

Meet the "Genius of Running" Behind Jan Frodeno and Taylor Knibb's Comeback Stories

Why are already-fast world champions flocking to Lawrence van Lingen to revamp their run form?

Updated Dec 5, 2023 · [TIM HEMING](https://www.triathlete.com/byline/tim-heming/) ([HTTPS://WWW.TRIATHLETE.COM/BYLINE/TIM-HEMING/](https://www.triathlete.com/byline/tim-heming/))



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If Taylor Knibb runs to an Olympic medal [for Team USA](https://www.triathlete.com/culture/news/taylor-knibb-earns-spot-for-paris-2024-u-s-olympic-team/) (<https://www.triathlete.com/culture/news/taylor-knibb-earns-spot-for-paris-2024-u-s-olympic-team/>) next summer, at least part of it can be traced back to the time when she started walking backward, dragging a tire, and rhythmically swinging a length of rope. If that success does come to fruition, expect a knowing nod from three-time Ironman world champion Jan Frodeno (<https://www.triathlete.com/culture/a-case-for-jan-frodeno-as-tris-goat/>), who has his own memories of Olympic gold from Beijing in 2008 and a few tales of tire-dragging.

The two are linked by Lawrence van Lingen, a little-known running specialist from South Africa unlikely to fly under the radar for much longer. While Van Lingen's techniques may be novel, the evidence of their worth is spectacular. The world would have seen Van Lingen's fingerprints on Frodeno's victory at the PTO U.S. Open in Milwaukee in August, the 42-year-old's first major victory after [an infected hip that required surgery](https://www.triathlete.com/training/injury-prevention/what-are-morel-lavallee-lesions-understanding-jan-frodenos-injury/) (<https://www.triathlete.com/training/injury-prevention/what-are-morel-lavallee-lesions-understanding-jan-frodenos-injury/>) and his last triumph before retirement. For good measure, Knibb, [in her rebound from a stress fracture and surgery](https://www.triathlete.com/culture/news/dear-cyclists-everywhere-taylor-knibb-will-ride-the-legs-off-you/) (<https://www.triathlete.com/culture/news/dear-cyclists-everywhere-taylor-knibb-will-ride-the-legs-off-you/>), won the women's race too.

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Frodeno adds: "Internalizing his concept has given me a joy of running, but also the ability to run consistently enough despite the toll 23 years of training has had. In many senses, I consider him a genius of running, and my only regret is not having started to work with him earlier."

As for Knibb, anyone who watched the 25-year-old cruise to victory in Milwaukee, the Ironman 70.3 world title three weeks later, and her fourth-place finish in her Ironman debut in Kona (<https://www.triathlete.com/video/taylor-knibb-talks-about-her-first-ironman-losing-bottles-and-more/>), could argue her running is already on another level. But to compete for gold in Paris in July over 10 kilometers, it needs to get even better.

This is the metaphorical Rubik's Cube Van Lingen is focused on solving. But what becomes immediately apparent when meeting the 52-year-old is that his approach is anything but conventional.

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A savant of movement

Frodeno will quickly tell you that Van Lingen dismisses traditional running wisdom. If you want to open up your body to more movement, you must arrive with an open mind – or, at least, a desperate one.

For Knibb, who lives in Boulder and first met Van Lingen last summer, it was the latter. All she wanted was a good night's sleep, which had proven elusive.

"Erin [Carson], my strength coach, introduced us, saying: 'Taylor, it's like a first date, he's very unique. See how it goes, but I think that Lawrence could be a valuable member of your team.' I was having a lot of trouble sleeping, and had a hard time turning down my nervous system. After seeing Lawrence, I slept so well that night. It was like I'd been agitated for months, and all of a sudden it was all gone. That was good enough for me."

Van Lingen sounds like a savant of movement, and his growing roster of clients believe he is. But what does he actually do?

"It's a very relevant first question," Van Lingen replies, having prepared by jotting down a series of notes to try to explain his methods. "I trained initially as a chiropractor, and I'm working as a structural integration therapist with triathletes. A lot of the work I do is to help them just to move better. There's a whole set of rules, yet people don't know what they are. They don't understand the game that they're playing, and we don't have any structural way of teaching people how to run."

Van Lingen uses snowboarding as an analogy. "Everyone seems to think they can tell you how to do it, but there are consequences. A snowboard instructor might ask questions and know how good I am: 'Can you do S turns? Can you carve rail to rail?' Yep, perfect. 'Can you do some jumps? No, O.K., well you're a level 10, so go over there.' There doesn't seem to be a plan or strategy for running. People say one thing and do exactly the opposite. It's a very bizarre space."

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The Van Lingen Origin Story



Lawrence van Lingen working in his Boulder office. (Photo: Lawrence van Lingen)

Van Lingen trained in Durban on South Africa's east coast. When a gold medalist from the Atlanta Olympics of 1996 flew in for treatment on a knee, Van Lingen got his introduction inner workings of elite athletics. He later moved to Southern California via Cape Town, and then – serendipitously for many of the athletes he now works with – this summer to Boulder, Colorado.

Carson, also considered a movement guru of sorts (<https://www.triathlete.com/training/the-pros-are-flocking-to-this-strength-training-guru-and-seeing-big-results/>), has described Van Lingen as a teacher. From the start of this conversation it's clear he's also an empath, and however skilled he is in the neuromuscular system, it's his feeling for athletes that affects the most change.

"My first principle is to do no harm, then to make sure people are in it for the long haul," he explains. "My wish is to get people to compete at the highest level, then retire and still be able to swim, bike, run, and enjoy themselves. It's very f***** important. I used to say I work with elites and desperates. Elites can feel the change and like it. Desperate people have tried everything."

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"If you run wrong and move wrong, it can have massive consequences"

As he lives and breathes their progression, Van Lingen's passion is as palpable as his candor is refreshing, and there is no mincing of words: "People are getting really f***** hurt and having their careers taken away from them; their talent trained out of them. If you run wrong and move wrong, it can have massive consequences for your immune system, for your nervous system, and for your mental and emotional health. From where I'm looking, it's really serious."

His reflections on meeting Frodeno last October lay the German's predicament bare: "After two decades of being a servant of the sport at that level, an athlete should have a sense of mastery. They should, at some stage, think: *Well, I'm really good at what I do now. It should be: I'm Pablo Picasso, and I paint masterpieces, not I'm broken and I can't express what I have inside of me.*"

Van Lingen discusses how an overload of tension can lead to compressed spines, with interconnected tissue from the neck to the adductors restricting the ability to breathe and move with fluidity. He gives the example of the BOLT test ([https://oxygenvantage.com/measure-bolt/#:~:text=The%20Body%20Oxygen%20Level%20Test%20\(BOLT\)%2C%20which%20involves%20an,healthy%20adult%20is%2040%20seconds.](https://oxygenvantage.com/measure-bolt/#:~:text=The%20Body%20Oxygen%20Level%20Test%20(BOLT)%2C%20which%20involves%20an,healthy%20adult%20is%2040%20seconds.)), where individuals slowly exhale or hold their breath for time, to give an indication of how tolerant their cardiovascular system is to carbon dioxide.

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"There are world-class athletes who basically can't hold their breath, which puts them on the spectrum of slight anxiety," he explains. "Hence, the amount of sleeping disorders I see. So, yes, I'm really passionate about it."

Realizing the potential "running is bad" vibe he's teetering on, Van Lingen catches himself and retracts slightly. The cohort of individuals he's addressing are at the elite end of exercise, pushing their bodies farther than 99% of the population – not the average runner or weekend warrior.

"We need to be ethical and responsible in this narrative," he counters, then, using his brother's work as a cardiologist as a parallel. "Some people overdo it and damage their heart through exercise, but we don't want the narrative out there that running is bad for your heart because we are talking of a very small percentage."

The Van Lingen Method

Each case Van Lingen encounters follows a similar arc of progression: it starts with injury, progresses to learning to move better, then finally running faster.

It's a slow burn for a reason, he says: "All movement in the world is taught slowly and then the speed and power follows: calligraphy, art, typing, crayons, I don't give a s*** what it is. But in running, we say if you increase your cadence you'll run better. O.K., you can't play a guitar; increase the tempo and see how much better your playing gets!"

Case in point: Knibb. A series of running injuries included a stress fracture in the fifth metatarsal of her foot, which eventually required surgery and a lengthy recovery. It wasn't the first time Knibb had been injured, but it was the first time she felt like she came back stronger for it.

"I didn't run for 11 weeks, and returning to running normally feels awful, but I felt better than I'd ever felt running before," explains the former NCAA Division I runner. "The only difference was that I worked with Lawrence. When you have done the sport long enough you have expectations, but he throws them out of the window. What you expect to take weeks or months might all of a sudden be solved in a second. I don't want to create too high expectations, but that's kind of how it is."

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Knibb says the initial manipulation work was conservative, to see how the body reacted and exercises took the form of patterning movements that felt awkward at first. One move, named the "Awesomizer," started with her putting a leg on a chair and simply turning out the knee. "I don't know how they correlate to running, but I can't complain," she says. "And he loves me pulling a tire. I pull a tire a lot. It's walking, not running, and sometimes I do it barefoot."

The only U.S. female triathlete to have cemented her place on the team for Paris next year, Knibb is a two-time junior world champion, an under-23 world champion, a regular top-10 finisher in the World Triathlon Championship Series, and the winner of the biggest race on the World Triathlon calendar – the season-ending finale in Edmonton – two years ago. Predominantly, she is lauded for her swim-bike prowess, but while she hasn't shown the run caliber of new world champion Beth Potter (<https://www.triathlete.com/culture/news/tri-race-results-a-sprint-to-the-finish-at-wtcs-grand-final-xterra-worlds-augusta-70-3/>) or French superstar Cassandre Beaugrand, peer closer at her the 10K runs at this year's Yokohama WTCS and Paris test event and you'll see why Knibb so willingly pulls the tire. 

"If you look at my Yokohama (WTCS 10K) run split it's not super impressive, but I started running after surgery on the Alter-G [anti-gravity treadmill] on March 29th following four months off," she explains. "So, that was six weeks' build-up and I was still able to run faster than I had in any other year. But Paris was the bigger one. I think it was kind of hidden because I had a bad T2, but I had the third fastest run split [33:12]."

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The improvements continued as Knibb ran mile repeats in preparation for this year's Ironman World Championship, where she placed fourth. "Lawrence was there for the workout as he wants to see how his treatment affects me," she says. "He told me to relax the front side of my hip, or, if I couldn't, try to relax my ankle instead. It was presented as a choice – and there may be some psychology with that – but I relaxed the ankle and ran faster and my heart rate remained constant. Over time, we'll see if it's warranted, but so far he's very much proven himself. And he's very unique."

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Van Lingen (R) and Knibb (L) fine-tune Knibb's run form ahead of her Ironman debut in Kona. (Photo: Lawrence van Lingen)

Secrets of the Running Genius

Van Lingen's philosophy starts with the premise that running is an efficiency sport, not an engine sport. He explains: "You should be looking for a sense of ease or pause. Everyone pays that concept lip service. They're not really trying to run with ease or a sense of less tension. Running should also be hip extension based, that's huge. People agree, but then do flection or hamstring drills. They're not seeing the world as it is."

Van Lingen's business is called [Innerunner](https://www.innerunner.com/) (<https://www.innerunner.com/>) because he believes that movement should derive from the center out. When he hands Knibb a length of rope and asks her to swing it in a certain pattern, this is what he's trying to instill.

The flow rope

"It's almost like cracking the whip," he says of the rope lesson. "Your hips should contract and then your foot. A lot of people's feet and hands move faster. Why does it matter? Well, go hit a golf ball with your hands quicker than your hips. You look like a kook! Golfers are taught to swing from their hips, but in running, it's as if these things don't apply."

He continues: "It teaches people to move from the center out, helping decompress and animate the spine. We can teach people the correct timing, and they can feel their posterior and anterior chains. The flow rope can also be used to teach people the correct rotation through the thoracic spine, rib cage and hips, with the lower back quiet. It's very good at smoothing people's running out. They start to look silky, efficient and calm. It's pretty cool."

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Mindful moving

While he sees other coaches as trying to push for urgency, he wants to create a sense of time and space. "You should notice how your foot lands and how you roll off the toes, whereas a lot of people believe the second you put your foot down, you should pick it back up again. I say your hips should be active and you should reflect that in your shoulder movement. Others say your hips should be static as you engage your core. But engaging your core restricts your breathing."

Van Lingen draws a distinction between his teaching and [Altis](https://altis.world/) (<https://altis.world/>), the elite training center in the U.S. that has turned out multiple world and Olympic champions, many of them sprinters: "They say they want 'clean at the back', your feet are in front of you, arms in front, head in front. Almost like you're going to run and long jump. Or like Tom Cruise, always running with his hands! With efficient running your hands should go along for the ride, they should be quiet and balanced, but a lot of this comes down to cueing. We hear the term, fast hands fast feet, and again it's focusing on the outside in."

Why it doesn't matter if you're forefoot or heel striking

Forefoot running is not preferable to heel striking because the purpose should be to find out why, Van Lingen says. "It's a center of mass, posture, or flexibility problem. If you're a heel striker because you've got head forward posture and tight hips and it's throwing everything forward, running on your forefoot doesn't make any of that better. People aren't thinking upstream, and the source would be really working on your posture and flexibility. That's a lot of what I treat. I'm opening up and giving people more range of motion and freeing up joint restrictions."

"Teaching triathletes to generate power with their knees behind their hips is hard. When you try and teach it, they are like: 'What the f***?! I mustn't pick my feet up, I can't work on my cadence, I have to land and then do something!' Their knee is always in front of their hip on the bike and a lot of triathletes are trapped in their body, but it shouldn't be the case. If you run well your glute max is so strong and indefatigable it saves your hamstrings and your quads."

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Timing

Van Lingen also tries to impress the idea of timing. "One of the cues that helps is that every time your foot hits the ground you put a bit of a pause into your running," he says. "I want to land and then wait a while and do something. Call it the 'One And' rule. Every time your foot hits the ground, you count 'one and' then push off on two. When I work with musicians it's so easy to teach them timing. They focus on the half-step and roll off their toes: Land on one, travel forward on 'and' roll off the foot on two. It's creating a lot of space just through timing, and it's extraordinary how effectively it can work."

Tire pulling

He's also a proponent of walking backwards, which explains why Knibb is increasingly proficient at pulling tires. "It really helps the shape of your running because you learn to put your toes then heel on the ground," he adds. "If you watch world-class runners running fast you'll see their back leg go dead straight, and that's how you use your hamstrings as a spring. When walking backwards you can actually practice that shape and give your brain permission to make that shape."

As for the tire? "Tire pulling moves people across the line in terms of understanding what their hips are supposed to do in running. We use the glutes, not calves or hamstrings and the change in the body is extraordinary. Joints start to stack up properly and the spine starts to decompress."

An Upheaval in Run Training

When it comes to running efficiency, few areas escape Van Lingen's attention. He says posture should be "shifted forward" rather than leaning forward; the nervous system should be treated with kid gloves; the evolution of super shoes is a net positive because they help athletes understand how they benefit from the energy return with each stride.

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There's a lot runners are getting wrong, but is there anyone getting it right? For Van Lingen, Patrick Lange and Mirinda Carfrae spring to mind. "There's a lot they did right," he says. "And, hopefully, we'll soon be able to use Taylor as another example."

It's a case of "watch this space" for the French capital next summer, but if Knibb does run the sub-33-minute 10km Van Lingen believes will be required to have a chance at the Olympics, then runners across the U.S. might be revising their training routines...and farmers will have a steady outlet to recycle their tractor tires for years to come.

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