SPV GEN AI PRO

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ATHLETE ASSESSMENT REPORT · DETAILED ANALYSIS · SAMPLE REPORT

SAMPLE VOLLEYBALL PLAYER REPORT

Volleyball · Male · Age 17

TEST DATE	TEST SYSTEM	REPORT DATE
18.09.2026	**VALD ForceFrame · ForceDecks · NordBord · HumanTrak · SmartSpeed**	**26.09.2026**

4	1	13	41%
WITHIN NORMAL LIMITS	MARKED ASYMMETRY	PARAMETERS MEASURED	HIGHEST ASYMMETRY

REPORTED INJURY HISTORY (ATHLETE-REPORTED)

Not reported — the athlete reported no previous injury or surgery.

No clinical examination was performed; findings were therefore not linked to any injury history and are interpreted only as performance and risk indicators.

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

1 · IDENTITY & SOURCE DATA

1.1 Identity Details

NAME	Sample Volleyball Player	DATE OF BIRTH	Removed
AGE	17	SEX	Male
SPORT	Volleyball	PLAYING POSITION	Not provided
HEIGHT / WEIGHT	Not provided	DOMINANT ARM / LEG	Not provided
TEST DATE	18.09.2026 (VALD report date)	REPORT DATE	26.09.2026

Sex taken as male from the VALD profile; not otherwise stated in source data. As height and body mass were not provided, absolute strength values (N) could not be normalised to body mass.

1.2 Source Data (A–G) & Additional Assessment

	SOURCE	STATUS	DESCRIPTION
A	Examination (physician)	NONE	Not performed — report contains no clinical examination findings
B	Dietitian	NONE	No nutrition or body composition data provided
C	Psychologist	NONE	No assessment performed
D	Genetics	NONE	No genetic analysis data
E	Gait / Foot & Posture	PARTIAL	VALD standing posture only (shoulder height); no foot pressure or gait analysis
F	Athletic Development	PRESENT	VALD battery — 13 parameters, the basis of this report
G	Coach Assessment	NONE	Not provided — position and training load unknown

ADDITIONAL ASSESSMENT AREA	STATUS	DESCRIPTION
Injury / surgery history	NOT REP.	Athlete reported no previous injury
Weekly training & jump load	NONE	Not reported — the main determinant of tendon load in volleyball
Growth / maturation status	ADVISED	Age 17: final phase of height growth; height monitoring advised

1.3 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-mobility battery	PRESENT	13 parameters form the basis of this report (ForceFrame, ForceDecks, NordBord, HumanTrak, SmartSpeed)
Clinical examination	NONE	Not performed
Absolute shoulder and hip rotator strength (N)	NONE	Output contains only ratios (IR:ER, Add:Abd) — no absolute strength data

AREA	STATUS	DESCRIPTION
Single-leg landing stabilisation (per side)	NONE	Land & Hold given as bilateral total time + asymmetry; no single-leg protocol
Ankle (plantar flexors, dorsiflexion ROM)	NONE	Not measured, despite being volleyball's most common acute injury site
Trunk endurance	NONE	Trunk measured only as ROM
Body composition, height-weight	NONE	Not reported — power and strength normalisation is limited
SPORTOTEAM field tests (hop LSI, sprint, balance)	ADVISED	Fills the battery's single-leg horizontal, speed 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. Each metric first gives the VALD percentile or VALD reference band (manufacturer's norm base), then the literature band (compiled from published studies). The two are deliberately kept separate.

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

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

Direction rule. VALD's 'Asym. X% Left/Right' label shows the HIGHER-value side. In strength the lagging side is the LOWER value; in landing stabilisation time it is the HIGHER (slower) value. Differences marked * are derived by the report.

3 · EXECUTIVE SUMMARY — PRIORITY FINDINGS

#	FINDING	VALUE	LAGGING / SLOW SIDE	STATUS
1	Land & Hold — landing stabilisation asymmetry (bilateral, 16th percentile)	**41%**	right	MARKED
2	CMJ peak power / BW — lowest performance percentile in the battery	**29th pct.**	—	MONITOR
3	Squat — knee flexion depth below reference on both sides	**88° / 89°**	—	MONITOR
4	Knee extension strength asymmetry (near monitoring threshold)	**8.8%**	left	WITHIN NORMAL
5	Nordic hamstring asymmetry (percentiles 31st / 26th)	**4.1%**	right	WITHIN NORMAL
6	Standing posture — shoulder height difference (3.5 cm)	**2.3%**	left lower	WITHIN NORMAL
7	Squat knee flexion side difference	**1.1%**	—	WITHIN NORMAL
8	Drop Jump peak power / BW — strongest value in the battery	**87th pct.**	—	STRONG

OVERALL PROFILE READING

• **Landing control is the priority:** in Land & Hold both absolute time (1.85 s — 16th percentile) and the side difference (41%, right slower) are marked. As landing is volleyball's main injury mechanism, this is the report's primary finding.

• **Power production and power control diverge:** Drop Jump peak power is at the 87th percentile (strong reactive output), but landing stabilisation is at the 16th. The athlete produces force quickly but struggles to brake it and settle on landing.

• **Concentric power in the lower-mid band:** CMJ 47.1 W/kg (29th percentile), SJ 47.1 W/kg (40th percentile). Identical values suggest the countermovement adds no power (derived ratio 1.00) — confirm with a retest. Main development area for above-net performance.

• **No consistent side pattern in strength asymmetries:** left lags in knee extension (8.8%), right in Nordic (4.1%) and right in landing stabilisation. All strength differences are below 10%; no one-sided strength deficit pattern is seen.

• **Muscle balance ratios are favourable:** shoulder IR:ER 1.12 / 1.18 and hip Add:Abd 0.96 / 1.00 — a protective profile for overhead and groin balance.

• **Range of motion profile:** squat knee flexion below reference on both sides (88° / 89°), trunk flexion above reference (152°), extension at the low end of normal (33°). As ankle dorsiflexion was not measured, the source of the squat limitation could not be identified.

4 · TEST ANALYSES

TEST 1 / 13

Shoulder Internal/External Rotation Ratio — Supine 90° (ForceFrame)

1.12 / 1.18 IR:ER — 5.1%*

Left — Right

*Difference and bar ratios derived by the report (VALD gave no asymmetry for this test)

WHAT IT TESTS

Ratio of shoulder internal to external rotator strength (IR:ER). A rotator cuff BALANCE metric, not absolute strength; values above 1 indicate internal rotator dominance.

PROTOCOL

Supine, shoulder 90° abduction + elbow 90° flexion; maximal isometric push into ForceFrame inward and outward, ratio reported by the device (no absolute N values in output).

SPORT CONTEXT

In volleyball spikes and serves, internal rotators accelerate the arm and external rotators brake it after ball contact.
In overhead athletes, external rotator deficit is the main imbalance linked to shoulder overload.

TRAINING IMPLICATION

1.12 / 1.18 — IR slightly dominant on both sides, ratio in a narrow range and sides close. External rotators appear relatively well preserved; a favourable balance for an overhead athlete. Without absolute strength or dominant arm data, interpretation is limited to the ratio. Recommendation: maintain balance with an eccentric ER-focused shoulder programme 1-2× per week.

TEST 2 / 13

Hip Adductor/Abductor Ratio — Custom (ForceFrame)

0.96 / 1.00 Add:Abd — 4.0%*

Left — Right

*Difference derived by the report

WHAT IT TESTS

Ratio of adductor (squeeze) to abductor (push-out) strength — the most established field indicator of groin health.

PROTOCOL

Supine, ForceFrame custom position, maximal isometric push inward and outward; ratio reported by the device, no absolute N values in output.

SPORT CONTEXT

Defensive lateral slides, side steps for blocking and pelvic control after single-leg landing rely on this balance.

TRAINING IMPLICATION

Both sides **within the ≥0.90 target band** (left 0.96, right 1.00); a protective, balanced groin profile. No extra adductor loading needed — Copenhagen-type adductor work can continue at in-season maintenance dose (1× per week).

TEST 3 / 13

Knee Extension Strength — Supine 90° (ForceFrame)

228 / 250 N 8.8%

Left — Right

VALD asymmetry: 8.8% · lagging side: LEFT (lower force)

WHAT IT TESTS

Maximal isometric force of the quadriceps at 90° knee flexion — the knee component of landing braking and jump propulsion.

PROTOCOL

Supine, hip and knee at 90° flexion; maximal forward push into ForceFrame at ankle level, each side separately.

SPORT CONTEXT

In volleyball the quadriceps brakes load on every block and spike landing; the patellar tendon is among the most loaded structures. A side-to-side strength gap can shift landing load to the stronger side.

TRAINING IMPLICATION

At 8.8%, the gap **is within normal limits but close** to the monitoring threshold (10%); left lags. No height/mass data, so no normalisation or percentile. Recommendation: single-leg knee-dominant strength on the left (split squat, single-leg leg press, step-down) 2× per week; target: gap below 5% at the 8–12 week retest.

TEST 4 / 13

Land & Hold — Max Time to Stabilisation, Bilateral Total (ForceDecks)

1.85 s 41%

VALD: 16th percentile · asymmetry 41% — slower side: RIGHT

In this test a LOWER time is better. The VALD label shows the higher-value (slower) side: RIGHT.

WHAT IT TESTS

Time for the body to 'settle into balance' on the force platform after landing — the most direct indicator of neuromuscular landing control. Output gives total time and side difference; no per-side times.

PROTOCOL

Box drop landing and hold (Land & Hold); the platform reports the time until the force curve stabilises.

SPORT CONTEXT

Landings are volleyball's core injury mechanism: ankle sprains occur largely on block landings and under the net, and patellar tendon load rises with landing count. For this athlete, landing control directly reflects match demands.

TRAINING IMPLICATION

Priority finding of the battery: both absolute level (16th percentile — slow stabilisation) and the side difference (41%, right slower) are marked. Programme: landing mechanics (soft landing, hip-knee-ankle sequencing) → double-leg stick landing → single-leg drop landing and hop & hold (2 s stable criterion), extra set on the right. Confirm with a retest whether the gap is session-specific.

TEST 5 / 13

Drop Jump — Max Peak Power / Body Weight (ForceDecks)

176.5 W/kg

VALD: 87th percentile

WHAT IT TESTS

Peak power relative to body mass in a single-contact jump after a box drop — power output of the fast stretch-shortening cycle (short contact).

PROTOCOL

Drop from a standard box, jump maximally with minimal contact; highest peak power reported.

SPORT CONTEXT

Quick second jumps after a block, fast reactions at the net and reactive take-offs depend on this quality.

TRAINING IMPLICATION

Strongest value in the battery (87th percentile). Reactive power output capacity is high. Note: drop jump peak power includes energy from the drop, so it is not on the same scale as CMJ/SJ power; compare via percentiles. Maintain this capacity, but until landing stabilisation (16th percentile) improves, keep high-box depth jumps limited.

TEST 6 / 13

Squat Jump — Max Peak Power / Body Weight (ForceDecks)

47.1 W/kg

VALD: 40th percentile

WHAT IT TESTS

Without countermovement, from a static half-squat position, peak power of the jump — pure concentric power capacity.

PROTOCOL

Hold half-squat ~2–3 s, maximal jump with no preparatory movement; hands on hips.

SPORT CONTEXT

In volleyball, explosive block take-offs from the ready position and static-start jumps rely on this capacity.

TRAINING IMPLICATION

Mid band (40th percentile). Concentric power clearly lags reactive power (87th percentile) — profile is 'fast elastic, limited slow muscular power'. Development path: maximal strength (squat, trap bar deadlift) + speed-strength (loaded jumps, jump squat) block.

TEST 7 / 13

Countermovement Jump — Max Peak Power / Body Weight (ForceDecks)

47.1 W/kg

VALD: 29th percentile

WHAT IT TESTS

Peak power relative to body mass in a vertical jump with a countermovement (slow stretch-shortening cycle) — the key field indicator of lower-limb power.

PROTOCOL

Standing start, quick dip-and-jump; hands on hips, best trial reported.

SPORT CONTEXT

The direct physical counterpart of block and spike jumps; the key indicator of above-net dominance in volleyball.

TRAINING IMPLICATION

Lowest performance percentile in the battery (29th). Identical CMJ and SJ power (47.1 / 47.1 W/kg) suggests the countermovement adds no power (derived ratio 1.00; typically CMJ > SJ). This may reflect inefficient use of the slow stretch-shortening phase or a measurement/trial issue — confirm values with a retest. Recommendation:

maximal strength block + CMJ technique work (fast, not-too-deep dip).

TEST 8 / 13

Nordic Hamstring Eccentric Strength (NordBord)

312 / 299 N 4.1 %

Left — Right

31st / 26th pctl · lagging side: RIGHT (lower force)

WHAT IT TESTS

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

PROTOCOL

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

SPORT CONTEXT

Hamstring load in volleyball is lower than in running sports, but landing braking, sudden defensive moves and take-off push need eccentric hamstring capacity.

TRAINING IMPLICATION

Sides balanced (4.1%). Absolute level exceeds the ~256 N threshold common in adult male team-sport literature, but VALD percentiles (31st / 26th) show it is below the age-sex norm. Recommendation: Nordic programme and eccentric-focused RDL 1–2× per week; target on both sides approaching the 50th percentile.

TEST 9 / 13

Squat — Maximum Knee Flexion (HumanTrak/VALD)

88 / 89 ° 1.1%

Left — Right

VALD: both sides 'Slightly below' · reference band ~100–133°

WHAT IT TESTS

Maximum knee flexion angle reached during the squat — a measure of range of motion and squat depth, not strength.

PROTOCOL

Standing maximal deep squat with bodyweight only; the optical system records the peak angle of both knees.

SPORT CONTEXT

Dropping into the defensive (dig) position, playing low balls and absorbing landing load through deep flexion all rely on this range.

TRAINING IMPLICATION

Sides are symmetrical (1.1%) but both are below the reference band — squat depth is limited. Possible contributors (ankle dorsiflexion, hip mobility, trunk control) were not measured; an ankle dorsiflexion test (knee-to-wall) is recommended. Recommendation: depth work with goblet squats, ankle and hip mobility routine.

TEST 10 / 13

Trunk Extension — Maximum Peak (HumanTrak/VALD)

33 ° WITHIN NORMAL

VALD: Within normal limits · reference band ~31–52°

WHAT IT TESTS

Peak backward range of motion of the trunk — a MOBILITY measure, not strength.

PROTOCOL

Standing maximal controlled backward bend; peak angle is recorded.

SPORT CONTEXT

Trunk arching (bow position) in spikes and serves uses this range; in volleyball much of the lower-back load comes from extension-rotation movements.

TRAINING IMPLICATION

Within normal limits, but near the lower end of the band (33°). Extra mobility work is not required; thoracic extension mobility should be maintained so that trunk arching in the spike comes from the thoracic spine, not the lower back.

TEST 11 / 13

Trunk Flexion — Maximum Peak (HumanTrak/VALD)

152 ° ABOVE

VALD: Slightly above · reference band ~113–138°

WHAT IT TESTS

Peak forward range of motion of the trunk; values above the band indicate a wide ROM.

PROTOCOL

Standing maximal forward bend; peak angle is recorded.

SPORT CONTEXT

An advantage when dropping into defensive positions and reaching for low balls; however, if wide ROM is not supported by trunk strength, loading on lumbar segments may increase.

TRAINING IMPLICATION

Wide forward (152°), low end of the band backward (33°) — an asymmetric trunk movement profile. The battery has no trunk endurance measure; anti-extension / anti-rotation core work and a trunk endurance test (e.g. McGill battery) are recommended.

TEST 12 / 13

Standing Posture — Shoulder Height (HumanTrak/VALD)

146.0 / 149.5 cm — 2.3%

Left — Right

VALD asymmetry 2.3% — higher side: RIGHT · left shoulder 3.5 cm lower

WHAT IT TESTS

Left/right shoulder height difference in static stance — a rough single-session symmetry screen.

PROTOCOL

Optical measurement in natural stance; both shoulder heights are reported in cm.

SPORT CONTEXT

In volleyball, a lower shoulder on the dominant (hitting) arm side is a common adaptation; dominant arm is not stated in this report.

TRAINING IMPLICATION

The relative difference is within normal (2.3%), but the absolute difference is 3.5 cm. Interpret with dominant-arm information and dynamic scapular assessment; as growth ends around 17, posture monitoring and, if needed, spinal screening (Adams forward bend test) are recommended.

TEST 13 / 13

5-0-5 Change of Direction — Total Time (SmartSpeed)

2.369 s

VALD trend indicator: ↑365% (vs. previous trial — not interpretable, see Training Implication)

In this test a LOWER time is better.

WHAT IT TESTS

Time for a 5 m run, 180° turn and 5 m run back — change-of-direction and deceleration ability.

PROTOCOL

After a run-in, passing through the timing gate, 180° turn at the line, sprint back to the gate; SmartSpeed reports total time.

SPORT CONTEXT

In volleyball, short changes of direction after defence and blocks, lateral shuffles along the net and sudden stops use this quality.

TRAINING IMPLICATION

2.369 s is given as a single value; turn side (left/right) is not stated in the output, so change-of-direction asymmetry cannot be assessed. The ↑365% trend indicator in the output is calculated against the previous trial; as the previous value appears physiologically implausibly short, it likely stems from an invalid trial, so this report does not interpret this change. Recommendation: at the next assessment, record both turn sides separately.

5 · SYNTHESIS: LANDING CONTROL, POWER PROFILE & MUSCLE BALANCE

Landing control vs power production — dissociation

MEASURE	VALUE	VALD	SIDE INFO	READING
Land & Hold stabilisation time	**1.85 s**	**16th pct.**	Asym. 41% — right slower	Slow and asymmetric landing
Drop Jump peak power / BW	**176.5 W/kg**	**87th pct.**	Bilateral	Strong reactive power

The athlete can produce force quickly but cannot control that force on landing to the same degree. This profile is especially important in volleyball: higher jump capacity means higher landing load. **Conclusion:** plyometric load increases should be limited until landing control is corrected; priority should go to landing mechanics and single-leg stabilisation training.

Power profile — reactive, slow SSC and concentric

TEST	POWER / BW	VALD PERCENTILE	QUALITY
Drop Jump	**176.5 W/kg**	**87th**	Fast stretch-shortening (short contact)
Countermovement Jump	**47.1 W/kg**	**29th**	Slow SSC (countermovement)
Squat Jump	**47.1 W/kg**	**40th**	Pure concentric power
CMJ : SJ ratio (derived)	**1.00**	**—**	Countermovement appears to add no power

The percentile ranking (DJ 87 → SJ 40 → CMJ 29) shows the athlete is strong on the elastic-reactive side and limited in muscular power and slow SSC. Development priority is a maximal strength and speed-strength block.

Lower-limb asymmetries — side consistency

MEASURE	LEFT	RIGHT	ASYMMETRY	WEAK SIDE
Knee extension strength	**228 N**	**250 N**	**8.8%**	**left**
Nordic hamstring eccentric strength	**312 N**	**299 N**	**4.1%**	**right**
Squat — knee flexion	**88°**	**89°**	**1.1%**	**—**
Land & Hold stabilisation	**—**	**—**	**41%**	**right**

The measures do not point to the same side: strength differences are small and mixed in direction, while in landing control the right side clearly lags. Landing asymmetry should therefore be read as a **motor control difference** rather than a strength deficit.

Muscle balance ratios

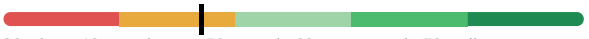
RATIO	LEFT	RIGHT	TARGET / REFERENCE	ASSESSMENT
Shoulder IR : ER (supine 90°)	**1.12**	**1.18**	Balanced band	IR slightly dominant, ER preserved — positive
Hip Add : Abd (custom)	**0.96**	**1.00**	≥0.90 target · <0.80 at risk	Both sides on target — protective

6 · LITERATURE COMPARISON

The needle is the athlete's position; coloured bands are broad ranges from a literature review (not strict norms). Where age/sex-matched references are limited, the VALD percentile should take priority.

CMJ Peak Power / BW
VALD: 29th percentile

47.1 W/kg MOD-LOW

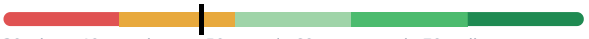


30+ low · 40+ moderate · 50+ good · 60+ very good · 70+ elite

Adolescent/young male athlete peak power reviews — *Sayers et al. 1999 (peak power) · VALD norm database*

Squat Jump Peak Power / BW
VALD: 40th percentile

47.1 W/kg MOD.



30+ low · 40+ moderate · 50+ good · 60+ very good · 70+ elite

Same reference band as CMJ — *Adolescent athlete jump power reviews*

CMJ : SJ (derived)
Calculated from power

1.00 LIMITED



<1.0 atypical · 1.0+ limited · 1.05+ moderate · 1.10+ good · 1.15+ strong SSC

The original index (EUR) uses jump height; here it is derived from power — *McGuigan et al. 2006 (eccentric utilisation ratio)*

Nordic Hamstring (limb avg.)
VALD: 31st / 26th percentile

305.5 N MOD.



0+ low · 256+ above threshold · 300+ moderate · 350+ good · 400+ very good

Limb average is derived; the 256 N threshold is from adult male team-sport data — *Opar et al. 2015 (eccentric hamstring strength and risk)*

Hip Add:Abd (weaker side)
Left

0.96 MET



0.6+ at risk · 0.8+ acceptable · 0.9+ on target · 1.0+ balanced · 1.1+ adductor dominant

Add:Abd ≥0.90 target; <0.80 linked to groin injury risk — *Thorborg et al. (adductor-abductor strength studies)*

5-0-5 Total Time
VALD: no percentile given

2.369 s OK



2.8 s low · 2.6 mod · 2.45 good · 2.35 v.good · 2.25 elite (faster →)

Broad range for young male team-sport athletes; turn side not stated — *Nimphius et al. (5-0-5 change-of-direction test)*

7 · INJURY HISTORY & MEASUREMENT SCOPE

REGION / TOPIC	COVERAGE IN BATTERY	SCOPE
Reported injury history	Athlete's statement: no previous injury or surgery. Not verified by clinical examination.	NOT REP.
Ankle (most common acute injury in volleyball)	No plantar flexor strength, dorsiflexion ROM or single-leg balance measure. Land & Hold (41%, right slower) gives only indirect information.	INDIRECT
Knee / patellar tendon (landing load)	Knee extension strength (228 / 250 N) and landing stabilisation were measured; no tendon load or pain information.	PARTIAL
Shoulder (spiking/serving arm)	IR:ER ratio only; no absolute strength, ROM or dominant-arm data.	PARTIAL
Lower back / trunk	Trunk flexion-extension ROM available; trunk endurance not measured.	PARTIAL

As no injury history was reported, this report does not link any finding to a past injury. 'Indirect' and 'Partial' rows indicate that only limited conclusions about that region can be drawn from this data.

8 · ASSESSMENTS

HEALTH ASSESSMENT

Key findings

• Slow landing stabilisation (1.85 s — 16th percentile) and a marked side difference (41%, right slower).

• Strength asymmetries within normal limits: knee extension 8.8% (left lagging), Nordic 4.1% (right lagging); no consistent one-sided deficit.

• Squat depth below reference on both sides (88° / 89°); trunk flexion above reference (152°).

Clinical assessment

• **Landing and ankle:** in volleyball a large share of acute injuries occur at the ankle and during landing. Due to slow right-side stabilisation, a clinical ankle examination (ligament stability, dorsiflexion ROM) and a single-leg balance test are recommended.

• **Anterior knee load:** high reactive power (DJ 87th percentile) combined with slow landing control may increase patellar tendon load. Ask the athlete about anterior knee pain; start post-training pain-stiffness monitoring (0–10).

• **Posture:** left shoulder 3.5 cm lower (2.3%). As 17 is the final stage of growth, spinal screening with the Adams forward bend test and assessment alongside dominant-arm information are recommended.

• **Missing data:** height-weight not provided; strength values could not be normalised, so anthropometrics should be recorded at the next assessment.

PERFORMANCE ANALYSIS

Monitoring items

• **Landing control (primary):** Land & Hold 16th percentile and 41% difference — absolute time and asymmetry should be addressed together; confirm with a retest.

• **Power profile:** DJ 87th → SJ 40th → CMJ 29th percentile; identical CMJ and SJ power values (47.1 W/kg) should be checked for trial quality.

• **Range of motion:** squat depth limited; measure ankle dorsiflexion (knee-to-wall test) to clarify the source of the restriction.

Programme recommendation

• **Landing control:** soft landing and hip-knee-ankle sequencing training → double-leg stick landing → single-leg drop landing and hop & hold (2 s stable hold criterion); extra set on the right. 2–3 sessions per week, built into the warm-up.

• **Power development:** maximal strength (squat, trap bar deadlift) + speed-strength (jump squat, loaded CMJ) block; CMJ technique work (fast, controlled countermovement).

• **Plyometric load:** reactive capacity is high, so no volume increase is needed; limit high-box depth jumps until landing control improves, and plan weekly jump/contact counts.

• **Strength balance:** single-leg knee-dominant strength on the left (split squat, step-down); Nordic and eccentric RDL 1–2× per week (target 50th percentile).

• **Mobility and trunk:** ankle dorsiflexion and hip mobility routine, depth work with goblet squats; anti-extension / anti-rotation core strength.

• **Shoulder protection:** keep the current IR:ER balance via an eccentric external-rotator programme.