PARENT & ATHLETE GUIDE · PERFORMANCE TESTING

WHY WE TRUST HEIGHT AND TIME

> When we test an athlete, the two numbers that matter most are the simplest: how fast they ran and how high they jumped. New research explains why that's still the right place to start.

/ THE QUESTION

CAN JUMP HEIGHT LIE?

Force plates, cameras and apps can now break a single jump or sprint into dozens of numbers. That detail can be useful, but some recent headlines claim jump height "lies" or is a "poor indicator" of power. If that were true, why test it at all?

/ THE RESEARCH

THE RESULT COMES FIRST

In November 2026, sport scientists Loturco, Boullosa, Nakamura and Sandbakk published a commentary in the *International Journal of Sports Physiology and Performance*. In plain language:

- **Height and time can't lie.** Measured with a reliable tool and a consistent method, they record exactly what happened.
- **A higher jump means more power.** For the same athlete doing the same jump, jumping higher can only come from pushing harder into the ground for their body weight.
- **The detail explains, it doesn't judge.** Extra force numbers help with questions like fatigue, rehab or technique. They don't replace the result.
- **Different isn't worse.** If an athlete runs faster or jumps higher, they've improved, even if their technique looks a little different.

> **COACH THE MECHANISM. MEASURE THE OUTCOME.**

/ OUR CHOICE

WHY WE USE THE ABALAKOV JUMP

FORCE PLATE STANDARD

HANDS-ON-HIPS JUMP

Takes the arms out. More controlled and repeatable, which suits force plates and detailed leg analysis.

WHAT WE USE

ABALAKOV JUMP

Arm swing allowed. The whole body works together, the way athletes actually jump in sport.

The reason is transfer to real play. No footballer takes a mark and no netballer takes a rebound with their hands on their hips. In sport, the arms drive the jump, so we include them in what we measure. All our past results use the Abalakov jump too, so every new score can be compared with the last. Scores from the two jump types can't be compared with each other.

/ HOW WE TEST

SIMPLE TESTS. RELIABLE TOOLS.

20 M SPRINT
Acceleration: how quickly you get up to speed

FLYING 30 M
Top speed after a 20 m run-in

VERTICAL JUMP
Leg power for your body weight (Abalakov)

1 KM / 2 KM TIME TRIAL
Aerobic endurance

Measured with electronic timing gates and a jump mat, done the same way every time, at three points: a **baseline**, a **check-in** and a **result**.

FOR PARENTS

THE SIMPLE NUMBERS ARE THE RIGHT NUMBERS
A faster sprint and a higher jump are real, meaningful progress.

COMPARE YOUR CHILD WITH THEMSELVES
Group tables can't account for growth. Your child's own last result is the best comparison.

GROWTH SPURTS CHANGE THE PICTURE
A jump that holds steady while your child grows can still mean more power.

SMALL DIPS ARE NORMAL
Results can dip for a few days as training fatigue builds, then bounce back higher.

BE WARY OF THE HYPE
Ask what question the extra numbers answer. Often height and time already answer it.

FOR ATHLETES

YOUR NUMBER IS YOURS
Your time and jump are honest measures of what you can do now. Beat your own score.

THE CLOCK IS THE JUDGE
If your time drops, you got faster, even if your running looks a bit different.

HELP THE TEST BE FAIR
Warm up well, turn up fed, hydrated and rested, wear shoes with good grip, and give every attempt full effort.

EXPECT UPS AND DOWNS
Big gains come early, then progress slows. Consistency moves the numbers over a season.

/ DISCUSSION

QUESTIONS TO ASK ABOUT A RESULT

1. Was the test done the same way as last time?
2. Is the change bigger than normal day-to-day variation?
3. Has the athlete grown or changed weight since the last test?
4. If the result improved, does it matter that the technique looks different?

Both views can be true. This is an active debate. The commentary is an expert opinion piece, and other researchers argue detailed force metrics can reveal fatigue that jump height misses, especially in elite athletes. For young athletes tracking speed and power, the result is still the best place to start.

Source: Loturco I, Boullosa D, Nakamura FY, Sandbakk Ø. When proxies overshadow actual performance. *Int J Sports Physiol Perform*. 2026. doi:10.1123/ijspp.2026-0380 · Read more at power2adapt.coach

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How to improve over time

Bring these ideas to your coach and choose a focus that fits your sport and training week.

Build the skills behind the scores

Jump higher

Practise landing softly and in control. Then work on linking the dip, arm swing and push into one smooth jump. Your coach can add simple strength work such as squats or split squats when your technique is ready.

Get quicker over the first 20 m

Practise short starts with one cue at a time. Try pushing the ground away for the first few steps. Walk back and allow enough rest to make the next effort sharp.

Build speed once you are moving

When your coach says you are ready, build speed smoothly into short fast runs. Focus on relaxed shoulders and quick, natural steps. Run early in the session while you are fresh.

Use the next training block

Start with one focus

Choose a skill you can practise consistently, such as a smoother arm swing or a stronger first three steps. Ask your coach what a good repetition should feel or look like.

Make it harder gradually

When the movement looks consistent and you are recovering well, your coach can change one thing, such as the drill, the number of efforts or the resistance. Account for games and other training before adding more.

Review and retest

Agree on a retest date with your coach. Review your training notes and repeat the original test setup. Use the result and what your coach saw to choose your next focus.

Jump height reflects take-off speed. A higher jump alone cannot tell you how much peak power changed.

Further reading: American Academy of Pediatrics guidance on youth resistance training.

Track your progress

Compare your own results over time and bring this page to your next coach check-in.

What a trend looks like

Example: three tests under the same conditions. The middle test was after a busy week.

Date / session	Jump (cm)	20 m (s)	Flying 30 m (s)	Notes
Baseline	30	3.60	—	Usual setup
Check-in	29	3.64	—	Busy match week
Retest	33	3.50	—	Usual setup

From baseline to retest, the jump rose 3 cm and the sprint was 0.10 seconds quicker. This is an encouraging pattern to check at the next test. Ask your coach how much your scores usually vary.

Your results

Record the test setup once. Use the notes column for anything that changes.

Setup / equipment: _____

Date / session	Jump (cm)	20 m (s)	Flying 30 m (s)	Notes

My training focus before the next check-in: