ZHEALTH
Performance

Mind-Mapping For Elite Performance: How To Optimize Your Neural "GPS"

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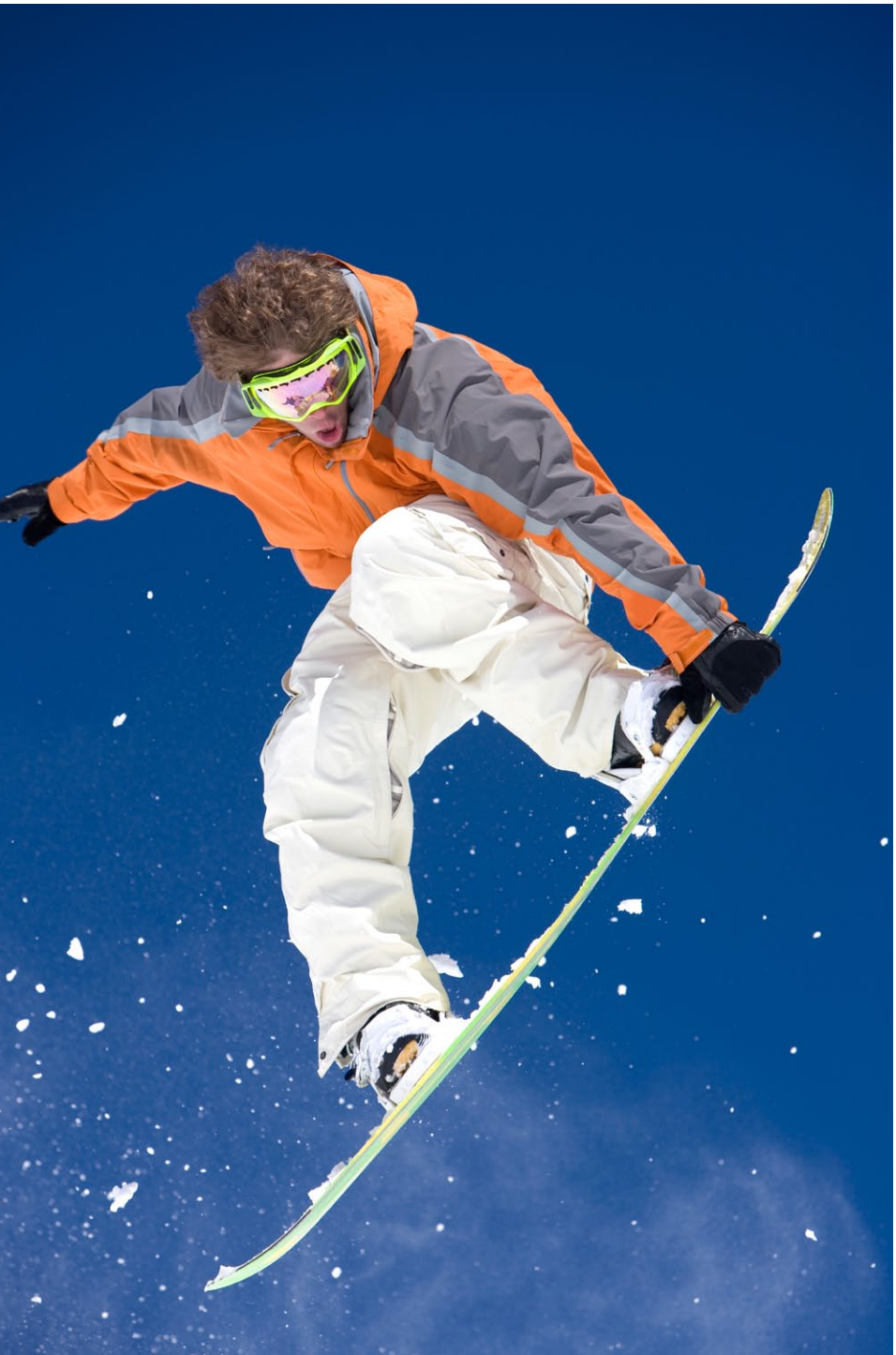
If you ask almost anyone to identify the hallmark characteristics of an elite athlete, somewhere in the conversation "coordination," "body control," or "they just make it look easy" will come up. What does that mean, though? What **is** coordination and body control? Where does it come from? Can we improve it or are we just stuck with what we were born with?



THE BRAIN AS A GPS

If you've ever driven a vehicle equipped with a GPS, you know that when it is functioning properly it can give you **up-to-the-second** information about where you are, how fast you are moving, and when you can expect to arrive at your destination. Your brain does the same thing as that GPS—at an infinitely more complex level—with regards to your movement through your environment.

Unfortunately, if you've ever tried driving with a GPS with incorrect or out-of-date maps installed, you will understand the tremendous frustration that arises when you have to constantly make U-turns to get to your destination (not to mention that annoying electronic voice saying, "Recalculating!")

When it comes to movement, the same thing happens when our neural GPS runs abnormal or out-of-date programs—**movement becomes unnecessarily difficult and frustrating**—often leading to pain, injury, or simply athletic "under-performance."

Every second of the day, various receptor types throughout your body send millions of signals per second to your brain—the same way satellites send data to a GPS device.

WHAT IS COORDINATION?

The truth is that "coordination," "body control," and "movement skill" are enormously complex skills that involve (and here's the word to remember) **integration** of multiple systems in the body. This integration is accomplished by two distinct parts:

1. Your Neural GPS also known as your brain, and,
2. Your satellites/receptors, that transmit three primary forms of coordination data: visual, vestibular (balance), and proprioceptive.

Every second of the day, various receptor types throughout your body send millions of signals per second to your brain—the same way satellites send data to a GPS device. Your brain takes these signals, filters them through a very complicated process, and then creates a "constantly-updating, personal 3D map" of your body in relation to your environment. This mapping process is so automatic, so unconscious, and generally so accurate that most of us never give it a second thought until something goes wrong.

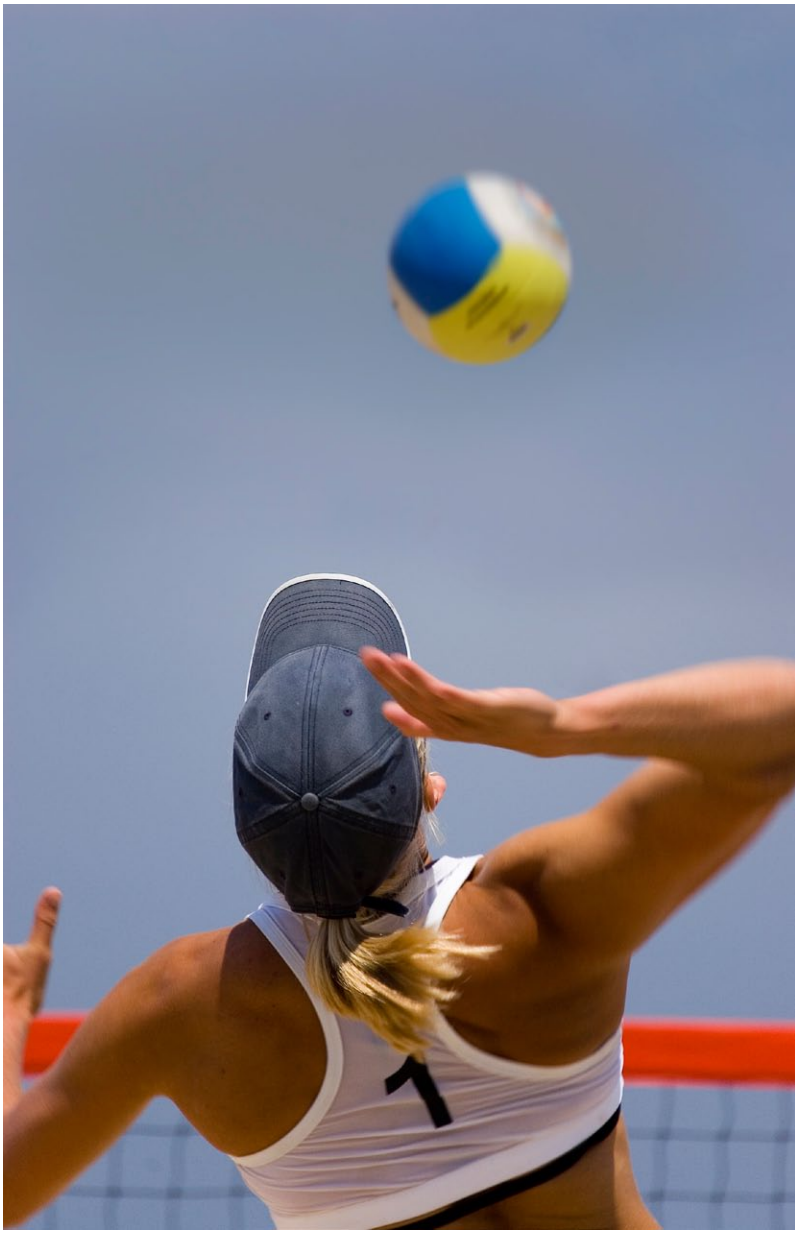
However, let's look at this in a little more depth…

When you're driving in a straight line (walking down the street), sitting at a stoplight (sitting in your office chair) there is not that much to keep track of and both your car's GPS and your body's GPS are generally pretty accurate. If the situation changes suddenly and you are driving a windy road (going for a trail run) or speeding through a slalom course (playing a game of basketball) the demands on the GPS to be extremely accurate go up. Simply put, the more complex the movement, the greater the demands on the GPS unit to be accurate.

This concept has two large ramifications:

1. If your neural **satellite data** is compromised, you will under-perform for most of your life. Sadly, this under-performance may take shape in multiple ways such as: weakness, instability, poor motor control, incorrect movement patterns, pain, and chronic injury.
2. If the **GPS device** malfunctions, regardless of the accuracy of the satellite data, the same issues will arise.

What this means for everyone is that high level sensory integration is a *must* for optimizing performance in both athletics and in life.



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You Can Test It and You Can Train It

With all of this in mind, you need to consider three primary strategies for optimizing yourself and your athletes:

1. Sports Vision Testing and Training
2. Real-World Vestibular (Balance) Testing and Training
3. Movement Integration Training with Specific Visual and Vestibular Demands

One of the biggest changes **in history** is the recent understanding that the human brain has a near-infinite capacity to adapt and change. For many years, vision, balance and coordination were considered more or less "fixed."

WE NOW KNOW THAT IS NOT TRUE!

The Z-Health training system teaches an incredibly practical series of assessment and training drills that can help you make tremendous gains personally and with your athletes.

We have analyzed and reverse-engineered elite level athletic performance from a neuroscience perspective for the last 15 years—synthesizing reams of research data into day-to-day protocols that **will** work for you and your clients. If you have ever been frustrated with nagging "under-performance," chronic or repetitive injuries, or "unexplainable" aches and pains, recognizing and addressing your neural GPS may be the **most important** thing you have ever done as an athlete.

Let us show you how.

For Further Reading

The Body Has a Mind of It's Own by Blakeslee and Blakeslee

Balance: In Search of the Lost Sense by Scott McCredie

Motor Control: Translating Research into Clinical Practice by Shumway-Cook and Woollacott

GET YOUR QUESTIONS ANSWERED

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