

PhysiCo.

FIELD GUIDE / 01 · SINGAPORE · 20 WEEKS · BEGINNER

Built, Not Broken.

A 20-week strength and load plan for your first marathon — and for anyone who has been hurt before and does not want it to happen again.

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6 DEC

RACE DAY · COUNT BACK 20 WEEKS TO WEEK 01

Who this is for, and what it will not do

Two readers. Everything here is written for one of you.

READER ONE

You have signed up for 6 December. You have not run a marathon before — possibly you have not run much at all. You are somewhere between excited and quietly alarmed.

READER TWO

You have been hurt before. Shin splints, a knee, an Achilles that never quite went away. You are not worried about finishing. You are worried about breaking again on the way there.

THE HONEST PART

Nothing in this guide will prevent injury. No exercise does. Anyone selling you prevention is selling you something. What strength work does — and the evidence for this is unusually good — is **reduce your risk** and **build what your body can tolerate**. Those are different claims, and the difference matters. We would rather tell you that on page two than have you find out in October.

The rest of this document is built on one idea, which we will repeat until it is annoying:

The injury you feel in November was made in August.

Marathons do not break people on race day. They break people in the twelve weeks before it, quietly, while everything still feels fine. By the time it hurts, the decision that caused it is two months old.

That is why this is a 20-week document and not a list of stretches.

HOW TO USE IT

- 01 **Read Sections 01 to 03 once.** That is the thinking. It takes twenty minutes and it is the part that changes what you do.
- 02 **Do the six movements twice a week.** Section 03. That is the whole strength programme. There is no seventh.
- 03 **Keep the logbook.** Back of the document. Two minutes a week. It is the only thing that tells you whether the plan is working before your body does.
- 04 **Use Section 05 when something hurts.** Because something will. That section is the one you will actually need at 11pm.

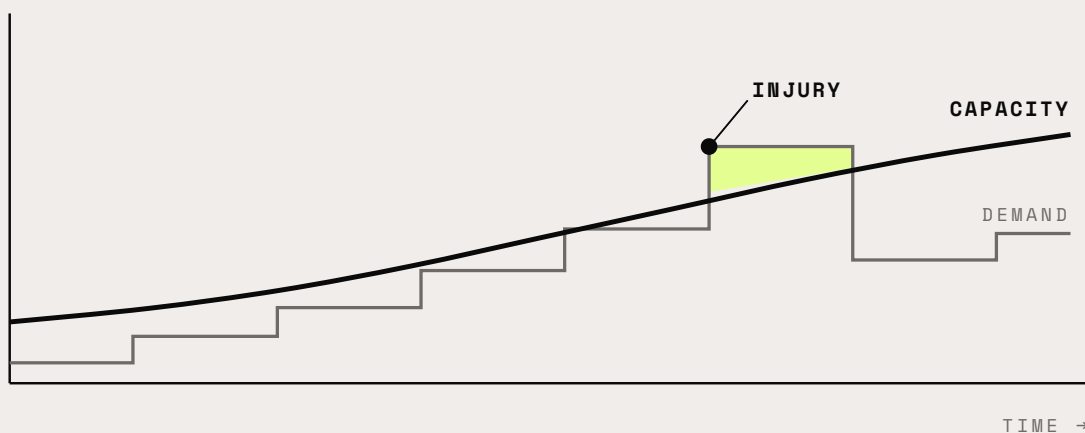
Why runners break

Not because of bad shoes. Not because of how your foot lands. Almost always because of a sum that stopped adding up.

Every tissue in your body — muscle, tendon, bone — can take a certain amount of load. Call that its **capacity**. Every run you do asks something of it. Call that the **demand**.

When demand stays under capacity, you adapt and get stronger. When demand goes over capacity, you get injured. That is essentially the whole model. It is not more complicated than that.

FIG. 1 — CAPACITY VS DEMAND



Capacity rises slowly and smoothly. Demand rises in steps — a new long run, a lost week, a panic block. Injury is not a mystery. It is the moment the step goes above the line.

Notice what this means. Two runners can do exactly the same 20 km run. One adapts, one gets hurt. The run was not the problem. The gap between that run and what their body had been prepared for was the problem.

This is why "am I running wrong?" is usually the wrong question. It is a load question far more often than it is a technique question.

Your body runs on three different clocks

This one idea explains almost everything that goes wrong in October.

Capacity does not rise at one speed. Different tissues adapt at wildly different rates, and nobody tells beginners this.

FIG. 2 — THE TISSUE CLOCKS



Muscle adapts in weeks. Tendon takes months. Bone takes longer than that. And your engine — heart, lungs, aerobic fitness — adapts faster than all of them.

Here is the trap. Your engine improves first. By week ten you feel good. Breathing is easy. You could go further, and you want to, and everything in you says you have earned it.

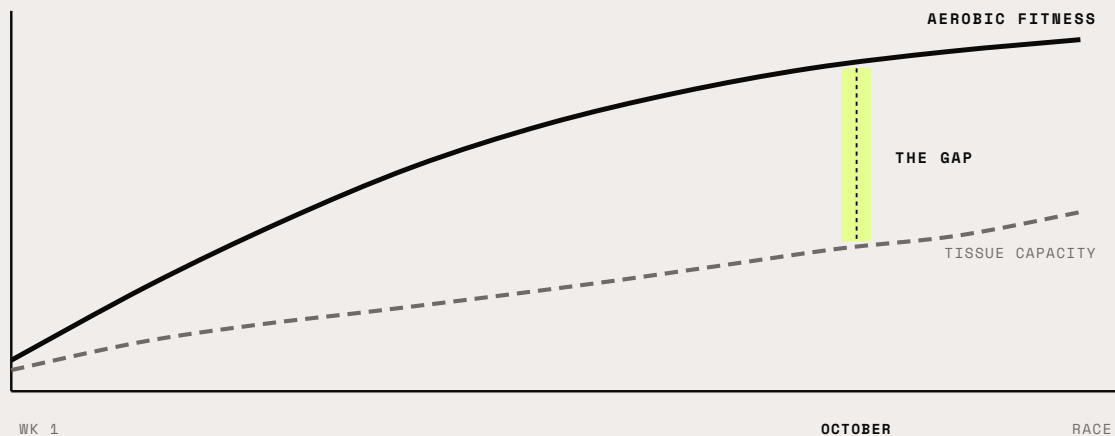
Your tendons and bones have not caught up. They are still months behind. **You now have the fitness to hurt yourself** — and no warning light comes on, because nothing feels wrong yet.

The gap you cannot feel

The fitness arrives before the tissue does. That space between them is where the trouble lives.

Picture the two lines together. Your aerobic fitness climbs fast and early. Your tissue capacity climbs slowly behind it. For a few weeks in the middle of the build, there is real daylight between what you *can* do and what your body is *ready* to do.

FIG. 3 — THE GAP



Every October, treatment rooms in Singapore fill with runners who found this gap. They did nothing stupid. They simply had a better engine than they had tissue, and they used it.

This is the single most important idea in the guide, so here it is plainly: **you will feel ready before you are ready.** The confidence is real, the fitness is real, and the injury is what happens when you spend both at once.

WHAT THE STRENGTH WORK IS ACTUALLY FOR

It is not there to make you faster, and it is not there to fix your running form. It is there to **drag the slow clocks forward** — to build tendon and bone capacity fast enough that your body can cash the cheque your fitness is writing. That is its entire job.

The work that earns its place

Almost everything marketed to runners as injury prevention has no evidence behind it. One thing does.

In 2014, Lauersen and colleagues published a systematic review and meta-analysis in the *British Journal of Sports Medicine*. They pooled 25 randomised controlled trials — the strongest kind of evidence there is — covering 26,610 participants and 3,464 injuries.

They asked a simple question: of all the things people do to avoid getting hurt, what actually works?

WHAT THEY FOUND

≤1/3	Strength training cut sports injuries to less than a third. Not a modest improvement. A different order of magnitude to everything else tested.
0.53	Overuse injuries roughly halved. Risk ratio 0.527, 95% confidence interval 0.373 to 0.746. Overuse is your category — shin splints, Achilles, knees. Not the ones you fall over and get. The ones that creep.
–	Stretching did nothing. No significant effect on injury rates. This is the finding people find hardest to accept, and it has been replicated since. Stretch because you like it. Do not stretch because you think it is protecting you.

Two caveats we would rather print than hide. First: this review covered sport broadly, not running specifically — the overuse finding is the most directly relevant to you, but it is not a running-only number. Second: the follow-up work from the same group in 2018 found the benefit is **dose-dependent**. More volume, more progression, more effect. Which means two lazy sets of clamshells is not the intervention that produced these numbers, and should not be expected to produce these results.

Lauersen JB, Bertelsen DM, Andersen LB. *The effectiveness of exercise interventions to prevent sports injuries: a systematic review and meta-analysis of randomised controlled trials*. Br J Sports Med 2014;48:871–877.

The six

This is the entire strength programme. Six movements, twice a week, thirty minutes. There is no seventh, and adding one is not a bonus — it is dilution.

MOVEMENT	WHAT IT BUILDS	WHY IT IS ON THE LIST
Heel raise	Calf, Achilles	Soleus generates ~8× bodyweight; the Achilles sees up to ~10×. Highest-yield movement in running.
Single-leg Romanian deadlift	Hamstring, glute	Trains the back of you on one leg — which is how you actually run.
Split squat	Quad, glute, knee	Builds a knee that tolerates 42 km.
Side plank + leg lift	Glute med, hip control	Stops the hip dropping when you are tired. Late-race insurance.
Hamstring slider curl	Hamstring	Eccentric hamstring work has the strongest single-movement evidence there is. This is the version you can actually do at home.
Pogo hops	Tendon, bone	Tendons need speed, not just weight. Bone needs impact.

WHY THESE, AND NOT THE ONES ON YOUR FEED

Between them these six cover every tissue that fails in a marathon build, on the clock that tissue runs on, in the position running actually demands — on one leg. They are not exciting. They are not new. They are what the evidence keeps pointing at while everything else churns. **Boring and effective beats novel and useless.**

Every one of the six has a load you can add to it and a progression written next to it. That is deliberate. A movement you do at the same difficulty in November as you did in August has stopped being strength work and become a warm-up.

01 Heel raise

STRAIGHT KNEE & BENT KNEE · CALF AND ACHILLES

Your soleus — the deep calf muscle — generates around eight times your bodyweight to push you forward each stride, and the Achilles it runs into can see up to ten. Nothing else in your body does that much work over 42 km. If you do one thing on this list, do this one.

HOW

Stand on the edge of a step, one foot, heel hanging. Rise up slowly. Lower slower still — three full seconds down. Straight leg trains the big showy calf muscle (gastrocnemius); the bent-knee version (sit into a slight squat) trains the soleus underneath — the ~8× bodyweight muscle, and the one that matters most for distance running. Do not skip the bent-knee version. It is the one everyone leaves out.

DOSE

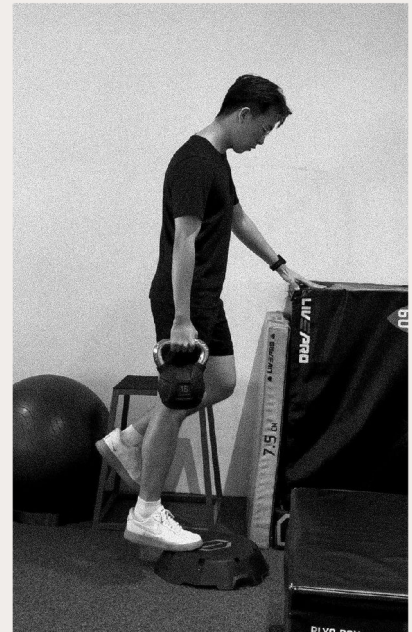
3 sets of 8–12, each leg, each version. Slow. Hold something for balance — this is not a balance test.

PROGRESS IT

Add weight, not reps. Hold a dumbbell. When 12 feels easy, get heavier.

WHEN IT IS WORKING

Your calves should be properly tired by the last set. If you can do 20, it is too light and you are wasting the session.



ONE LEG, HEEL HANGING, LOADED

02 Single-leg Romanian deadlift

HIP HINGE ON ONE LEG · HAMSTRING, GLUTE, HIP CONTROL

Running is not a two-legged sport. You are never on both feet at once. Training your back side on one leg is training the thing you actually do.

HOW

Stand on one leg, soft knee. Hinge forward from the hip — not the waist — letting the free leg travel back behind you as a counterweight. Back stays flat. Go until you feel a stretch behind the standing thigh, then come back up.

DOSE

3 sets of 8 each leg.

PROGRESS IT

Start bodyweight. Add a dumbbell in the opposite hand once you can do it without wobbling.

WHEN IT IS WORKING

A stretch and a working feeling behind the standing thigh and in the glute. Not in your lower back — if it is in your back, you are bending, not hinging.



HINGE FROM THE HIP, FREE LEG BACK

03 Split squat

REAR FOOT ELEVATED ONCE YOU ARE READY · QUAD, GLUTE, KNEE TOLERANCE

This is what builds a knee that can take 42 km. Knee pain in October is very often a knee that was never asked to do much in August.

HOW

Long stride, back heel up. Drop straight down — front shin roughly vertical, back knee toward the floor. Drive up through the front foot. Once that is comfortable, put the back foot on a bench.

DOSE

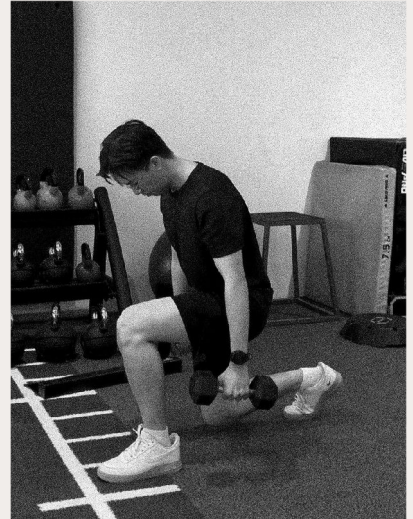
3 sets of 8–10 each leg.

PROGRESS IT

Bodyweight → rear foot on a bench (Bulgarian split squat) → hold dumbbells.

WHEN IT IS WORKING

Front thigh and glute working hard. Some pressure at the front of the knee is normal. Sharp pain is not.



START HERE — BOTH FEET ON THE FLOOR



PROGRESS TO REAR FOOT ELEVATED

04 Side plank with leg lift

OR BANDED WALKS · GLUTE MED, SIDE-ON HIP CONTROL

Late in a race, your hips stop holding you level. That is when your knee starts collapsing inward and things start hurting. This is the muscle that stops it.

HOW

On your side, elbow under shoulder, hips lifted in a straight line. Now lift the top leg and hold. If that is too much, drop the bottom knee to the floor and keep everything else the same.

DOSE

3 sets of 20–30 seconds each side.

PROGRESS IT

Longer holds → top leg lifted → add a band around the knees.

WHEN IT IS WORKING

The side of your bottom hip burning. If it is your shoulder or your obliques, your hips have dropped.



HIPS STACKED, TOP LEG LIFTED

05 Hamstring slider curl

A TOWEL OR SOCKS ON A SMOOTH FLOOR · HAMSTRING, LENGTHENING STRENGTH

Eccentric hamstring work has the strongest evidence of any single movement in sport for protecting a hamstring. The Nordic curl is the version the studies used — but it needs an anchor, a partner, or strength most beginners do not have. This is the same job, on your living-room floor.

HOW

Lie on your back, knees bent, heels on a towel (or socks on a smooth floor). Lift your hips into a bridge and hold. Slide your heels slowly away, resisting the whole way, hips up. When you cannot hold the bridge, drop down, reset, repeat. The slow slide out is the entire point — that is the lengthening your hamstring needs.

DOSE

2 sets of 6–8 to begin. Do not chase reps. This one makes you sore for the first fortnight.

PROGRESS IT

Four steps, in order: **(1)** both legs, slide out slowly only — reset with your hands. **(2)** both legs, out *and* back in. **(3)** one leg, out only. **(4)** one leg, out and back. Move on only when the current step is controlled and not sore the next morning. In a gym, a hamstring curl machine does the same job with load you can measure; once step 4 is easy, the Nordic curl is the top of this ladder.

WHEN IT IS WORKING

Hamstrings shaking, back of the thigh doing the work — not your lower back, not your calves. If your hips drop as you slide out, shorten the range.



HIPS UP, HEELS SLIDING AWAY

06 Pogo hops

THE ONE EVERYBODY SKIPS · TENDON STIFFNESS, BONE LOADING

Tendons need speed, not just weight. Bone needs impact to get denser. Slow strength work gives you neither. This is a two-minute movement that most people leave out and then wonder about their shins.

HOW

Small, fast hops on the spot. Stay on the balls of your feet. Minimum ground contact time — think of the floor as hot. Stiff ankles, quiet landings. Height is not the goal; bounce is.

DOSE

3 sets of 20 — two-footed for the first month, then single leg.

PROGRESS IT

Two feet → one foot → hopping forward and back.

WHEN IT IS WORKING

Springy. If you are landing with a thud, you are going too high and too slow.



STIFF ANKLES, MINIMUM GROUND
CONTACT

A NOTE ON THIS ONE

Impact is the point, which means this is the movement to introduce carefully if you are the second reader. If you have had a bone stress injury, or a shin that has stopped you before, start two-footed, start at ten, and use the 24-hour test in Section 05 before you add more. Everyone else: two minutes, twice a week, and stop thinking about it.

The dose

The evidence says the effect depends on the dose. So here is the dose, and here is what it costs you.

2×	Twice a week, every week but the last. This is the number that is not negotiable — right up to race week, when you stop. Once a week maintains. Twice a week builds.
30 MIN	That is what six movements actually takes. It is one hour a week out of your life. Compare that against six weeks off in October.
HARD DAYS	Lift on days you already run hard. Not on rest days. Keep easy days easy and hard days hard — stacking stress into fewer days is what lets you actually recover on the others.
HEAVIER	Add load, not reps. If you are lifting the same weight in November as you were in August, you have been maintaining for three months, not building. Progression is the active ingredient.

WHEN LIFE HAPPENS — CUT IN THIS ORDER

01	Cut sets first. Two sets instead of three. You keep almost all of the benefit.
02	Then cut a session. One a week for one week. Not two weeks.
03	Never cut the calf work. If you have ten minutes and no more, do heel raises and pogo hops and go home. That is the irreducible minimum.

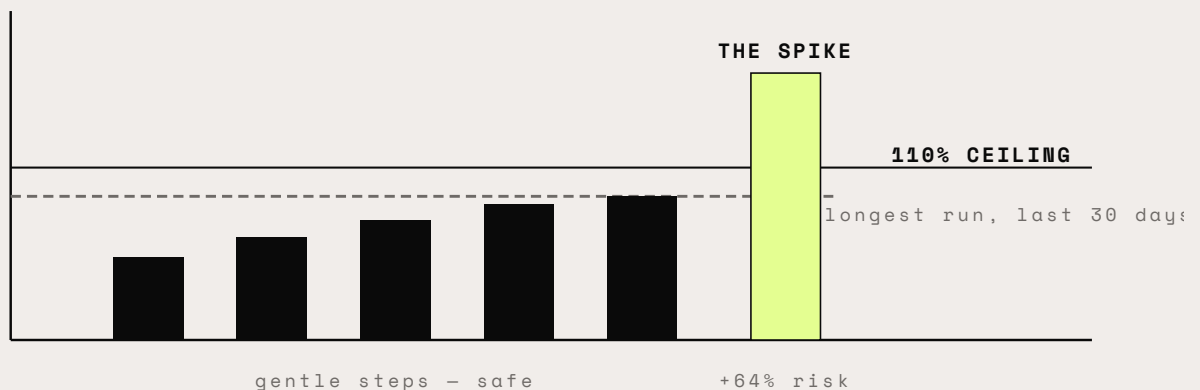
The month you drop the strength work entirely is the month you get hurt. Not because of a curse — because it is always the month your running volume was highest and your time was shortest, which is exactly when your tissue needed it most.

How the strength work changes across 20 weeks

Same six movements the whole way. What changes is the emphasis.

PHASE	WEEKS	WHAT THE STRENGTH WORK IS DOING
Foundation	1–5	Learn the six properly. Light. Get the technique right while the running is easy — you will not have the patience later.
Base	6–12	Build. This is where you get heavy. Load goes up every week or two. Your running is still moderate, so spend the recovery here.
Specific	13–17	Hold the load, add the hops. Running is now the hard thing. Do not chase gym numbers — maintain them and add the springy work.
Taper	18–19	Volume down, load stays. Fewer sets, same weight. Dropping the weight now makes you feel flat, not fresh.
Race week	20	Stop. Nothing you do this week makes you stronger. Plenty of things this week can make you sore.

FIG. 4 — THE SPIKE, NOT THE TOTAL



The largest study of its kind — over 5,200 runners, tracked for 18 months — found that week-to-week mileage totals barely predicted injury. What did: how far a single run jumped past your longest run of the previous month. A jump of 10–30% carried a 64% higher injury risk; doubling it more than doubled the risk. It is the size of the jump, not the size of the week — and the danger is worst when the jump is one you did not plan.

Build in steps, drop back to absorb

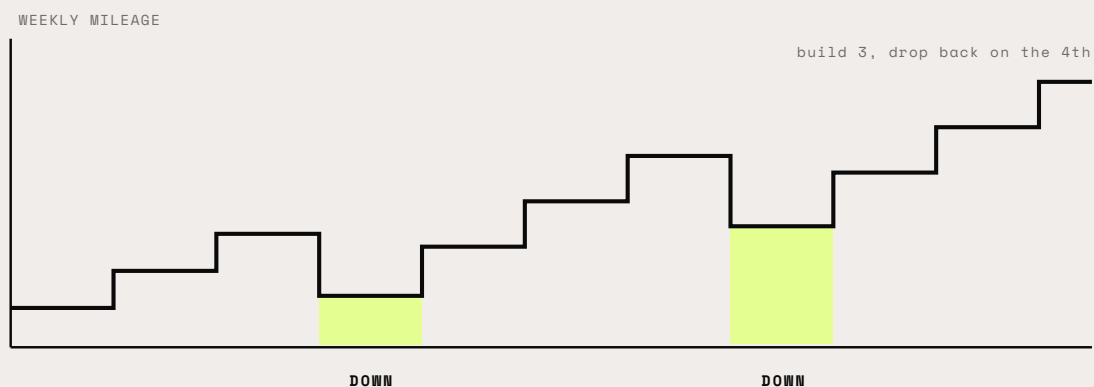
The same shape governs your weekly volume as your long run: climb, then recover.

THE RULE THAT ACTUALLY HOLDS UP

Never spike a single long run far past your longest run of the last month. This is the one the evidence backs, and it is the one nobody tells beginners. The danger is a big, unplanned jump: your longest run has been 20 km, you feel good on the day, and you push to 30. That is the leap that gets people hurt — not a planned step to 24.

The plan's steady steps — roughly 3–4 km at a time, with a down week every fourth — are the kind of structure the same research found protective. The rule bites hardest off-plan. If a jump ever feels too big, repeat the previous week. Nobody ever failed a marathon by repeating a week.

FIG. 5 — THE RAMP



Weekly volume still climbs in steps, with a down week every fourth. Those down weeks are not lost time — they are when the adaptation lands. But notice the plan never spikes a single long run to get there.

IF YOU ARE STARTING LATE

Most people find this document with fewer than twenty weeks left. The plan still works — you enter it at the right place rather than at the beginning. That is why the plan is numbered by weeks to go rather than by dates.

Count back from race day and start at that week. Sixteen weeks out, you start at week 05. Twelve weeks out, week 09. Do not compress twenty weeks into twelve by running the same distances sooner. That is precisely the spike the page above told you not to make.

Then check one thing. If the long run printed for the week you are entering is well beyond anything you have actually run in the last month, that is not your week. Go back until the printed long run is within a few kilometres of your real recent longest, and start there instead. You will arrive at race day with less mileage than the plan describes, and with a body that can take it. That is the trade you want, every time.

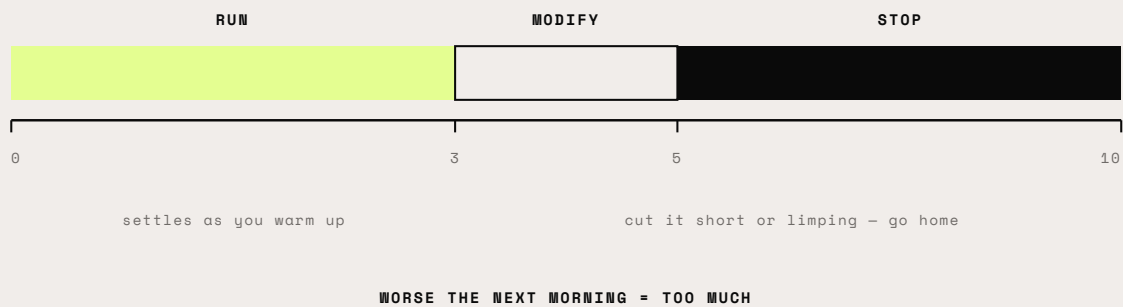
And if there is not enough time left, that is information rather than bad news. A shorter distance on the same weekend is not a downgrade — it is a better first race.

Train through it, or stop?

The 11pm question. Here is the answer, and it is simpler than you think.

Something will hurt. This is not a sign of failure — it happens to essentially everyone in a marathon build. What separates a two-day problem from a six-week problem is what you do in the next 48 hours.

FIG. 6 — THE RULE



Rate it honestly out of ten while you are running. Then check it the next morning. Both halves matter — the second one more than the first.

THE 24-HOUR TEST — THE ONLY ONE THAT COUNTS

Pain during a run tells you very little. **Pain the next morning tells you everything.** If it has settled back to where it was before the run, the dose was acceptable — carry on. If it is worse than it was 24 hours ago, the dose was too much, whatever the number was at the time. Take two days, drop the next run by a third, and rebuild from there.

A flare-up is feedback on the dose, not proof that something tore. Most runners hear a twinge and assume damage. Almost always it is arithmetic: last week asked more than this week's body could absorb. That is a scheduling problem with a scheduling solution.

When to stop guessing and get it looked at

Most niggles resolve with two quiet days. These do not.

WHAT YOU NOTICE

WHAT TO DO

Pain in one small spot on a bone, that you can press with one finger, worse with impact

Stop running. See someone this week. Bone stress injuries get much worse and much longer if you run through them.

Pain that makes you limp or change how you run

Stop. If you are compensating, you are now loading something else wrongly too, and building a second problem on top of the first.

Pain that is worse in the morning after every run for more than 10 days

Get it assessed. Ten days of the same signal is not a niggle, it is a trend.

Swelling, giving way, locking, or pins and needles

Do not self-manage this one. Get it looked at.

Anything that has stopped you before

Go early, not late. You already know your pattern. Treating it at week 8 is a conversation. Treating it at week 17 is a decision about your race.

The maths that people get wrong. Two easy weeks in September costs you almost nothing — fitness barely moves. Running through it until October costs you the race. The people who finish are rarely the ones who trained hardest. They are the ones who never lost six weeks.

One pattern we see often enough to name: the runner who books in with a knee, and whose knee turns out to be fine. What changed was the calf on the other side four weeks earlier, quietly, and everything since has been the body working around it. If something felt off a month ago and then stopped feeling off, it is still worth mentioning.

How hard, not just how far

The plan tells you the distance. It does not tell you the pace — on purpose. Here is how hard each run should feel.

Most beginners make one mistake, and it is not going too slow. It is running every run at the same moderate, slightly-too-hard pace — never quite easy, never quite a workout. It feels productive. It is the fastest route to a stale, injured October.

The fix is not a stopwatch or a heart-rate zone chart. In Singapore's heat those numbers drift so much they mislead you (more on that next). The fix is **effort**, judged by how you are breathing and whether you can talk. For a first marathon, you need two gears. A third is optional, and earned.

THE TWO GEARS YOU ACTUALLY NEED

EASY **The bulk of everything — 8 runs out of 10.** You can hold a full conversation. You could breathe through your nose if you tried. It feels almost too slow, like you are holding back. You are meant to be. This is where the engine is built, and it is the gear beginners skip.

LONG **The same easy effort, just carried further.** Not faster because it is the long run — slower, if anything, because it is longer. Walk breaks are allowed and, past two hours, encouraged. If you cannot speak in sentences on your long run, you are running it too hard.

THE THIRD GEAR — ONLY ONCE YOU HAVE EARNED IT

If you already have a running base — several of you reading this do — or once you have four to six weeks of consistent easy running behind you, **one run a week** can be a little harder.

STEADY **Comfortably uncomfortable.** You can still speak, but in short phrases, not sentences. Not a sprint, not intervals — just a firmer, controlled effort for part of a run. Think of it as a ceiling, not a target: the point is to stay *below* flat-out, not to chase a time.

That is as complex as a first marathon needs to be. Intervals, threshold sessions, and heart-rate zones are real tools — but they are how you get *faster*, and this guide is about getting you *there*. Save them for your second marathon.

IF YOU ARE COMING BACK FROM INJURY

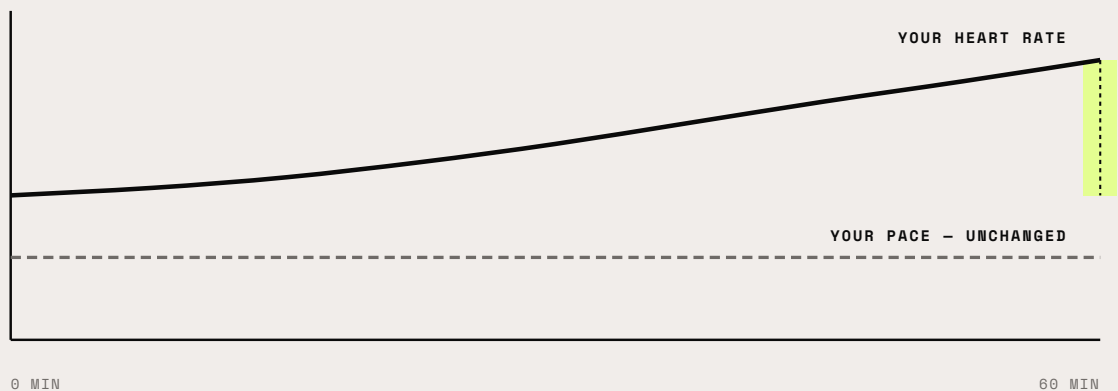
Intensity is the **last** thing you add back, not the first — and it goes on top of a base you have proven you can tolerate, never before it. When you do add a harder run, watch the same signal as always: **the first sign it was too much shows up the next morning, not during the run.** If the old injury speaks the day after a steady run, drop the intensity and stay in the easy gears for another fortnight. You lose nothing that matters.

You are not training in a temperate country

Every plan you will read online was written for somewhere it gets cold. This is the part they cannot help you with.

At 28–30°C and 80% humidity, your body is doing two jobs at once: running, and cooling itself. Sweat does not evaporate efficiently in this air, so your heart works harder to push blood to your skin. Your heart rate climbs even though your pace has not.

FIG. 7 — HEAT AND HEART RATE



Same pace, same effort, heart rate drifting up 8–15 beats over an hour. This is called cardiac drift, it is completely normal here, and it is why pace is a bad master and a decent servant.

WHAT THIS CHANGES

- 01 **Effort over pace matters even more here.** You already know easy means conversational (§ 06). The heat makes this non-negotiable: your watch's pace will lie to you, so let breathing be the judge. Pace is an output in this climate, never a target.
- 02 **Expect to be slower than any calculator tells you.** Four to eight percent slower than the same fitness would produce in cool weather. That is the tax. It is not a fitness problem and it is not your fault.
- 03 **Train at dawn, and not because it is pleasant.** The race starts around 04:30. Running at 06:00 is not avoiding the heat — it is rehearsing the race. Your body needs to know what that hour feels like.

The practical part

SWEAT AND SALT

You will lose more fluid and more sodium per hour here than almost anywhere else people run marathons. Water alone, in large amounts, is not the answer — it can leave you worse off than drinking less would have.

Drink to thirst. Use something with sodium in it on any run over 60 minutes. Weigh yourself before and after a long run once, out of curiosity — the number will tell you more about your own sweat rate than any general guideline can.

THE 04:30 REHEARSAL

From week 11, long runs start at dawn. From week 17, one long run should start at the actual race time, with the actual race breakfast, in the actual race kit.

This sounds excessive. It is the single cheapest way to find out that your shorts chafe, your gel makes you queasy, or you cannot eat at 03:30 — while it is still a Saturday and not a race.

THE SINGAPORE CALENDAR — WHAT WE SEE, AND WHEN

August to September. The ramp. Shins, plantar fascia, kneecaps. Almost always volume, almost never technique.

October. Peak long runs. Achilles, ITB, hip flexors. This is the busiest month, and it is the one nobody plans for.

November. Panic training and taper anxiety. Metatarsal stress reactions — which were made in August and only surface now.

Race week. Nothing new, ever. If something new appears in race week, it is nerves, not tissue. Do not go looking for a fix.

That is fluid and salt dealt with. The other half of the same subject — whether you are eating enough to rebuild the tissue you are loading — is Section 08, and it is the one people skip.

The other thing bone is made of

Section 01 said bone runs on the slowest clock. This decides whether it gets built at all.

There are two ways to fail a bone. You can load it faster than it can adapt — that is Section 01, and most of this document is about it. Or you can load it perfectly well and not give it the material to rebuild with. The second is quieter, more common than runners think, and produces the same November metatarsal.

When your running climbs and your eating stays where it was, you spend a large part of the build with less energy left over than the rest of you needs. Your body economises. Bone is one of the first places it does so, and it does not tell you.

WHAT THE EVIDENCE SHOWS

DAYS	Bone turnover responds in days, not months. In controlled work, markers of bone formation fell and markers of breakdown rose within five days of a restricted-energy state. Your weight need not change for this to be happening.
BOTH	This is not only a female athlete problem. The IOC's consensus work documents the same syndrome in male endurance athletes, where it is consistently under-recognised because nobody thinks to look for it.
SAME	The failure mode is the one this guide keeps naming. A bone stress injury in November was made in August — and underfuelling in August is one of the decisions that makes it.

WHAT TO ACTUALLY DO

Eat around the long run, not only after it. Something before, something during once it runs past 90 minutes, and a proper meal after. The plan starts fuelling at week 10 for this reason, not to make you faster.

Past 90 minutes, take on carbohydrate. Roughly 30–60 g an hour, with water, in whatever form your stomach tolerates — one gel sits broadly in that range. Practise it on the long runs. Race day is not the morning to find out what a new gel does to you.

When the mileage goes up, something on your plate goes up with it. Weeks 13 to 17 are where this bites hardest.

Two caveats, again. The five-day figure comes from short controlled laboratory studies, not from marathon runners in a 20-week build — it tells you the direction and the speed, not your number. There is no threshold here worth calculating for yourself either; those figures are population tools, and treating them as personal targets is its own problem. If eating enough is a difficult subject for you, that is worth raising with your doctor — it is common in endurance sport and it is treatable.

The runners we see with a bone stress injury are rarely the ones eating badly. They are the ones whose running went up in August and whose eating stayed exactly where it was.

Ihle R, Loucks AB. *Dose-response relationships between energy availability and bone turnover in young exercising women.* J Bone Miner Res 2004;19:1231–1240. · Mountjoy M, et al. *IOC consensus statement on relative energy deficiency in sport (RED-S): 2018 update.* Br J Sports Med 2018;52:687–697.

Race day, and the 48 hours after

You have done the work by now. This part is about not undoing it in the first 10 km.

THE ONLY PACING ADVICE A BEGINNER NEEDS

-
- 01 **Go out slower than feels right.** You will feel fantastic at kilometre five. Everyone does. That feeling is not information — it is adrenaline and a taper, and it has ended more first marathons than any injury.
-
- 02 **Take the walk breaks on purpose.** Walking through every water point from the start is a strategy, not a surrender. It is how a large number of first marathons get finished, and it is faster than the alternative, which is walking from 32 km because you did not.
-
- 03 **Eat before you are hungry, drink before you are thirsty.** Whatever you practised on your long runs. Race day is not the day for a new gel someone hands you.
-
- 04 **The goal is to finish.** Not a time. You have no baseline to set a time against, and a target you invented in October is not worth a DNF in December.
-

AFTERWARDS — WHAT NOBODY TELLS YOU

You will be sore for two to five days. That is normal and it is not damage. Walk on it — gentle movement clears it faster than lying still.

Your tissue, though, is a different clock again. The muscle soreness is gone in a week; your tendons and bones have absorbed something considerably larger, and they are still dealing with it well after you feel fine. **Feeling recovered is not the same as being recovered.** This is the same lesson as Section 01, arriving from the other direction.

Do not run for a week. Do not race again for a month. And if something hurt during the race and is still hurting at day ten, that is not stiffness — get it looked at before it becomes February's problem.

| Keep doing the six. Twice a week, for the rest of your life if you like. They were never really about the marathon.

SUMMARY

Injury is a load problem. Capacity is what your body can take. Demand is what you ask of it. Trouble is the moment demand steps over the line — not bad shoes, not your foot strike.

Your body runs on three clocks. Muscle adapts in weeks, tendon in months, bone slower still — and your engine adapts faster than all of them. By October you will have the fitness to hurt yourself. That gap is the whole problem.

Strength work drags the slow clocks forward. That is its job. Not speed, not form. Lauersen 2014: strength training cut injuries to under a third; overuse injuries roughly halved; stretching did nothing at all.

Six movements, twice a week, thirty minutes. Heel raise, single-leg Romanian deadlift, split squat, side plank, hamstring slider curl, pogo hops. Add load, not reps. Cut sets before sessions, and never cut the calf work.

It is the jump, not the total. Do not spike a single long run far past your longest run of the last month — the metric the evidence actually supports. Steady planned steps with a down week every fourth are protective; big unplanned leaps are what hurt people.

Two gears, not five. Easy means conversational and is most of your running; the long run is the same easy effort carried further. A harder "steady" gear is optional, earned once you have a base, and — if you are returning from injury — the last thing you add back.

Worse the next morning means too much — whatever it felt like at the time. A flare-up is feedback on the dose, not proof of damage.

Singapore changes the rules. Effort over pace, dawn over convenience, 4–8% slower than any calculator says. That is the tax, not a failure.

Bone needs material as well as load. If the mileage goes up and the eating does not, the build is happening on credit. Fuel the long runs; carbohydrate past 90 minutes, practised before race day.

The injury you feel in November was made in August. Which means the useful decisions are the ones available to you now.

Twenty weeks, on two pages

The plan and the record in one place. Print it. Put it on the fridge. Two minutes every Sunday.

The left side of each row is **the plan** — what to aim for. The blank side is **the record** — what actually happened. The gap between those two columns is the single most useful piece of information you will generate in the next five months, and it is the first thing we would ask to see if you walked into the clinic in October.

FILLING IT IN

-
- | | |
|----|--|
| 01 | Long run & weekly mileage. Target is printed. Write what you did next to it. Be honest — a logbook you flatter is a logbook that cannot help you. |
|----|--|
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- | | |
|----|---|
| 02 | Strength. Two boxes a week, for the nineteen weeks that have them. Tick them. Finish with 38 ticks and you have done the thing the evidence describes. |
|----|---|
-
- | | |
|----|--|
| 03 | Niggle 0–10. The worst thing you felt that week, rated the morning after. Zero is fine. Writing zero every week when it is not zero is how people end up surprised. |
|----|--|
-
- | | |
|----|--|
| 04 | Notes. One line. Sleep, stress, a long day on your feet, a niggle that moved. Load is not only running load — a bad week at work is a real input. |
|----|--|
-

HOW TO READ THE PLAN

TO GO	Weeks left until race day. The plan is numbered by countdown, not by date, so it works from wherever you are starting.
WK BEGINNING	Blank. Write your own dates in once, counting back from race day.
LONG RUN	One run a week, at easy effort (§ 06). The anchor of the week.
WEEKLY MILEAGE	Everything, long run included.
RUNS / LIFTS	How many of each. Lifts is Section 03, twice a week, nineteen weeks out of twenty.
THE POINT	Why that week exists. If you read one column, read this one.

READING IT BACK

Three things to look for. **A niggle number climbing across three weeks** — that is a trend, act now, not later. **Actual km well above target for two weeks running** — you are ahead of your own tissue, and October is coming. **Missing strength ticks in your highest-volume weeks** — that is the exact combination that fills our clinic, and you can see it before it happens.

Green rows are down weeks. They are part of the plan. Running more in a down week is not enthusiasm, it is borrowing from November.

What the 20 weeks look like

Long runs on Saturdays or Sundays. Dawn from week 11. Race day is week 20.

WK	TO GO	PHASE	LONG RUN	WEEKLY MILEAGE	RUNS	LIFTS	THE POINT OF THE WEEK
01	19	FOUNDATION	3 km	8 km	3	2	Run/walk. 1 min run, 2 min walk.
02	18	FOUNDATION	4 km	10 km	3	2	Run/walk. 2 min run, 2 min walk.
03	17	FOUNDATION	5 km	12 km	3	2	Run/walk. 3 min run, 1 min walk.
04	16	FOUNDATION	4 km	10 km	3	2	Down week. Same walk breaks, less time.
05	15	FOUNDATION	6 km	14 km	3	2	First continuous 30 min. No walk breaks.
06	14	BASE	8 km	18 km	4	2	Fourth run added. All easy.
07	13	BASE	10 km	22 km	4	2	Long run now the anchor of the week.
08	12	BASE	12 km	26 km	4	2	Practise drinking on the run.
09	11	BASE	9 km	20 km	4	2	Down week.
10	10	BASE	14 km	30 km	4	2	Start fuelling: one gel or equivalent (§ 08).
11	09	BASE	16 km	34 km	4	2	Dawn starts from here on.
12	08	BASE	12 km	26 km	4	2	Down week. Reset before the build.
13	07	SPECIFIC	20 km	40 km	4	2	Longest run yet. Slow it down.
14	06	SPECIFIC	24 km	46 km	4	2	Fuel every 40 min. No exceptions.
15	05	SPECIFIC	28 km	50 km	4	2	First big one. Walk breaks allowed and encouraged.
16	04	SPECIFIC	20 km	40 km	4	2	Down week. You have earned it.
17	03	SPECIFIC	30 km	52 km	4	2	Peak, and 30 is plenty. Race kit, race food, race start time.
18	02	TAPER	20 km	38 km	4	2	Taper begins. Volume drops, intensity stays.
19	01	TAPER	14 km	28 km	3	2	You will feel restless. That is the taper working.
20	00	RACE WEEK	42.2 km	50 km	3	—	Stop lifting. Short, easy runs only. Race day.

Distances are a beginner's shape, not a prescription for you personally. Repeat a week whenever you need to — the race date is fixed but nothing else is. Starting with fewer than twenty weeks left? See § 04.

The record

WK	TO GO	WK BEGINNING	LR TARGET	LR ACTUAL	MILEAGE TARGET	MILEAGE ACTUAL	STRENGTH	NIGGLE 0–10	NOTES
01	19		3 km		8 km		☐ ☐		
02	18		4 km		10 km		☐ ☐		
03	17		5 km		12 km		☐ ☐		
04	16		4 km		10 km		☐ ☐		
05	15		6 km		14 km		☐ ☐		
06	14		8 km		18 km		☐ ☐		
07	13		10 km		22 km		☐ ☐		
08	12		12 km		26 km		☐ ☐		
09	11		9 km		20 km		☐ ☐		
10	10		14 km		30 km		☐ ☐		

The record

WK	TO GO	WK BEGINNING	LR TARGET	LR ACTUAL	MILEAGE TARGET	MILEAGE ACTUAL	STRENGTH	NIGGLE 0-10	NOTES
11	09		16 km		34 km		☐ ☐		
12	08		12 km		26 km		☐ ☐		
13	07		20 km		40 km		☐ ☐		
14	06		24 km		46 km		☐ ☐		
15	05		28 km		50 km		☐ ☐		
16	04		20 km		40 km		☐ ☐		
17	03		30 km		52 km		☐ ☐		
18	02		20 km		38 km		☐ ☐		
19	01		14 km		28 km		☐ ☐		
20	00		RACE		50 km		—		

WEEK 20

No strength boxes. Nothing you lift this week will make you stronger by Sunday. Put the logbook down and go and run your marathon.

We would rather you never needed us

Everything in this document is what we would tell you if you walked into the clinic in July. We have given it to you for free, in full, because the alternative — meeting you in October, when the interesting decisions have already been made — is worse for you and duller for us.

If you are the second reader — the one who has been hurt before — the honest advice is this: go early. You already know your pattern. You know which thing goes, and roughly when. A conversation at week 8 is a conversation. The same conversation at week 17 is a decision about whether you run at all.

IF SOMETHING IS ALREADY TALKING TO YOU

Book an assessment. We will tell you what it is, whether 6 December is realistic, and what the next four weeks should look like. If the answer is that you do not need us, we will tell you that too.

THE PROTOCOL

This guide is the short version of how we work: understand the load, read the tissue, build the capacity, and hand the whole thing over to you.

You are the one running the marathon. We are just the people who know which clock your Achilles is on.

REACH US



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SCAN FOR ALL THREE

PhysiCo.

Field Guide / 01 · Edition 2026. Built for runners in Singapore, ahead of 6 December 2026. General information, not individual medical advice — if something hurts, get it assessed by someone who can actually look at it.