

The Tim Ferriss Show Transcripts

Episode 57: Pavel Tsatsouline

Answers Listener Questions

Show notes and links at tim.blog/podcast

Tim Ferriss: This is Tim Ferriss, and welcome to another episode of the Tim Ferriss Show. Ladies and gentlemen, thank you for tuning in.

This episode is a follow-up and an experimental episode. Each of these interviews – they're typically interviews – consists of me trying to deconstruct a world-class performer, whether they be an investor, a chess prodigy, an athlete, or otherwise, to pull out the tips and tricks that you can use.

A recent episode with Pavel Tsatsouline, who is an elite physical training instructor – he's been involved with training the Spetsnaz, the elite Soviet Special Forces Units, also the Marine Corps, Secret Service, Navy Seals – he did an episode that ended up being a master class in strength training. And it was so popular that we decided to do a Round 2.

And this Round 2 – and both of these can be listened to independently – consists of the most popular 15 questions as voted up by hundreds of you. So hundreds of you submitted questions, voted on them. The Top 15, which covered just about everything you can imagine, are those that Pavel will be answering in this episode.

One piece of housekeeping, if you are looking for business mentorship in 2015, and you would like an all-expense paid trip to Necker Island – that's Sir Richard Branson's private island – on a private jet to be mentored by yours truly, Sir Richard Branson, and a handful of other folks, you can get all of the details and they are very cool details at Shopify.com/Tim. That's Shopify.com/Tim.

And if you missed the first interview with Pavel, you can search his name, P-A-V-E-L, and my name, and it will be one of the first few results on Google, or go to FourHourWorkWeek.com/Pavel, P-A-V-E-L, all spelled out, and you can find everything, including all the links and resources mentioned in that episode.

Without further ado, here is Round 2, the Q&A by popular demand, with Pavel Tsatsouline.

Pavel Tsatsouline: Ladies and gentlemen, it is my pleasure to be speaking to Tim Ferriss's audience again. You have asked me a number of questions, excellent questions, and I will answer some of them today.

Many of the questions had to do with nutrition. It is not my specialty, so I will not be answering them, with one exception, the question by Carl from Indiana: "On the podcast, you asked Pavel if he had tricks regarding the challenges of eating for hypertrophy, and he said he would mention them, but you guys never had time to circle back."

Well, Carl, to put on muscle, it's a very costly proposition for your body to put it on and to keep it. It takes a lot of energy. It takes a lot of plastic resources. And the body's very reluctant to add muscle, especially past a certain point. So you must convince it that food is not only available, the food is abundant. The food is overly abundant.

So the tactic used by a number of lifters, top lifters like Kirk Karwoski, to get themselves past a sticking point and keep putting muscle on, was to add a feeding in the middle of the night. That's right. You just get some food, a salad food or liquid food, high-protein food on your nightstand, something that you wouldn't mind gagging down. And in the middle of the night, you just throw it down the hatch. Nobody said it would be easy, and nobody said it would be hard.

Mikey from Dublin is wondering, "What is the optimal way to combine strength training and hypertrophy training?" Obviously, there are many ways of doing that, but if we were to look for the minimalist approach, simply focusing most of your energy on doing sets of five. When you do a set of five, as confirmed both of research and experience in the trenches, gives you the best of both worlds, delivers muscle and delivers strength, Part 2, Mikey, and muscle, too.

The next question is from – and pardon me if I'm not pronouncing the name correctly – Josu Ledesma from New York City. "What would be the 80/20 training method to build strength and overall fitness?" The answer is, without any doubt, correct kettlebell training.

When one tries to develop all fitness components, strength, endurance, flexibility, power, using the same modality, usually, he ends up with a whole lot of compromises. But the kettlebell, when used correctly, for some reason, allows you to avoid this problem and develop all these components to a high level.

We even have an expression in the kettlebell world, the what-the-hell effect. Let's say that you're doing kettlebell exercises, and suddenly, you go out and test yourself at something you've not been practicing, and it turns out you can do more pull-ups, you can walk with a heavier weight much faster, you can lift a heavier weight off the ground. That's the what-the-hell effect.

And there are a number of Soviet studies in the '80s confirming that. And in the last several years, there have been a number of studies done in the West, as well, and you can find them on PubMed.

Now, speaking of specific training program, I recommend three highest-yield exercises that also have the steepest learning curve. They are: the one-arm swing, the get-up, and the goblet squat. Just do these three exercises that we refer to as a program minimum every day, and I guarantee that you're gonna get a great return on your investment.

The next question is from JDK from San Francisco: "You mentioned in the podcast that prior to strength training, you need proper alignment. I struggle with this. One side is shorter than the other and weaker than the other. What kind of doctor should I see, and what steps should I take?"

First of all, find a sports doctor or chiropractor who is an athlete and a lifter and who works with athletes and lifters. It's a very important step. My personal rule is I would never go to a chiropractor who deadlifts less than I do.

And, after that, I suggest that you find yourself an FMS-certified specialist, FMS or Functional Movement Screen. You can read about it in *The 4-Hour Body*. Gray Cook is the author. And it's a terrific system for assessing your symmetry and helping you improve your performance.

Jeffrey John from Edmonton, Alberta, is writing: "Any tips for developing conditioning? I appreciate it." Let's start with efficiency. That means posture and relaxation. If your head is sticking forward, your running speed and endurance is gonna be

compromised. The same thing can be said about your gas in the ring. So work on your posture.

Relaxation: In the Soviet Union, it was a standard practice for all kids in grade school to practice relaxation exercise. And it's the same practice that stayed with all the athletes all the way to the Olympics. So these exercises are very simple. They pretty much mean shaking your muscles out. So start shaking your arms, shaking your legs, vibrate them, and imagine that you're trying to shake water off your limbs.

And practicing these exercises regularly between sets of your strength exercises during your athletic practice is going to go a very long way towards making you more enduring and making you faster, as well.

A particular type of running is going to help you with being more relaxed and more enduring. Just go out on a run without looking at the clock and focus on being as relaxed as possible and go as far as possible while being as relaxed as possible. And, as you keep doing that, eventually, all you'll have to do is just add some gas, and you're going to run faster.

Next item would be strengthening your respiratory muscles or breathing muscles. Research tells us that the metabolites from your respiratory muscles, which means all the waste products from the muscles, makes the blood vessels in your limbs get constricted. So think about it this way: You start sucking wind, and then, as if it wasn't bad enough already, you get this extra punishment of the plumbing in your legs starts shutting down.

So the same research tells us that strengthening your respiratory muscles is going to increase your endurance by preventing this reflexive vessel constriction.

How do we do that? In our kettlebell practice, we do something called the biomechanical breathing match. So, say we're performing a set of swings, on the way down, we sharply inhale into the abdomen through the nose, so you're inhaling against the resistance of your muscles and against the resistance of the weight. And, on the way up, you're forcefully exhaling, as if you're striking. That's called the biomechanical breathing match. So that's how we strengthen our breathing muscles.

Then there is such a thing as the breathing discipline. A breathing ladder is a very effective technique developed by one of my

colleagues, Rob Lawrence. Let's say that you're doing a set of swings, kettlebell swings, or a sprint, any type of an exercise that makes you gassed. Decide that you're going to rest from this set to the next according to a certain number of breaths. So let's say you get to do five breaths until the next set. And this is going to discipline you to slow your breathing down, slow your physiology down, stop panicking. That's also going to help with your endurance.

One more thing to say is you can develop mitochondria in your fast-twitch fibers, which is going to enable them to be much more enduring, to be able to use oxygen. In the podcast, I already mentioned building up slow fibers that already come equipped with mitochondria. But you can also build these mitochondria, oxygen-using mitochondria into the existing fast fibers.

So how do we do that? We do that by exerting the muscles very powerfully for a very short period of time, typically ten, 15 seconds, and after that, resting actively for a very long time. So work-to-rest ratio may be as high as 1 to 5 or even 1 to 6. That might mean that you would do ten-second effort followed by 50 seconds of rest, seems quite easy, but until you realize that you have to maintain that power output every time, very high, maximum power output. And you have to do this up to, eventually, up to 40 sets. That's another of the protocols by Professor Suliano.

So rest actively between the sets, which means kind of move around, jog lightly, shake your muscles out the way I told you to do this earlier, and you can do this a couple times a week, or eventually, you can even do this possibly every day.

Tyler EHC from New Jersey is asking: "You talk a bit in the interview with Tim about how important it is in exercise, sports, in life, to be able to switch yourself on and off. What are your favorite techniques for making this rapid, efficient, and achievable by anyone?"

It's true that most people exist between the on and the off switch. They're unable to really turn on to put out high power. They are unable to really switch off and enjoy some rest or just have some endurance. So there are several things that you can do. One I already mentioned is those relaxation exercises, fast and loose exercises. Just shake your limbs.

Another technique that you could use is – it's an old technique called Jacobsen's Progressive Relaxation Training. It pretty much means lying down and then progressively tensing all your muscles and then relaxing them in a particular order that makes you aware of the tension and then makes you release the tension.

Throughout the day and during your training, you should be particularly aware of your facial tension because that takes a lot of effort, and it does train you, so be impassive. Meditation, breathing exercise from yoga, from Kata, and so on, definitely very helpful.

When it comes to turning yourself on, the first thing you can do is do a proper set of morning exercises. Soviet research decades ago established that, if you do a pleasant non-exhausting series of exercises in the morning, just some kind of calisthenics, joint rotations, arm swings, whatever, you will accelerate your ability to perform at a high level by a couple hours.

So you will reach that peak of performance early in the morning, as opposed to waiting for it later. And, later throughout the day, your ability to access that performance is gonna be greater, as well.

Back to breathing practices, there are some special exercises in some oriental practices, like Kata. There is the Ibuki breathing that helps you to turn yourself on, get some more power, get some more aggression.

I strongly recommend one book to you. The book is called, Psych by Dr. Judd Biasiotto. Dr. Judd Biasiotto, by his own admission, looked like an 11-year-old stamp collector. And yet, he proceeded to become one of the most successful power lifters in history. At the age of 44, after a back surgery, he squatted over 600 pounds at a body weight of 132, which is absolutely amazing.

And he achieved that ability largely through his mental training. Judd reached the point where he would wait for his attempt – as other lifters are waiting for their attempt, Judd would be just sleeping. And then, just a couple of minutes before the attempt, his coach would wake him up. He would get up. He would work himself into a frenzy. He would go out, lift a record, and then just go back to sleep.

Now, that's an amazing control of your on switch and your off switch. The title of the book again is Psych by Dr. Judd Biasiotto, spelled B-I-A-S-O-T-T-O.

Josh Albas from Montreal is asking, "What's the quickest way to improve a strict barbell military press from three-quarters of your body weight to body weight, given that my grip and abs are already strong?"

Russian weightlifters have a saying: To press a lot, you must press a lot. The press responds exceptionally well to a high volume of training. What does it mean? Typically, 20 to 50 reps per session, three times a week. That's a lot of presses. All these presses are done in low repetitions, 1 to 5. More typical is 3 and 4, but 1 to 5, that's the range.

And you never go to failure. So, typically you stay with 1/3 to 2/3 of your max reps. What does it mean? It means that, if you're able to do ten reps with that weight, you should really only be doing three to six repetitions. So one more time: To press a lot, you must press a lot.

"Could you elaborate on neurological strength, please?" asks Reimagined Yes from Miami, Florida. Think of your muscles as a six-cylinder engine, and right now, you are firing only on three cylinders. You could get stronger by adding several more cylinders, and that would be hypertrophy, or you could fix that engine and learn how to take advantage of the cylinders you already do have. That's the essence of neurological strength training.

Pretty much what you do is you learn how to activate your muscles more intensely. It's done by training with lower repetitions. It's done by training with heavier weights. It's done by a perfect practice, approaching your training not as a workout, but as a practice.

Nick M. from Erie, Pennsylvania, is asking, "In the podcast, it's mentioned that to build strength, you shouldn't go to failure. How do you know when to add more weight if you're not going to failure?" And Kellen from Denver asked a similar question.

You need to use your perceived rate of exertion. So, on a scale of 1 to 10, let's say that your typical set takes you 8 units of effort, and you're staying with this weight. And a couple of weeks from now, lifting the same weight takes 6 or 7 units of effort. You know that you've gotten stronger.

Kid from San Francisco is asking, "What is the best way to gain strength as you get older?" Pavel's book, *Power to the People*, espoused heavy lifts, but going on 39 years old, I'm finding that this routine is WAY – all caps – WAY too hard on my joints. Step 1, go get your joints checked by a doctor. Step 2, get your head in the right place. My father is 77 years old, and he is deadlifting over 100 pounds without a belt, and he does not think himself as old.

Dylan from Los Angeles is wondering, "When does the five-minute rest between sets apply? When does it not?" There are three types of rest intervals. There is ordinary, stress, and stimulating.

An ordinary interval allows you to pretty much recover your performance level by the time the next set rolls around, and that's roughly three to five minutes. A stress interval accumulates fatigue, so the more sets you do, the more tired you get. And, finally, a stimulating interval allows you to perform better in the next step, and that may take 12 minutes or so. So, unless your training program says otherwise, just go with an ordinary interval, about three to five minutes.

Trey from Denver, Colorado, is asking, "The army still has sit-ups on the physical fitness test. Any advice on training and maximizing the repetitions?"

First, get your abs strong, really strong. That means three to five sets of three to five reps with three to five minutes in between of an exercise that puts a lot of tension on your abdominal muscles. That could be strict hanging-leg raises. That can be the abdominal wheel. That can be strict weighted sit-ups. So, once you've gotten that strength, then just do a very minimal practice of your repetition sit-up test, and you'll have no problem.

Swash from Columbus, Ohio, is asking, "I know the deadlift is one of the best exercises, but I've gotten terrible back spasms from doing it. Is it my form? Can I approximate the deadlift's effects with something else that doesn't possibly injure me?"

Step 1, see a doc, a lifting doc. Find out what your restrictions and limitations are. Either you will learn that you can deadlift with proper form, possibly with some corrective exercises, or you have to look for an alternative.

If the answer to the deadlift is yes, then find a coach, a good powerlifting coach, and learn how to do it right. If the answer is no, ask your doctor for some other suggestions. Ask your doc about the kettlebell swing. Very often, people who are not able to lift heavy barbells are able to safely do the kettlebell swing.

HFVK from Norway, who appears to be a personal trainer, is asking, "How would you go about building the discipline required to be great in a client?"

Stop treating people you're training as clients. Hair salons have clients. A client is somebody who's passively receiving a service. You want them to think of themselves as students, and you want to treat them as students.

Tim, thank you for having me on your show. Ladies and gentlemen, power to you.