

VIBEMOTION LABS · ATHLETE RECOVERY

PHASE 4 OF 5

Power & *Plyometrics*

\$50

Rebuild explosive power, reactive strength, and landing mechanics for sport-specific demands. Timeline: Weeks 7–12 · Pain target: 0/10 during, 24 hrs after, and during next-day warm-up

PHASE GOALS

- Develop reactive strength and landing mechanics for bilateral and unilateral jumps
- Rebuild explosive power output in the injured limb (target: LSI \geq 90%)
- Train deceleration and change-of-direction movement patterns
- Introduce sprint mechanics and running at progressive intensities
- Achieve LSI \geq 90% on hop testing before Phase 5 clearance

PAIN MONITORING RULE

Before each session: record pain score (0–10). Do not exercise if pain $>$ 4/10. During exercise: pain must stay \leq 3/10. Stop if it exceeds this at any point. After session: pain must return to your pre-exercise baseline within 30 minutes.

PHASE 4 EXERCISES — 3–4 days per week

Perform a 10-minute general warm-up (jogging, dynamic mobility) before each session.

01 Box Jump (Bilateral)

Explosive Power / Landing Mechanics

SETS	REPS / TIME	LOAD	TEMPO	REST
3–4	6–8 reps	Bodyweight · Box height: 12" → 18" → 24"	Max effort jump / stick landing 2 sec	2–3 min

HOW TO PERFORM

1. Stand 12 inches in front of the box, feet hip-width, slight quarter-squat.
2. Swing your arms back, then explosively drive them forward and upward while jumping.
3. Push through both feet simultaneously — this should be a fully bilateral effort.
4. Land softly on both feet on top of the box. Land on the balls of your feet first, then settle into your heels.
5. Absorb the landing through your ankles, knees, and hips — DO NOT land with locked knees.
6. Hold your landing for 2 full seconds to demonstrate control before stepping down.
7. Step back down to the floor (do not jump down) and reset before the next rep.
8. Focus on landing quality before increasing box height.

COACHING CUES

- *Your knees must track over your toes on landing — watch for inward collapse in a mirror.*
- *A loud landing is a bad landing. Train for silent feet.*
- *If you cannot stick the landing for 2 seconds, the height is too high — reduce it.*

PROGRESS WHEN

When 4x8 at 18" box with consistently silent, controlled landings — increase box height or add load.

■ *Do not progress to single-leg work until bilateral form is perfect.*

02 Single-Leg Hop and Stick

Unilateral Power / Reactive Stability

SETS	REPS / TIME	LOAD	TEMPO	REST
3	5–6 reps per leg	Bodyweight	Max effort hop / stick landing 3 sec	90 sec between legs

HOW TO PERFORM

1. Stand on the injured leg with a slight bend in the knee and hip.
2. Swing your arms for momentum and hop forward as far as possible.
3. Land on the same foot — landing on the ball of the foot, then lowering the heel.

4. Absorb through the ankle, knee, and hip — aim for a 45° knee angle on landing.
5. Stick the landing completely still for 3 seconds — no adjusting steps allowed.
6. If you cannot stick the landing, the hop was too long — dial back the distance.
7. Record the distance of each hop to track limb symmetry across sessions.
8. Compare hop distance: injured leg should reach $\geq 90\%$ of the uninvolved leg.

COACHING CUES

- *Every landing is a diagnostic — each wobble tells you which stabilisers need more work.*
- *Do not chase distance at the expense of landing quality.*
- *A stable landing means the hip, knee, and ankle are all loaded — not just the ankle.*

PROGRESS WHEN

When LSI $\geq 90\%$ on single-leg hop distance for 3 consecutive sessions.

03 Depth Drop to Bilateral Jump

Reactive
Strength /
Stiffness

SETS	REPS / TIME	LOAD	TEMPO	REST
3	6 reps	Bodyweight · Drop height: 6" → 12"	Minimum ground contact — immediate jump	2 min

HOW TO PERFORM

1. Stand on a low box (6 inches initially) at its edge.
2. Step off — do not jump off — by leaning forward until you fall to the ground.
3. Land on both feet simultaneously, absorb for a split second, then immediately jump as high as possible.
4. The goal is minimum ground contact time — the shorter the time between landing and takeoff, the better.
5. Land the second jump with controlled mechanics, sticking for 2 seconds.
6. Think: step off → land → explode → land → stick.
7. This exercise trains stretch-shortening cycle — the elastic energy that drives athletic speed.

COACHING CUES

- *'Quick and stiff ankles' on ground contact — like jumping on a hot surface.*
- *Your torso should stay relatively upright through the entire sequence.*
- *If your knees buckle on the initial landing, reduce box height and strengthen further before retrying.*

PROGRESS WHEN

When 3x6 from 12" with minimal ground contact time and perfect landing mechanics.

- *Skip this exercise if there is any residual pain — it places maximum load on the healing tissues.*

04 Lateral Bound (Skater Jump)

Lateral Power /
Abductor
Strength

SETS	REPS / TIME	LOAD	TEMPO	REST
3	8 reps per side	Bodyweight	Explosive lateral push / stick 2 sec	90 sec

HOW TO PERFORM

1. Stand on the injured leg, slight knee bend, lean slightly from the hip.
2. Explosively push off the injured leg, propelling yourself sideways as far as possible.
3. Land on the opposite (uninvolved) leg and absorb the landing — stick for 2 seconds.
4. From the uninvolved leg, drive back toward the injured side.
5. Each push-off and landing counts as 1 rep per side.
6. Record distance: goal is symmetrical distance from both sides.
7. Use your arms — opposite arm forward to the landing leg — like a speed skater.

COACHING CUES

- *The push-off should come from the glute and inner quad, not just the calf.*
- *Land on a bent knee — never a straight leg.*
- *If you feel the injured ankle or knee 'giving', reduce distance and build confidence.*

PROGRESS WHEN

When lateral bound distance LSI \geq 90% for 3 sessions.

05 Progressive Running Protocol

Cardiovascular
Fitness /
Running
Mechanics

SETS	REPS / TIME	LOAD	TEMPO	LOAD	REST
5 days/wk	Per schedule below	Bodyweight	See schedule		N/A — structured sessions

HOW TO PERFORM

1. Begin with Walk-Jog intervals on a flat surface only.
2. Week 1: Walk 2 min / Jog 1 min \times 8 intervals. Total: 24 min. Pain must be 0/10 throughout.
3. Week 2: Walk 1 min / Jog 2 min \times 8 intervals. Total: 24 min.
4. Week 3: Jog 20 minutes continuous at 60% effort. No interval walks.
5. Week 4: Run 20 minutes at 75% effort. Introduce mild directional changes on final 5 min.
6. After Week 4: Begin sport-specific running patterns — figure-8s, shuttle runs, cutting at 45° then 90°.
7. Always warm up with 5 min walking. Always cool down with 5 min walking.

COACHING CUES

- *Run on a flat, forgiving surface — avoid camber (sloped roads) until Phase 5.*
- *Footstrike should be midfoot — not heel striking, which increases impact forces significantly.*
- *If any session produces pain > 2/10, repeat that week before advancing.*

PROGRESS WHEN

When 20-min run at 75% is pain-free and sport-specific patterns are controlled.

06 Triple Hop for Distance

LSI Assessment
& Power

SETS	REPS / TIME	LOAD	TEMPO	REST
1 (test only, weekly)	3 hops per leg	Bodyweight	Max effort	Full recovery between legs

HOW TO PERFORM

1. Stand on one leg at a marked starting line.
2. Hop forward three consecutive times, landing and immediately hopping again on the same leg.
3. On the third landing, stick and hold for 2 seconds.
4. Measure the total distance from the starting line to the heel of the landing foot.
5. Perform 3 trials per leg and record the best distance for each.
6. $LSI = (\text{injured leg best distance} \div \text{uninvolved leg best distance}) \times 100$.
7. Target: $\geq 90\%$ LSI before clearance for Phase 5.

COACHING CUES

- *Perform this as a weekly benchmark test, not as a training exercise.*
- *Distance improvement from week to week is the key metric — track it carefully.*
- *If LSI drops below 85% after increasing training load, ease back and reassess.*

PROGRESS WHEN

When LSI $\geq 90\%$ on triple hop for 2 consecutive testing sessions.

■ *Do not use this as a training drill — excessive repetition risks re-injury.*

PHASE 4 COMPLETION CRITERIA

- Triple hop LSI $\geq 90\%$ on injured vs. uninvolved leg for 2 consecutive sessions
- Single-leg hop and stick: controlled landing for 3 sec, 5/5 attempts
- Running at 75% speed for 20 min — pain-free during and 24 hrs after
- Lateral bound LSI $\geq 90\%$
- Box jump 18": 4x6 with silent, controlled bilateral landings
- Fear of re-injury score (Kinesiophobia): ≤ 3 out of 10 (self-rated)