

Reactive Strength

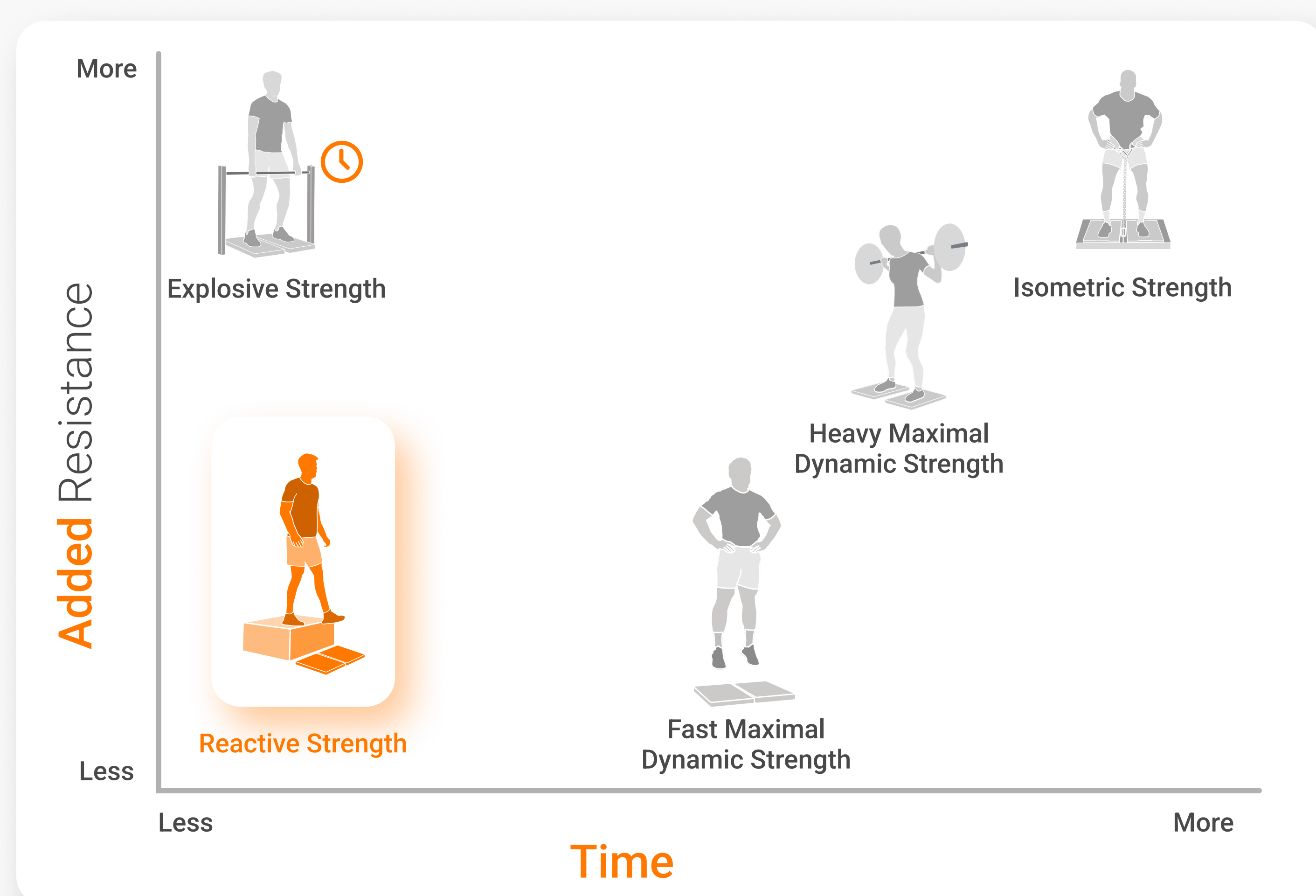
Defining the basics

Lachlan James, PhD | Founder and Director of ForceLab and Associate Professor at La Trobe University



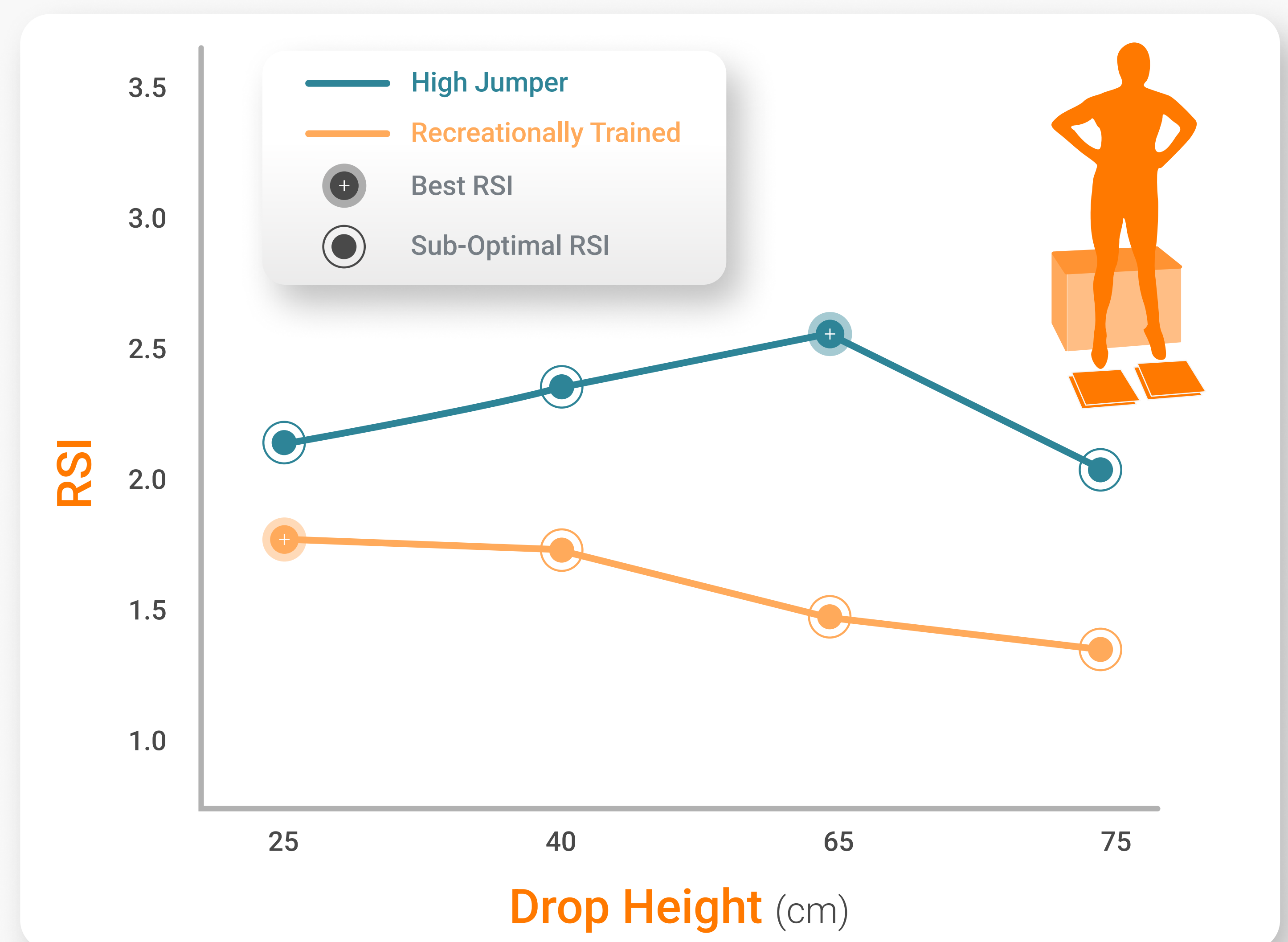
What is reactive strength?

Reactive strength is a core, unique athletic quality, reflecting the ability to tolerate **high impact loads** and redirect them under **strict time constraints**.

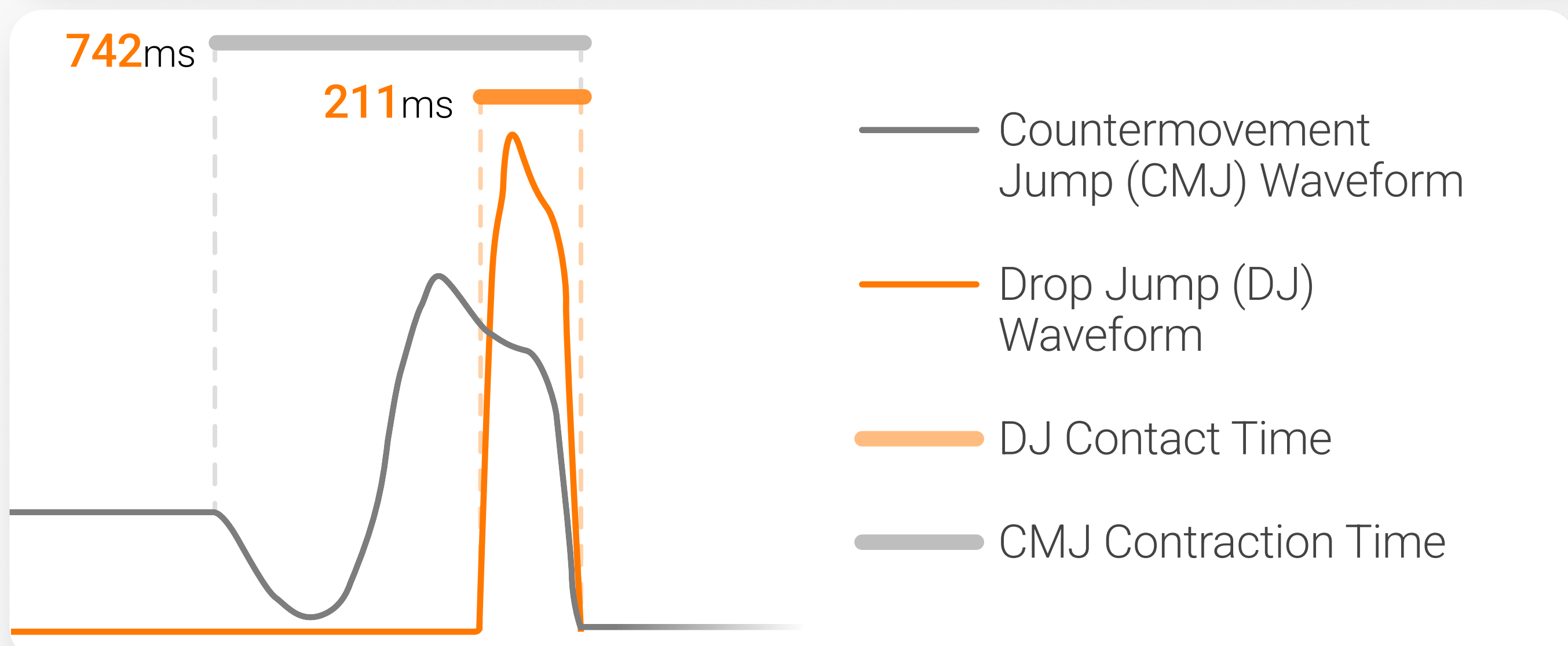


How is reactive strength measured?

The **drop jump** is a practical and effective way to assess reactive strength – using the **reactive strength index (RSI)** as a key metric.



What is the difference between fast and slow stretch-shortening cycles?



Fast SSC actions occur under strict time constraints (<250 ms), while **slow SSC actions allow longer force production durations** (>250 ms) to prioritize velocity at takeoff.

How can you train reactive strength?

Train reactive strength using plyometrics that emphasize **maximal rebound with very short ground contact times** (<250 ms), rather than slower jump or strength-focused tasks.

