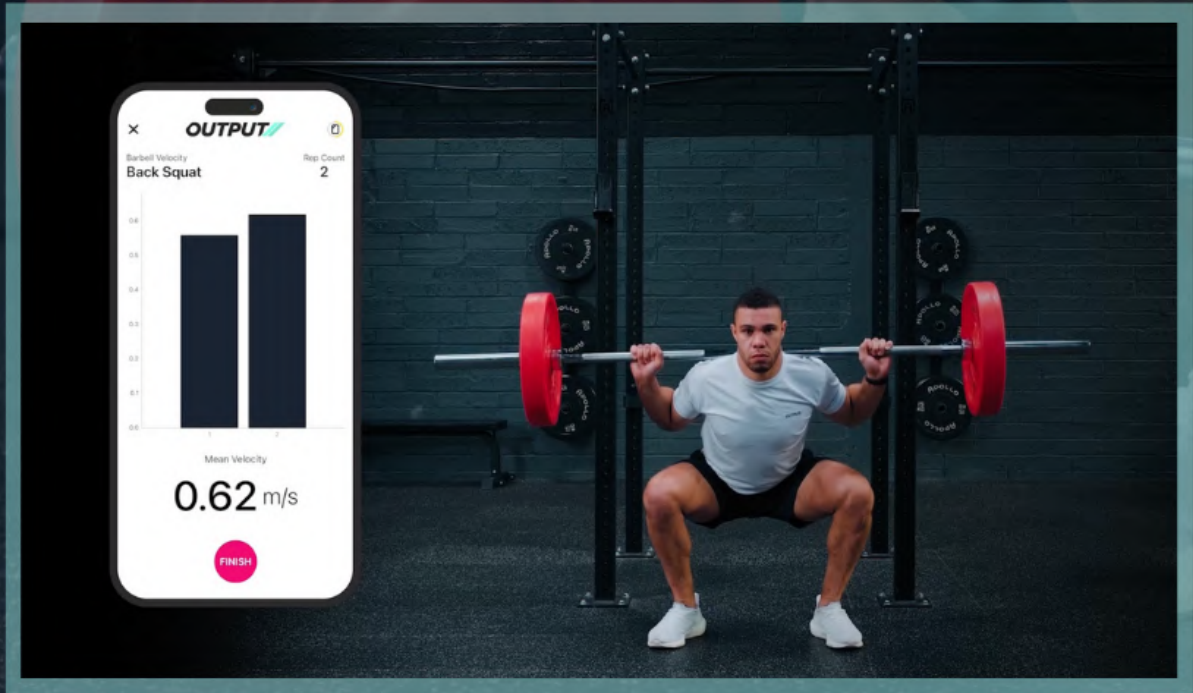


WHAT IS VELOCITY-BASED TRAINING?



In brief:

VBT is a valid and reliable method of **auto-regulation**, which enables coaches to:



Receive **immediate feedback** on an athlete's performance through velocity of the movement



Identify proper velocities/loads to train at to **enhance specificity** and **monitor fatigue**



Identify appropriate training loads in response to regular **performance fluctuations**



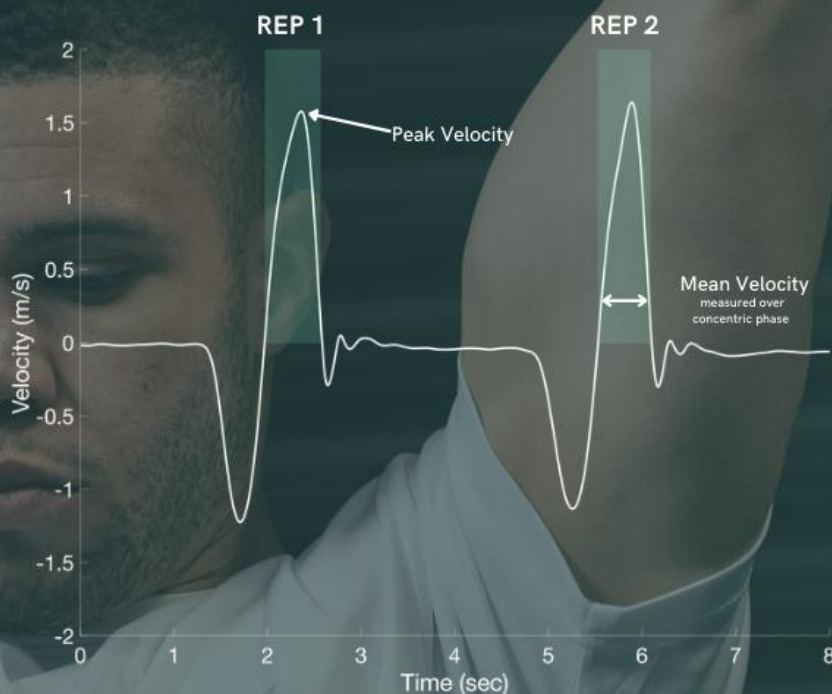
Estimate an athlete's **1RM**



Peak vs. mean velocity:

Mean velocity is used during strength VBT exercises to measure the average speed during the concentric phase. A coach will use mean velocity to determine an optimal target VBT zone for their athletes.

Peak velocity is used to measure the peak speed during the concentric phase and is most popularly used during ballistic lifts where the aim is to generate peak power output. A coach will use peak velocity to drive athlete intent in a training session.



VBT zones:

Velocity-based training zones provide coaches with a valuable tool to optimise training and enhance athlete performance. By categorising loads based on barbell velocity, coaches can prescribe the appropriate intensity and focus for each training zone.

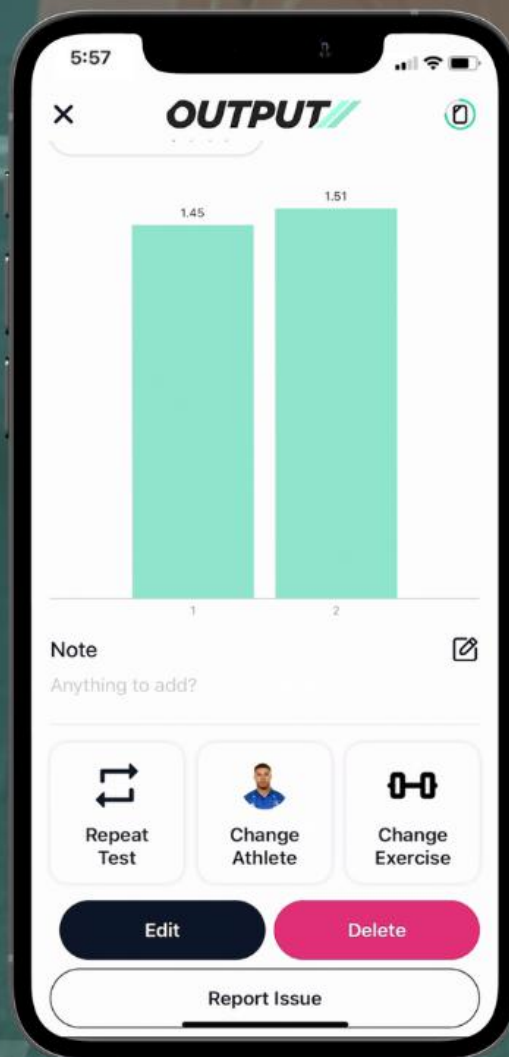
| | |
|---|---|
| Speed ($>1.3\text{m/s}$) | Moving a minimal load as fast as possible to maximise speed. |
| Speed-Strength ($>1.3 - 1.0\text{ m/s}$) | Moving a light load as fast as possible. |
| Power ($\sim 1.0 - 0.75\text{ m/s}$) | Moving a moderate load as fast as possible, prioritizing strength over speed. |
| Strength-Speed ($\sim >0.75 - 0.5\text{ m/s}$) | Moving a relatively heavy load as fast as possible. |
| Maximal Strength ($\sim > 0.5\text{ m/s}$) | Using a very heavy load, ends up being a slow movement. |

Real-time feedback:

Output provides **auditory** and **visual** feedback to athletes about the velocity of their reps, promoting significant **performance improvements**.

Receiving feedback based on the **velocity** of each repetition completed may aid performance by aiding in **maintaining an external focus**.

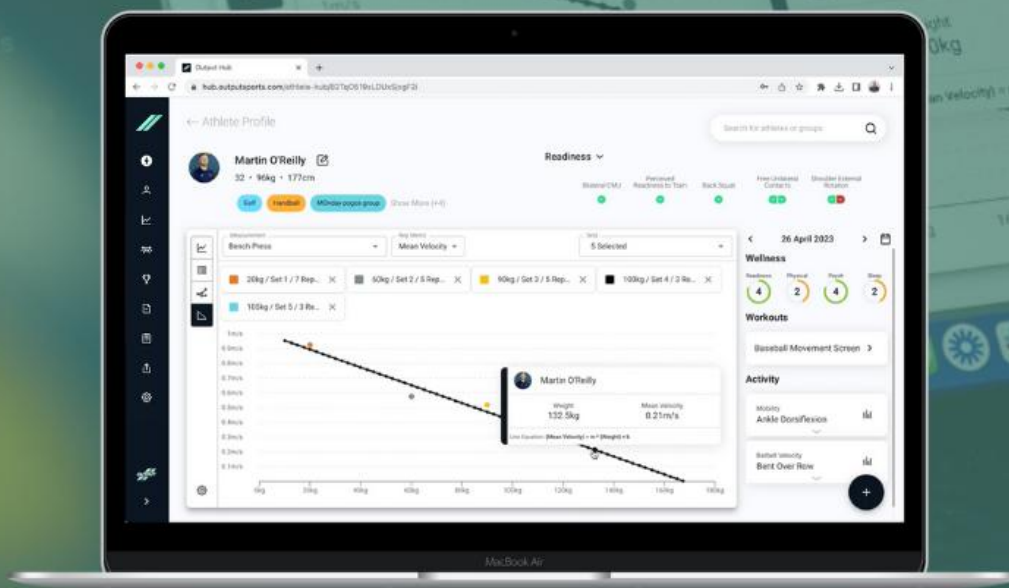
This means **focusing on movement outcomes** rather than the internal mechanics of the movement. This external focus can **enhance motivation**, which is highly important for long-term training success.



Load-velocity profiling:

Once data is initially collected for an athlete, a load-velocity profile can be made, and from that can be used to give a **more insightful comparison of individuals**, and their monitoring of changes over time.

This can be useful for **optimising** training programmes and **tailoring** training loads to the individual athlete.



Velocity drop-off:

Refers to the **percentage of decrement** in the velocity of each repetition that occurs over the course of a set.

This style of programming involves terminating the set when the **velocity falls below** a certain percentage threshold of their first or best rep in the set helping coaches manage:



Fatigue accumulation



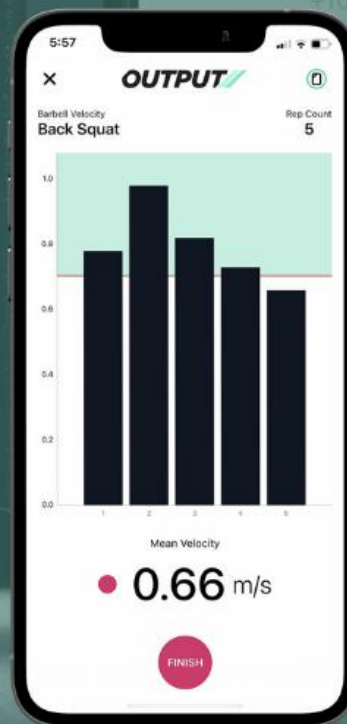
Competition peaking/tapering



Hypertrophy signalling



Post-session recovery timelines



1RM estimation:

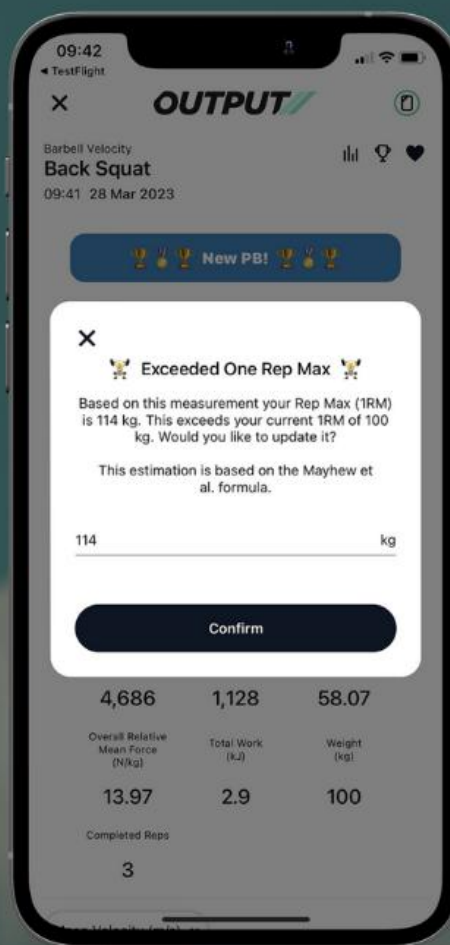
Using the Mayhew et al. formula, the app assesses an athlete's VBT data to determine if they have exceeded their 1RM and hit a new personal best, giving them a prompt to both update this value and celebrate their progress.



For example, if an athlete's previous barbell squat 1RM is 100kg and they perform 100kg for three reps, according to the Mayhew et al formula, their new 1RM is:

114kg

This is a clear marker of progression which proves highly insightful for the coach and athlete.



Used by the **best**:

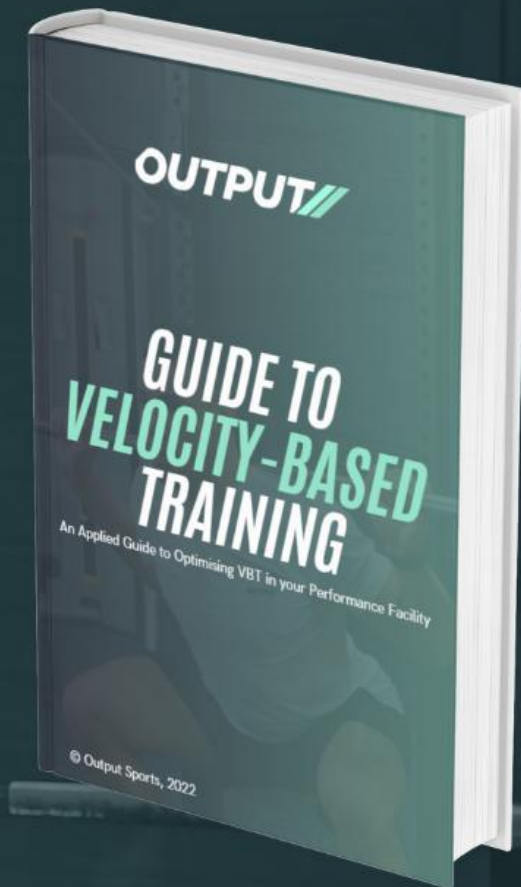
"Output is my velocity-based training **tool of choice**. With load-velocity profiles being automatically generated from the data that you capture, it's **superb for coaches** who are time poor. It's simple, easy to use - plug and play in 60 seconds!"

**Chris Tombs, Performance Coach &
VBT Specialist**



Learn more about **VBT**...

by downloading our **free** eBook today!



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