm talking about. If you don't know who he is, you will certainly want to follow his stuff after this interview. Without any further ado, let's bring Kelly in and let's jump in.

Yuri: All right, everyone, welcome. Yuri here with the Mr. One and Only Kelly Starrett. How's it going, buddy?

Kelly: Very well. Thanks for having me, man.

Yuri: Absolutely. Welcome to the Fat-Loss Summit. I'm really excited to have you here. I think I found out about you through a buddy of mine, Ben Greenfield, who wrote about you.

Kelly: That guy's a troublemaker.

Yuri: I know, he's bad news, and he's actually one of our guests in the Fat-Loss Summit. But that's how I originally found out about your stuff. I've watched a number of your videos, and it's just been awesome. As a former pro soccer player, I can definitely appreciate a lot of the work that you do. For everyone watching, just check out Kelly's stuff on YouTube; he's got hundreds of videos and they're awesome.

Today we're going to be talking about the dangers of sitting as it pertains to posture, metabolism in general, human performance, and you've also written a book on this topic as well, which we can touch on. Let's talk about the danger of sitting. I think we're starting to hear more about it now, but what do people need to know?

Kelly: We sort of break it up into three categories. What a lot of people don't know is, we get to go behind the scenes of all the sports, all the military, we see executives. Our palate is broad and the reach is broad. What we see is that we're continually working on solving the same sets of problems.

When we think critically about problems in the human condition, we usually break them up into two categories; there's an environmental load and then there's a biomechanical problem. I'm assuming you're eating vegetables, lean proteins, and high-quality fat. I'm assuming that.

Yuri: I didn't get that message.

Kelly: That's right. I'm *assuming* you have some kind of movement practice, and that can be wide and varied. I have my own favorite, but I'm assuming you're doing something. Those pieces are not necessarily, we're putting that in an environmental category.

What ends up happening is when I started spending a lot of time in this positional biomechanical category, what I noticed was that we saw the same sort of sequence of problems. We saw things that looked and smelled like related to the problems that people were spending most of their days with. If we take a step back, what we know is that your body is an adaptation machine and will constantly adapt to whatever stressors you put on it. In fact, if we take an X-ray of your body now and we change your mechanics and awareness and posture, in 6 to 12 months, you'll look very different on radiograph. In 18 months, the insertions of your bones will start to reform, the stress patterns reform.

What happens is, you're constantly in a state of remodeling. Remember: Practice doesn't make perfect; practice makes permanent. The positions we adopt all the time are the positions our body starts to adapt to and take shape. Forward head-on neck, rounded shoulders, rounded upper back, these are things that look a lot like the positions I adopt when I sit.

One of the things we came up with was, we have a good package for trying to remedy that, but it's like starting a fire every morning and then coming home every night and trying to put it out. You're like, "This stupid fire!" And every morning you start a fire, and every night you put it out. That certainly works.

There are times in some of the loads in our athletes who are police officers, travel a lot, all our fighter pilots and helicopter pilots. There's a bunch of sitting that sort of ends up being required. What we found was that there's a lot of sitting you can take control of. When we're looking at sitting as this environmental load, what we saw was that we can keep undoing the ravages of sitting, but the easiest thing—if you're going to try and get people to quit smoking, it's easier if they don't *start* smoking in the first place.

We were looking at what the low interventions were. I don't think people realize what a difference their bodies feel and the improvement in their mechanics. I'm standing and I think you're probably standing. If you take out some of those noxious loads, you don't have to eat a bunch of fish oil if you're not eating a bunch of pasta and cookies. There's not much inflammation, so we don't have to combat the inflammation. Same thing is around the environmental load. We have been advocating for a change in the work environment and changing the sitting environment because we're just doing a lot more sitting than we ever were.

Underneath that sitting are a couple salient points. One is that sitting itself, you can't sit in a chair in a good position. You can only sit in a C-minus position at best.

No matter what, anytime you're in a chair, just think you're getting a C-minus, maybe a D-plus. That's because all the mechanics that support your spine and put you into a good position can't be engaged. You can't squeeze your butt, you can't create any torque; all you're left with is stabilizing your abs, and then your body hooks a bunch of straps on to your spine to try to hold you up, and that's why we start to see problems in the psoas, the iliacus, the quadratus femoris. We end up seeing a whole bunch of problems.

The issue, though, is what we're seeing in activity around the sitting, it means that you're basically turning your body off, and even what we know now about the physiology is if you sit more than two hours a day, you're doing this phenomenon where you're basically downregulating your physiology and no amount of exercise is going to overcome that. We always have this type one error. Once again, I'm setting a really big bonfire. I'm bringing my little fire extinguisher, and it's not enough. Then I start to set up a bunch of problems.

In the United States, for example, we have the adult-diaper industry is a $2-billion problem. That's because people are peeing themselves regularly. That pelvic-floor health is very serious. We even see bladder dysfunction in some of our young athletes who are jumping in overextended positions, jumping and landing when they do double-unders, and they pee themselves. That's a good sign we're going to have bladder dysfunction forever.

That pelvic floor is a good indicator of health of the whole system, and the reason it doesn't work very well sometimes is because we're overextended because of the way we sit, because the pelvic floor doesn't activate because we're not weight bearing through the pelvis or creating tone, and because my spine's in a bad flex position, I also turn off the pelvic floor. What we start to see is, "Okay, shoot, I'm starting to have all these problems around the mechanics."

And the whole host of mechanics around the sitting from TMJD to repetitive stress injuries, to forward head-on neck, to breathing problems, to jaw dysfunction, to spinal mechanical errors, to knee problems. It goes on and on. The body doesn't work the way it's supposed to work. Our intention is saying, "Hey, let's make a better decision."

At least standing gives us—which is still not moving; remember, we're designed to move—a gateway to more movement. We say standing is the gateway drug because if you stand, pretty soon you're fidgeting, then you put your foot up, and then maybe you go for a walk. The idea, though, is that we should sort of be in constant motion. And those times we're not in constant motion, we're sleeping, lying down, taking loads off our spines, but we've had enough background exercise in the day to sort of overcome that.

My wife, for example, there's a little calculator by calories, and she's burned an additional 33 marathons of calories just by being in our standing workstation. It turns out with kids, for example—one of our big concepts is the idea is valuable if it scales. It has to account for all the phenomenon that my children, my Olympic athletes, it has to work from my soldiers to my grandma.

If I'm going to take good ideas and say it's not okay for me to sit or be in a static-poor position where I'm compromising my diaphragm, et cetera, then I also should not have my kids sit all day at school. That's weird. It turns out some of the research that's been done about it in the past year shows that kids with a high body-mass index, there's a worry that they are going to be heavy now and get worse; those kids burned an additional 35 percent more calories when they're standing at school. Imagine taking 35 percent of the calories out of their diet. How would that go?

Yuri: Not very well.

Kelly: "You're just not going to eat lunch today, Timmy. No big deal." That's 35 percent.

Yuri: Tantrum.

Kelly: That's right. What's interesting is, we have to look at the way we are as human beings now, there's a screen in front of us; we're doing a lot more intellectual work; we sit, we don't walk; the way our houses are away from our markets. You're have to be forced to move, so the idea is to control what you can control.

We're not advocating for a walking treadmill desk, that's not it. But what you *do* need is a standing station with a place to put your foot. We've got some high chairs around the office here, and that allows our athletes to lean, you can put your foot on something.

What ends up happening is that you create an environment where we can just remove the noxious load, which is the sitting for long periods of time, and start to get more movement in, and the whole system up-regulates. We see changes in your biomechanics. We see changes in your physiology. And, by the way, your brain functions better.

I was just lecturing out at the Marines weapons and tactical school, and these guys are forced to sit running the show for 8, 12 hours. Your brain just starts to shut off when you're sitting. Just by standing up and working at that standing station, it's amazing how much up-regulation we get because the brain and body are integrated-movement systems. And, this isn't my idea, but maybe cognition is really the internalization of movement.

Yuri: Could be, yeah. Plus, you've got all the proprioceptors and all the different... There are so many touch points. If you think back to our earliest ancestors, there were no chairs just hanging around in nature.

Kelly: If you want to sit on the ground, that's fine. Sitting on the ground *is* fine. You have sit bones. The cross-legged position actually winds the hip up into sufficient tension to support your back. At our school, for example, we've flipped a hundred desks already. We have a hundred in our elementary school who are at standing stations.

Yuri: So, you literally just flipped the desks?

Kelly: We basically flipped them. What ends up happening now is, we see that the kids have adopted beautifully. They don't actually like sitting; they all fidget. For kids with ADHD or who have borderline attention-deficit disorder problems, they can focus much better; they're in constant motion.

For the desks we have have swings on the bottoms that allow the kids to put their feet up and swing all day long, so they're in constant motion. And when they get tired, they sit on the ground, which is now, again, programming more movement into the day, taking the hits into full range of motion, et cetera. The number one reason people go to nursing homes is because they can't get up off the ground; that's number one.

At our home, for example, we have a couch because it looks really weird if you don't have a couch. Even us, we're fastidious about these things, but our kids either sit cross-legged on the couch, or I sit on the carpet, cross-legged or leaning. Once again, I'm not actually using the couch. I can put my hips into better positions by just making different choices in my environment.

If you're looking at small ways, there's a great British coach who's head of the British Olympic cycling team, he said they call it the aggregation of marginal gains. That was their idea; spray a little alcohol on the tie, a little one percent here, a micro percent here, they all aggregate into this change. Well, if we get people to take an environmental view, you can really be eating right, but this sitting piece costs you nothing and, potentially, is not a marginal gain, but a very big gain.

You just get to work it into your day. It's not one more thing you have to do. I don't *have* to go for a two-hour walk. I would *love* to meditate. Boy, I know for a fact I'm going to get some motion in. more importantly, I'm going to get rid of that C-minus I'm getting from the sitting.

Yuri: It's such a simple thing to do. We live in a culture where we believe that we can sit all day and then repent our sins by going to the gym after work. As you mentioned, the studies just don't show that it makes up for that. It's such a simple thing to do. It's kind of like honoring our biomechanics, just standing or just moving a little bit more.

Kelly: I think that's right. And when you go to dinner, you should have a strategy. We teach people how to sit. "Here's how you're going to sit so that you can at least mitigate some of the effects." And you're going to *have* to sit: you sit in the car, you'll sit at a nice, fancy dinner. Great, but those sitting situations should feel good and shouldn't irritate you, or you should have enough buffer in your system to be able to manage that. That means, on the other side, when you have a choice, make a better decision.

And, really, it is profound. Imagine 33 marathons worth of calories. Do you know how many pints of ice cream I can eat? I've eaten more ice cream in the past year because I *can*.

Yuri: So, you're standing *and* having your ice cream at the same time. That's perfect.

Kelly: True fact.

Yuri: When people are desk-bound, in their cars, or flying a fighter jet, which would be an amazing opportunity, what is the ideal position to be sitting in if they can't be cross-legged? Are there different things people can keep in mind?

Kelly: One of the things we see is, you need a scheme and to understand how the body's organized. If you stand with your feet underneath your hips and squeeze your butt, that'll orientate your pelvis into a neutral upright position. And if you squeeze your butt, your pelvis shouldn't move, but if it moves, you've reclaimed a good position.

If your rib cage is down, so you have a little notch in your abs and it's stacked neatly over your pelvis, now you've got better thoracic lumbar position, and your head will come back into a good position. Now, I've just created a model where I at least have a framework so that my spine is organized, but the whole system is predicated also on creating a little bit of stability in the shoulder and the hip.

One of the reasons we stand with our feet straight, is it allows us to create a little exterior rotation torque. If your feet are straight, you pretend like they're on dinner plates and you're screwing them out a little bit, just a little bit, you'll notice that actually makes your pelvis stable. All you have to do is actually have your feet straight and then bring your center of mass, your weight, so that you're actually balancing over the toe and heel evenly, and you'll see you're automatically creating this rotation.

If you put your feet together and then bring your hips forward so you're almost toward your toes, notice that you feel like you're already spinning out. That's because you have these natural lines of fascia connective tissue that create this torsion automatically, and that torsion is how your hips stabilize, how your femur is stabilizing your hip sockets, and that makes your hip stable so it's easy to balance and manage the femur relationship to the pelvis and then the pelvis relationship to the spine.

If you stand like a duck, all of a sudden, you're going see your body's loose. If you stand apart, you're going to see you'll be wobbling one way or the other, looking for stability. You can certainly be neutral there, but what's going to happen is, your body's not comfortable with that open circuit and looseness, and it will close it by being overextended or flexing.

This is one of the reasons we're not advocates, for example, of the bouncy-ball chair. As you fatigue, you'll eventually flex or overextend because maintaining that neutral position without the input of your hips is almost impossible.

Yuri: I was going to ask you about that next. I'll let you continue and I'll come back to that.

Kelly: The shoulder is the same thing. When we sit in lotus position or *savasana*, with our hands up, that winds the shoulder up into a stable, mechanical position. Now, I can actually create stability with my head and shoulders by keeping the relationship of my shoulder into that external rotated position.

That's why if you take *savasana*, palms up, or meditation, and then just flip your palms over your shoulders, stay back, now you've got an organized head relationship. If your shoulders are forward and round and internally rotated, it doesn't matter what you do; your neck is always unstable, just like your pelvis was unstable.

Once we have a scheme of understanding how to get into a good position, all you have to do is translate that into a sitting position. The problem is I can't squeeze my butt, I can't rotate my hips, so now I've just got my abs. What you *can* do to give yourself a fighting chance is to try to sit on your actual sit bones. Find your sit bones, which means you need to be into the front of the chair. If you're awake, you probably are standing up and you probably need to have some abdominal tone or tension, some background tension.

There was a great book written in the '40s called *Hara*, and it was about this Japanese master. He talks about right tension in the belly. Even Musashi talked about combat stance being everyday stance and that there was no difference between who you were and how you organized. He basically said you need to create tension from your hips to your feet. Screwing your feet into the ground is how you created the right tension so that the body was organized. We need to be able to scale that into peak load, picking up my daughter, into just enough background tension. The problem with sitting in a chair or lying back is that I turn all my trunk off, and now I'm just hanging on the passive connective tissues instead of using all aspects of the system, all of the musculature.

Just a little bit of background: What we see is that people are terribly disorganized, and that trunk musculature doesn't work very well. Once I get organized and I can be braced, then it becomes pretty simple to then maintain a little trunk tension in that shape as I sit. If I sit on my sit bones, then I can be in decent shape.

If I lie back in the chair to rest, that's fine, but my abs are going to turn off, and I'll practice that abs-turned-off position the rest of the time. It's good that your abs turn off when you sleep. That's good; we approve that, but I don't want that to happen during the day. I want you to have a little bit of tone in your trunk all the time.

One of the problems is that when you sit back in the chair, you end up pushing your femurs, your hamstrings get pushed up. And your hamstrings are not weight-bearing surfaces; they're not designed to be sat on. You have very big nerves that run through there, all these tissues need to slide together. God forbid you're dehydrated or distressed or worked out hard and sit for long periods of time. Basically, those tissues get stuck together, and then they don't work very well. No wonder we see a lot of hamstring stiffness, plus sciatic stiffness.

That creates a whole set of problems, and because we're sitting on the femur and not the pelvis—when you sit on your sit bones, you're sitting on your pelvis; when you're sitting in the back of the chair, you're sitting on your hamstrings. When you sit on your hamstrings, it takes your femur and shoves it to the top of the socket. Now you've lost mechanical-hinging ability. This is one of the mechanisms for a lot of the hip impingements we see. You can avoid that by sitting on your sit bones whenever you can.

Yuri: That's awesome. What I love about your work, Kelly, is that you have such a great understanding of the human body. I tell most people that, as a society, we're nutritionally illiterate. As you're talking here, I hope our viewers can follow along.

Without this type of knowledge, we don't even have an owner's manual for our own body. If we did, understanding some basics of this stuff, I think a lot of the problems would at least be circumvented by understanding we should stand or move around a bit more. Understand we're not supposed to sit on our hamstrings because of all the things you just mentioned.

Kelly: If you've ever gone and worked a whole day and then gone to a pub—you're in Canada. Are there places up there called pubs?

Yuri: Yeah, there are a few.

Kelly: Well, there's a bar at the bottom of the bar, and you put your foot up on that. The bartenders figured out a long time ago that if people came in and had a place to put their feet, they'd stick around a lot longer. It takes the load off the back.

And if you've ever gone to a concert and stood, your back just aches sometimes. You're shifting around and looking for a chair; you wish you could sit down, but you can't because you got the cheap tickets. Really, what's happening is that we've got these forces on our spine that are sometimes made worse by exercise or just sitting.

If you look at the amount of sitting you've done since primary school, it's *ridiculous*. You've got to put your foot up on something if you're standing for long periods. Look around; put a curb or a box there. As soon as you put your foot up on something, the game has changed. It's not a standing station until you have a place to put your foot.

This impacts kids as early as the first grade. We see every kindergartener runs immaculately. They run like the greatest runners on the planet. They fall, they pull, there are no problems or mechanics. They all strike on the balls of their feet; *all* of them, 100 percent are forefoot strikers, natural runners. They run the same barefoot as with shoes on; doesn't matter.

Halfway through the first grade, the cohort splits. We start to see kids start heel striking in the first grade. What is it about the environment where we take a beautiful motor pattern that's dominant, that's scalable up to the fastest athletes on the planet, and half the kids start heel striking? I'll tell you what it is: it's sitting.

And if you're thinking that doesn't affect you, you are so mistaken. It's been affecting you since you started sitting in first grade. We think getting people standing is the public-health intervention of the next 20 years. This is like washing your hands or pasteurizing milk.

It's so simple and it doesn't have to cost anything. We had a gentleman who worked at an office, and they were really against getting him a standing desk. I told him to just go to Ikea and get a little table and put it on your table. Don't ruin it but just—

Yuri: That's what I do.

Kelly: I've got the computer right now up on the printer. I have a standing desk, but the computer is on the printer so I can be neutral as I'm talking to you.

I told him to go down to the cafeteria and get a meat box. He's like, "It's kind of stinky and it's got a bunch of blood stains." I'm like, "Put that cardboard box on your desk." He put his computer on the cardboard box, and in two days he had a beautiful, brand-new workstation.

If it takes a bloody, stinky cardboard box, people appreciate that you're going after it, but you don't need to spend lots of money. This is decidedly low-tech. Stack up some books.

If your head is up, if you squeeze your butt, rib cage down, that's your head position as it's designed to be. You're actually designed to keep your eyes on one thing. You're not designed to turn your head radically; that's not how we track. We track by being stable.

You're designed to be here and pivot in place. What ends up happening as soon as I spin out, I stop pivoting, and then I've gotten all this shear, all these problems, I can't turn over my back in the car. If you're in this neutral position, which is sort of already best shape, it's easy. Anytime you're not in that position, that's a problem. It's that simple.

If I bend over and maintain that relationship, that's fine, but if my head starts to decay into that shape, you should be able to recognize a good or bad position right away. It shouldn't cost thousands of dollars; you shouldn't wait until you've herniated a disc or your hands go numb. You can start today.

By the way, this is the same conversation we have with all our elite athletes. We've got to improve position. We just saw a Pro Bowl strong safety yesterday in the clinic; he took a bad hit tackling a tight end recently, right before the end of the season last year. I won't tell you who he is or what team he's on, but you've heard of him; he's a badass. That guy is stuck, bent, and his head is here, so when he impacted that guy, what happened to his neck?

Yuri: Ugh, just crunch.

Kelly: Yeah, he crunched. He got this horrible stinger. What's the problem? Is he not lifting enough, not strong enough? No, the problem was that he was stuck bent, and it put his head in a bad position. We're having those conversations at the highest level of sport, and yet even back to my kids.

My kids are on the technology. They know their heads have to be neutral, and if they catch them here, technology goes away. We've got to protect our kids and have them know what good shapes are.

Yuri: That's great. It's coming back to the fundamentals. Just understanding this stuff and making simple changes as opposed to killing yourself in the gym, thinking that's what's going to help burn the fat or get into lean shape. It can help, but you have to water the garden first. You have to plant the right seeds before you can reap the fruits.

One of the things you talked about earlier was the stability balls, the bouncy balls. I remember when I was in school, going through kinesiology about 15 years ago, that was all the rave at the time. It was like studies showing that sitting on a stability ball activates the core more.

And there was all this research coming out of Stu McGill's team out of Canada, talking about bracing the core. You're just diluting the stuff that was done 70 years ago, in the '40s, and they're still talking about bracing the core. So, stability balls, yea or nay?

Kelly: Well, if you fill up the stability ball with water and carry it around, yeah. If you make it heavy and put it over your head, yeah. If you're playing dodge ball, yeah.

The problem is, those became in vogue for a couple reasons. One is that it's novel and fun to balance. They came about because physical therapists were treating kids with polio. What they found is that when they put kids on their stomachs and then on the ball and the kids felt like they were falling, they got a little righting reaction, a little short-arc loop in the spine, and they got a flinch with kids who had problems sending information from the brain down; polio disrupts that.

What ends up happening, though, is that they were seeing that and thinking they got good results, but the results from the physio ball, the reactive balance, it's a short-arc loop and doesn't feed forward into precognition movement, the pre-motor or fore-motor. Fundamentally, if all we're evaluating is how much muscle is activating, that doesn't say anything about if that transfers, if that's a good thing. Yes, maybe I'm getting more, I put a measurement on my abs and it's twitching more, but that doesn't necessarily mean that I'm in a good position or that that skill actually even transfers to things like walking or jumping or running.

What happened is that the physios saw that it didn't work, it didn't feed forward, it didn't solve problems, and they actually stopped using it, but it stuck around. Is it a novel? When people have back problems and they're positionally sensitive, it's really simple to change your position all the time, but I'm not saying that's really good. You're not necessarily designed to be gimbaling all the time. If I watched you sit on that ball, literally, in 20 minutes you'd decay to a *worse* position than a hard chair.

If we make this so that people can understand—I think gymnasts have the best balance. Would you agree?

Yuri: I'd say so, yeah.

Kelly: Pretty good balance. Does the beam wobble? Does the floor wobble?

Yuri: No. They're not spending their time on Bosu balls and stability balls probably, no.

Kelly: We want to challenge the body on a stable surface. That's how we end up getting feed forward motor carryover. I think that's the way to think about it. It's a gimmick but it's not necessarily a good gimmick. And you don't need one; they're just not designed to work that way.

Yuri: To recap some of the stuff we've talked about, stand more and move more, in general. In terms of a workstation, get or make a standing workstation. In a neutral position, with a bar at the bottom of the desk, where you can lean into that for your feet.

Kelly: Or a box or book. You've just got to get your foot up. Your foot up, like the Captain Morgan pose. That guy is the poster child for our movement.

Yuri: That'll be a good book cover.

Kelly: You've got your sword, your grog of rum, and you're ready to go and your back's not going to hurt.

Yuri: And if we're sitting down, cross-legged ideally and in an upright position. And thinking about bracing, activating the core and glutes just to keep a solid trunk all the way through.

Kelly: If you pick up a dead snake, it's flaccid. If you pick up a cobra, it's all pissed at you, it's at peak tension. Neither one of those is a functioning snake. The cobra is so stiff, but it can't remain stiff for very long. That's you when you're lifting something heavy. The rest of that snake has got some tone in it.

The idea is that you need to have your abs on a little bit. People are not fans of this concept of bracing sequence, but I'm like, "We have to use a different language. Show me you have good mechanics around your spine and that you can integrate that and be able to cycle up to picking heavy things up."

Training a muscle doesn't work; it's all about positions. What we see is that this affects your ability to breathe, this affects your VO2 max. If you sit and are collapsed, you're breathing through your neck.

A simple test is to sit down, collapse, and then take a breath. You're going to see that you're breathing up in your neck. You breathe up in your accessory breathing muscles, *not* in your diaphragm because your diaphragm is compromised. That means you're in a stressed breathing pattern all the time. That affects cortisol, that affects short neck flex. It's so simple.

When you're in a good position, things work. When you're in a poor or compromised position, you can just start turning off light switches. Think about that. C-minus means my life switches are turning off. If you've ever flown on an airplane and gotten cankles, that's because you turned off light switches in your legs, and now you've got cankles. It's that simple.

The idea is, you're designed to move. We walk our daughters to school; we have the luxury of being able to do this because it's not -50 degrees where we live. We walk a 5K in the morning. That doesn't count toward exercise; that's us just moving. By the time we get back, we're a little bit sweaty and hot and the day is ready to go. If you just even start walking around, you will see major, major inputs.

Yuri: Absolutely. The small hinges that swing big doors. This is definitely one of them, for sure.

Kelly: I like that. I'm going to quote you on that twice, and then I'm going to take it.

Yuri: This is awesome. We can talk about this stuff all day, but I want to finish with two questions that I ask all of our guests.

The first one is: What is the biggest mistake people are making as it pertains to their pursuit of losing weight or fat loss?

Kelly: They do not sleep. They have their phones in the room, they're not sleeping in a cold, dark, quiet tomb. If you do that, life changes.

You can't watch TV in your bedroom, you can't have your phone in your bedroom, you can't have an iPad in your bedroom, your alarm clock needs to be red *and* upside down, and it needs to be black. If you start to get serious about that, everything else will start to change.

You can go a couple days without sleeping, and then you're going to feel like ass. You can go a few more days without water, and then you're going to feel terrible. You can go a month without eating food. I think if we prioritize those, sleep is gigantic. Number two is just drinking enough water.

Yuri: Cool. Second and final question is: I just got word, unfortunately, that the human species is about to become extinct because of this obesity crisis.

You're called in to this special UN task force, and they're like, "Kelly, what's the one thing we can do right now to start reversing this problem?" What would you say?

Kelly: The number one thing is, if you had people just moving around a little bit more... Unless you're going to teach physical skills, get rid of PE. All we have to do is put in an hour of walking a day. Just walk an hour. If we got back around to motion, you'd see really, really big things change.

I can make the changes in my diet; that's like taking gasoline out of the system. I can make sure I'm sleeping and not stressed; that sets an environment for a healthy garden. But at some point, movement is the thing that's going to make the plant blossom. That's why you've got to be taught to have a movement practice. The easiest movement practice is walking. It's powerful.

Yuri: Awesome. Kelly, this has been awesome. For all of our viewers, Kelly's got a number of great books. *Becoming a Supple Leopard* is a *New York Times* best-seller. You've got a new one called *Desk-Bound*, which is talking about this stuff, which I'd strongly recommend you guys get.

We'll have a link below this video on this page, where you can check out more on what Kelly's up to, as well as the book. Kelly, thanks so much for being part of the Fat-Loss Summit, buddy.

Kelly: I appreciate it. Thank you so much.

Yuri: All right, guys. Enjoy.