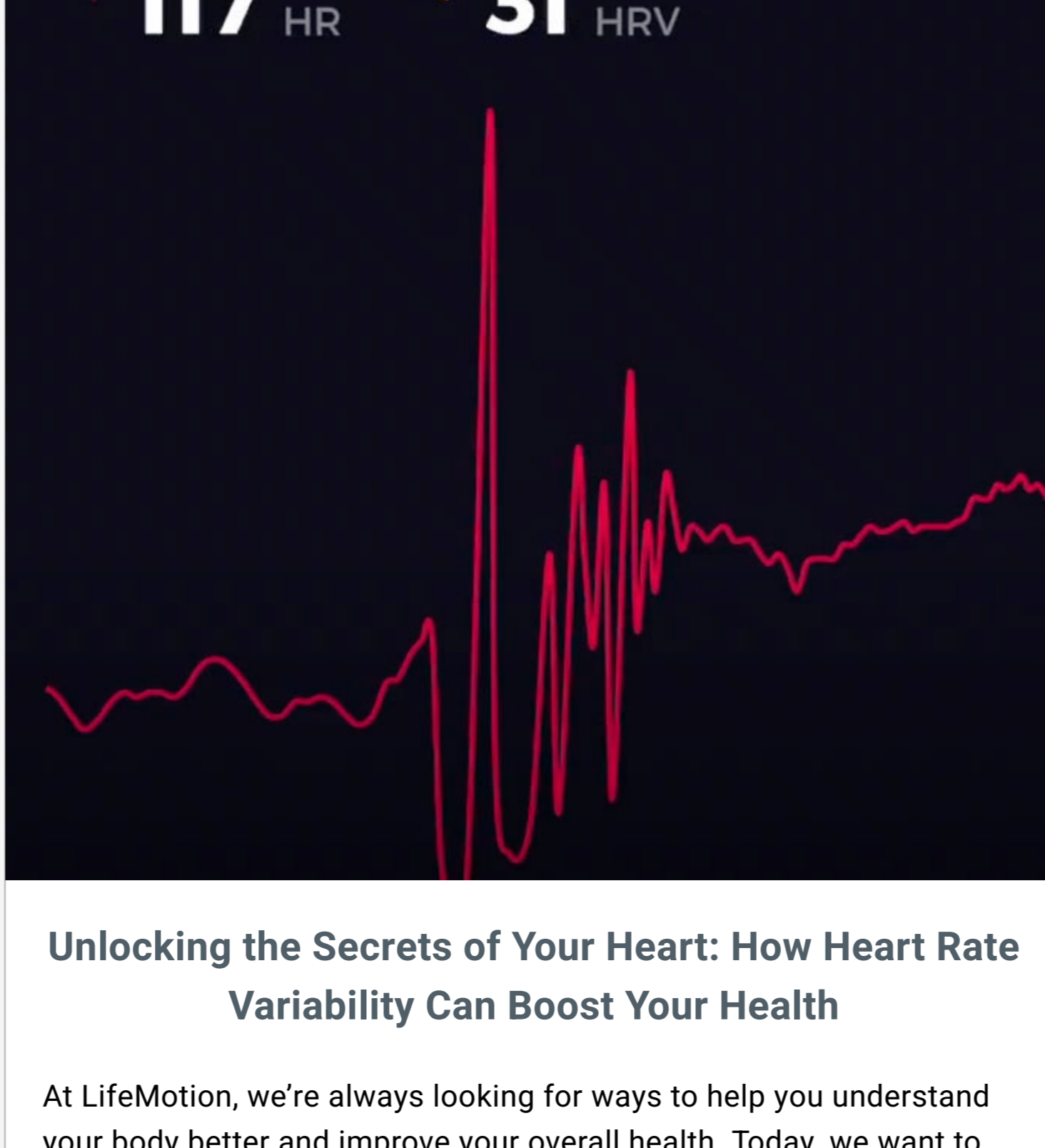


Unlocking the Secrets of Your Heart: HEART RATE VARIABILITY

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Orthopedic Pelvic Health Balance

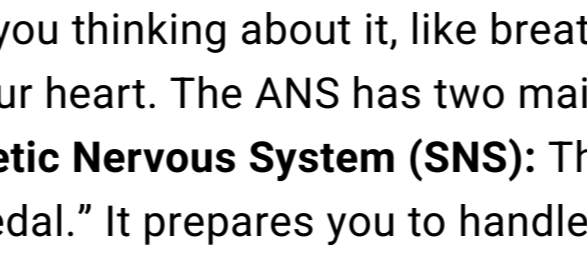


Unlocking the Secrets of Your Heart: How Heart Rate Variability Can Boost Your Health

At LifeMotion, we're always looking for ways to help you understand your body better and improve your overall health. Today, we want to talk about something we measure in the clinic called Heart Rate Variability, or HRV, and how it can tell us a lot about your autonomic nervous system. Don't worry – we'll keep it simple and straightforward!

What is Heart Rate Variability (HRV)?

HRV is a measure of the time difference between each heartbeat. Unlike your pulse, which tells you how many times your heart beats per minute, HRV looks at the tiny changes in time between these beats. Your heart is not a metronome and there are actually differences in milliseconds (ms) between beats. It might sound complicated, but it's actually a powerful tool to understand how your body is doing.



Source: @fitnes.com

Why Does HRV Matter?

Your autonomic nervous system (ANS) controls all the things your body does without you thinking about it, like breathing, digesting food, and yes, beating your heart. The ANS has two main parts:

- **The Sympathetic Nervous System (SNS):** Think of this as your body's "gas pedal." It prepares you to handle stress and emergencies by increasing your heart rate and energy.
- **The Parasympathetic Nervous System (PNS):** This is your body's "brake pedal." It helps you relax and recover by slowing down your heart rate and conserving energy.

A healthy balance between these two systems is crucial. The body has to be able to react and adapt quickly – we make small imperceptible changes every minute. That's where HRV comes in – it gives us a window into how well these systems are working together.

High HRV vs. Low HRV

- **High HRV:** A higher HRV generally means your body can adapt well to different situations, from physical activity to relaxation. It's a sign that your heart and nervous system are in good shape.
- **Low HRV:** A lower HRV can indicate that your body is under stress, whether from physical strain, illness, or emotional factors. It might mean your body is having a harder time bouncing back from challenges.

- Different factors can affect your HRV including age, gender, fitness status, and whether or not you are recovering from an injury or illness.

How Do We Measure HRV?

We use our Polar wearable heart rate monitor with the Elite HRV app to measure HRV, which is backed by the latest research. We are able to take a baseline "snapshot" of your HRV as well as monitor changes during the PT session. If you are curious about what a "good" HRV is for your age and gender, you can find the norms from Elite HRV [here](#).

Everybody is different, but monitoring HRV regularly can also help you identify trends over time on how your HRV changes.

How Can HRV Help You?

By measuring HRV, we can get insights into your overall health and stress levels.

Here's how it can benefit you:

- **Personalized Health Plans:** We can tailor your physical therapy and wellness plans based on your HRV, ensuring you get the right balance of activity and rest.
- **Stress Management:** If we notice your HRV is low, we can help you find ways to reduce stress and improve your relaxation techniques by teaching you breathwork strategies and grounding.
- **Monitor Progress:** Tracking your HRV over time can show how your health is improving and how well you're responding to treatments.

HRV and Concussion Management

The function of the autonomic nervous system can be affected after a concussion, especially if you have been dealing with concussion symptoms for more than 3 months. We use special testing, including HRV, to assess the status of your nervous system and help you recover from even persistent post-concussion symptoms.

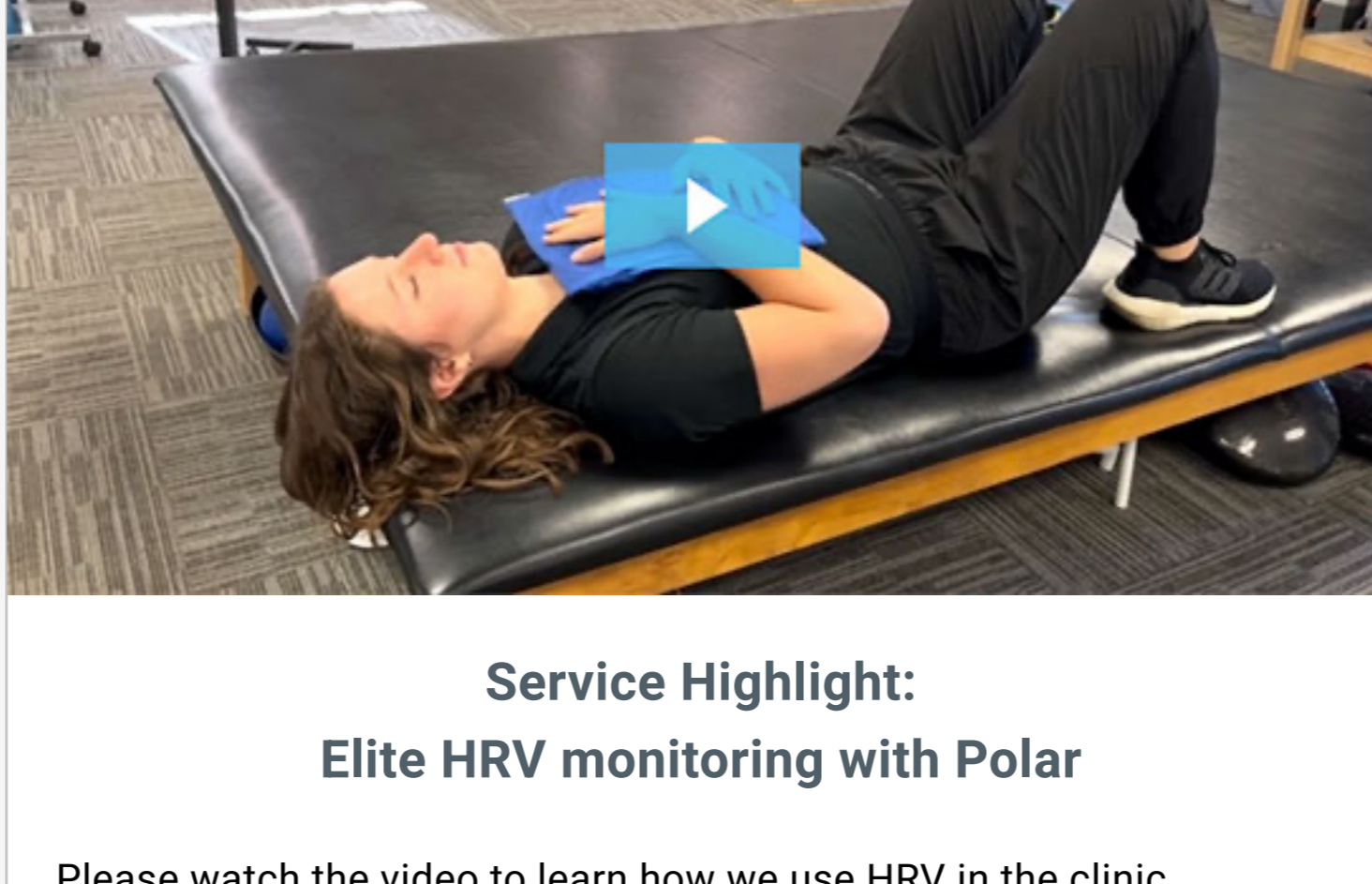
Simple Ways to Improve Your HRV

- **Stay Active:** Regular physical activity, like walking, weightlifting, swimming, or yoga, can boost your HRV.
- **Get Enough Sleep:** Good quality sleep is essential for a healthy nervous system.
- **Practice Relaxation:** Techniques like deep breathing, meditation, and spending time in nature can help lower stress and improve your HRV.
- **Stay Hydrated and Eat Well:** A balanced diet and proper hydration support overall health and can positively impact your HRV.

Final Thoughts

Understanding and improving your HRV can be a game-changer for your health. At LifeMotion, we're here to help you every step of the way. If you're curious about your HRV or want to learn more about how it can benefit you, don't hesitate to ask your therapist at your next appointment. In a chronically stressed culture, let's work together to keep your heart and nervous system in top shape!

[Schedule An Appointment](#)



Service Highlight: Elite HRV monitoring with Polar

Please watch the video to learn how we use HRV in the clinic.

[WATCH VIDEO](#)



Clinic News

Congratulations to our own Dr. Trevor McKay, DPT for being awarded Clinical Instructor of the Year! He is an excellent mentor and his positive influence will impact the profession for years to come! We are proud of you!



Client Spotlight: Kaylee Johansen

July 31st, 2021 was just another day on the lake for Kaylee Johansen and her family, tubing behind the family boat. Then, it wasn't. A gust of wind tossed one tube atop the other. That freak event began a healthcare odyssey for Kaylee that ultimately led her to LifeMotion.

"I can't see," she told her cousin. A tingling in her leg advanced to a loss of feeling that "kept moving up," Kaylee said. Emergency Room doctors initially called it a concussion, but her symptoms worsened day by day.

"MRIs and everything were coming back as normal," Kaylee said. "But, it was obvious that my body was declining. I wasn't able to walk and I wasn't able to see."

Thankfully, a neurosurgeon could. "He looked at me and said, 'Okay, you have something called SCOWRA,' Kaylee remembers. 'It stands for Spinal Cord Injury Without Radiographic Abnormality—and, I'm the second person in history he knows of to survive having both.'"

"He was confident that her abilities would come back," Kaylee's Dad, Ben, added. "It would just take time."

A Chiropractor later also discovered a case of whiplash was cutting off circulation. "She did an adjustment, pulled on Kaylee's foot," Ben said. "Kaylee went from having not felt anything or walked or being able to move her leg to being able to do it again. It felt like a miracle."

13 months later, including three and a half months of physical therapy, Kaylee was back at school, playing volleyball. Then, COVID struck—and all her symptoms returned. Kaylee was hospitalized. Doctors were baffled. They considered sending her home for more physical therapy. But, things got worse.

"I passed out, but nobody knew why—all my vitals were good," Kaylee says. "Turns out I'd had a psychogenic non-epileptic seizure." Kaylee was diagnosed as having conversion disorder and once again could not walk.

"It was devastating," Kaylee remembers. "They released me and put me back in school, but I had to go in a wheelchair." What's worse, her symptoms would come and go.

"I was fine, but then the next day I wasn't," Kaylee said. "So it was this back and forth, back and forth. I'd keep having all of these seizures, symptoms. They weren't actual seizures, they're called non-epileptic seizures."

LifeMotion's Dr. Taylor Lee recognized the symptoms immediately. "Taylor said, 'Kaylee, you have something called FND: Functional Neurological Disorder—That's also a conversion disorder,'" Kaylee remembers. "And I was like, 'Okay.'"

"Taylor said she had seen an increase of girls that had FND," Kaylee said. "And so, when I came in there, she's like, 'I know what this is, I've seen it before.'"

"FND means there's miscommunication between the brain and the body," Ben explained. "It's a problem with the neurology, but it's not due to any physiological change. It's truly a problem of the mind."

Taylor was studying FND on her own already because post-COVID, she saw a dramatic increase in FND in teenage girls. As a result, she had a lot more resources than Kaylee could find elsewhere.

Taylor even advocated for Kaylee with her school teachers and support staff, emphasizing how important it was for Kaylee to play basketball again.

"They even came to support me, which is so fun," Kaylee said. "They came to my game, the whole staff. That just shows you the type of people they are, they really were such kind people."

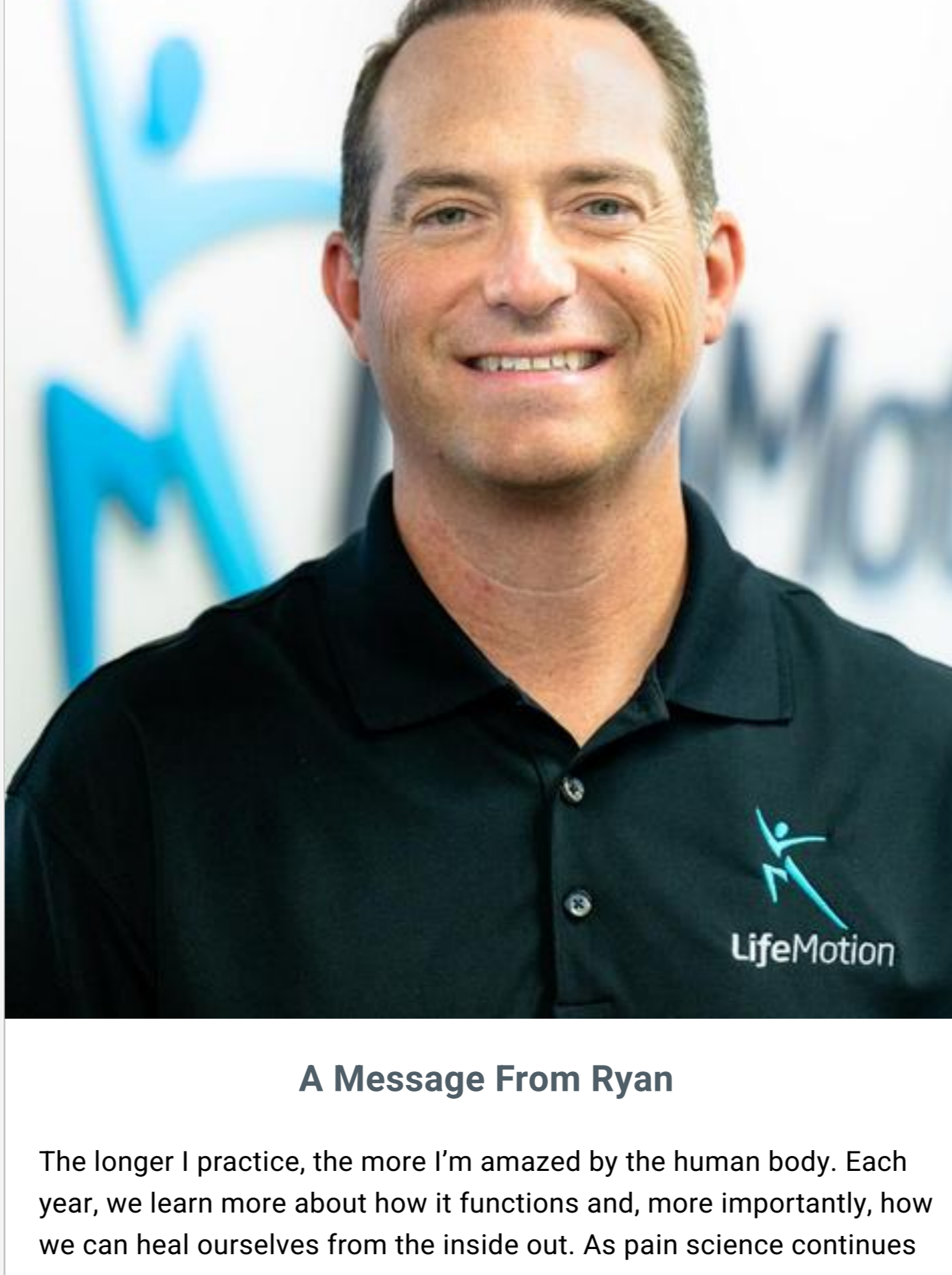
As with every patient at LifeMotion, Taylor created a plan for Kaylee. "She was like, 'Let's get an action going. Let's get a plan,' Kaylee said. "Instead of feeling like a victim, she made me feel confident in myself like, 'I could do this.'"

There is an emotional maturity that has made me feel confident in my efforts to be well that are well beyond her years," Ben adds. "There are many adults I know who don't ever reach the emotional maturity that Kaylee has reached at age 18."

Today, Kaylee attends Cosmetology school at Tulsa Tech in the morning and then attends school in the afternoon. Kaylee believes the personal attention she found at LifeMotion made a meaningful difference in her healing.

"I would say that this place is different. They are there to help you," Kaylee says. "They seriously look at you individually and say, 'Okay, how can I help you?' And they do everything to their ability to make sure that you are helped."

[Learn More About Our Team](#)



A Message From Ryan

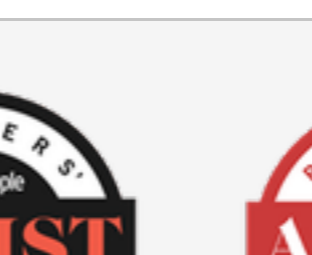
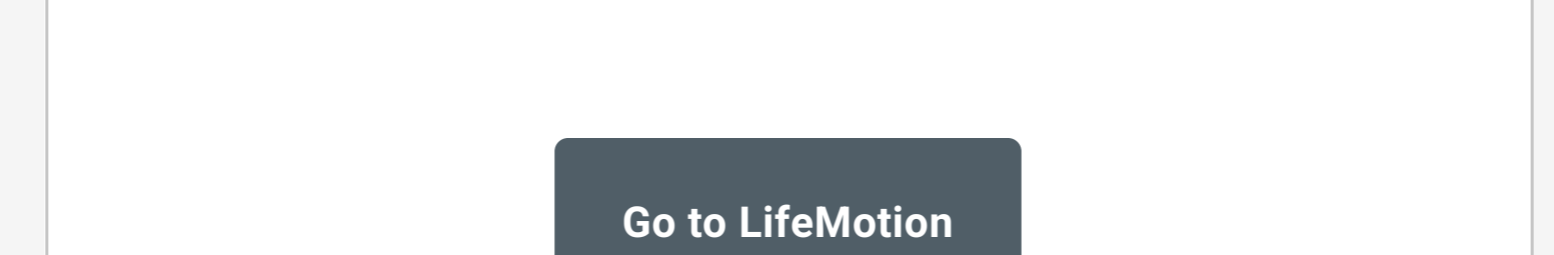
The longer I practice, the more I'm amazed by the human body. Each year, we learn more about how it functions and, more importantly, how we can heal ourselves from the inside out. As pain science continues to advance, we are discovering that many symptoms our clients experience—pain, fatigue, weakness, lack of concentration, and more—often stem from neurological issues rather than tissue issues.

Traditional thinking, which shaped much of my training, suggests that pain or performance deficits are due to tissue injury or biomechanical faults. However, we now understand that many common complaints are rooted in the nervous system. The nervous system acts as the gatekeeper to our experiences—sights, smells, emotions, and, indeed, pain. Without the brain, we wouldn't perceive these sensations. When the brain is on high alert due to chronic stress and injuries, it can cause unusual pain patterns that are often mishandled in the traditional medical system. The good news is that the nervous system is adaptable—it can change and improve. Understanding this can lead to remarkable results in the clinic.

[Dr. Lee](#) highlighted a perfect example of this in today's article on Heart Rate Variability (HRV). You'll likely hear more about HRV in the coming months as it's an excellent predictor of overall health and longevity. I track my HRV using an [Oura Ring](#), and I encourage you to check it out. It provides valuable data on how well your nervous system is functioning.

If you're dealing with an injury that won't go away, we encourage you to come in for a consultation. Get clarity on the underlying issue, and don't be surprised if your nervous system is playing a significant role in your experience. We have many cutting-edge, evidence-based tools and techniques to help get you back in LifeMotion.

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