

Strength training plan for runners

A 16-week phased plan built around one race. Two sessions a week through Foundation and Build, one to two through Peak, and a single maintenance session across the taper. Every exercise targets the glutes, hips, core, hamstrings, or calves.

Print this pack and keep it with your training log. Fill in your race date first, then work backwards to find the week you are starting on.

YOUR RACE

Name _____ Race and distance _____

Race date _____ mm / dd / yyyy Plan start date _____ mm / dd / yyyy Strength days each week e.g. Mon + Thu

Which block of the plan applies to your distance

- ☐ Marathon: run all 16 weeks ☐ Half marathon: run weeks 1 to 12 ☐ 5K: run weeks 1 to 8

THE 16 WEEKS AT A GLANCE

Phase	Weeks	Sessions	Length	Rest	What the phase is for
1. Foundation	1-4	2 per week	30-35 min	45-60 sec	Movement quality, mobility, and activation on bodyweight or light load
2. Build	5-10	2 per week	40-50 min	60-90 sec	Progressive loading and single-leg strength, where most gains happen
3. Peak	11-14	1-2 per week	30-40 min	2-3 min	Power and peak strength while running volume is at its highest
4. Taper	15-16	1 per week	20-25 min	Full	Hold the strength you built without carrying fatigue to the start line

Fewer than two sessions a week gives diminishing returns in the Foundation and Build phases. Dropping to one session during Peak is normal, because running volume is what matters most in those four weeks.

WARM-UP BEFORE EVERY SESSION (8 TO 10 MINUTES)

- Five minutes easy jogging, cycling, or brisk walking
- Leg swings front to back, 10 per leg
- Leg swings side to side, 10 per leg
- Walking lunge with a trunk rotation, 8 per leg
- Glute bridge, 15 reps, squeezing at the top
- Clamshell, 15 per side
- Knee-to-wall ankle rocks, 10 per leg
- Two build-up sets of your first lift at half load

Cool down with five minutes of easy walking, then hold a calf, hip flexor, and hamstring stretch for 30 seconds each side.

WHERE THE SESSIONS GO IN YOUR RUNNING WEEK

- ☐ Two strength days with three or four days between them, such as Monday and Thursday
- ☐ Strength after a hard run on the same day, or at least six hours later
- ☐ Never the day before a long run or a key session
- ☐ Move a session rather than skip it when the week gets busy

PHASE 1: FOUNDATION, WEEKS 1 TO 4

Load is light and reps are higher. These four weeks are for learning the movement patterns, building work capacity, and waking up the glutes and hip stabilizers before you ask them to hold up under load. Run session A and session B on your two strength days, in either order.

Session A Foundation, weeks 1 to 4

Exercise	Sets x reps	Rest	What to focus on
Bodyweight squat	3 × 12-15	45-60s	Knees track over the middle toes, heels stay down
Glute bridge	3 × 15	45s	Drive through the heels, hold the top for two seconds
Step-up on a bench or stair	3 × 10-12 per leg	60s	Step down slowly instead of dropping off the box
Plank hold	3 × 30-60 sec	45s	Ribs down, hips level, no sagging at the low back
Calf raise, both legs	3 × 15	45s	Full height at the top, slow lower to the floor
Clamshell	2 × 15 per side	45s	Pelvis stays still, only the top knee moves

Session B Foundation, weeks 1 to 4

Exercise	Sets x reps	Rest	What to focus on
Split squat, bodyweight	3 × 10 per leg	60s	Back knee travels straight down, front shin stays vertical
Single-leg deadlift, no load	3 × 8-10 per leg	60s	Hips square to the floor, reach the back leg long
Dead bug	3 × 8 per side	45s	Low back pinned to the floor for every rep
Lateral band walk	3 × 12 steps each way	45s	Stay low, keep tension on the band the whole set
Push-up or incline push-up	3 × 8-12	45s	Body in one line, elbows at about 45 degrees
Single-leg calf raise	3 × 10 per leg	45s	Hold a wall for balance, not for support

BEFORE YOU MOVE ON TO BUILD

Week 4 is the checkpoint. Tick each line honestly, because the Build phase adds external load to whatever movement quality you finish Foundation with.

- ☐ Eight sessions completed, or close to it
- ☐ Bodyweight squat to depth with heels flat
- ☐ Single-leg deadlift held without the hip dropping
- ☐ Plank held for a full 60 seconds
- ☐ Step-downs controlled, not dropped
- ☐ No new pain during or after a session

Anything unticked is a reason to repeat a week, not to push on. Loading a pattern you cannot yet control is where most runners pick up the injury they were trying to avoid.

PHASE 2: BUILD, WEEKS 5 TO 10

External load comes in here, using dumbbells, resistance bands, or a barbell. Single-leg work challenges balance and stability at the same time. Most of your strength gain across the 16 weeks happens in these six weeks.

Session A Build, weeks 5 to 10

Exercise	Sets x reps	Rest	What to focus on
Goblet or back squat	4 × 8-10	90s	Add 5-10% once you finish all four sets at the top of the range
Romanian deadlift	3 × 8-10	90s	Hinge at the hip, feel the stretch in the hamstrings
Weighted step-up	3 × 8-10 per leg	75s	Same box height every week, so load is the only variable
Pallof press	3 × 10 per side	60s	Resist the rotation, do not create it
Loaded calf raise	3 × 12	60s	Two seconds up, three seconds down
Side plank	3 × 30-45 sec per side	60s	Stack the hips and lift them slightly, rather than letting them drop

Session B Build, weeks 5 to 10

Exercise	Sets x reps	Rest	What to focus on
Rear-foot elevated split squat	3 × 8 per leg	90s	The single-leg lift that carries most directly into stride
Single-leg deadlift with dumbbells	3 × 8 per leg	90s	Start light, because balance fails before the hamstrings do
Hip thrust or weighted glute bridge	3 × 10-12	75s	Chin tucked, ribs down, pause at full hip extension
Single-leg farmer carry	3 × 20 m per side	60s	Load one hand only, then refuse to let the trunk lean
Eccentric calf raise	3 × 10 per leg	60s	Up on two legs, down on one over three seconds
Dead bug holding a weight	3 × 8 per side	60s	Add load only once the low back stays flat

HOW TO PROGRESS THE LOAD

Your body adapts fast to a stimulus it has already seen. Every one to two weeks, change one of these five variables. Change one at a time, never all five in the same week.

- 1 Add 5-10% load, so a heavier dumbbell or more band resistance
- 2 Add 1 to 2 reps per set
- 3 Cut 15 to 30 seconds off the rest between sets
- 4 Move to a harder variation, such as single-leg instead of two-leg
- 5 Add one extra set where the volume is lagging

Log the load you used at every session. Progression only works when you know what last week's number was, and the page 5 log is there so it is not a guess.

PHASE 3: PEAK, WEEKS 11 TO 14

Volume drops and intensity climbs. Plyometrics come in here, and your running mileage is at its highest, so recovery is the limiting factor. Session A is the one that matters, and session B is optional in any given week.

Session A Peak, weeks 11 to 14, the priority session

Exercise	Sets x reps	Rest	What to focus on
Back or goblet squat, heavy	4 × 4-6	2-3 min	Heavy means two reps left in the tank, never a grinding rep
Romanian deadlift	3 × 5-6	2 min	Hold the load from Build, cut the reps
Jump squat	3 × 5	2 min	Land quietly, reset between reps, stop if the landings get sloppy
Explosive box step-up	3 × 5 per leg	90s	Drive up fast, step down under control
Pallof press	2 × 10 per side	60s	Keep the trunk work in, even when the session is short

Session B Peak, only in a week where your running has gone well

Exercise	Sets x reps	Rest	What to focus on
Rear-foot elevated split squat, loaded	3 × 5 per leg	2 min	Cut this session first when mileage peaks
Hip thrust, heavy	3 × 5	2 min	Full lockout, with no low back extension to finish the rep
A-skips and bounding prep	3 × 20 m	90s	Quality over distance, walk back between efforts
Single-leg calf raise, loaded	3 × 8 per leg	90s	The best single insurance against Achilles trouble
Side plank	2 × 30 sec per side	60s	Finish here rather than adding another lift

PHASE 4: TAPER, WEEKS 15 TO 16

Hold the load and cut the volume. The aim is to keep the strength you built in Peak without carrying fatigue to the start line. Stop all jumping and bounding after week 15, and add no new exercise in the final ten days.

Maintenance session Taper, weeks 15 to 16, once a week

Exercise	Sets x reps	Rest	What to focus on
Squat	2 × 3-4	Full	Same load as Peak, roughly half the volume
Romanian deadlift	2 × 4	Full	Stop every set well short of fatigue
Hip thrust or glute bridge	2 × 6	Full	Keeps the glutes firing without leaving soreness
Plank hold	2 × 30 sec	Full	The last strength session lands at least four days before the race

Soreness in race week is a planning error. If a taper session leaves your legs heavy, cut to a single set of each lift in week 16.

INJURY PREVENTION ADD-ONS

If one of these is your recurring problem, add its exercises to the end of both sessions in your current phase. Two sets of each is enough alongside the main plan.

Injury	Add these exercises	Tick each week you do it
Runner's knee	Glute bridges, clamshells, lateral band walks, single-leg squats	
IT band syndrome	Hip abductor work, glute activation, foam rolling before the strength work	
Achilles tendinopathy	Eccentric calf raises, step-downs, a slow build into any plyometrics	
Shin splints	Calf raises, tibialis anterior toe taps, plus a slower rise in running volume	
Plantar fasciitis	Calf strengthening, foot intrinsic work, single-leg balance holds	

RUNNING THE PLAN WITHOUT A GYM

Swap the load for

- ☐ A backpack filled with books or water bottles
- ☐ A long resistance band anchored under both feet
- ☐ A filled water jug held at the chest

Swap the lift for

- ☐ Barbell squat becomes a pistol squat or an assisted single-leg squat
- ☐ Hip thrust becomes a single-leg glute bridge
- ☐ Weighted step-up becomes a stair step-up wearing a backpack

Rest periods do not change. Keep the short rests in Foundation and the long rests in Peak, whatever you are lifting.

SESSION LOG

Date	Week	Phase	Session	Heaviest load used	Effort 1-10	How the legs felt on the next run

Two sessions a week is the evidence-based minimum. Hold that through Foundation and Build, and running economy improves by roughly 2 to 8%.

This template is general training guidance, not medical advice. Clear new strength work with a physician or physiotherapist if you are carrying an injury, returning from one, or managing a health condition.