

# PHYSICAL EXERCISE SCREEN: INTERMEDIATE

## ASSESSMENTS

### I. CADENCE: TOTAL STEPS PER MINUTE

Goal: increase cadence to improve stride quality

Safe range: minimum 160 ● performance/elite 180+

- Count number of steps for 10 seconds, multiply x6.

If below 160: use BPM app to increase cadence > 170

If 160-180: try drills or app to maintain or increase to 180+

ASSESSMENT:

Cadence: \_\_\_\_\_ steps/min

180+ OK!

below 160- use app

160-180- try drills

### II. ARM ASSESSMENT

Goal: keep arms loose and free for better performance

- Watch runner's arm movements from the side.

- Is arm movement symmetric?  YES  NO
- Do arms fold?  YES  NO
- Are hands loose?  YES  NO

ASSESSMENT:

good form/mobility

needs symmetry

loosen movement

loosen grip

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## EXERCISE TESTS

### I. BRIDGE LEVEL 2

Goal: improve core (trunk and spine)

- Single leg bridge hold for 60 seconds?

- Hold straight without slump?  YES  NO
- Unable to hold?  YES  NO

If "NO" to either, then practice single leg repeats.

ASSESSMENT:

single leg bridge repeats until hold for 60s

advance to exercises on feet.

### II. BALL HAMSTRING TEST

Goal: improve hamstring strength

- Single leg ball curl- try for 40 reps in 60 seconds

- 40+ in left?  YES  NO
- 40+ in right?  YES  NO

If "NO" to either, then practice double ball curls.

ASSESSMENT:

work on simple double leg curls

do advanced hamstring exercises on feet

### III. SINGLE LEG STEP UP

Goal: improve single leg balance for better form

- Step up to flat surface and hold for 30 sec
- Alternative: Step up to any platform and hold for 30 sec

- Able to hold 30s+ left?  YES  NO
- Able to hold 30s+ right?  YES  NO

If "NO" to either, then practice single leg step ups.

ASSESSMENT:

single leg step up repeats until can hold 30s

BOSU exercises

# RUN PERFORMANCE CLINIC

## Assessments: INTERMEDIATE

Efficient form is important for runners. Visually impaired runners can benefit from analysis of their running style to improve performance.

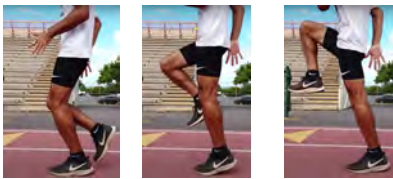
### CADENCE

Definition: number of steps per minute of running

Goal: "Safe" range is 160-180 steps/minute. Elite runners are often 180+.

Directions: count the number of steps for 10 seconds and multiply x6. \_\_\_\_\_ steps/min.

- If slower than 160, increase steps in 4-6 steps/min increments until 160+ is reached.
- If running faster than 5 min/km, then try increasing steps per minute towards 180.
- Can use pacing app, or use timer and aim for 28-30 steps per 10 seconds.
- Can try the following drills 3x a week to increase cadence:



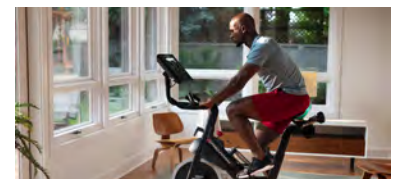
#### A-SKIP DRILL

Skip in place as fast as possible for 30 seconds, 3-5 sets total.



#### HIGH KNEE DRILL

Run in place with high knees for 30 seconds, 3-5 sets total.



#### STATIONARY CYCLING

Cycle for 3-5 minutes at 90 revolutions per minute.

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### ARM MOTION

Definition: movement of arm during gait cycle.

Goal: Free, relaxed motion, with good mobility that promotes forward running motion.

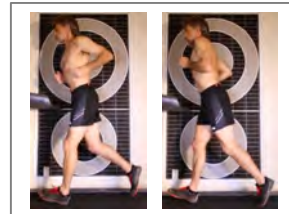
\*VI runners often have restricted arm motion (tether, hesitancy, habit, etc.).

Directions: Observe motion of both arms.

- Look for symmetry- both arms should move the same (as close as possible).
- Fists should be relaxed, not clenched (hold tether loose)
- Look for arms to fold with forward motion- avoid rigid/fixed movement.



Too rigid!



Good fold/motion!

# RUN PERFORMANCE CLINIC

## INTERMEDIATE Strength Test: Bridge

The bridge is a simple exercise that is great for the "runner's core". Do an intermediate bridge variation for better core strength and stability.

### The SINGLE-LEG BRIDGE test:

Start in regular bridge position (1). Lift leg for single leg "bridge" position, hold for 30 seconds(2).



- If you cannot hold proper position, or if you got tired early, start at level 1.
- If the test was easy to maintain form for 30 seconds, then start at level 2.

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### Level 1: 4-8 weeks

#### BRIDGE SINGLE LEG SHORT HOLD REPEATS

Use the above test as an exercise. Hold for 2-3 seconds, then return trunk to ground. Repeat 5 times. As you get stronger, increase hold time to reach 30 seconds. WHEN ABLE TO HOLD FOR 30 SECONDS, THEN ADVANCE TO LEVEL 2.

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### Level 2 (intermediate): 4-8 weeks

#### BRIDGE WALKS

Get into double leg bridge position on heels. Walk heels forward, then back to start position, repeat 10 times, 2 sets. AFTER 4-8 WEEKS, WHEN THIS IS EASY, MOVE TO LEVEL 3.



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### Level 3 (advanced):

#### SUMO SQUAT SIDE WALKS

First, do single leg bridge and hold for 30 seconds each leg. Then do sumo squats: Get into squat position, legs apart. Take 5 steps to the left, then take 5 steps to the right. Repeat for total 5 repetitions or 60 seconds.

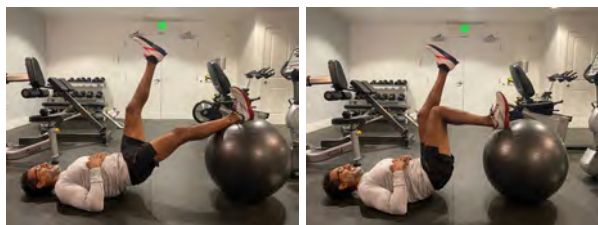


# RUN PERFORMANCE CLINIC

## INTERMEDIATE Strength Test: Hamstrings

The hamstrings are the muscles in the back of your thighs. These muscles are very important for runners, but are often weak. Hamstring workouts will help improve running performance.

### HAMSTRING TESTS



#### **HAMSTRING BALL CURL TEST**

Lie on ground with one foot on ball as shown. Roll foot on ball back and forth for 60 seconds.

**Goal: 40 repetitions.**

OR



#### **BENT STEP BACK TEST**

Stand in crouch with feet together. Step back and return, each leg, for 60 seconds.

**Goal: 40 repetitions.**

- If less than 40 repetitions, then go to level 1.
- If 40+ repetitions, then go to level 2.

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### Level 1 (beginners): 4-8 weeks: HAMSTRING BALL CURLS OR BENT STEP BACKS

*Do either test above as an exercise. Start with 30 seconds of curls/steps with goal of 20 repetitions. Then increase time gradually until able to do 40 repetitions for 60 seconds.*

**MOVE TO LEVEL 2 WHEN ABLE TO DO 40 REPETITIONS IN 60 SECONDS.**

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### Level 2 (intermediate): HAMSTRING DEADLIFTS

*Stand on single leg and hold weight. Lower the weight to foot and raise to standing position, keeping leg straight. Repeat 10 times, 2 sets.*

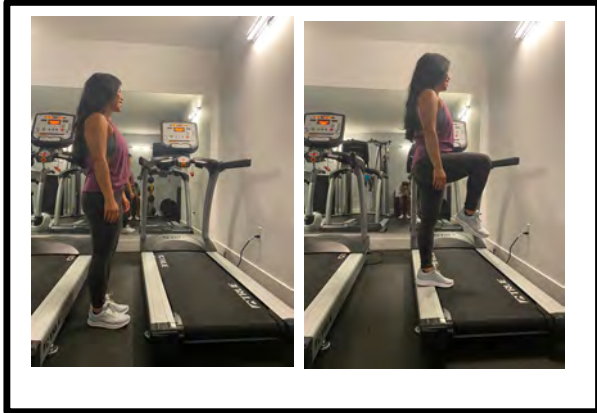




# RUN PERFORMANCE CLINIC

## INTERMEDIATE Strength Test: Balance

Balance training improves running performance while decreasing risk of injuries. Visually impaired runners need excellent balance to overcome limitations in visual cues.



### STEP-UP BALANCE TEST

Step up to raised flat surface (10 cm), balance on high single leg for 20 seconds.

- If it was difficult to hold the balance position for 30 seconds, then start at level 2.
- If it was easy to balance for 20 seconds, start with advanced exercises.
- **\*\*This test must be done with supervision.**

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### Level 1 (4-8 weeks): STEP-UP REPEATS

Use the test above as an exercise. Step up to a stable raised flat surface 10 cm off the ground, balance on high single leg for 3-5 seconds, return to ground, repeat for total 5 repetitions each leg. Add balance time with goal of 20 seconds.

**WHEN YOU CAN BALANCE FOR 20 SECONDS, THEN MOVE TO LEVEL 2**

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### Level 2 (4-8 weeks): STEP-UP REPEATS ONTO BOSU

Step up to a stable raised flat surface, balance on single leg for 2-3 seconds, return to ground, repeat for total 5 repetitions each leg. Add balance time with goal of 20 seconds.

**WHEN YOU CAN BALANCE FOR 20 SECONDS, THEN MOVE TO LEVEL 3**



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### Level 3 (advanced): BOSU TOE TOUCH

Stand on one leg and balance on BOSU. Bend down to touch toe, return to standing position. Repeat 5-10 times, 2 sets.

