16-WEEK TRAIL RUNNING TRAINING PLAN

Sample numbers for a 20-mile trail race with 5,000 ft of gain, starting from 20 miles and 1,600 ft a week. In the Excel version they adjust to your athlete.

Typical week: Mon rest · Tue easy run + strength · Wed hills · Thu easy run + strength · Fri rest · Sat long trail run · Sun easy run or rest

Athlete: _____ **Race:** _____ **Date:** _____

Wk	Phase	Miles	Gain (ft)	Long run	Hills	Strength	Other session	Done
1	Base	21	2,040	8 mi · 820 ft	6 x 30 sec hard uphill, walk back down	2 sessions: goblet squat, Romanian deadlift, step-up, calf raise and plank (3 x 10-12)	Easy Z2 run + 6 x 20 sec strides on flat ground	☐
2	Base	21	2,480	8 mi · 990 ft	8 x 30 sec hard uphill, walk back down	2 sessions: same circuit, a little heavier (3 x 10-12)	Easy Z2 run + 6 x 20 sec strides on flat ground	☐
3	Base	22	2,920	9 mi · 1,170 ft	10 x 30 sec hard uphill, walk back down	2 sessions: same circuit, a little heavier (3 x 8-10)	Easy Z2 run + 8 x 20 sec strides on flat ground	☐
4	Base (cutback)	15	2,040	6 mi · 820 ft	No reps: easy run with some climbing	1 light session of the same circuit	Everything easy, in Z1-Z2	☐
5	Build	22	3,360	10 mi · 1,510 ft	5 x 2 min uphill in Z4, jog back down	2 sessions: Bulgarian split squat, weighted step-up, single-leg deadlift and calf raise (4 x 6-8)	40 min fartlek on rolling terrain	☐
6	Build	23	3,800	10 mi · 1,710 ft	6 x 2 min uphill in Z4, jog back down	2 sessions: Bulgarian split squat, weighted step-up, single-leg deadlift and calf raise (4 x 6-8)	45 min fartlek on rolling terrain	☐
7	Build	24	4,240	11 mi · 1,910 ft	5 x 3 min uphill in Z4, jog back down	2 sessions: add slow eccentric squats for the downhills (4 x 6)	Technical downhills: 6 x 2 min controlled descent	☐
8	Build (cutback)	17	2,970	7 mi · 1,190 ft	4 x 1 min uphill, comfortable	1 light session	Everything easy	☐

16-WEEK TRAIL RUNNING TRAINING PLAN (CONTINUED)

Sample numbers for a 20-mile trail race with 5,000 ft of gain, starting from 20 miles and 1,600 ft a week. In the Excel version they adjust to your athlete.

Typical week: Mon rest · Tue easy run + strength · Wed hills · Thu easy run + strength · Fri rest · Sat long trail run · Sun easy run or rest

Wk	Phase	Miles	Gain (ft)	Long run	Hills	Strength	Other session	Done
9	Specific	24	4,680	12 mi · 2,570 ft	25 min steady climb in Z3 + technical descent	1-2 sessions: strength 3 x 6 + box jumps	Long run on terrain like the race course	☐
10	Specific	25	5,120	13 mi · 2,820 ft	35 min steady climb in Z3 + technical descent	1-2 sessions: strength 3 x 6 + box jumps	Tempo 2 x 15 min in Z3 on rolling terrain	☐
11	Specific	25	5,560	13 mi · 3,060 ft	3 x 10 min uphill in Z3-Z4, power hiking where needed	1-2 sessions: strength 3 x 6 + downhill eccentrics	Back-to-back: 60-90 min easy the day after the long run	☐
12	Specific (cutback)	18	3,890	7 mi · 1,560 ft	20 min steady climb in Z2-Z3	1 light session	Everything easy	☐
13	Specific	26	6,000	13 mi · 3,300 ft	40 min climb at race effort + descent at race effort	1 maintenance session (2 x 6), no soreness	Test gear, gels and race pace on the long run	☐
14	Specific	25	5,560	13 mi · 3,060 ft	3 x 8 min uphill at race effort	1 maintenance session (2 x 6), no soreness	Back-to-back in race gear	☐
15	Taper	18	4,200	7 mi · 1,680 ft	4 x 3 min uphill at race effort	1 short maintenance session	40 min run with 4 x 1 min at race pace	☐
16	Taper	10	2,400	Race: 20 mi · 5,000 ft	4 x 1 min easy uphill to wake the legs up	No strength: 15 min of mobility	Shakeout: 20 min easy + 4 x 30 sec. Race this weekend	☐

HEART RATE ZONES AND STRENGTH FOR TRAIL RUNNING

Beats per minute for each zone = resting HR + (max HR - resting HR) × %. Fill in your athlete's.

Max HR: _____ **Resting HR:** _____

Zone	% HR reserve	From (bpm)	To (bpm)	What it's for on the trails
Z1	50-60%			Recovery, very easy runs
Z2	60-70%			Aerobic base: easy runs and the long run
Z3	70-80%			Steady climbs and long-race pace
Z4	80-90%			Long hill repeats and threshold
Z5	90-100%			Short, hard hill repeats

On climbs and descents, pace per mile lies: go by heart rate or perceived effort (RPE).

Strength exercises for trail running

- ☐ Step-up onto a bench or box: drive up with one leg, lower under control
- ☐ Bulgarian split squat: back foot on a bench
- ☐ Romanian deadlift, on two legs and on one
- ☐ Goblet squat and slow eccentric squat (3-4 sec down)
- ☐ Calf raise with straight and bent knee
- ☐ Single-leg glute bridge
- ☐ Front and side plank
- ☐ Box jumps (from the specific phase on)

Base: 3 x 10-12, light weight. Build: 4 x 6-8, heavier. Specific and taper: maintenance, never sore for the long run.

Before race day

- ☐ Read the race rules: mandatory gear, cutoffs and aid stations
- ☐ Study the course profile: where the long climbs and technical descents are
- ☐ Try the gels, drink and pack you'll race with on your long runs
- ☐ Shoes with miles on them, never new on race day
- ☐ Headlamp, wind jacket and emergency blanket if the rules require them

WEEKLY LOG

Load = total minutes × average RPE. If it jumps more than 15% from one week to the next, review the plan.

Wk	Planned mi	Miles done	Planned gain	Gain done	Time	RPE (1-10)	Load	Notes
1	21		2,040					
2	21		2,480					
3	22		2,920					
4	15		2,040					
5	22		3,360					
6	23		3,800					
7	24		4,240					
8	17		2,970					
9	24		4,680					
10	25		5,120					
11	25		5,560					
12	18		3,890					
13	26		6,000					
14	25		5,560					
15	18		4,200					
16	10		2,400					