SPV GEN AI PRO

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ATHLETE ASSESSMENT REPORT · DETAILED ANALYSIS · SAMPLE REPORT

SAMPLE BASKETBALL PLAYER REPORT

Basketball · Female · 20 yrs · 175 cm · 76 kg

TEST DATE	TEST SYSTEM	REPORT DATE
18.08.2026	**VALD ForceDecks · ForceFrame · NordBord · SmartSpeed**	**09.09.2026**

1	1	10	26%
WITHIN NORMAL	MARKED ASYMMETRY	PARAMETERS MEASURED	HIGHEST ASYMMETRY

REPORTED INJURY HISTORY (ATHLETE-REPORTED)

Right ankle sprain (February 2025) · Right ankle pain during testing (active complaint)

The reported side is **right** — comparison with measurement findings is made in Section 7.

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This document is **a sample basketball player report** prepared to present the SPV GEN AI reporting format; athlete identity details have been removed.

1 · ASSESSMENT SCOPE & DATA SOURCES

This table shows clearly which data the assessment is based on and which areas were not measured — the report's transparency framework.

AREA	STATUS	DESCRIPTION
VALD strength-jump-landing-speed battery	PRESENT	This report is based on 10 parameters
Clinical examination	NONE	Not performed — this report interprets measurement data and does not replace a clinical examination
Injury side information (left/right)	PRESENT	The **right** side was reported — comparison with findings is in Section 7
Ankle plantar flexor (soleus/gastrocnemius) strength	NONE	No direct measurement in the battery; landing and jump tests give only indirect information
Hip extension strength (prone)	NONE	Prime movers of jumping/sprinting; not measured
Shoulder int./ext. rotation strength	NONE	Upper-limb battery not performed; shoulder balance cannot be assessed with this data
Core endurance test	NONE	Not measured; no conclusion on trunk stability can be drawn from this data
Body composition	NONE	Data not provided; RED-S screening is additionally advised for female athletes
SPORTOTEAM field tests (hop LSI, balance)	ADVISED	Fills the battery's single-leg horizontal hop and balance gaps
Daily neuro-autonomic monitoring	ADVISED	20 s morning PLR — baseline in 2–3 weeks

2 · HOW TO READ THIS REPORT

Two reference systems. For each metric, the VALD percentile (device maker's norm base) is given first, then the literature band (compiled from published studies). The two are deliberately kept separate and not mixed. The within-team distribution of 9 players measured the same day with the same protocol is also noted for context.

Asymmetry thresholds. ≤10% normal · 10–15% monitor · >15% marked (Bishop et al. 2018 — asymmetry review · practical threshold convention)

Colours. NORMAL MONITOR MARKED — these labels are NOT injury predictions; they classify the size of the side-to-side difference.

Direction rule. For landing stabilisation, 5-0-5 and sprint, a LOW value is better; for strength and jumps, a HIGH value is better. Direction is also stated on each card.

3 · EXECUTIVE SUMMARY — PRIORITY FINDINGS

#	FINDING	VALUE	LAGGING SIDE	STATUS
1	Land & Hold stabilisation asymmetry	**26%**	right	MARKED
2	Knee extension strength asymmetry	**13%**	right	MONITOR
3	Nordic hamstring eccentric strength asymmetry	**12%**	left	MONITOR
4	Hip adductor strength asymmetry	**4.2%**	right	WITHIN NORMAL

OVERALL PROFILE READING

• **Same side (RIGHT) lagging in 2 independent tests:** Land & Hold stabilisation time 26%, Knee extension strength 13%. Different protocols pointing to the same side make chance less likely — the programme's target side is clear.

• **Landing stabilisation times are long on both sides (0.51 / 0.69 s).** Regardless of the difference, absolute time is an independent marker of landing quality and a separate training focus.

• **Concentric power output in the mid band:** CMJ 27.4 cm (VALD 53rd percentile) — a development area for rebound and block height.

• **Reactive profile splits in two:** single-effort reactivity 1.24 (27th percentile) exceeds repeated elastic efficiency (0.97, 12th percentile); the limitation is repeated elastic endurance.

• **The battery's lowest percentile is the 12th (Hop Test RSI).** This metric comes first in re-test priority.

• **The athlete's report — right ankle sprain (Feb 2025); right ankle pain during testing — is compared with findings in Section 7;** as no clinical exam was done, no causality is established; only directional agreement is noted.

4 · TEST ANALYSES

TEST 1 / 10

Knee Extension Strength — Supine 90° (ForceFrame)

386 / 336 N 13%

Left — Right

WHAT IT TESTS

Measures the maximal isometric force of the quadriceps at 90° knee flexion. It is the primary muscle group protecting the knee joint.

PROTOCOL

Supine, hip and knee at 90°; maximal push against ForceFrame fixed resistance, each side separately; peak force reported.

SPORT CONTEXT

In basketball it is the main absorber of knee load in landing braking, sudden stops (deceleration) and changes of direction. Quadriceps capacity determines both patellofemoral loading and ACL-protective mechanics.

TRAINING IMPLICATION

The 13% difference is in the monitor band (right lagging) — not yet a programme target, but closing it with 1 extra set for the right side in single-leg strength work is appropriate. Re-test in 8–12 weeks to confirm whether the gap persists. Absolute level (limb mean 361 N — derived value) is in the upper band; protection is adequate. Team rank: 1st of 9 athletes.

TEST 2 / 10

Nordic Hamstring Eccentric Strength (NordBord)

317 / 359 N 12%

Left — Right

72nd / 89th pctl

WHAT IT TESTS

Measures hamstring braking (eccentric) force per limb in Newtons — the most studied field marker of hamstring injury risk.

PROTOCOL

Controlled forward fall from kneeling; ankles in sensor hooks, peak force recorded.

SPORT CONTEXT

In basketball, acceleration-deceleration cycles, jump landings and ACL-protective co-contraction rely on eccentric hamstring capacity; it is also the sprint component of hip extension.

TRAINING IMPLICATION

The 12% difference is in the monitor band (left lagging). Keep Nordic work at 2×/week and add 1 extra set on the left. Absolute capacity is in the good band (weaker side 317 N); maintain the current level. Team rank: 2nd of 9 athletes.

TEST 3 / 10

Hip Adductor Strength — Supine (ForceFrame)

313 / 300 N 4.2%

Left — Right

WHAT IT TESTS

Measures maximal isometric squeeze force of the hip adductors — the most established field marker of groin health.

PROTOCOL

Supine, knees bent; maximal isometric inward squeeze into ForceFrame, each side separately.

SPORT CONTEXT

Provides pelvic stability in defensive slides, sudden stops and changes of direction; the primary muscle group in basketball groin strains.

TRAINING IMPLICATION

The 4.2% difference is within normal; adductor force distribution is symmetrical. In-season, 1×/week Copenhagen-type protective loading is sufficient. Note: abductor strength is not reported on this card, so the Add:Abd ratio cannot be calculated — ratio-based groin risk assessment is not possible with this data.

TEST 4 / 10

Hip External/Internal Rotation Ratio — Prone (ForceFrame)

0.67 / 1.04 ratio

Left — Right

WHAT IT TESTS

Ratio of hip external to internal rotator strength. Shows the balance of pelvis-femur control; a BALANCE metric, not absolute strength.

PROTOCOL

Prone, knee at 90° flexion; maximal isometric push in both directions — ratio reported by the device.

SPORT CONTEXT

The hip component of knee alignment (dynamic valgus control) in jump-landing, cutting and defensive slides.

TRAINING IMPLICATION

Left side IR-dominant (L 0.67 / R 1.04; balanced band ~1.00). This profile suggests a relatively weak capacity to brake femoral internal rotation in landing and cutting. Program: banded hip external rotation/abduction, side-lying clams, single-leg hip-dominant strength; add as a fixed warm-up block. Note: this is a ratio metric and gives no absolute strength information.

TEST 5 / 10

Land & Hold — Stabilisation Time (ForceDecks)

0.51 / 0.69 s — 26%

Left — Right

LOWER time is better in this test — a longer bar means slower stabilisation.

WHAT IT TESTS

Measures per side the time for the force platform to 'settle' after landing (lower = better). The most specific marker of neuromuscular landing control.

PROTOCOL

Drop from a box and hold; the platform reports the minimum time until the force curve stabilises, separately for each leg.

SPORT CONTEXT

Rebound landings, post-shot landings and defensive stops are the most frequent high-load tasks in a basketball game; landing control determines both knee and ankle load.

TRAINING IMPLICATION

The battery's highest asymmetry (26%). The right side stabilises markedly slower (0.69 s / 0.51 s). The slower side's absolute time is also high — read this not only as a **difference** but also as **loss of control**. Program: right-side single-leg drop landing → hop & hold (2 s hold criterion) → change-of-direction landing progression; 2–3×/week. Re-test to confirm whether the gap persists or was session-specific. Target <10%.

TEST 6 / 10

Drop Jump — Reactive Strength Index (ForceDecks)

1.24 RSI

VALD: 27th percentile

WHAT IT TESTS

Flight/contact ratio produced with a SINGLE contact after a box drop — single-effort efficiency of the stretch-shortening cycle.

PROTOCOL

Drop from a standard box, jump as high as possible with minimal contact; best RSI reported.

SPORT CONTEXT

Single explosive rebound and block jumps and first-step starts draw on this quality.

TRAINING IMPLICATION

1.24 RSI is in the **moderate** literature band (VALD 27th percentile). It exceeds the Hop Test RSI (0.97): single-effort reactivity beats repeated jump efficiency; the limitation is repeated elastic endurance. Pathway: low-volume, high-quality contact work — drop jumps, pogos, short-contact rope; plan weekly contacts and monitor with a pain-stiffness log.

TEST 7 / 10

Hop Test — Repeated Jump RSI (ForceDecks)

0.97 RSI

VALD: 12th percentile

WHAT IT TESTS

Mean flight/contact ratio over consecutive low-amplitude hops — REPEATED efficiency of the tendon-elastic system.

PROTOCOL

Consecutive maximal-tempo hops in place; best mean RSI reported.

SPORT CONTEXT

The physiological basis of consecutive rebound and block jumps in long possessions; a high value means a profile that jumps repeatedly without losing height.

TRAINING IMPLICATION

0.97 mean RSI — **low** literature band (VALD 12th percentile). Flight/contact efficiency in consecutive hops is low: the tendon-elastic system's efficiency under repeated load is limited. Progression: low-amplitude pogo and rope work with gradual increase in weekly contact volume, then double-leg → single-leg transition.

TEST 8 / 10

Countermovement Jump — Jump Height (ForceDecks)

27.4 cm

VALD: 53rd percentile

WHAT IT TESTS

Measures concentric power produced via the countermovement-jump cycle in cm using the impulse-momentum method — the gold-standard field indicator of lower-limb power.

PROTOCOL

Hands on hips or free; quick dip-and-jump, best attempt reported.

SPORT CONTEXT

In basketball, the direct physical correlate of rebound, block and shooting height.

TRAINING IMPLICATION

27.4 cm — mid band (VALD 53rd percentile). While maintaining the strength base, a 2–4 cm gain is realistic with speed-strength work (contrast/complex sets, low-volume jumps). Team rank: 4th of 9 athletes.

TEST 9 / 10

5-0-5 Change of Direction Test (SmartSpeed)

2.266 s

In this test a LOWER time is better.

WHAT IT TESTS

Measures total time including a 10 m acceleration, a 180° turn and re-acceleration — the standard field test of change-of-direction ability.

PROTOCOL

Run through timing gates, 180° turn at the marked line, exit in the same direction; total time reported.

SPORT CONTEXT

In basketball, the direct correlate of defence-offence transitions, cuts and closeout movements.

TRAINING IMPLICATION

2.266 s — team **mid** band. Team rank: 4th of 9 athletes. 5-0-5 time is the combined output of braking (eccentric) capacity and re-acceleration power. Read together with landing asymmetry (26%), load is likely not evenly distributed between sides during direction changes; unilateral braking work is a priority. Development: single-leg braking (decel) work, short-distance acceleration reps and turning technique (foot placement, trunk angle).

TEST 10 / 10

20 m Sprint (SmartSpeed)

3.364 s

In this test a LOWER time is better.

WHAT IT TESTS

Measures total time over a 20 m straight sprint — the combined output of acceleration and maximal speed components.

PROTOCOL

Standing start through timing gates; total 20 m time reported.

SPORT CONTEXT

Decisive in fast breaks, transition defence and steals; also the task with the highest hamstring loading.

TRAINING IMPLICATION

3.364 s — team **fast** band. Team rank: 3rd of 9 athletes. 20 m time includes both first-step (0–5 m) and maximal speed components; in basketball it indicates fast-break and transition speed. Development: short acceleration reps (10–20 m), hip extensor maximal strength and eccentric hamstring capacity.

5 · SYNTHESIS: LANDING CONTROL & MUSCLE BALANCE

Landing control

PROTOCOL	LEFT	RIGHT	ASYMMETRY	SLOWER SIDE
Land & Hold	**0.51 s**	**0.69 s**	**26%**	**right**

The side slower to stabilise on landing (right) and the side lagging in knee extensor strength **are the same**. Two independent measures pointing to the same side reduce the chance the finding is session-specific and make that side a programme target. Note: this battery does not report single- and double-leg landing as separate protocols; the landing profile rests on a single Land & Hold measure, a limitation of this report.

Strength asymmetries — direction consistency

MEASURE	LEFT	RIGHT	ASYMMETRY	LAGGING SIDE
Knee extension strength	**386 N**	**336 N**	**13%**	**right**
Nordic hamstring eccentric strength	**317 N**	**359 N**	**12%**	**left**
Hip adductor strength	**313 N**	**300 N**	**4.2%**	**right**

Strength asymmetries are spread across different sides — there is no single weak-side profile; each muscle group should be addressed on its own.

Muscle balance ratios

RATIO	LEFT	RIGHT	TARGET / REFERENCE	ASSESSMENT
Hip ER : IR (prone)	**0.67**	**1.04**	≈ 1.00 balanced	Internal rotator dominant — external rotator strengthening indicated

6 · LITERATURE COMPARISON

The needle is the athlete's position; coloured bands are broad ranges from a literature review (not strict norms).

CMJ Jump
VALD: 53rd percentile

27.4 cm AVERAGE



0+ low · 22+ average · 28+ good · 34+ very good

Typical female basketball CMJ range ~26–36 cm — *Ziv & Lidor 2010 (review of vertical jump in basketball) · Scanlan et al. 2018*

Drop Jump RSI
VALD: 27th percentile

1.24 MOD.



0+ low · 1+ moderate · 1.5+ good · 2+ very good · 2.5+ elite

RSI (flight/contact) above 2.0 is considered a strong reactive-strength profile — *Flanagan & Comyns 2008 (RSI guideline bands)*

Hop Test RSI (repeated)
VALD: 12th percentile

0.97 LOW



0+ low · 1+ moderate · 1.5+ good · 2+ very good · 2.5+ elite

RSI (flight/contact) above 2.0 is considered a strong reactive-strength profile — *Flanagan & Comyns 2008 (RSI guideline bands)*

Nordic Hamstring (limb avg.)
derived value

338 N V. GOOD



0+ low · 200+ moderate · 250+ good · 300+ very good

Typical female team-sport NordBord mean per limb ~230–300 N — *Opar et al. 2015 · NordBord female data (review)*

Nordic — weaker side
VALD: 72nd percentile

317 N V. GOOD



0+ low · 200+ moderate · 250+ good · 300+ very good

Eccentric hamstring strength and injury risk — *Opar et al. 2015 · Bourne et al. 2018*

Hip ER:IR (weaker)
VALD: —

0.67 IR DOMINANT



0+ IR dominant · 0.85+ low-balanced · 1+ balanced · 1.3+ ER dominant

Prone ER:IR around ~1.0 is considered balanced; marked deviations guide, not diagnose — *Literature review (hip rotator balance)*

20 m Sprint
lower time is better

3.364 s FAST



4.00 s slow · 3.60 low-mid · 3.45 mid · 3.30 good · 3.15 very good

Typical female basketball 20 m range ~3.2–3.6 s — *Scanlan et al. 2018 · Delextrat & Cohen 2009 (female basketball physical profile)*

5-0-5 COD
lower time is better

2.266 s MOD.



2.80 s slow · 2.50 low-mid · 2.35 mid · 2.20 good · 2.10 very good

Typical female team-sport 5-0-5 range ~2.2–2.5 s — *Nimphius et al. 2016 (505 methodology and normative data)*

7 · INJURY HISTORY ↔ MEASUREMENT SCOPE

REPORT / AREA	BATTERY EQUIVALENT	SCOPE
Right ankle sprain (February 2025)	The battery has **NO** ankle strength measures (plantar flexors, evertors). Landing stabilisation time, Hop RSI and Drop Jump give indirect information — all three rely on ankle load transfer.	INDIRECT
Right ankle pain during testing (active complaint)	The battery has **NO** ankle strength measures (plantar flexors, evertors). Landing stabilisation time, Hop RSI and Drop Jump give indirect information — all three rely on ankle load transfer.	INDIRECT
Side match (right)	Lagging measures on the **same side** as reported: Knee extension strength 13%; Land & Hold stabilisation time 26%. Directions match; but with no clinical exam, a **causal link is NOT ESTABLISHED** — this is an observed association, not a diagnosis.	SIDE MATCH
Foot/ankle force & pressure analysis	Not performed — recommended for foot-ankle distribution of landing load.	NONE
Knee joint loading & ACL risk mechanics	The battery's landing test gives duration only; movement quality (valgus, trunk angle) requires video-based assessment — SPORTOTEAM Video Lab recommended.	INDIRECT
Shoulder battery	Not performed; no conclusions on the upper limb can be drawn.	NONE

"NONE" rows are this report's scope limits: NO conclusions on that region CAN be drawn from this data; further clinical assessment is needed.

8 · ASSESSMENTS

HEALTH ASSESSMENT

Key findings

• **Marked finding.** Land & Hold stabilisation time: 0.51 / 0.69 (26%, right slower).

• **Differences in monitoring band.** Knee extension strength 13% (right). Nordic hamstring eccentric strength 12% (left). These differences carry no clinical meaning alone; confirm by retesting in 8–12 weeks.

• **Power profile.** CMJ 27.4 cm (VALD 53rd percentile); reactive profile: Drop Jump RSI 1.24 (27th percentile), Hop RSI 0.97 (12th percentile).

• **Eccentric hamstring.** Nordic 317 / 359 N (72nd / 89th percentile); limb average 338 N (derived).

Clinical assessment

• **Active pain reported: right ankle pain during testing.** Maximal test values may be affected by pain inhibition; this session's values should be read as **that day's capacity**, not a ceiling. Retesting in a pain-free period is clinically necessary. The cause of the pain should also be clarified by clinical examination.

• **Past history: right ankle sprain (Feb 2025).** Direct strength measures of these regions were not taken in the battery (section 7). Single-leg calf raise capacity (reps/ROM), calf girth comparison and ankle ROM are recommended in clinical examination.

• **Landing loading.** Stabilisation time is longer on the right (0.69 s; other side 0.51 s). As long stabilisation time is associated with peak force on joint surfaces during landing, it should be part of clinical monitoring for knee and ankle.

• **Areas not measured.** Plantar flexor strength, hip extension strength, shoulder battery and core endurance test were not performed this session; no conclusions can be drawn on these areas from this data.

PERFORMANCE ANALYSIS

Monitoring items

• Land & Hold stabilisation time: 0.51 / 0.69 s — 26% (right slower, marked).

• Knee extension strength: 386 / 336 N — 13% (right lagging, monitor).

• Nordic hamstring eccentric strength: 317 / 359 N — 12% (left lagging, monitor).

Programme recommendation

• **For landing control:** right single-leg drop landing → hop & hold (2 s stable criterion) → landing with direction change progression; 2–3× per week.

• **For knee extensor deficit:** single-leg leg press, split squat, Bulgarian split squat, single-leg leg extension; 2–3× per week, 1.5–2× volume on the right.

• **For eccentric hamstring:** Nordic/glute-ham raise 2× per week, extra set on the left; RDL and 45° hip extension with eccentric tempo.

• **For landing quality:** landing work with feedback (mirror/force plate); emphasise ankle-knee-hip sequencing and softer landings.

• **For valgus control:** banded hip external rotation and abduction, clam variations; add as a fixed block in the warm-up.

• **Priority order:** (1) Close the Land & Hold stabilisation time asymmetry (26%, right lagging) · (2) increase hip external rotator strength (valgus control).