

## PERFORMANCE ATHETE

If you want to be a better runner tomorrow than you are today then it's time to call yourself a performance athlete, a runner and start making the right mental affirmations to commit to the training you need to do to develop

## DON'T JUST RUN!

Cross training such as aqua jogging, cycling, swimming and gym work can play a vital role in building your fitness adding variety and loading different muscle groups.


## ADAPT TO SUCCEED!

You have a plan now, but don't be a
slave to it. Your body is an amazing machine, if you feel tired and sore consider training at a light intensity for that day, stretching, eating well or getting some massage. rest allows your body to heal and recover.

## SET TARGETS

Training plans contain weeks of training. Set some targets that are realistic within this journey to race day. Targets will motivate you and help you check your progress. It might be a half marathon or two in the build up to a marathon or even a 10 km or your local parkrun.

## TOP TIPS FOR GETTING STARTED

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FUEL \& RECOVER
Your body needs rest and fuel in order to train and improve. Clever athletes sleep well \& have a diet rich in protein \& micronutrients supported by high quality carbohydrate. Snacking \& eating between meals and sessions helps to fuel training correctly \& promote active recovery.

## KEEP IT SOCIAL

Running can be a very sociable sport. You will find it easier to keep the consistency of your training if you can link up with others prepared to train with you.


## HAVE A ROUTINE

You can find yourself clocking up
miles rather than training sensibly. Run to time \& effort. Give every session a purpose! Some should be easy to allow you to recover or build endurance, Some harder building a strong heart \& pace.

## FIND YOUR STRENGTH

Including the exercises in this guide will add variety to your training and help you remain injury free and develop more strength endurance.

## TOP TIPS FOR GETTING STARTED

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## KEEPING IT ALL IN BALANCE

Performance training, and developing your fitness can seem complicated at times with lots of information and conflicting advice. In truth it can be kept pretty simple. The key is the training triangle you see to the right. Most of us think about the training sessions we need to do to become stronger, fitter or faster. In reality you won't really make gains until the other two sides of the triangle the nutrition, and the rest and recovery are also considered as much focus and attention. As you increase your training keep the triangle in balance by improving your nutrition by ensuring you listen to you body and respect its need to rest in order to improve, in the next few pages we cover each of these areas in turn.

## TRAINING

Your running, conditioning and cross training is designed to progressively overload your muscles. When they recover from that overload they will get stronger. Our training plans include a mix of different effort levels to progressively build endurance.
REST
Your body improves and progresses during rest phases, rest days and as you sleep. We provide our top tips in the second part of this guide.

## NUTRITION

Fuel your training and recovery correctly ensuring you have the right macro and micro nutrients to both have the energy to train hard but also to allow your body to heal and to keep you blood, bones and immune system healthy.

## THE TRAINING TRIANGLE



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## THE ESSENTIALS

Before you embark upon your running journey do you have the right shoes? Why are the correct trainers important?
A pair of trainers that are correctly fitted and sized for you is a sensible investment. Wearing the correct running trainers that are suited to your feet and running gait will play a huge role in preventing injury.
Understand your feet!
Your running gait is simply the way in which your foot strikes the floor as it lands and then pushes off into the next stride and depending upon the type of foot plant you have your trainers can aid in making each step as efficient and safe as possible.

## WET FOOT TEST!

Step in some water and then stand on a dry floor, bath mat or piece of paper. This test works on the basis that it roughly translates into the amount of stability you will need from your trainer. This simple test will give you a rough indication of the type of foot strike you have, and will equip you with some basic knowledge to help show you what features to look for in your running shoe.

## The normal foot / The neutral runner

A slight curve in the footprint shows a normal arch. It shows the forefoot and heel connected by a narrower section (but not as narrow as the high arch to the far right). This indicates a very efficient 'neutral' foot strike where the foot transitions nicely through the arch to the ball of the foot before take off.
Trainers needed-
A neutral shoe or a stability shoe with moderate control features.

## The flat foot / The over pronator

$60-70 \%$ of people over pronate. The whole shape of the foot being printed on the floor indicates this. It suggests a flat foot, WITH the arch is collapsed. The foot strikes the floor with the outside of the heel and then rolls inwards taking off from the inside. Trainers needed-
A stability shoe with motion control. The trainer has a firmer section on the inner/mid section of the shoe.

## The high arched foot / The supinator

The footprint shows a very narrow section or no section at all between the forefoot and the heel. The foot strikes on the outside of the foot and doesn't pronate enough. It is a lighter foot strike. Trainers needed- Cushioned (or
'neutral') shoes with plenty of flexibility to encourage foot motion. Stay away from motion control or stability shoes, which reduce foot mobility.


## PICKING THE CORRECT SHOES

## FIND YOUR EFFORT

There are a number of different paces that you should aim to master which will make up your training:

Easy runs:
Fully conversational at the speed of chat and about $6 / 10$ effort. Steady runs: Conversational, controlled but working at about 7/10 effort.

## Threshold running:

Controlled discomfort and
3-4 word answer
pace $8 / 10$ effort.
Interval running:
3k-5k-10k effort
or 9/10 effort.
LEARN TO FEEL YOUR PACE
The feeling of not being sure how fast you should be running for any particular session is common, from beginners to elite athletes. For beginners it never feels as though running is easy but we can assure you that running doesn't need to be hard all the time.

At the beginning all you are trying to do is get out and run. That should be at easy pace or 'the speed of chat' - if you can't talk as you are running, you're going too fast. For the more experienced runner, 'the speed of chat' is how your easy and recovery runs should feel - totally in control and relaxed. If you are combining walking and running, the effort level remains the
same - you should be able to hold a conversation on both the walking and running segments.

Faster than easy, conversational running is 'steady running'. This is the backbone of training for more experienced runners. This is where you must be honest and not push too hard or you might ruin your faster sessions, so conversation should still be possible, but a little strained.

Incorporating threshold running is how the elites train. This is where you are running at a controlled discomfort level, you can still talk between breaths, but only 3 or 4 word phrases. This is not running to exhaustion or sprinting. You may already feel able to include some 3-5 minute blocks into a run
each week which will grow in volume
throughout your training as per your training plan.
Interval training and $5 \mathrm{k} / 10 \mathrm{k}$ pace is top-end training. This is often called the 'hurt locker' and is used in training to replicate the feeling at the end of a hard race. The effort levels here should be almost at maximum.

## TRAINING HOW SHOULD IT FEEL?



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## Recovery Run (RR)

## Rest (R)

To help your body cope with the workload, rest is going to be as important a part of your training schedule as the running itself. Listen to your body and take heed of any warning signs. If you feel fatigued even before you've run a step, find yourself thinking up excuses not to run or start suffering a series of minor injuries; you probably need more time off. Taking enough rest allows physical and mental recovery and gives your body the time to adapt to your workload..


Training for endurance requires your body to work harder than it has ever done. To see improvement without breaking down, you'll need some recovery runs. These should be nice and easy and you should feel relaxed. Enjoy the scenery. You should be breathing easily and be capable of holding a conversation throughout the run. This will mean that you are running in the 60-65\% range of your Maximum Heart Rate (MHR) and it should be no more than 45 minutes in duration. It also helps with the removal of the waste products which accumulate in your muscles after harder efforts.

## Long Runs (LR)

Long runs are vital in your plan and key to racing well in long distance races from 5 km - marathon. At first, concentrate on increasing the time on your feet rather than worrying about distance. Start off by heading out for at

## least an hour and run at a

 conversational pace or 6/10 effort. Gradually this will build to $75 \%$ of WHR as you start to practice periods of marathon or race pace running. These runs improve your muscular endurance and condition your body to burn fat as its primary fuel source.
## TRAINING GLOSSARY

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Continuous Hills (CH)

## Threshold Runs (THR)

After the long run threshold runs are probably your most valuable workouts. They are run at a controlled brisk pace, about 80-85\% of your MHR, you'll only be capable of uttering a couple of words to your training partners. Tempo/threshold runs improve your lactate threshold (the speed above which your body struggles to cope with the lactic acid created by burning energy without oxygen), your running economy and aerobic capacity .

Hill running develops strength in your muscles and tendons without putting them under the type of stress they are exposed to during faster running. Run up a 5-10\% gradient for 45-90 seconds at a 'threshold effort'. Turn immediately at the top and run down the hill at the same effort, then turn at the bottom and repeat without any recovery until the rep time ends. Like a tempo/threshold run, a hill session is time to concentrate, as you should be working at about 80-85\% of MHR and be able to utter just a few words.

## Interval Training (IT)

 Intervals help to boost specific race pace speed and involve running timed efforts with a controlled recovery. The effort level is around $85-100 \%$ of MHR, depending on the duration of the event you are training for and the length and volume of intervals used. A typical example might be $6 \times 3$ minutes @ 5 km race pace with a 90 second jog recovery.$$
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## Warming Up/Warm down (WU)

When you are going to do any faster running such as Hills, Threshold Runs, Intervals or a race, it is important to warm up gradually. A 10-15 minute jog lets your muscles warm up and improve their range of movement.

Cross-Training \& core conditioning (XT)
It is important that your training is balanced with some non-impact activities such as swimming, cycling, rowing, the cross trainer etc, otherwise you are more likely to pick up an annoying injury that will set back your training. More experienced runners should also add cross training to their regime. Endurance running, especially the marathon, requires whole bodyconditioning. To achieve this you should aim to work a variety of muscle groups and not just your legs. Be careful not to make the cross-training, whether it is core conditioning, lifting weights, using an elliptical trainer or practicing Pilates, so intense that you are left too tired for your running.

## Marathon Pace (MP)

Understanding the pace and effort you intend on running your marathon at is very important. Pace judgment and patience on the big day will be crucial to running your best marathon. Marathon pace practice allows your body and mind to get used to what will be required on race day, and it builds endurance quickly.

## Fartlek (F)

This is a Swedish term that literally means "speed play". It involves a number of bursts of effort over a variety of distances with a variable recovery. Originally the length of effort was based on the terrain, for example, pushing harder every time you came to a climb, no matter how long it was. You can adapt it for your needs.

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Good running posture is very important in helping you to maintain good form for the whole run and therefore adding to efficient running style, injury prevention and aiding good breathing * Carry out the perfect posture test (see opposite). * Think about your 'form' whilst you run.

* Try to be upright and tall.
* Feel as though you're falling forward into every stride.
* Practice perfect posture in every day situations to ensure your muscles don't tighten up.

You can all check your posture and get an idea of a good running form by doing the following exercise which DOESN'T involve going for a run!
Perfect Posture Check
Stand with your feet hip width apart. Imagine there is a piece off string pulling you through the centre right through the top of your head and towards the sky. This will create your 'running tall' posture, a feeling of your upper body being lifted up and out of your hips. At this point your shoulders may have risen, so relax your shoulders by rolling them back and down making sure there is no tension through the shoulders and neck. Without lifting your heels lean forwards ever so slightly, your whole body should lean from the ankles, not just the top half, this is a very small movement but should give you a slight feeling of falling forwards. You certainly shouldn't be leaning so far forwards that you look like you are about to fall over!

It is important to remember at this point that your leg speed is determined by your arm speed. In your 'perfect posture check' position begin to swing your arms as if you are running. Remember to drive the hands forwards and the elbows backwards with thumb lightly resting on forefinger. If you imagine you are wearing a running jacket with a zip down the middle, your hands should not be crossing the line of that zip. This will limit lateral (side to side) movement running is a linear (straight forwards) sport so we want all of our energy going forwards towards that finish line! At this point whilst you drive you arms (remember that slight forward lean) you should feel as though your legs want to start running.

## PERFECT POSTURE CHECK

## GLUTES

Sit with one leg out straight. Cross the other leg over, keeping knee bent. To feel stretch in backside hug bent knee into chest. Keep back straight.


## HAMSTRING (BELLY)

Lay on back. Keep one leg on the ground. Raise other leg holding the back of the calf. Bring up to feel the stretch in the middle of the hamstring.


## QUADS

Grasp the top of the ankle with the same side hand and bring heel to backside. Hips should be pushed forward.


## HIP FLEXORS

Kneel on one with a 90 degree ankle at both knees. push hips down and forwards until a stretch is felt at the front of the hip


## KEY STRETCHES

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## STRETCHING KEY TIPS

Stretch both legs and repeat 23 times if certain muscle groups seem particularly tight Hold stretch for 40-45 seconds each time and complete them after your runs.
Never stretch cold muscles. A good stretching routine will help to restore the muscle balance and allow you to be more flexible
Consider investing in an 'MOT' with a sport physiotherapist or some sports massage which can help manage the build up in tightness that will occur in your training
A 'foam roller' can be used to supplement your stretching on a day to day basis to carry out self massage.

## CALF (GASTROCNEMIUS)

Stand with feet shoulder width apart. Take one foot forward and keep feet parallel. Maintain the arch in the forward foot by pressing down with the toes to stop foot rolling in. Straighten back leg and feel stretch in top area of the calf


## CALF (SOLEUS)

Repeat position of the gastrocnemius stretch but this time bend back leg to take stretch into lower calf above Achilles.

## KEY STRETCHES

FINGER CRUSHER
Get into a sit-up position. Find the natural arch in your back and place your hands under the arch. Engage your lower abs and pelvic floor and push your spine down onto your hands, trying to crush your fingers into the ground. Hold this for 45-60 seconds per set.
The next level: Do small alternate leg lifts, while still keeping even pressure on your hands or extending in to 'bicycle' movement in and out with your legs.


## PLANK

Lift your body up with your weight on your elbows and toes. Keep a straight line from the neck down through the legs to your ankles, engage all your core muscles by sucking your belly button up to the ceiling. Keep your chest over your elbows. Hold for 30-

60 secs.
The next level: Add in small alternate leg lifts. If this is too hard to begin with, you can avoid lower back pain by doing this with your knees on the ground.


## STRENGTH \& CONDITIONING

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## BRIDGE

From a sit up position raise your hips up so your body forms a straight line from shoulder to hips to knees. Hold this position for 45-60 seconds by squeezing your glutes and your lower abdominal muscles.
The next level: From a 'bridge' position straighten one leg at a time aiming to not let your hips 'sag' as you do so.


## SIDE PLANK

Make a right angle with your supporting arm, your feet together and your stomach strong. Rise up, making sure you squeeze your glutes and push your pelvis through. Hold it for 30-60 seconds.
The next level: Lift your free arm into the air, keep your side really strong, and don't let your middle sag.


## STRENGTH \& CONDITIONING



## WHAT IT'S ALL ABOUT

The strength exercises we have shown you in this guide are one form of 'cross training' or 'XT' in the plans. The other is non running cardiovascular training such as swimming, cycling, aqua jogging (yes running in the pool with a buoyancy aid!), rowing and using a cross trainer. This exercises the heart and muscles and will definitely keep you aerobically fit. Your heart doesn't know the difference between going for a walk or cross training it just works as hard as you ask it to. You can really boost your fitness with additional XT in your week.

## GET CHECKED OUT

If you're injured firstly consult a doctor or a physiotherapist before embarking on your cross training. If they say you are able, still follow your training plan but use cross training instead. Don't lose that hard-earned fitness - keep going!
If you can see a sports physio or injury expert they will also offer treatment and training advice. Ensure that the cross training is also pain free and that you add the specific rehab exercises you have been set..

## 'TIME AND EFFORT'

If you are struggling to get out and run through injury or weather conditions you can complete key sessions in the plan using cross training. Runners have a tendency to panic and just stop when injury hits. Provided you can cross train safely and pain free you and maintain and even progress your fitness.
Simply replicate the time and effort we have asked in the running session using the other training options available to you.
CROSS TRAINING

## KEEP SPECIFIC

Whilst cross training can add masses of value and variety to your weekly training remember your goal. At the end of your block of training you need to feel you have the strength and the fitness to run your chosen event.
The minute your conditioning or cross training is getting so hard that its leaving your too tired to complete your key runs, or even risks injury itself then the XT has lost its benefit. Remember its there to support your running, not totally replace it.


## GYM CLASSES

Many of your will be members of gyms or go to local fitness classes. These can be great giving you a motivating environment to complete your conditioning or cross training. Remember the key rules in this though stay specific and don't leave your classes super tired. Pilates, yoga and core classes can be a great option to add to your training mx .

## HEART RATE

If you want to get serious with your cross training you may wish to explore investing in a heart rate monitor which will help you hit the training in the correct effort zones and allow you to keep a track of your developing fitness as you run and train more. Over time your should feel that you are better able to control sudden increases in heart rate and than you will be able to run at a similar speed but a lower heart rates. You may also notice your resting heart rate going down a few beats!

## CROSS TRAINING

## BALANCE THE TRIANGLE

Nutrition is one of key elements of our training triangle. Without getting the basics right you will struggle to have the energy to train well or the nutrients to heal and adapt to the training you have completed. Its a huge area with ever developing science and research so here we cover just the basic tips to keep you running strongly!

## NEVER HUNGRY, NEVER OVER

 FULLSplit those big main meals into 5-6 smaller meals, with mid morning and mid-afternoon snacks to ensure blood sugar levels are balanced.

## HYDRATION

Aim to drink 2-3 litres of fluid a day sipping regularly on water or even water with electrolyte tablets. Avoid drinking caffeine with your main meals as this can limit some of your nutrient absorption and late at night which will impact on your sleep. As your peak weeks of training kick in your may wish to monitor alcohol consumption which can have a big impact on your recovery.

## PROTEIN RICH,

 CARBOHYRATE CLEVER Carbohydrate is critical to fueling your training effectively. Take on high quality, 'slow release' complex carbohydrates including plenty of oatcakes, sweet potatoes and whole grains. Protein provides the essential nutrients you need to heal damaged muscle fibres and tissues from lean meats, fish, nuts, sprouting seeds and tofu.
## NUTRITION \& RECOVERY

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## FUELLING YOUR RUNS

You will need to practice taking on fuel in your training runs if you intend to do so in the race. If you are running a marathon we highly recommend using gels. Aim to take on a gel after 45-60 minutes and then one every 30-40 minutes after. Take the top off and sip it slowly in order to control intestinal discomfort.

## KNOW WHEN TO BACK OFF

If you are regularly tired no matter how much sleep you are getting, feel your nutrition is good but still lack energy, are struggling to improve or even going backwards despite doing more and start to lose motivation to get out and train you might be over training. Listen to your body and be prepared to back off and take an extra rest day and adapt your plan if needed. Consistency is vital!

## AVOID THE TERRIBLE TOO'S

Building your training up too fast, too soon and doing too
much training too hard is a sure fire way to pick up niggles and gradually lose the motivation to get out and train. Stick to the plan, be patient and don't panic or back fill training if you have started late or had some time off.

## MONITOR YOUR HEALTH

As you increase your training your body and your energy demands will change. You diet will need to change and adapt with this. Become good a monitoring your energy levels and notice any sustained increase in fatigue or tiredness over several days. Keep a training diary and note down on these runs that felt fantastic what you ate and drank so you can repeat this in the future!

## NUTRITION \& RECOVERY

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## GET TO BED

Sleep is vital to adapting to training and getting fitter. Regularly getting 4, 5 or 6 hours sleep a night will limit your ability to achieve deep sleep, release growth hormones and will affect cortisol and stress levels. Get into a good pattern at night, avoid digital screens in the final hour before bed and limit caffeine and alcohol late at night.


IGNORE THE MYTHS
There are a lot of myths and scare stories out there surrounding nutrition. No athlete should ever look to eliminate whole food groups unless recommended to do so by a qualified dietician, nutritionist or doctor. Avoid the advice of unqualified bloggers and if you want to explore your own nutrition in depth seek a fully qualified professional.


## NUTRITION \& RECOVERY

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