



AMERICAN FOOTBALL LOAD VELOCITY PROFILE (LVP) PROTOCOL

Using the 1080 Sprint | Based on 1080 Motion LVP Methodology

Why LVP? Every athlete has a unique Load-Velocity Profile based on their top speed and ability to sprint against resistance. LVP enables individualized resisted sprint programming by targeting specific Velocity Decrements (Vdec) — eliminating guesswork. Even within a single position group, the load required for the same Vdec can vary by 30–40% between athletes.

SKILL & BIG SKILL ATHLETES			LINEMAN ATHLETES		
LOAD	DISTANCE	CLASSIFICATION	LOAD	DISTANCE	CLASSIFICATION
3 kg	30–35 yards	Light	3 kg	25 yards	Light
8–10 kg	25 yards	Medium	8–10 kg	20 yards	Medium
16–20 kg	20 yards	Heavy	16–20 kg	15 yards	Heavy
24 kg *	15 yards	Optional	24 kg *	12 yards	Optional

* 24 kg optional fourth run for advanced assessment only

BEST PRACTICES FOR LVP COLLECTION

1. Familiarization	Have athletes practice heavier resisted sprints beforehand. Running with 15–25 kg is a skill — there is a meaningful learning curve. Prior exposure ensures the profile reflects true capacity, not novelty.
2. Rest	Allow at least 2.5 minutes between reps. Full recovery ensures each sprint reflects maximal output, not accumulated fatigue.
3. Peaking Out	Ensure the athlete reaches top speed on each rep. If the velocity curve shows they were still accelerating at the end, add 5 yards and retest. An incomplete sprint skews the profile.
4. Reliability	Target an $R^2 > 0.985$ ($R^2 > 0.95$ is acceptable). A high R^2 confirms the three data points form a valid linear relationship and that the profile can be trusted for load prescription.
5. Limited Space	If your facility is limited (e.g., 20 yards), select a heavier starting load where the athlete can still reach top speed within that distance, then choose well-spaced medium and heavy loads from there.

Applying Your LVP: Once you have a reliable profile, assign loads based on the Vdec appropriate for the session goal. Common targets: **~10% Vdec** = speed-dominant (high velocity, low resistance); **~25% Vdec** = mixed acceleration-speed; **~40–60% Vdec** = pure acceleration / strength-speed. No more estimating — let the profile drive the prescription.