



Joan Benoit Samuelson



Teaches the Runner's Mindset



MasterClass

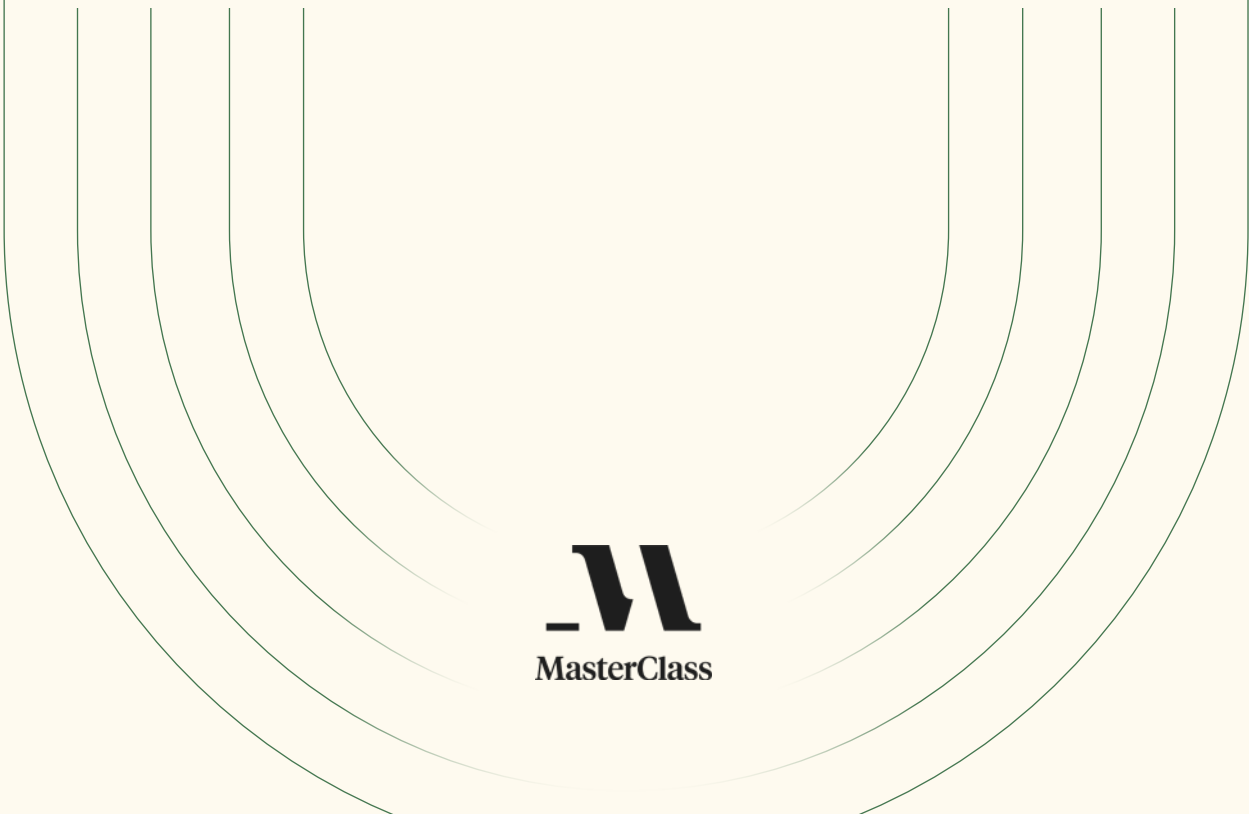


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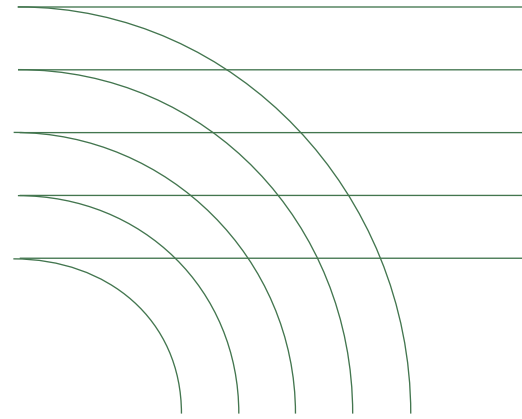
HOW TO TRIUMPH OVER INJURY

What you can learn from Joan, sports psychology and nature





MEET YOUR
INSTRUCTOR



JOAN BENOIT SAMUELSON

The record-breaking, Olympic gold medal-winning runner's career is a study in listening to your body, channelling your passion into goals and overcoming setbacks with resilience

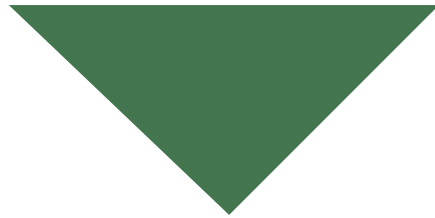


JOAN BENOIT SAMUELSON might never have embarked on a marathon-winning, six-decades-long running career if she hadn't broken her leg as a teenager.

Growing up in the north-eastern state of Maine, one of Joan's early passions was skiing. Plentiful nearby mountains provided many opportunities for her to hit the slopes and, as a child, Joan even dreamed of making it to the Olympics or World Championships as a ski racer. But during her second year of high school, Joan got into a bad ski crash during a race that left her with a broken leg.

The injury would change the course of her life.

As soon as her cast came off, Joan turned her focus to physical rehabilitation. And 'that's when I discovered that I had a real passion for running,' she explains. Both driven and naturally gifted, Joan challenged herself with increasingly longer distances – though she did so in hiding, logging miles at an abandoned U.S. Army post. 'I was embarrassed to be seen running on the roads as a young



teenager', Joan says. Back then, there were far fewer opportunities for girls and young women in the United States to participate in sports, something that changed after the 1972 passage of Title IX, a federal civil rights law that prohibits educational institutions that receive federal funding from sex-based discrimination. The legislation paved the way for expansions in women's sports programmes at all educational levels, from primary school to college. But when Joan was growing up, she says that it was unusual to see a girl exercising and that she 'worried a little bit about my tomboy image'.

Before long, however, Joan's passion beat out her fear. She ran where she wanted, when she wanted. 'Running in my life as a young person gave me a feeling of freedom,' she says. And, as often happens when you follow your passion, success followed.

In college at North Carolina State University, Joan ran cross-country, for which she earned All-American honours, an accolade that designated her one of the top collegiate runners in the country. In 1979, Joan won the Boston Marathon, a feat she replicated four years later, setting a world record in the process.

But it was during the 1984 Summer Olympics in Los Angeles when Joan solidified her status as one of the greatest runners of all time. Competing for Team USA in the first-ever women's Olympic marathon, Joan remembers the thoughts and feelings coursing through her mind and body as she approached the Los Angeles Memorial Coliseum – the site of the race's finish line – in first place. 'I asked myself if I was ca-

pable of carrying the mantle that would come with the first Olympic women's marathon victory,' she recalls. 'And I quickly decided that I would figure it out.' She vowed not to change who she was as a person and that she would give back to the sport and community that had given her so much.

In the years since, Joan has continued running, regularly completing marathons in under three hours and setting world records for her age group. In her MasterClass, Joan will teach you the basics of running, from footwear to technique, strengthening exercises to goal setting. She'll also teach you the importance of knowing your own body and how to develop a passion for running, so that you, too, can continue to love the sport for decades. And, most importantly, she'll inspire you to achieve greatness while finding balance – among your mind, body and spirit – in running and in life.



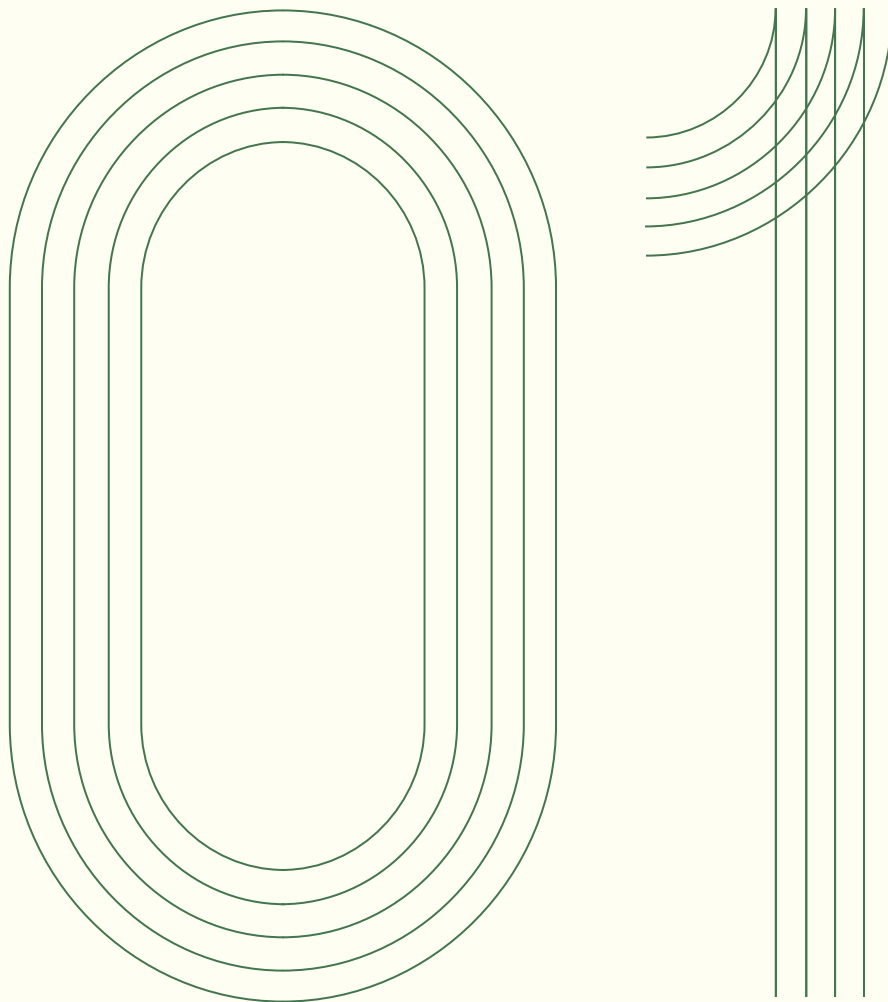
*Running...
gave me a
feeling of
freedom.*



— JOAN



Joan jogs around the Los Angeles Coliseum track carrying the American flag, after winning the gold medal in the first-ever Olympic marathon for women



SECTION ONE: **PREPARE**





SOLE MATES

A quick primer on running shoes

RUNNING IS A fantastically minimalist sport, but you do need to have the right pair of shoes that fit your specific feet and running style. What works for your friend likely won't work for you. Go to a running speciality store, says Joan, and enlist the help of a knowledgeable salesperson. 'Spend the time, spend the money,' she implores. Here are the key components to consider when looking for the right running shoe for you.

UPPER

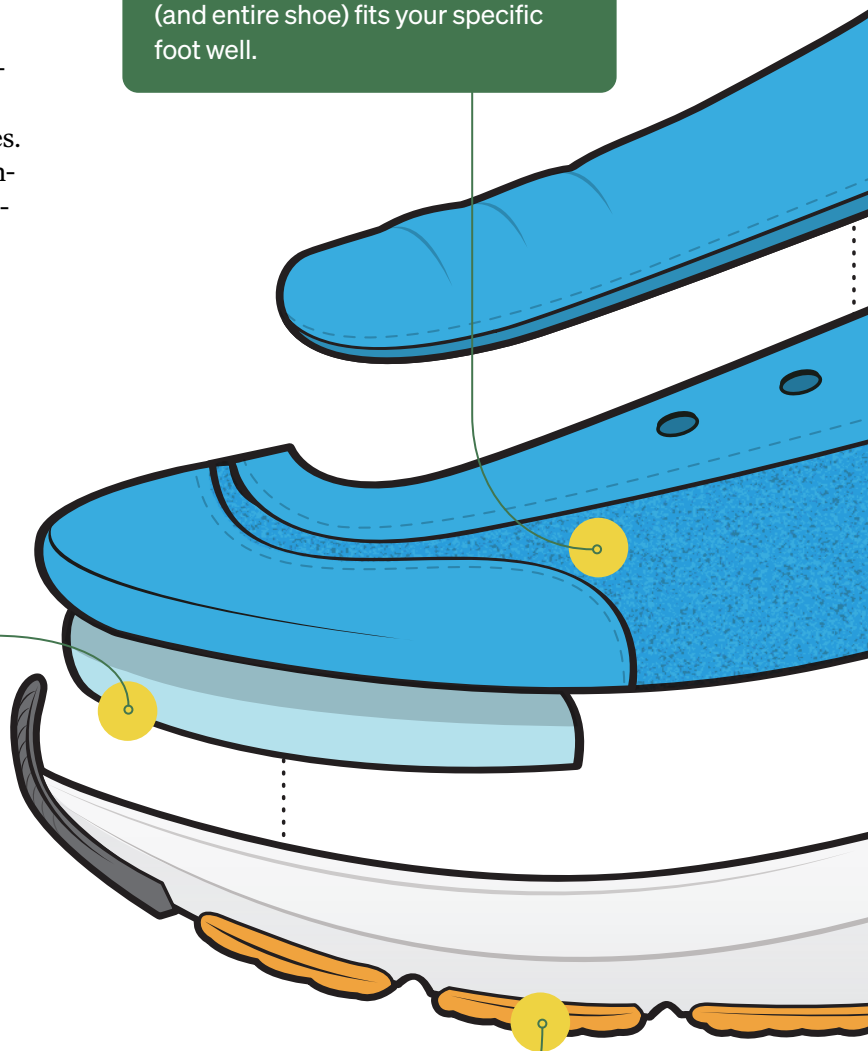
The portion of the shoe that encompasses your foot. Uppers vary by how supportive, breathable, comfortable, light or heavy they are. Some are made of nylon mesh, or micromesh, with plastic or thermoplastic polyurethane (TPU) overlays sewn or glued on, while others are knit polyester. It's imperative that the upper (and entire shoe) fits your specific foot well.

TOE BOX

The section of the shoe that encases the widest part of your foot – the area between your toes and arch. Toe boxes, like heel cups, vary in width; how tight or loose a toe box fits comes down to personal preference.

OUTSOLE

Usually made of durable rubber, the outsole is what contacts the ground. Tread patterns differ and can affect how well the shoe grips the ground. (For instance, trail-running shoes have deeper lugs in aggressive patterns and are often made using stickier rubber than road running shoes.) Joan recommends checking the outsole and midsole regularly for signs of wear. 'I usually have two shoes going,' she says. 'I alternate the shoes every run.'

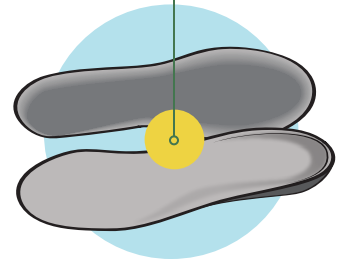


TONGUE

The portion of the upper that buffers the top of your foot and the laces. Some shoes have highly cushioned tongues for maximum comfort, while others have more minimal tongues for a lighter, sleeker feel.

INSOLE

Most often removable, the insole (sometimes called a sockliner) adds extra cushioning and shape to the footbed. Some insoles are treated with an antimicrobial to fight odour.

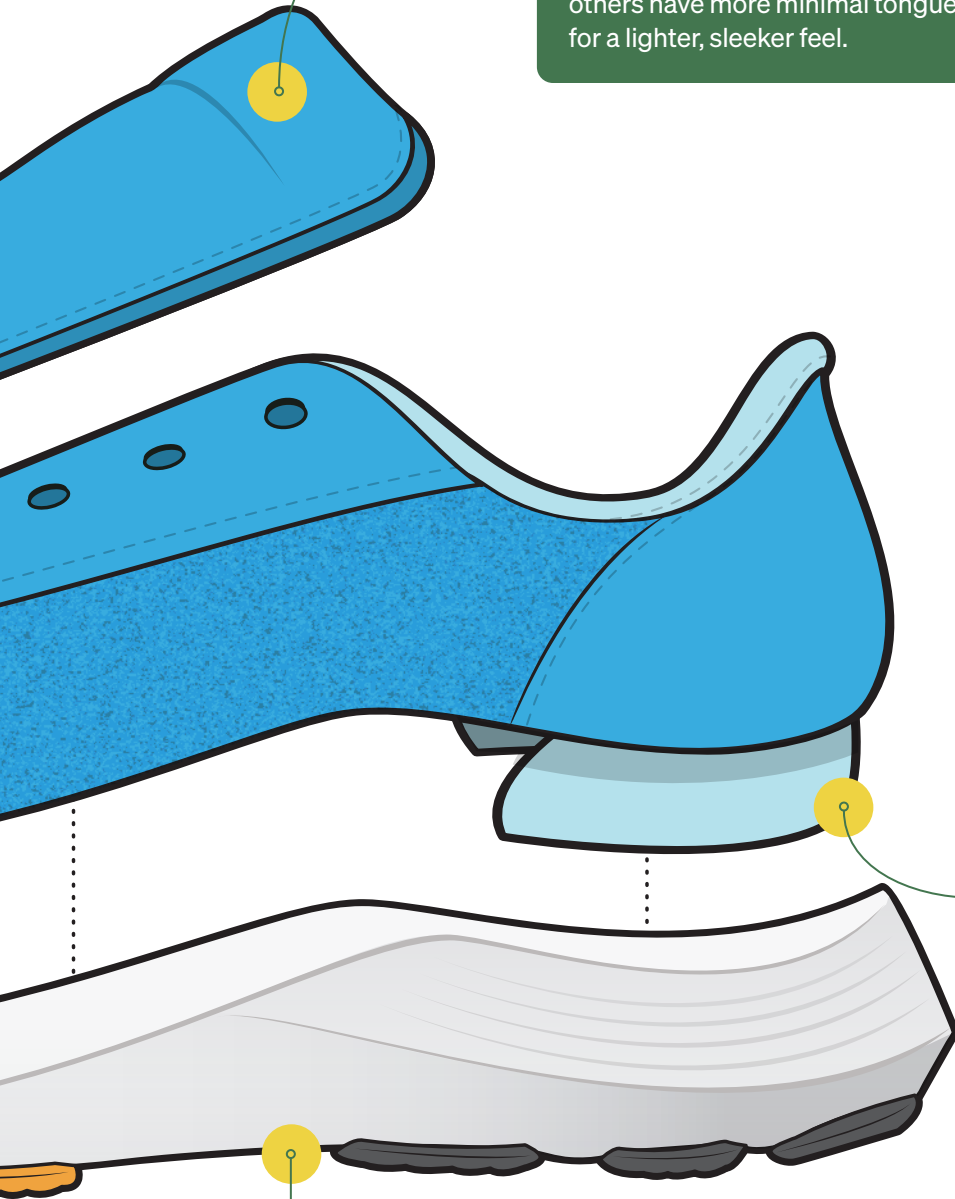


HEEL CUP

The part of the shoe that supports your heel. Well-fitting heel cups help keep your feet in place instead of sliding around within the shoe.

MIDSOLE

The cushioning meant to absorb impact and return energy. Thickness, cushioning properties (like, does it feel bouncy or squishy?), amount of support built in and how quickly the midsole breaks down differ between shoes.





DRESS FOR SUCCESS

Beyond wearing the right shoes, dressing for the environment – and maybe enlisting the help of a tool or two – can increase your comfort and enjoyment more than you might imagine. Here are a few must-haves

HAT

‘I always wear a hat when I run,’ Joan says. ‘For runners who are running in sunny environments... you probably want a light-coloured hat, as opposed to a dark-coloured hat, which will absorb the heat, because the last thing you want overheating is your head.’

SUNGLASSES

‘I usually wear glasses in the winter as well as the summer because it snows where I am, and the sun reflects off the snow,’ Joan says. ‘It can be pretty blinding at times.’

COMPRESSION SOCKS

Joan doesn’t wear compression socks but notes that they can help runners dealing with shin splints, calf injuries or other lower leg strains.

BOTTOMS

‘I wear capris, mid-length leggings, during the ... spring and the fall and shorts during the summer,’ Joan says. In the winter, depending on the climate where you live, you’ll likely want to wear long tights or running leggings, both of which come in a range of materials, from fleece-lined to wind-blocking.

GLOVES

‘My hands and digits tend to get cold,’ Joan says, so she wears gloves that are lightweight but warm throughout winter. ‘To me, [gloves] are the most important piece in winter running.’

TECHNOLOGY

Joan actually refers to her watch that calculates pace and time as a ‘tool of the devil’, noting that she tends ‘to overtrain with the watch’. However, as she puts it, ‘I can’t run with it, and I can’t run without it.’

RUNNING GLOSSARY

STRIDE

How you run. Some runners have longer, loping strides and land on their heels with every step. Others have short, quick strides and land on their midfoot.

CADENCE

How many steps you take per minute – many coaches say to aim for between 150-180.

EFFICIENCY

A combination of mechanics, stride and cadence plays into a runner’s efficiency. The most efficient runners waste minimal energy.

PR

A ‘personal record’, referring to the fastest you’ve run a distance to date. Also sometimes referred to as a ‘PB’ (for ‘personal best’).

LSD

Those training for marathons or long races in general are advised to do one long, slow distance (or ‘LSD’) run per week.

TAPERING

Resting in the days leading up to a race. Tapering doesn’t need to be a period of complete inactivity, but the intensity and distance of your runs should be scaled down and saved for your actual race day.



HOW DO I KNOW IF I'M READY TO RUN A MARATHON?

Here's a checklist

- ☐ I was cleared by a doctor before starting to train.

- ☐ I bought running shoes at a running speciality store.

- ☐ I set goals – short-term, intermediate and long-term.

- ☐ I trained! Each week, I did a long run, a semi-long run at a medium-effort pace and speed-work of some sort, plus recovery runs.

- ☐ I completed at least one fifteen-mile run.

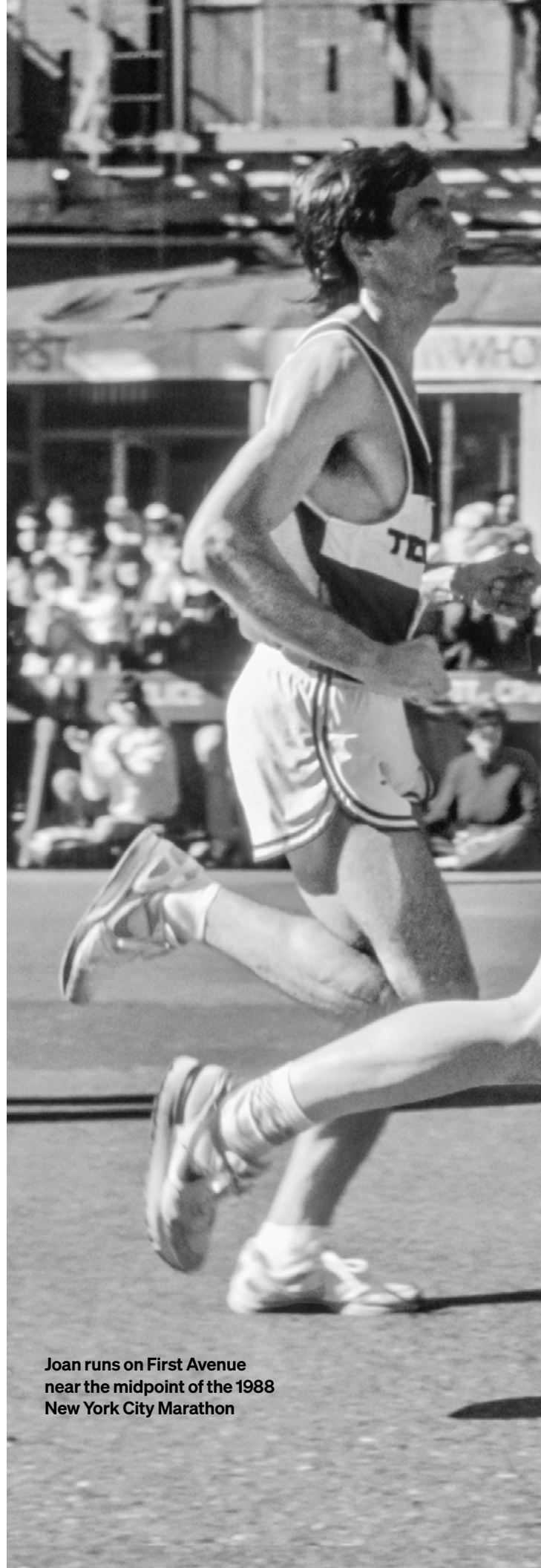
- ☐ I paid close attention to my nutrition and hydration.

- ☐ I practised tapering. I took it easy (while continuing to run lightly) for the last ten days.

- ☐ I packed my gear (see page 12), double-checking to make sure I have everything I'll need.

- ☐ I laid out my clothes last night.

- ☐ I'm mentally ready.



Joan runs on First Avenue
near the midpoint of the 1988
New York City Marathon



ASSIGNMENT

SET YOUR GOALS

Joan is a huge proponent of goal setting as an effective tool for achieving success. Take a moment to write down a short-term, intermediate and long-term running goal. Be inspired by these examples, but come up with goals specific to you. 'The key in goal setting is to make those goals practical, and sensible, and something that gives you joy,' Joan says

SHORT-TERM GOAL

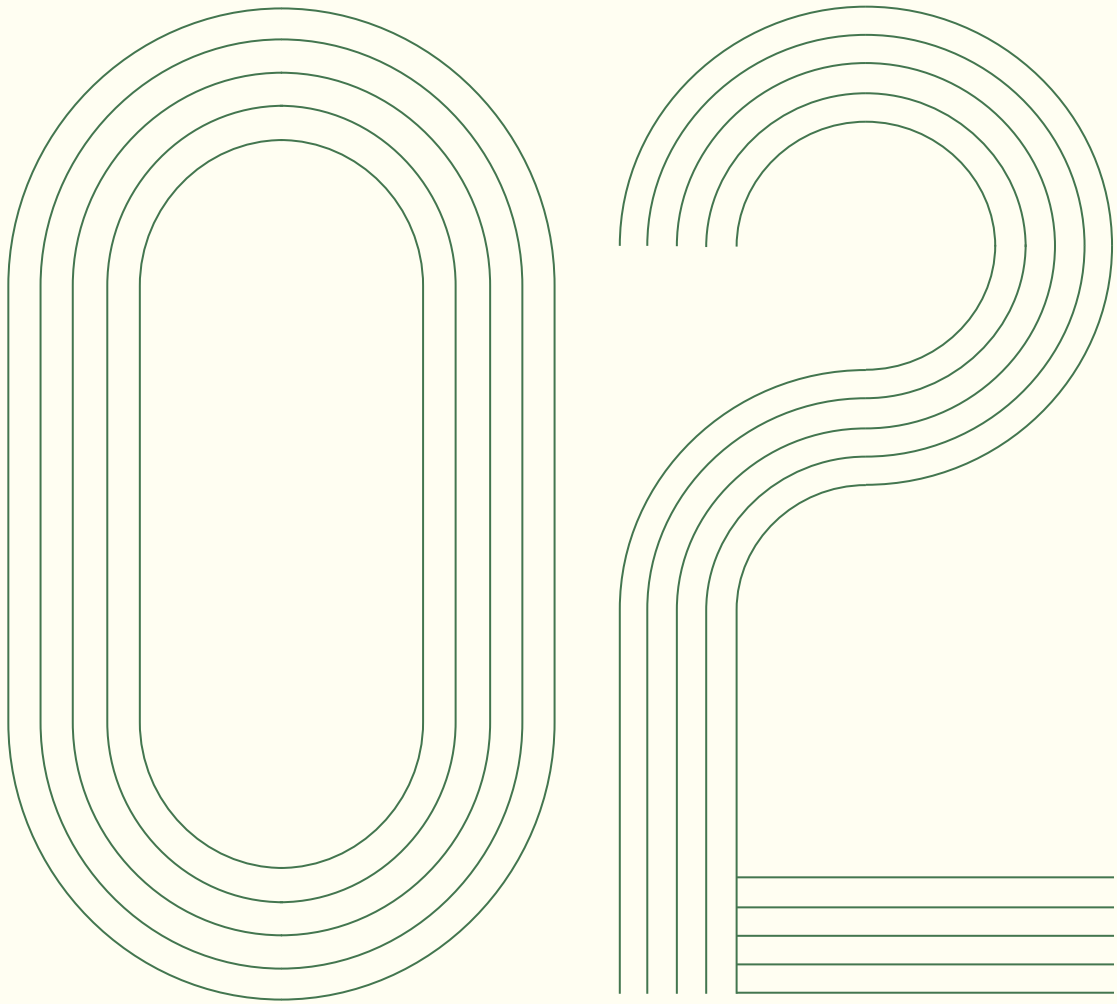
(Example: 'Get out and run or run-walk tomorrow.')

INTERMEDIATE-TERM GOAL

(Example: 'Run three times next week.')

LONG-TERM GOAL

(Example: 'Run a marathon next year.')



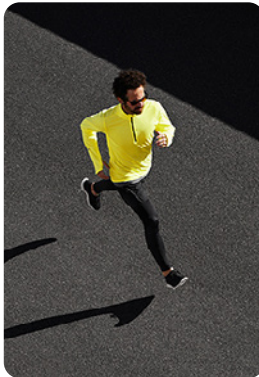
SECTION TWO : **MOVE!**





FIND THE ENVIRONMENT THAT MAKES YOU HAPPY

Everybody's different, which means everybody's (running) happy place is different. Study this breakdown of some different environments you may encounter to help you find one that fits your needs

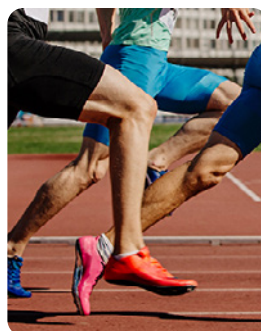


ROADS

- Smooth surface
- Sometimes flat, sometimes hilly
- Can be in urban areas with lots to look at and lots of people around or rural areas with quiet country roads
- May force you to stop at traffic lights or wait to cross at zebra crossings
- Requires you to stay aware of vehicles, bikes, motorcycles, etc.
- Can be very convenient

TRACKS

- Measurable distance (tracks are 400 meters around and four laps equal one mile)
- Won't cause you to get lost
- Allows you to run for as long or as short as you desire while still ending up at the same place
- Great for speed-work, social workouts, running while kids play on the infield or just getting comfortable with running outside



TREADMILLS

- Indoors (and you can sometimes watch TV while running)
- Can vary speed and incline with the touch of a button
- Provides speed, distance and other data without additional technology (like a smartwatch)
- Softer surface than roads
- Can be boring, but can also be a great place to work on form (by looking in a mirror while running), come back from injury (easy to step off when needed), do intervals or get comfortable running at all

TRAILS

- Variable surfaces – from smooth dirt to rocky, rooty or rutty
- Creates a sense of adventure and a connection to nature
- Can be easier on joints and increases strength of intrinsic muscles and connective tissue
- Requires you to stay aware of wildlife and other trail users
- Can provide solitude





Joan, right, runs with Kristin Barry to the finish line of the 2009 L.L. Bean 10K in Freeport, Maine

TRAIN YOUR BRAIN

Mental fortitude is just as important as physical strength

RUNNING CAN BE HARD – there’s no denying that. Inevitably, especially during long races like a marathon, you’ll hit low points. A pain here, self-doubt there...not to mention fatigue that can tempt you to back way off your pace or even stop running altogether. These moments happen to the best runners in the world – even Joan. It’s how you deal with the low points that can make or break you.

The key is mental toughness: the ability to push past pain and fatigue to achieve your goals. Certain types of pain – the acute, searing kind that signifies injury – shouldn’t be pushed through. But the kind of pain that tempts you to slow down and take it easy on yourself or, worse, quit...that kind of pain can be overcome by being mentally resilient.

A 2020 study in the American scientific journal *PLOS ONE* linked mental toughness with self-efficacy. Basically, **believing in yourself**, and knowing that you’ve done the training needed to succeed in your race, can do wonders for fighting through the low points.

Relatedly, according to a study published in 1987 in American publication the *Journal of Personality and Social Psychology*, perceived self-efficacy is tied to endogenous opioid activation, which is a scientific term for endorphins. And it’s the release of endorphins in your brain that allows you to feel a runner’s high: the blissful state where you experience decreased sensations of pain while running. So, again, believe in yourself!

Another tip: when the going gets tough, lean into it. An early 2021

study published in the international, peer-reviewed journal *Evidence-Based Complementary and Alternative Medicine* pointed to the power of mindfulness in cultivating mental fortitude. Researchers likened mindfulness to the ‘acceptance of the present experience’, and found that doing so led to improved pain tolerance and reduced feelings of fatigue among other benefits. Basically, **accepting that you’re having a low point** in a race instead of denying it can help you overcome it.

Other ways to strengthen that mind of yours: **purposefully run in foul weather**. During a race, you’ll be able to tap into the past experience of having pushed through a rainstorm, or a relentless headwind, on a training run. The feeling of being physically tough can transpose to being mentally tough and give you an ‘I did that, I can do this!’ attitude.

Visualisation is another tool that can help you succeed. Although Joan says that she doesn’t utilise visualisation exercises, other athletes find success drawing from the powers of their imagination. Visualising your race going perfectly well can help you feel confident during actual competition, which ties back to the idea of self-efficacy.

Finally, when all else fails, as it may, **focus on just getting to a certain mile marker**. Joan says she tells herself, ‘You just have to hang in there. You have to get to this point in the race.’ Once you get to that particular point, chances are you’ll feel better than you did during the earlier low point.



*You just
have to
hang in
there.*



— JOAN

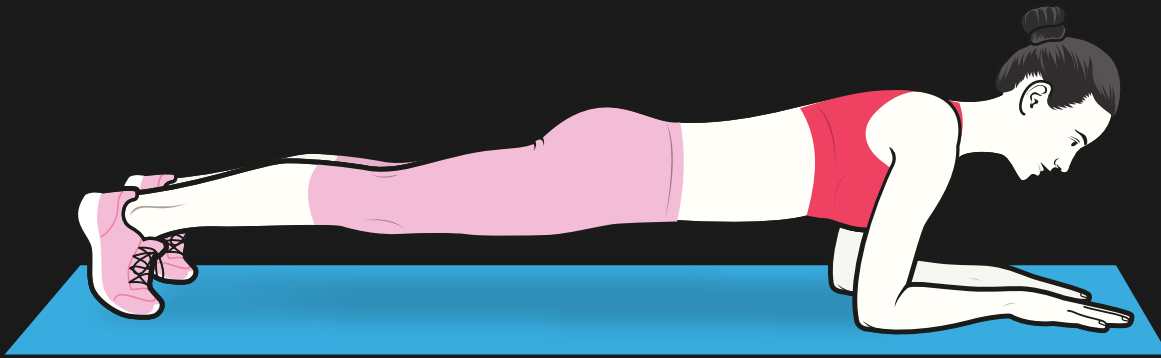


JOAN'S GUIDE TO STRENGTH TRAINING

Breaking down five strengthening exercises,
from squats to side steps

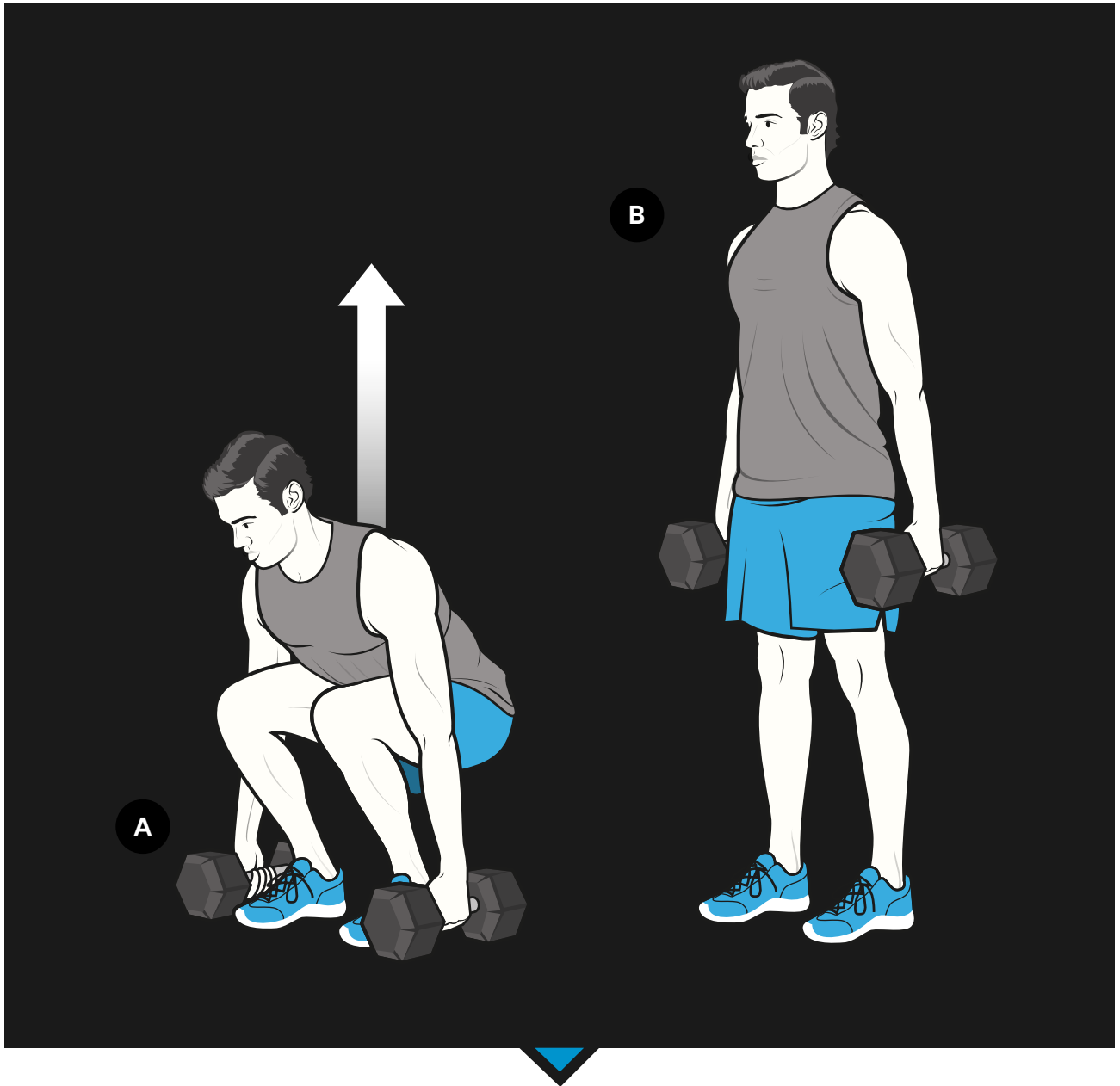
AS JOAN ADMITS, she hasn't always incorporated strengthening exercises into her running practice. For much of her life, she says that any strength training she had came from activities like gardening or cross-country skiing rather than more intentional strengthening routines. 'But there

came a time when the ageing process set in,' she says, and Joan realised she should prioritise strengthening and stretching (see page 35), both of which help alleviate running injuries and speed recovery. Below, Joan walks you through five strengthening exercises, in her own words.



PLANKS

'Planks are an exercise that are really helpful for the glutes, the lateral muscles and the core... Runners normally don't have very strong cores, and this is something most runners really have to work on... Make sure to **keep space between your chin and your chest and shoulders**. Keep your upper body as open as possible, and keep as much length in your neck as you can when stretching your legs out. **Maintain a small bend in your knees** so as not to put too much pressure on them.'

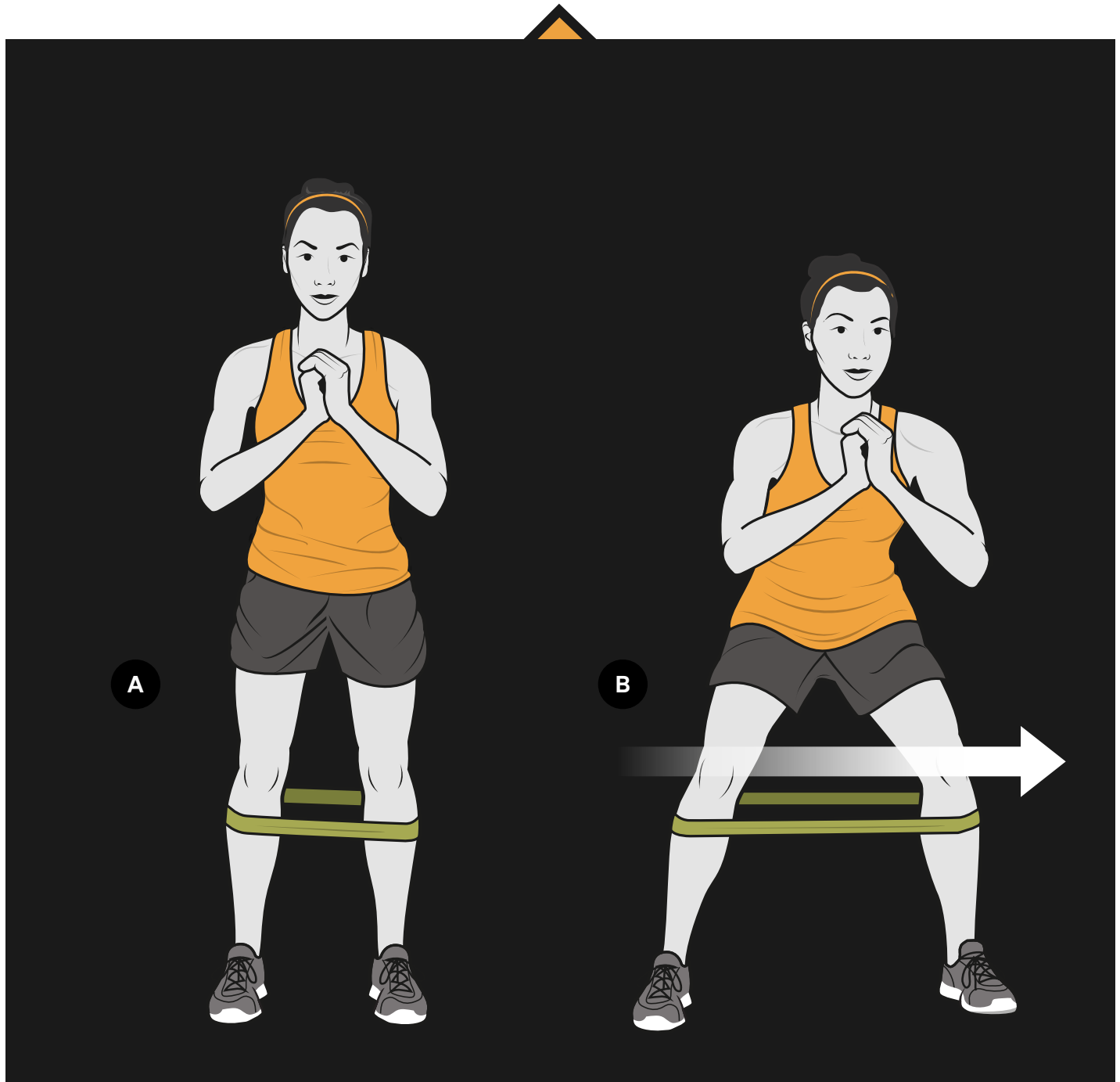


SQUATS

'The squat is an important exercise for runners. It's also a very simple exercise you can do with or without weights. I choose to do my squats most of the time with weights, but if you're someplace and don't have weights, you can do squats with your arms out at a ninety-degree angle. **Keep on the ball of your feet** and then come all the way up, extending your knees as straight as you can without locking them. With weights, my arms are going to be by my side, and I'm going to go down and get the weights. [Then] I'm going to bring them up, and I'm going to go into full extension, looking up. My knees are straight but not locked. Then **I'm going to go down to about a ninety-degree angle** [before I come] back up, straight up, and down again. It's just like taking a seat. **You want to keep your back as straight as you can**, and you want to **keep your core tight**. You want to feel really firm on the ground and planted with your feet solidly below your shoulders. This is good for all your lower muscles, and for your knees because you're strengthening the quads, the glutes and the hamstrings, which support your knees. **I usually do three sets of ten to fifteen squats**, and I like to do my squats before my workouts. It makes me feel like I'm on track in every sense of the word.'

SIDE STEPS

'The benefit to doing squatted side steps is that it helps develop your core and glutes during the exercise... All you need is a simple resistance band – you can have as much resistance on that band or as little resistance as you want... Make sure to **stay low** and not to hyperextend your tailbone; **keep the spine long and your tailbone tucked**. Think of your core as touching the back of your spine. Also, maintain space in your neck and shoulders, and keep your head relatively lifted while still in a consistent line with your spine. Don't let the tension go to your shoulders; keep the focus lower, in the core and glutes... I usually do sets and will go fifteen side steps in one direction, then I'll go fifteen side steps in the next direction, and back and forth three times.'



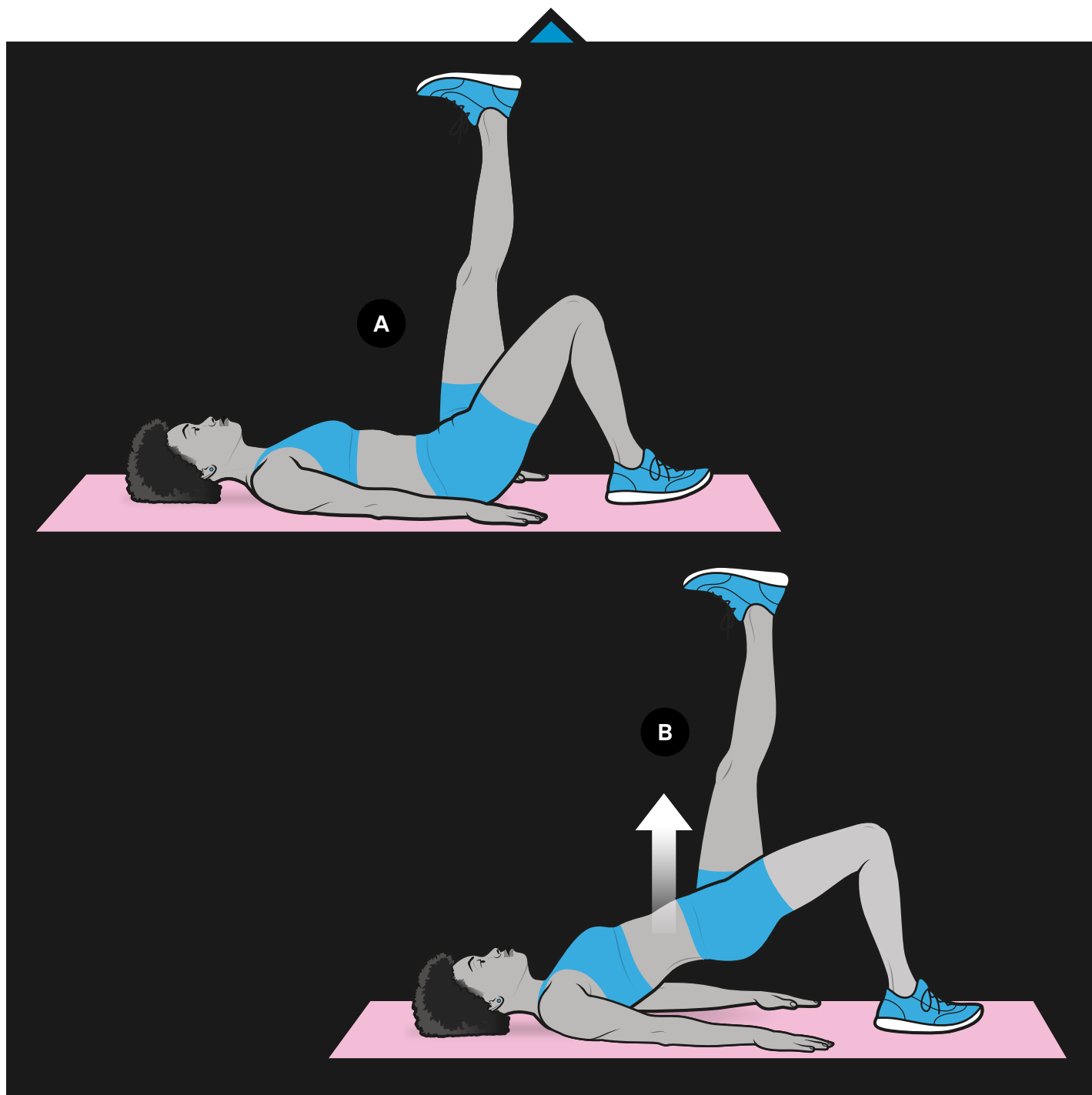


HIGH KNEES

'The high-knee exercise is important because it's developing that powerful set of glutes, and it's also adding to flexibility and stability, because when you have one knee up, you have to balance a bit more on your knee that's grounded on the floor... When lifting the knees, make sure not to dump into your stabilising leg. Try to **keep lengthening through your stabilising leg** all the way through the hip and to the top of your head. Make sure not to lock your stabilising knee; **keep a small bend** to maintain activity in the leg in order not to relax into your knees. Pull your lifted knee into your chest and try to **keep the upper body as relaxed** as you can when doing so... **Usually, I do three sets of sixteen reps.**'

BRIDGES

'Bridges also help you to develop that core strength that's so important, and you're squeezing your glutes and bringing your stomach in... Some people may want to use a yoga mat to soften the surface, but you can do [bridges] on the ground or on the floor or wherever you might be... **Keep your shoulders back and your neck free.** Again, **extend through the leg you're lifting** so as not to input all of the weight into your stabilising knee. You should feel the glute and core start to engage as you lift. You never want to let your toes point out; if anything, a slight point inward will help to protect your knees and back in the long term.'



From left to right: Pink, James Iha of the Smashing Pumpkins, Bruno Mars and Freddy Mercury of Queen

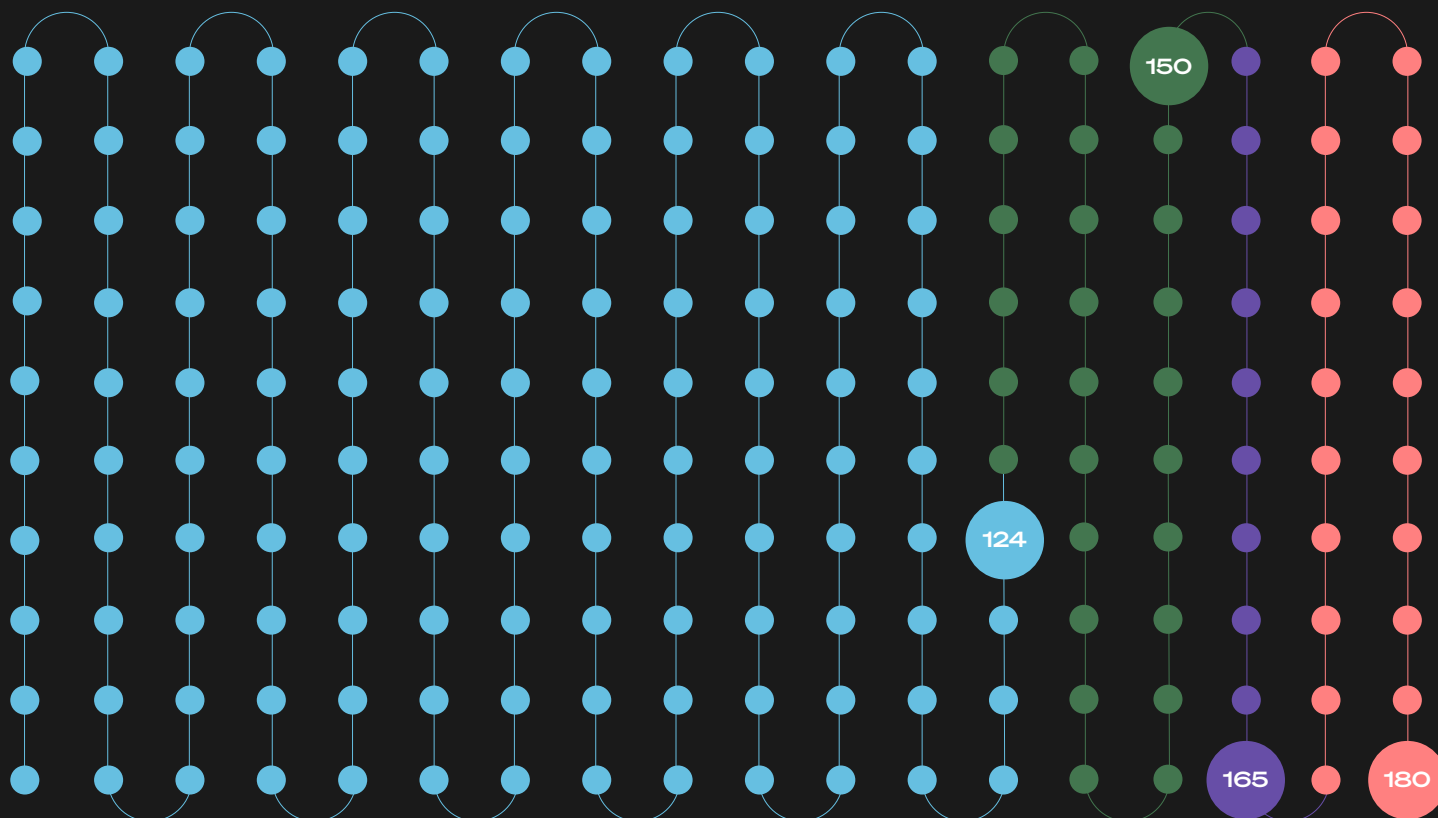


PACE-YOURSELF PLAYLISTS

Thirty-two ear worms that will help you maintain your momentum, no matter your speed

WHILE JOAN DOESN'T listen to music while she runs – 'That's my time to find that balance in my life that's clogged with noise outside of my run,' she says – you might find it motivating. What's more, creating a playlist with certain tempos, or beats per minute, can help you pace yourself. To that end, the following play-

lists are grouped by beats per minute; aim for your foot to strike the ground with every beat. Though these are categorised by how many minutes it takes to run a mile, how fast you're actually running will vary based on your individual stride length.



124 BPM

Twelve-minute-per-mile
pace (roughly 124 beats
per minute)

●

'I Gotta Feeling' 4:48
Black Eyed Peas

'Get the Party Started' 3:12
Pink

'It's Tricky' 3:03
Run-DMC

'Push It' 4:28
Salt-N-Pepa

'Faith' 3:13
George Michael

'My Life' 4:45
Billy Joel

'Buffalo Soldier' 4:16
Bob Marley

'Lucky' 3:11
Jason Mraz
(feat. Colbie Caillat)

150 BPM

Ten-minute-per-mile
pace (roughly 150 beats
per minute)

●

'Mr. Brightside' 3:42
The Killers

'Tonight, Tonight' 4:15
The Smashing Pumpkins

'All I Do Is Win' 3:50
DJ Khaled (feat. T-Pain, Luda-
cris, Snoop Dogg and Rick
Ross)

'Dog Days Are Over' 4:13
Florence + the Machine

'Don't Slow Down' 3:07
Matt and Kim

'Alive' 5:40
Pearl Jam

'In for the Kill' 4:08
La Roux,

'I Fought the Law' 2:30
The Clash

165 BPM

Eight-and-a-half-minute-
per-mile pace (roughly
165 beats per minute)

●

'We Will Rock You' 2:01
Queen

**'Every Little Thing
She Does Is Magic'** 4:20
The Police

'The Hardest Cut' 3:13
Spoon

'Windout' 1:59
R.E.M.

'Runaway Baby' 2:28
Bruno Mars

'How Far We've Come' 3:32
Matchbox Twenty

**'Gone Deep
Underground'** 4:17
Stan Ridgway

'Living Tree' 3:35
Wild Child

180 BPM

Seven-minute-per-mile
pace (roughly 180 beats
per minute)

●

**'Can't Take My Eyes
Off of You'** 3:41
Lauryn Hill

'8 Mile' 5:59
Eminem

'Madness' 4:39
Muse

'Stereo Hearts' 3:30
Gym Class Heroes (feat.
Adam Levine)

'Tusk' 3:37
Fleetwood Mac

'Breaking the Girl' 4:54
Red Hot Chili Peppers

'Breakthru' 4:09
Queen

'Fireflies' 3:48
Owl City



TRICKS FOR GETTING OUT OF A RUNNING RUT

Four ways to help you snap out of it

Run your loop in the opposite direction

Running a routine loop in the opposite direction can allow you to experience your surroundings from a new perspective and bring a newness that you may find inspiring

Change your time of day

Always run in the morning? Try a midday or evening run. Change can reinvigorate your running.

Buy or use new gear

A new gadget or even a new pair of socks can breathe new life into a stale attitude towards running

Count Your Steps

If you hit a rut mid-run, vary your pace and count your steps. For instance, pick up the pace for ten steps, then back off for ten steps, then pick up the pace for twenty steps and back off for twenty steps. Repeat with different intervals as you like.





Joan, second from right,
at the starting line of the 87th
Boston Marathon in 1983



ASSIGNMENT

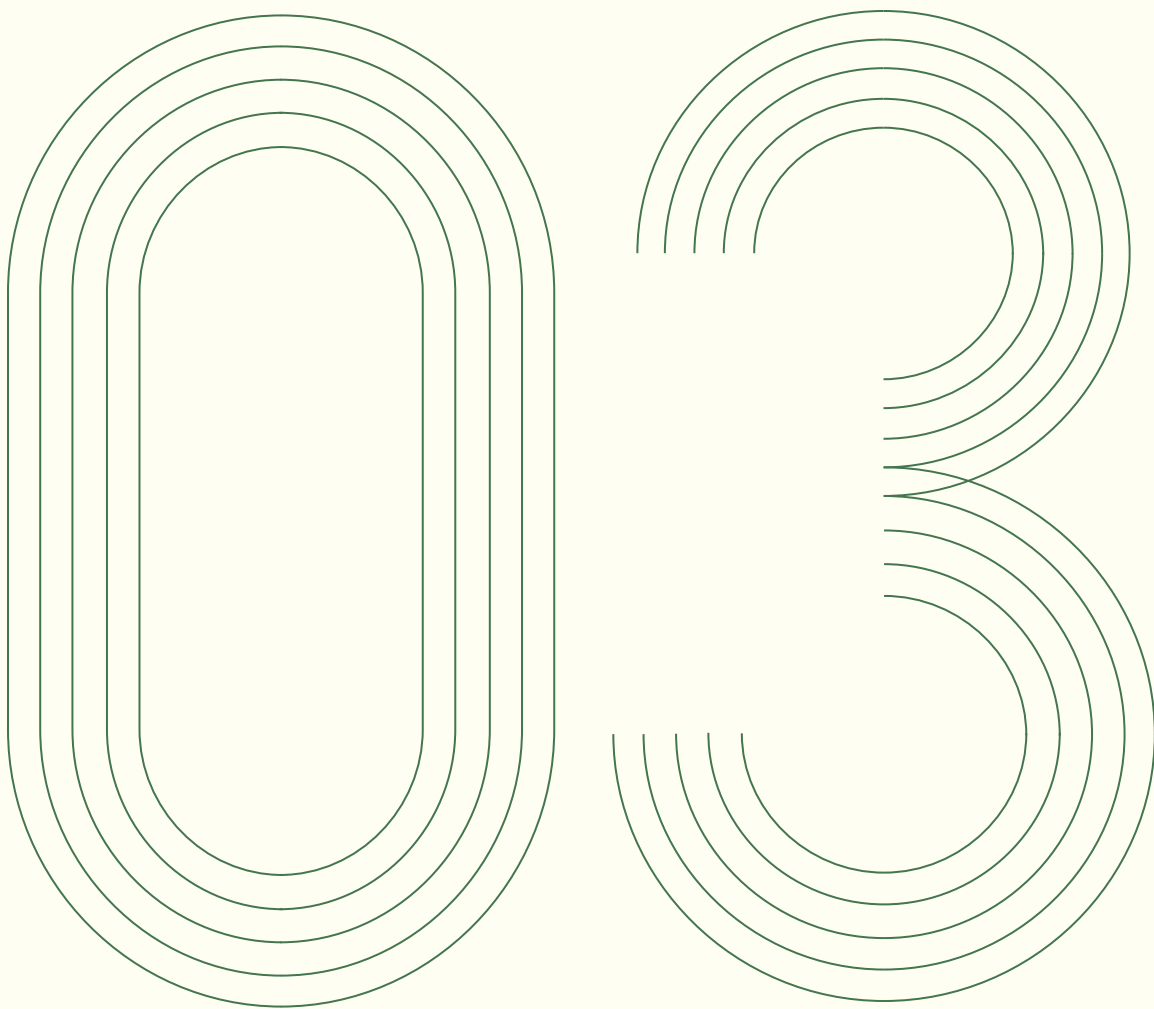
BUILD YOUR OWN TOOLBOX

Running, like all sports and, really, like everything in life, is a learning experience. Joan explains how a disappointing performance in a race becomes knowledge for your individual toolbox, which you can draw from when faced with a future obstacle or roadblock. ‘You can go back to that toolbox and say, “Okay, I ran up against some challenges when this happened. How did I deal with it?”’ she says. “Will it work for this particular problem or issue?”

She’s a firm believer that runners are constantly filling their toolbox- es and that no two runners – and, therefore, no two runners’ toolbox- es – are alike. ‘What works for one runner might not work for another runner,’ she says.

Build your own toolbox of past experiences that you can reach into to arm yourself for current and future challenges. Here’s a prompt to help you get started:

Write down one thing you’ve learned from a past bad experience that helped you overcome it.



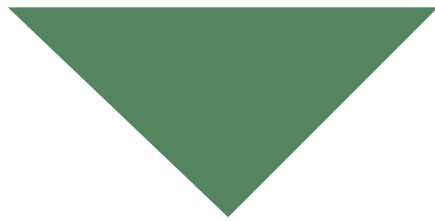
SECTION THREE : **RECOVER**





RECOVERY 101

A look at the benefits of active and passive recovery



AS YOU CULTIVATE your own running practice, it's vital that you make recovery days part of your fitness plan. Recovery periods give your muscles a chance to rest and rebuild after you've worked them to exhaustion (or even failure), making them stronger in the process. Conversely, overtraining can actually hinder your progress because you're depriving your muscles of the downtime needed to repair themselves.

There are two types of recovery you can incorporate into your routine: passive recovery and active recovery. Passive recovery, as the name suggests, requires less physical exertion and typically revolves around an external stimulus engaging your body while it's at rest.

Examples of passive recovery include getting massages, spending time in a sauna, taking hot or ice baths, going into a cryotherapy chamber or a float tank and, perhaps most important of all, sleeping.

Active recovery, on the other hand, is a low-impact exercise regimen that takes place between hard

workouts. When properly executed, active recovery exercises can increase blood flow, clear out lactic acid, stretch sore muscles and connective tissues, counteract delayed onset muscle soreness (DOMS) and improve general well-being. Examples include stretching (see page 35), yoga, cycling, swimming, foam rolling, light jogging and walking.

Ideally, your exercise regimen should include a mix of training, active recovery and passive recovery, along with proper hydration, nutrition and stress management. As Joan shares, 'The most important thing to me as a runner and as an individual living a full life is to find a balance.' So listen to your body and keep these tips in mind the next time you postpone a run in favour of getting a few extra hours of sleep.

Instead of making yourself feel guilty, remember: your rest and recovery is actually making you stronger.



The most important thing to me as a runner... is to find a balance.



— JOAN





TO STRETCH OR NOT TO STRETCH?

Breaking down the latest findings

EVERY FEW YEARS (or even every few months!), it can seem like a new article gets published adding to the debate about whether stretching is actually good for runners or not. Countless studies have been released with contradictory findings on the benefits (or drawbacks) of stretching before a run, stretching after a run, only doing dynamic stretches (as when you're stretching your body via a movement like a lunge or a torso twist) or stay-

ing away from static stretches (holding a stretching pose in place for twenty to forty-five seconds).

Since it can be difficult to parse what, exactly, is the right approach, your best bet is to educate yourself on the findings presented by the latest studies and to do a little trial and error on your own body. Follow Joan's mantra (and common sense): everybody's different, and every runner has to find what works best for them.

What is stretching?

When you stretch your muscles, like your quadriceps (the four large muscles that make up the top of the thigh), you lengthen the muscle fibres and connective tissue that surrounds the muscles, making them more supple.

The Argument FOR Stretching

In August 2021, the *International Journal of Environmental Research and Public Health* published a study stating that both static and dynamic stretching done as part of a runner's warm-up 'may optimise the running energy cost' and 'may reduce the perception of effort', both of which are desirable outcomes.

And in January 2021, international scientific journal *Frontiers in Physiology* published a scoping study – meaning research that reviews a number of existing studies to compare findings – and ultimately concluded that dynamic stretching can improve running performance. The study highlighted specific research conducted in 2020 that found increases in how long it took runners to fatigue, and how far they were able to run at 90 percent of their VO_2 max (just shy of max effort) after a dynamic stretching warm-up. Interestingly, the scoping study also concluded that static stretching, though not benefiting running performance, can reduce acute muscular injuries. The study recommends runners hold static stretches for up to ninety seconds before running.

The study adds that less flexible runners would benefit from stretching more often, especially prior to going for a run. But, perhaps most importantly, the article proposes that 'further studies be conducted'

before researchers can offer conclusive recommendations.

The Argument AGAINST Stretching

Some researchers argue that runners benefit from shorter muscle fibres that act like a spring-loaded coil rather than fibres that are lengthened and more supple, which are the result of stretching. Additionally, a 2002 study published in the *British Medical Journal* found stretching doesn't help ward off muscle soreness, a finding also confirmed in a 2005 study in American research publication the *Journal of Athletic Training*, which also found that stretching doesn't meaningfully reduce lower extremity injury risk.

Finally, a 2010 study released in the American peer-reviewed research publication the *Journal of Strength and Conditioning Research* says that 'static stretching may impair endurance performance up to sixty minutes and increase caloric expenditure.'

Joan's Point of View

Joan says that early in her running career, she never did any stretching (or strength training) outside of everyday activities. But she says she began stretching and strengthening to counter injuries that were hindering her, an approach that has paid off. 'I have to be honest with you – I feel much better,' she admits.

Your Conclusion

What works for one, won't work for another. Be your own scientist and experiment with stretching. Does it make you feel better (or worse) when you run? Test your hypothesis, tweak your experiment and retest until you come to your own conclusion.



A recent study found that dynamic stretching can improve running performance.



— JOAN

HOW TO TRIUMPH OVER INJURY

What you can learn from Joan, sports psychology and nature

JOAN'S BEEN RUNNING for over six decades, and during that time, she's dealt with her fair share of various injuries. (In fact, while Joan was filming her class, she was recovering from knee surgery and had to patiently await returning to the kind of running she wanted to do.)

For runners of all levels, being injured takes a mental and emotional toll just as much – if not more – than it does a physical one. Not being able to use your body in the way you want can make you feel helpless, frustrated, full of anxiety and sad.

Give Yourself Time to Process What Happened

'Being injured sucks, period,' says Denver, Colorado-based sports psychologist Dr Justin Ross. 'We first have to give ourselves permission to have all the feelings associated with being injured and process through those experiences.'

To do that, Ross suggests talking to friends, family, a therapist or 'even your dog'. He also says that

you might find it helpful to shift time and energy away from running to different parts of your life, like music, art, reading or spending more time with your family and friends. You may also bolster your mental resilience during your injured period by working on other performance areas like strength training (if your injury allows) or cross-training. Joan picked up road cycling and has found great enjoyment in that, and she's also a proponent of swimming as cross-training for running.

Find Other Ways to Stay Involved

If you're not able to be active during your recovery and rehabilitation, you could still remain engaged in the running community by volunteering at a race or getting involved in coaching or mentoring other runners.

And, as Joan preaches, living a balanced life, where running isn't the sole purpose of any given day, can help ward off intense emotional struggle when you're unable to run



Being injured sucks, period.



—DR
**JUSTIN
ROSS**

LISTEN UP! YOUR BODY'S TALKING



Joan once told a world-renowned doctor that he was wrong in diagnosing her injury. What he thought was inflammation, she knew was structural. She was right, and her self-diagnosis allowed her to run the 1984 Team USA Olympic Trials, which led to her winning a gold medal at the Los Angeles Games. 'As an athlete, you need to know that you know your body better than anybody else,' says Joan. And you need to listen when your body is telling you to take a break, or to let an injury heal...or to get a second opinion on a diagnosis that doesn't feel right to you.



Joan, after she crossed the finish line and kissed the ground at the 118th Boston Marathon in 2014

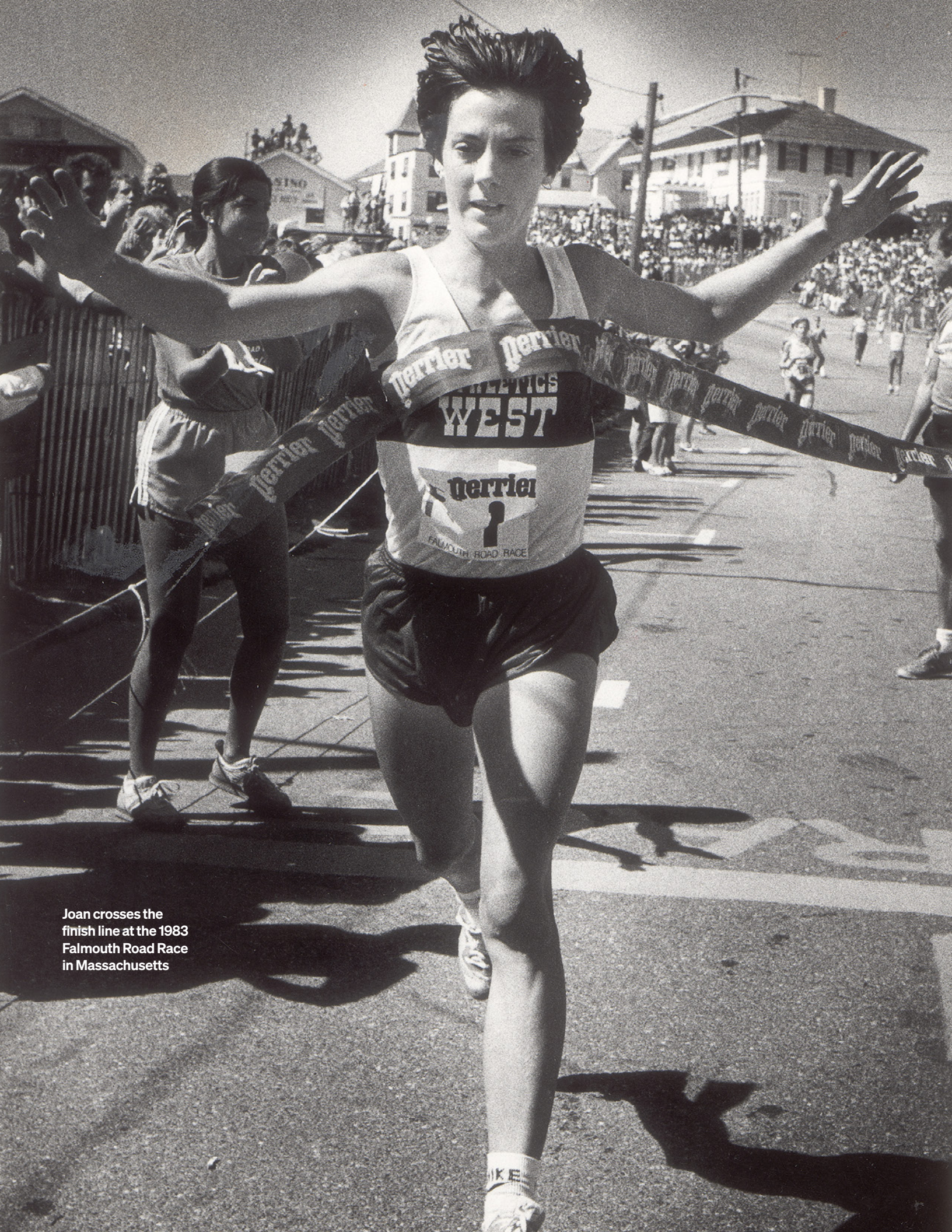
due to an injury. In fact, a 2020 study published in the *International Journal of Environmental Research and Public Health* found that ‘obsessively passionate runners’ – or runners, according to the study, for whom the activity has become intertwined with their identity – were actually more likely to report running-related injuries in the first place. That study’s authors theorise that that result is likely due to these types of runners being unable to detect when injury or sickness first presents itself, as well as not being able to mentally disassociate from running.

Cultivate Patience

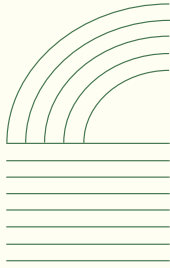
‘Where you can err is when you push through sickness or an injury, and

your results start going in the other direction,’ warns Joan, who speaks from personal experience. She recalls forcing herself to complete a track workout when she was suffering from a 39-degree Celsius temperature, a decision whose negative health consequences lasted for six months. Joan also warns of compensatory injuries, where you tend to adjust your running gait to avoid pain from one injury but create another injury in doing so.

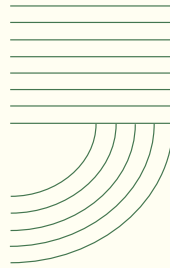
Perhaps the best thing you can do for both your body and your mind is cultivate patience. As Ross says, ‘Radically accepting that you need to be patient is hard. But it’s a critically important starting point in the recovery process.’



Joan crosses the
finish line at the 1983
Falmouth Road Race
in Massachusetts



*We can't run
anybody else's
race except
our own.*



— JOAN

CREDITS

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MasterClass