

DRI STANDARDS

Classic RSI never asks how far the athlete fell before the rebound, step off a taller box and the score inflates. The Dynamic Rebound Index, developed by Lance Brooks, Ph.D., divides drop height into the math, so reactive scores finally compare across boxes, across athletes, and across a season. The mat computes it live on every rep.

$$\text{DRI} = \text{Jump Height} \div (\text{Contact Time} \times \sqrt{\text{Drop Height}})$$

Heights in metres · contact time in seconds · in Bounce Factor mode, your own first jump is the drop

STANDARDS · THE FIVE TIERS

DRI SCORE	TIER	WHAT IT TELLS YOU
< 0.50	WARMING UP	Opening hops, or a fatigued, non-reactive contact. The spring is not loaded yet.
0.50 – 1.25	REBOUND READY	Honest reactive contact starting to show. A developing athlete's working range.
1.25 – 2.0	PRETTY SPRINGY	Solid, repeatable reactivity. Force is being recycled well, cycle after cycle.
2.0 – 3.0	BOUNCY	Fast, stiff, efficient rebounds held across the set. Trained, reactive athletes live here.
> 3.0	ELITE	Very short contacts paired with real height off little drop. Elite output, every cycle.

WHY THE SQUARE ROOT MATTERS

BOXES STOP LYING

Two athletes post RSI 2.4, one off 12 inches, one off 24. RSI calls them equal. DRI prices in the extra downward energy the taller box handed over, and only one of them keeps the score.

SCALE-INVARIANT BY DESIGN

Change the box and a truly reactive athlete's DRI barely moves. If the number drops when the box goes up, the athlete is absorbing the landing, not recycling it. That is the finding.

BUILT FOR RETURN-TO-PLAY

Because DRI compares honestly across drop heights, it tracks a rehabbing athlete from low-box work back to full height on one continuous scale.

DRI was introduced by Lance Brooks, Ph.D. in his 2026 peer-reviewed paper, A Unified Mechanical Framework for Evaluating Stretch-Shortening Cycle Function. Tiers are Plyomat's field scoring standard, DRI is a new metric without decades of population norms, so it is most powerful comparing an athlete to themselves over time and across drop heights.



LIVE VERSION
qr.plyomat.com/dri