## **SWEATELITE**

# 12-WEEK 10K TRAINING PROGRAM

## TABLE OF CONTENTS

1

Pledge

2

The Importance of Planning

3

Road Rhythms

8

Types of Training Sessions

12

Other Considerations & Tips

17

Post-race Recovery

18

Elite Athlete-inspired 12-week Training Schedule

## **PLEDGE**



When you have a vision and you have a dream, you dig in more.

It makes you focus. That's the thing about having a goal and wanting to achieve something great. You push yourself harder and do things you didn't think you could be capable of."

Mo Farah

Target time & pace:	
Other goals:	



Don't be afraid to dream of achieving the impossible.

Shalane Flanagan

## THE IMPORTANCE OF PLANNING

For many years elite athletes know that the foundation of success lies in careful planning.

Just like the world's best, you will need a carefully developed training plan to maximise your chances of hitting your target time.

This is DIFFERENT to simply running intensely all the time.



44

The idea that the harder you work, the better you're going to be is just garbage. The greatest improvement is made by the man or woman who works most intelligently.

**Bill Bowerman** 

American Track & Field Coach & Co-Founder of Nike

https://www.thefamouspeople.com

## 44

I didn't give myself enough breaks during the training year to recover. I didn't understand the power of periodization.

Alberto Salazar (Coached Mo Farah & Galen Rupp) on the topic of scheduling mesocycles throughout the year



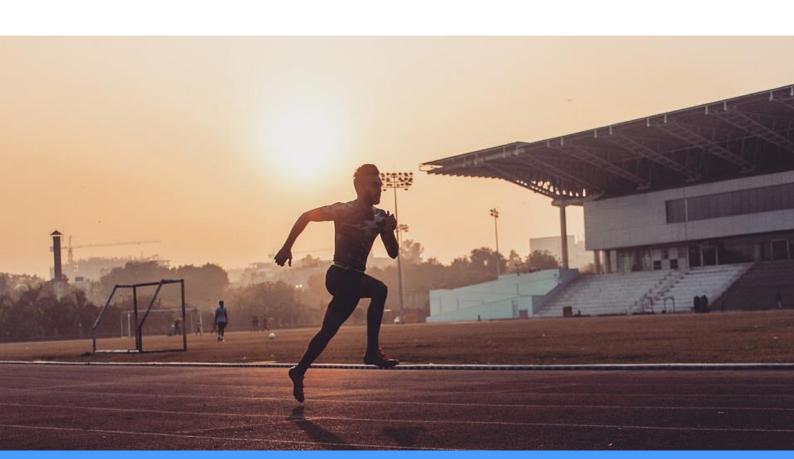
Planning also allows you to gauge what's achievable in context of family and work-related commitments. Furthermore, it reduces your risk of overuse injury. Sweat Elite brings together the tens of thousands of hours of training, racing and coaching experience of the world's best athletes, to form this plan to guide you to 10k success!

## ROAD RHYTHMS

To achieve peak condition for a particular race(s), it's important to select your races well ahead in advance so that you can plan your training cycle carefully.

Our 12-week training schedule can be grouped into 3 main stages. Each stage has their unique emphases and objectives; however, there is overlap between stages. The stages build on top of each other such that mileage, strength and speedwork combine to produce a synergistic & multiplicative effect at just the right time.

- Stage 1: Base & Strength (Weeks 1-4)
- Stage 2: Strength & Speed (Weeks 5-10)
- Stage 3: Speed & Taper (Weeks 11-12)





Stage 1: Weeks 1-4 Base & Strength

In this stage, the aim is to:

- Gradually build your aerobic endurance leading to physiological adaptations such as a more diverse capillary network, and increased myoglobin and mitochondrial content (see http://www.sweatelite.co/aerobic-running/ for more details).
  - 2 Develop a higher proportion of fast-twitch fibres for leg strength.

You will notice that interval repetitions comprise generally longer mileage. Furthermore, the duration of steady, recovery, tempo and long runs increases noticeably here. Essentially, you're 'banking in' more and more miles as the initial weeks pass by.

Most elite athletes focusing on the 10k event run in excess of 160km (100miles) a week. Haile Gebrselassie (double 10,000m Olympic champion) averaged almost 200km (160miles) a week. On the other hand, Kenenisa Bekele's (10,000m world record holder) mileage is relatively low at 80 miles (100km) a week.

Strength-wise, your legs will learn to adjust to resistance from running on undulating hills and on moderately steep inclines. Your body learn to adapt to the routine and nature of core and leg exercises.

Here is a good reminder by legendary distance all-rounder Grete Waitz:



44

77

If you are training properly, you should progress steadily...each training session should be like putting money in the bank. If your training works, you continue to deposit into your 'strength' account. [Conversely] too much training has the opposite effect.

Rather than build, it tears down. Your body will tell when you have begun to tip the balance. Just be sure to listen to it.

## Stage 2: Weeks 5-10 Strength & Speed

This stage brings in faster and more frequent interval repetitions on alternating weeks. The duration of steady and recovery runs is maintained. Meanwhile tempo and long runs may increase or decrease depending on the exact timing of the mesocycle.

Compared to the previous stage, volume and intensity is much greater. In particular, weeks 8-10 will be most challenging. You will also be increasing the duration of the core and leg exercises.

Ultimately however, you will need to consider your training history in quantifying the most appropriate load for you to handle. Continue to listen to your body and show self-control to decrease risk of acute and chronic injury.



To run a good 10k race, you need to find an optimum balance between speed and aerobic fitness. Generally, the aerobic:anerobic contribution in a 10k race is approximately 90%:10% for males and 95%:5% for females [1]. This is slightly different to the 99%:1% ratio for half-marathon and marathon races.

Of course, the ratios vary depending on your target 10k race pace. For example, here are the energy system contributions reported by recreationally-competitive male long-distance runners during an incremental 10k exercise test [2]:

Speed	13	14	15	16	17	18
Aerobic	94.6 ±	94.0 ±	90.6 ±	88.1 ±	85.6 ±	82.9 ±
(%)	10.2	11.2	10.9	9.6	9.2	11.1
Anaerobic	5.4 ±	6.0 ±	9.4 ±	11.9 ±	14.4 ±	17.1 ±
(%)	3.5	4.5	5.2	4.8	5.0	3.3

### Remember...

Aerobic metabolism is still the dominant fuel source. You can maximise the effect of aerobic metabolism on your steady, recovery and long runs by training fasted or a 'carb-less' state. For these "fuel efficiency" workouts, avoid eating 2hrs before your run; only eat after.

## Stage 3: Weeks 11-12 Speed & Taper

Here, interval training is predominantly characterised by shorter and faster repetitions. The duration of the other runs begins to taper.

Tapering is the art of finding the right balance of cutting back mileage to be rested and ready while maintaining peak form. Typically, a short easy run occurs on pre-race day to stay loose and relaxed.

Concentrate on fast leg turnover, 'light' feet, peak optimal body form, maintaining good technique and feeling fresh.

There is extra emphasis on quality recovery, stretching and massage.



## TYPES OF TRAINING SESSIONS

The following sessions are incorporated throughout the three stages. Here we detail what you need to know about the specific sessions:

## Cross-Training (CT) (Usually Mondays)

CT allows sufficient rest to muscles, joints, bones while maintaining aerobic fitness. Hence, this is perfect after Sunday's long run. Swimming, biking, or using ellipticals at a moderate intensity level is ideal.

## Intervals (Usually Tuesdays)

Designed to increase your speed while raising your lactate threshold. These sessions are often completed at 10k, 5k or 3k pace @ RPE 8-9. Try to have all repetitions completed at a consistent time (i.e. within 3-4 seconds of each other). With experience, you will get better at judging the required effort or pace.

These should be accompanied with a thorough warm-up and warm-down routine (see below). The ideal surface is a grass, followed by a synthetic track. Roads or flat trails are alternative options.

## Steady Runs (Usually Wednesdays)

Comfortable-to-moderate effort runs. The pace is approximately equal to that of a long run (@ RPE 4-5), except shorter in duration. These will help to continue building the body's aerobic fitness and functional strength.

Conduct these on undulating (rolling) hills. Hills will work as a natural resistance to strengthen your legs. These rolling hills will also enable your heart rate to rise and fall at lower speeds.



This forms the key component of strength training at St Patrick's (David Rudisha's training group in Iten, Kenya). Here the terrain is often very challenging, and the altitude is 2300-2500m (7500-7800ft). The group incorporates hills into their daily runs (except for track workouts), including warm ups and cool downs.

## Hill Repeats (Usually Thursdays (alternating weeks))

Find a place where there is a consistently moderate incline which stretches out for at least 500m or so. Hard effort uphill, easy jog downhill.

In addition to its strength-related benefits, the hills also encourage correct running posture and form. Watch out for good technique including: head up, shoulders relaxed, hips up, knees up, running on the front half of your foot in a ratio of 60:40. Your arms should be driving your knee drive. Where possible, try to remain relaxed as the fatigue mounts up.

This session stimulates the stress-recovery response so it's necessary to make sure you take it super easy the next day.

## Fartleks (Usually Thursdays (alternating weeks))

The Kenyans dominate these sessions. The sessions involve alternating between fast runs and easy runs. At the elite level, the fast runs are treated more like an extended surge, while the easy runs more closely resemble a steady run.

## Recovery Runs (Usually Fridays)

Very easy running! Here muscles are repairing microtears and building them to be stronger (aka regeneration). Rest is critical to your recovery and injury prevention efforts, so don't ignore rest days. However, these still help to build your aerobic capacity.

## Tempo Runs (Usually Saturdays)

These sessions help to build your anaerobic (lactate) threshold which is super important for long-distance running at a fast pace.

Basically, this refers to the exercise intensity at which lactate blood levels begin to exponentially increase. This occurs when the pace is too fast such that the aerobic system can no longer keep up with the body's rate of energy demand. Therefore, the anerobic system starts to kick in, leading to the exponential build of waste by-product.

Tempo runs are performed at a pace which is the 'sweet spot' between the aerobic/anaerobic transition points. It is difficult to talk and is generally at RPE 7. Doing this regularly will help the body to push that threshold further so you can run at your target 10k pace more 'comfortably'.

These tempo runs alternate between continuous runs and repetitions each week. Take 2min standing recovery between the tempo reps. Ideal surfaces are flat trails or roads.

## Long Runs (Usually Sundays)

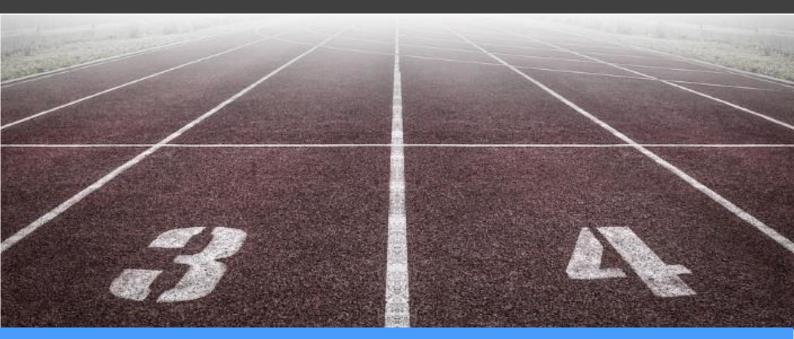
Focus on developing your endurance and aerobic system (see above). The pace requires more effort than an easy run and is similar to a steady run (@ RPE 5). Conversations require moderate-to-hard effort.

## Strength Training (Usually Mondays, Wednesdays and/or Fridays)

Here we are referring to functional strength training, instead of very heavy weight sessions. They include light weights and plyometric activities for the core and leg muscles. Aim for 2-3 sessions per week, building up the intensity and repetitions until weeks 8-10. Coach Alberto Salazar and physical therapist David McHenry assigns 3 sessions per week to Oregon Project's elite athletes including Mo Farah and Galen Rupp. These include medicine ball lunges, runner pulls, side planks, clamshells, mountain climbers, etc.

Elite members of the Melbourne Track Club perform strength training almost every day, including core stability which is performed over 2-4 times a week.

Benefits of these sessions include injury prevention, enhancing strength and power, improvements in running technique.





## OTHER CONSIDERATIONS & TIPS

## Warm-Up & Warm-Down Routine

Perform these around the following sessions: Intervals, Hill Repeats, Fartleks and Tempo Runs.

## Warm up includes:

- ✓ 10mins easy run
- ✓ Dynamic (not static) stretching
- ✓ Drills fosters muscle memory for good running technique. This enables efficiency and prevents injury. Especially important in 5-10k races characterised by high-impact workouts that otherwise makes runners prone to injury.
- ✓ Run throughs (aka strides) 50-80m at a fast pace. Focus on light feet, good technique, posture and high turnover.

### Warm down includes:

- ✓ 5 mins easy run
- ✓ Static stretching helps you stay flexible and prevent muscle-related injuries.

## Rated Perceived Exertion (RPE) Scale for Judging Effort and Pace

RPE Scale	Running Activity	Talking	% of Max Heart Rate
0 Nothing			40.459/
1 Very Easy			40-45%
2 Easy			46-55%
3 Moderate	Recovery Run	Converse with almost no effort	40-33%
4 Somewhat Hard		Converse with a little more effort	
5 Hard	Long or Steady Run	Conversation requires effort	56-75%
6	Tempo Run	Conversation is difficult and requires a lot of effort	
7 Very Hard	Tempo Run		
8	Interval Session or Race Pace	Very difficult conversation and requires maximal effort	76-85%
9	Interval Session or Race Pace	Conversation not possible, requires full effort	86-100%
10 Maximal	Sprint		

## Technique

Optimise your running economy (aka efficiency) to preserve energy especially for the back end of the race. Consider the following:

- ✓ Low upper arms with bent elbows slightly less than 90°
- ✓ Light feet especially during easy and long runs
- ✓ Not rocking shoulders
- ✓ Avoiding excessive heel or forefoot striking
- ✓ Good posture and knee lift especially during hills
- ✓ Etc.

Incorporating drills into your warm up is an effective way to develop muscle memory for good running technique.

## Recovery

Massage, compression and other recovery activities are especially crucial in the strength & speed phases. Molly Huddle (two-time US Olympian and Female American Record Holder for the 10,000m) prioritises an ice bath, nutrition foam roll and massage after each tough workout.

Galen Rupp (Male American Record Holder for the 10,000m) recognises the importance of recovery in preparing for the next race ahead. He says, "I'm just going to be focused on recovery—a lot of ice baths, massage, stretching, and all that stuff and getting ready to have another race."

For you, this is especially important after Tuesdays' interval sessions.



## Keep a Running Journal

Helps you track progress, inspire new goals and prevent reoccurrence of past mistakes. Can be simple to more detailed.

## Surface

Avoid hard surfaces e.g. concrete sidewalks; aim for grass or dirt trails which absorb more force from your legs. This will help prevent injury.

Alberto Salazar (Mo Farah's coach) says that "pavement damages joints, tendons, ligaments, and muscles. The more you can run on grass, woodchips, or dirt, the better of you are. My athletes run 90 percent of their workouts on soft surfaces."

## Shoes

Rotate between 2 pairs of well-fitted running shoes. In your selection, consider factors such as pronation/neutral/supination during mid stance, terrains, toe-box width, heel pitch/drop, etc. with the assistance of a podiatrist.



## Pre-Race Day Nutrition Plan

This is quite diverse among elite athletes but here are some examples for inspiration:

Kenyans are famous for their whole food plant-based diet. Most athletes rarely eat meat more than once a fortnight. Common staples include Ugali, Managu, Cabbage, Beans, Bread, Rice, Eggs, Bananas, Millet, Water and lots of Chai (for more details see <a href="http://www.sweatelite.co/famous-kenyan-diet-veggies-no-rubbish/">http://www.sweatelite.co/famous-kenyan-diet-veggies-no-rubbish/</a>).

Note that affordability plays an important factor for this simple eating lifestyle, but the Kenyans also claim it's one of their secret weapons.

Mo Farah loves bananas and his carbs. He loads up on pasta, chicken, rice and vegetables on pre-race day.

German athlete Hendrik Pfeiffer takes a more general approach – his main principle is doing what feels right for his body.

Do NOT try anything new in the week prior to race day – this includes gels, hydration drinks, powders, supplements and meals.



## POST-RACE RECOVERY

Recovery is important after a major season or race!

The duration can vary and is influenced by many things including when your next race is. However, the average tends to be 19 days when we surveyed 10 elite male and female athletes.

We can see from the world's best runners:

✓ David Rudisha: 6-12 weeks

✓ Mo Farah: 4 weeks

✓ Galen Rupp: 4 weeks

✓ Bernard Lagat: 5 weeks

✓ Steve Ovett: 4-5 weeks

✓ Usain Bolt: 4-8 weeks

What happens during the rest phase? Athletes in Kenya (& the rest of Africa) would enjoy FULL REST while other athletes might do light jogs a few times each week. Cross-training (e.g. swimming, cycling) is another option.

Anyway, the main idea is that there should be some kind of rest period after a major competition.

Following this, you are ready to start a fresh cycle again.

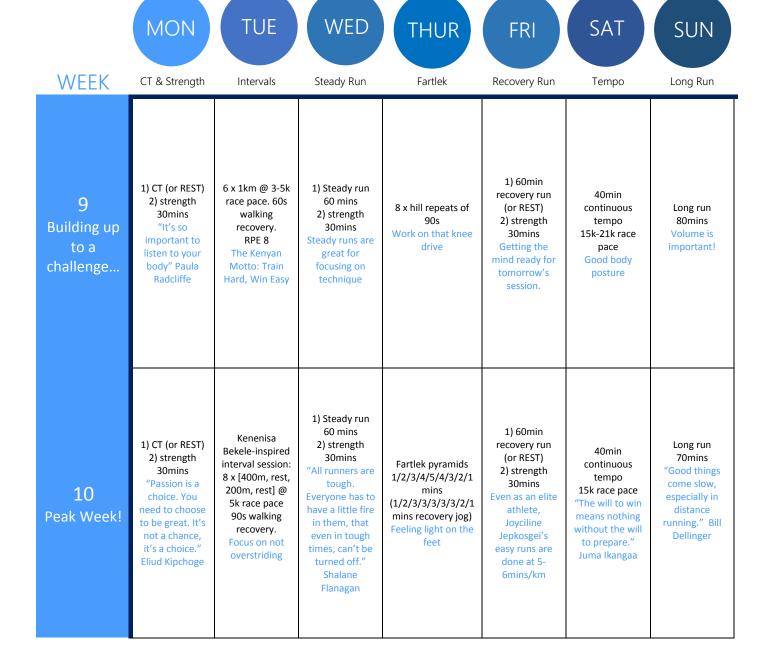
# ELITE ATHLETE-INSPIRED 12-WEEK TRAINING SCHEDULE

## STAGE 1: WEEKS 1-4 BASE & STRENGTH

	MON	TUE	WED	THUR	FRI	SAT	SUN
WEEK	CT & Strength	Intervals	Steady Run	Fartlek	Recovery Run	Tempo	Long Run
1	1) CT (or REST) 2) strength 20mins Lots of stretching	4 x 1km @ 5- 10k race pace. 75s walking recovery. RPE 8 "The miracle isn't that I finished. The miracle is that I had the courage to start." John Birmingham	1) Steady run 30mins 2) strength 20mins Maintain relaxed upper body	6 x hill repeats of 75s Focus on a strong core	30min recovery run (or REST) Ensure that you hydrate properly throughout the day	20 min continuous tempo 15-21k race pace "Train, don't strain" Arthur Lydiard	Long run 45mins "Running long offers a dress rehearsal. Running long teaches the stress of lifting feet 5,000 times per hour. Running long builds confidence." Hal Higdon
2	1) CT (or REST) 2) strength 20mins Sleep is one of the most powerful weapons of rest	2 x 2.5km @ 10k race pace. 90s walking recovery. RPE 7 Maintain good body posture	1) Steady run 40 mins 2) strength 20mins High cadence	Fartlek 3 x 1/2/1/2/1 (60s recovery jog in between) Focus on leg speed	40min recovery run (or REST) "Good things come slow - especially in distance running." Bill Dellinger	2 x 10min + 1 x 5min tempo (total 25min). 2 mins walking recovery between reps 15-21k race pace	Long run 50mins Focus on relaxed upper body
3	1) CT (or REST) 2) strength 20mins "Flexibility and stretching is a vital aspect of circuit and strength training." Seb Coe	3 x 2 km @ 10k race pace. 90s walking recovery. RPE 7  A common session among elites (e.g. Melbourne Track Club) and recreational runners.	1) Steady run 50 mins 2) strength 20mins Focus on not rocking shoulders	6 x hill repeats of 90s "Strength training should be a year- round commitment. Strength exercises should be tapered down before the period of target races." Seb Coe	50min recovery run (or REST) Light on the feet	30 min continuous tempo 15-21k race pace Preparing the mind and body for tomorrow's long run. Come into the run ready to have a great session in control!	Long run 60mins "The more confident you are in your training, the less nervous you'll be on race day." Shalane Flanagan
4 Easier Week	REST Great day for stretching & massage	4 x 800 @ 5- 10k race pace. 60s walking recovery. RPE 8-9 "Never underestimate the power that one good workout can have on your mind. Keeping the dream alive is half the battle." Kara Goucher	1) Recovery run 30mins 2) strength 20mins Easy runs remain a recovery exercise	Steady run 35 mins "With a strong heart and a good mind, you can do it." Eliud Kipchoge	REST Double-day off promotes hyper-recovery	15, 10, 5min tempo (total 30min) 15k race pace 2 mins walking recovery between reps 15-21k race pace	Long run 70mins "When anyone tells me I can't do anything, I'm just not listening anymore." Florence Griffith Joyner

## STAGE 2: WEEKS 5-10 STRENGTH & SPEED

	MON	TUE	WED	THUR	FRI	SAT	SUN
WEEK	CT & Strength	Intervals	Steady Run	Fartlek	Recovery Run	Tempo	Long Run
5 New stage! Tough load weeks are coming ahead.	1) CT (or REST) 2) strength 30mins "Recovery is the hardest part of training for me." Ryan Hall	4 x 1.5km @ 5- 10k race pace. 75s walking recovery. RPE 8-9 Work on leg speed	1) Steady run 60 mins 2) strength 30mins "When aerobic running becomes a daily habit, strength & confidence follow" Arthur Lydiard	8 x hill repeats of 90s "Many people shy away from hills[but] the more you repeat something, the stronger you get." — Joe Catalano	60min recovery run (or REST) Good body posture. Leading into tomorrow's run – keep it easy	35min continuous tempo 15k-20k race pace The weekends are becoming heavy with load!	Long run 80mins "When it's pouring rain and you're bowling along through the wet, there's satisfaction in knowing you're out there and the others aren't." — Peter Snell
6	1) CT (or REST) 2) strength 30mins Great day for massage & stretching	Steve Prefontaine Inspired Session 6 x 400 5k race pace (200m recovery jog per rep) Precede with running drills to safely promote leg speed	1) Steady run 60 mins 2) strength 30mins Keep relaxed; off road is best	1) Fartlek 6 x 2min hard (1min jog easy in between) 2) Strides 6 x 30s hard (30s walk recovery in between) Keeping high cadence	60min recovery run (or REST) "Never set limits, go after your dreams, don't be afraid to push the boundaries. And laugh a lot – it's good for you!" Paula Radcliffe	3 x 12min tempo (total 36min) 15k race pace "All athletes need three things: commitment, discipline and hard work. Without that it's hard to keep running."  — Haile Gebrselassie	Long run 80mins "I didn't achieve it overnight. It has been the product of many years' struggle, and every year, I've improved as an athlete a little bit more." — Mo Farah
7	1) CT (or REST) 2) strength 30mins "Progression is best made by increasing repetitions, rather than increasing the weight/load." Seb Coe	2 x 2km @ 10k race pace 2 x 1km @ 5k race pace 75s walking recovery. RPE7 "The more confident you are in your training, the less nervous you'll be on race day." Shalane Flanagan	1) Steady run 60 mins 2) strength 30mins Continuing to add miles in the bank! Feeling good leading into tomorrow's hill sprints.	Short hill sprints Hard up in bursts 20 x 30s jog easy down. (Exception: walk after 10 <sup>th</sup> ) "Don't dream of winning, train for it!" Mo Farah	60min recovery run (or REST) Easy runs are important to develop your physiological systems.	40min continuous tempo 21k race pace "[If] you put in the work, you run the race, the clock tells you exactly how good you areyou're rewarded."	Long run 60mins "Running is my private time, my therapy, my religion." Gail W. Kislevitz
8 Easier Week	REST "Recovery, to me, means sleeping and eating well. If I'm not feeling recovered, I'll sleep and eat more, and that usually does the trick." Shalane Flanagan	6 x 800m @ 10k race pace, (400 recovery jog per rep) Feeling very strong	1) Recovery run 40mins 2) strength 30mins Active recovery session	Steady run 35 mins Focus on knee lift	REST Good day for massage	15, 10, 10, 5min tempo (40min total) 15k race pace Focus on not rocking the arms	Long run 70mins Finishing off the week feeling fresh



## STAGE 3: WEEKS 11-12 SPEED & TAPER

	MON	TUE	WED	THUR	FRI	SAT	SUN
WEEK	CT & Strength	Intervals	Steady Run	Fartlek	Recovery Run	Tempo	Long Run
11 Beginning the taper while maintaining speed	1) CT (or REST) 2) strength 20mins "The taper tantrums are real." Shalane Flanagan	6 x 800m @ 10k race pace (400 recovery jog per rep) "Success is the sum of small efforts, repeated day in and day out." Robert Collier	1) 40min recovery run (or REST) 2) strength 20mins Easy runs are a time to chat with friends - develop a running culture and community where you live. Be like the Kenyans of Rift Valley	Steady run 35 mins "To give anything less than your best is to sacrifice the gift." Steve Prefontaine	40min recovery run (or REST) Feeling light on the feet	2x15 min (30min total) tempo 15k race pace Feeling good going into tomorrow's long run	Long run 60mins Finishing off the week feeling fresh
12 Final week!	1) CT (or REST) 2) strength 20mins "The marathon is my only girlfriend. I give her everything I have." - Toshihiko Seko	Eliud Kipchoge & Ryan Hall's final speed session: 6 x 400m @ 10k race pace (400 recovery jog per rep)	1) REST 2) Light stretching Allowing yourself the day to recover from the track session	REST Make sure you are following your pre- determined nutrition plan and race strategy!	20mins very light recovery run Feeling in control	"Victory is in ha	EEKEND wing done your done your best, - Bill Bowerman

## **REFERENCES**

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- [2] Damasceno MV, Pasqua LA, Lima-Silva AE, Bertuzzi R. Energy system contribution in a maximal incremental test: correlations with pacing and overall performance in a 10-km running trial. Brazilian Journal of Medical and Biological Research. 2015 Nov;48(11):1048-54.

