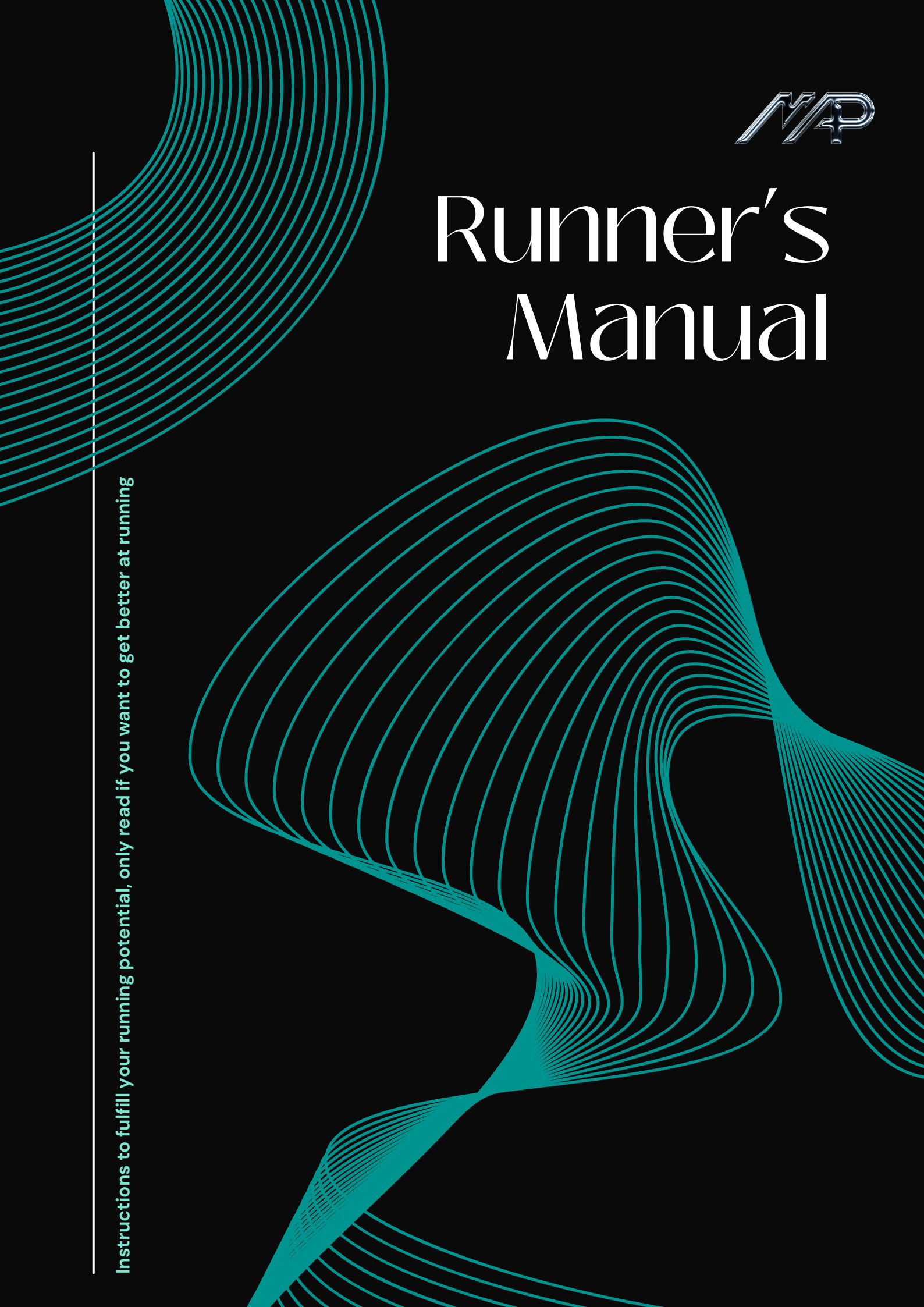
Runner's Manual

Instructions to fulfill your running potential, only read if you want to get better at running



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Running motivation

Chapter 1

01 Sho-shin

In a world where we are always being pushed to know what we are doing and accomplish everything we need to keep our minds open. There are always different ways to approach things.

Be comfortable with the ability to scrap what you knew, scrap what all your PB's as you have to rebuild and regain fitness. Everytime you start a new training cycle, everytime you start a run and build you give yourself and opportunity to be someone new.

02 Game Plan

Have you ever heard the saying, ""If you try to please everyone, you end up pleasing nobody". It's the same with running, if you try and get better at all distances or types of training you're going to get better at none. The fact is, you have to be selective.

Either focus in on the specific distance and train hard for it. Or just run for your well-being. If you try and do both you won't accomplish either. Get a plan and work towards it, even when things don't seem to be going right. You are not the value of the results but you will grow from the process of training for the goal.

03 Stop comparing

If you want to be the best athlete you have to ensure singular focus on yourself. If you start comparing with others you will inevitably find yourself feeling unhappy.

The fact is the people who excel at anything have a singular focus on being a little better everyday. Comparison can get you sidetracked and you forget what you needed to develop. It's always about the specific things you need to do. Nothing more, nothing less, it's all about focus on your journey. Compete against yourself only.

Runner's Nutrition

Chapter 2

Injury prevention is all about how you approach your training. If you show up in your best condition you can maximise your bodies ability to withstand training. Maximise your carbohydrate input first.

Nutrition 01

Carbohydrates are essential, 50-70% of your diet should be carbohydrates. They are the main source of energy and will influence your ability to consistently. We need to learn to eat enough and not under fuel, We need to eat 5-10grams of carbohydrates per kilo. For example if you weigh 60 kilos that is a minimum of 300g. I supplement my carbohydrates with Maurten hydrogel mix satchet.

The science



Oats

67g of Oats = 30g of Carbohydrates



Rice

107g of rice = 30g Carbohydrates



Potatoes

150g of Potatoes = 30g Carbohydrates



Pasta

150g of Potatoes = 30g Carbohydrates

Runner's Nutrition

Protein makes up the building blocks of ligaments and muscles. Be sure to get enough an consistently.

Nutrition 02

Protein makes up 12-15% of your diet as a runner. Try and whatt whole foods before having supplements, give yourself 1.4-1.8g of protein per kilo. If you are 60kg you will need 80grams a day.Have a look at the breakdown below for some ideas, also remember that the proteins should be complete. This means that the protein has all 20 key amino acids.



[Further Protein info here]

Runner's Nutrition

Micro vitamins support bodily function and development of muscle fibres.

Nutrition 03

Lastly you need to get the micronutrients in, these are your vitamins. Ensure you diversify your vitamin intake, creating the nutrients that help your muscles function, ensuring that you take vitamin D especially. This will not be met in the northern hemisphere from September to April. Along with this, it maybe important to take Vitamin C tablets to boost your immune system.





Vitamin A

900 Ug for males vs 700ug females found in carrots and sweet potato. Protects cells and improves response time/muscle recovery.





Vitamin E

15ug both male and female found in Almonds and cereal. Increase body's natural immunity and promotes recovery.





Vitamin D

1500-2200IU Brown mushrooms, oily fish (salmon & Sardines). Supports Strength, speed and Physical endurance.

More info on Vitamins

Injury prevention

Chapter 3

SHIN SPLINT PROTOCOL

- First thing to understand is, do you have shin splints.
- Is it your bone that is affected.
- The muscle or tissue in between your muscle and bone on the inside of your leg.

04

Strength

Pain along the inside of the shin and on the bone which is more than 5cm is defined as shin splints that involves the bone. The tissue behind it can be affected and this is called medial stress syndrome. Both can respond well to massage and heel raises.



Heel raises aim for 3 sets x 15 reps

Research has shown that 15 heel raises are capable of reducing your likelihood of having shin splints. Raise your heels up as high as possible on one leg. Ensure you don't bend your knee.



Massage of the sole of the foot

If the calf is painful, massage the bottom of the foot to release some tension. The movement of your foot can be crucial to enhance the way you absorb load from the ground. Be gentle about massaging the calf to aggressively.

Injury prevention

Chapter 3

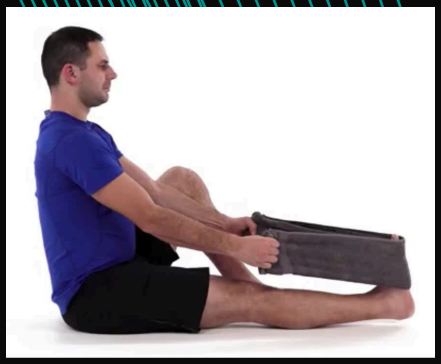
SHIN SPLINT PROTOCOL CONTINUED

05 Stretching



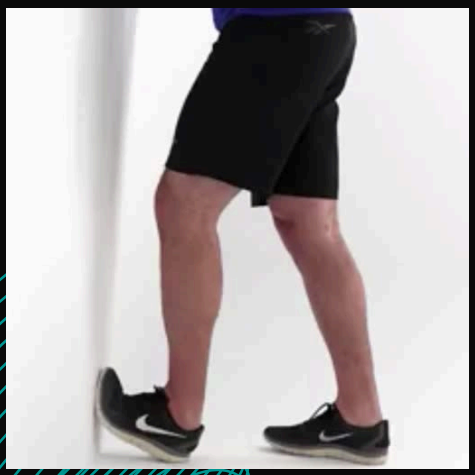
Self myofascial release of the calf

Once the shin is less painful, start to massage of the calf with a foam roller or ball can help relieve some of the stiffness and tension in the muscles.



Stretching calf in sitting 3 sets x 30secs

The releasing of muscles with stretches can also improve the way things feel but it's essential that you don't only rely on this. Use this around the front of your foot and stretch the calf 4 x 30secs.



Stretching against wall 3 sets x 45secs

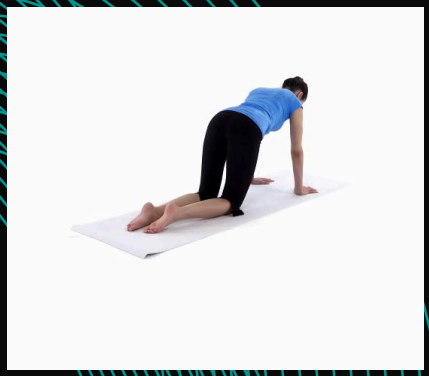
Stretching the muscles can also improve the overall strength of muscle tissue. It is essential to overall health of the muscles.

Injury prevention

RUNNER'S KNEE PROTOCOL

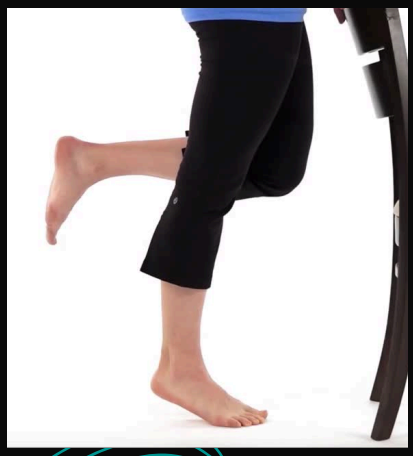
- Runner's knee is typically pain along the outside of the leg.
- Is involves the Iliotibial band. This is a long band of fascia on the outside of the leg,
- The muscle or tissue in between your muscle.

06



Outside hip stretch 3 x 35 secs

Bring your knee up towards your chest and take the other leg back. Push the knee to one side, the opposite side. Lean the



Heel raises aim for 3 sets x 15 reps

One of the key muscles to support vertical power is the soleus or calf muscle. It is essential to strengthen this muscle in your training and build it to support your knee. It also helps extend your knee.

Injury prevention

RUNNER'S KNEE PROTOCOL

07 Strengthening

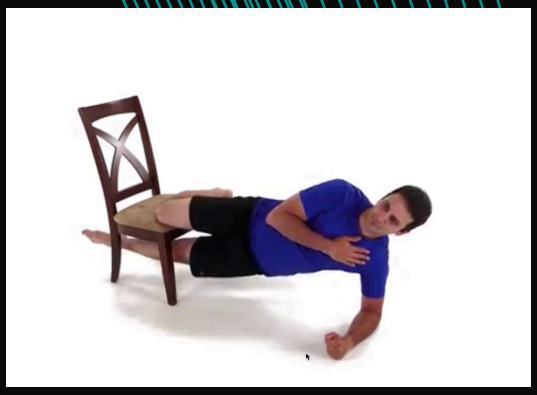
Strength



Single leg hip bridge 3 sets x 7 repetitions

Lay on your back with the hips and knees bent at 90 degrees, and the heel of your affected leg on a sturdy chair height surface. Flex the hips and press your glutes up into a bridge position. Slowly lower to the start position.

This type of exercise can really develop your hamstrings which is a key component to stabilise your knee.



Adductor Bridge 3 sets x 12 repetitions

Lying on your side, put your top ankle and shin on a chair with your top knee bent and your bottom knee extended (the elbow of the bottom shoulder should be on the floor).
Let your hips sag down to the ground. Then, using the top leg adductors (inside of the thigh), pull yourself up to form a straight line with your body.
Make sure your bottom leg hangs down without touching the floor.
Slowly lower yourself down and repeat.

If you can create stiffness along the inside of your leg you can develop the way your body moves and this will help support your knee. The Adductor muscle is crucial to this.

Injury prevention

RUNNER'S KNEE PROTOCOL

08 Strengthening

Single leg squat



Single leg toe tap 3 sets x 7 repetitions

On one leg, squat down and reach for the outside of the foot with the opposite hand. Keep the back straight and your head aligned with the spine.
The knee must remain aligned with the center of the foot.

Working on stability and control is important to develop the way you land. This is a good way to substitute a leg press.

Single leg squat w/ arm raise



Single leg squat with arm raise

Stand on one leg on a step-the free leg hanging off the edge. Squat down on one leg and raise your arms in front of you at the same time. Keep the pelvis leveled and stable.

During the landing phase of running there is a step down moment. This enables the body to absorb load from the ankle, knee and hip.

Injury prevention

RUNNER'S KNEE PROTOCOL

09 Strengthening

Single leg chair bridge



Single leg hip bridge 3 sets x 7 repetitions

Lay on your back with the hips and knees bent at 90 degrees, and the heel of your affected leg on a sturdy chair height surface. Flex the hips and press your glutes up into a bridge position. Slowly lower to the start position.

This type of exercise can really develop your hamstrings which is a key component to stabilise your knee.

Single-leg hip thrust



Single leg hip thrust 3 sets x 8-12 repetitions

Sit near a bench, with your upper back and shoulder blades resting on it. Remove the foot support.

Raise your pelvis while keeping your trunk & head straight and aligned.

Come back down and repeat.By pushing through your hips in this position challenges the control of your body against gravity. With the ability to hold hip position and stabilise through the foot, this can support the ankle, knee and hip sequencing similar to running.

Injury prevention

RUNNER'S KNEE PROTOCOL

10 Strengthening

Toe dissociation AROM



Toe 5 sets x 12 repetitions

Stand up and actively engage the arch of the feet by pulling the toes up so as to bear weight through the heel, 1st (bony pad before your big toe) and 5th (bony pad before your little toe) metatarsal heads.
Slowly lower the toes down and hold for 5 seconds at mid point.
Relax the toes back down and relax the arch of the foot.

Independent movment of your toes allows you to feel dexterity and control.

Plantar arch raise / Short-foot



Plantar arch raise 5 sets x 5 repetitions

Raise the plantar arch of your foot. Ensure that the heel and toes do not get off the ground.
Instead, try to shorten your foot, as if pulling the ball of the foot towards the heel. Avoid flexing your toes while doing so. Hold for a few seconds as prescribed, then repeat.

Running Technique

Chapter 4

Running technique can have an impact on your force generation depending on the way you move. There are a few things we may need to highlight and change.

LOW CADENCE

Increasing cadence by 7% reduced peak impact force by 5.6%. What does that mean, well when your body interacts with the floor you are exposed to forces, these forces can influence your muscles, bones, ligaments and tendons.

Below is the table of cadence showing the difference between the two groups of runners one group was 166, the other 178.

OVERSTRIDE

Increasing cadence will change the foot strike, and contact with the ground. This can mean the footstrikes with less of a heel strike and more forefoot, this will reduce the amount of bodyweight you experience by 0.3-1.3 and force at the knee by 1.2. This also means you experience 27% less force at your knee. Ref

KNEE WINDOW

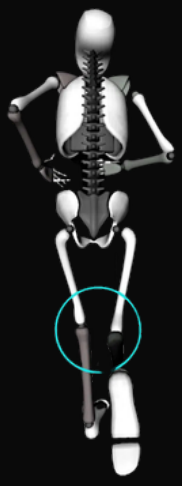
In people suffering from injuries there have been some characteristics of their running style which is consistent with them having pain by C bramah 2018.

You guessed it, as mentioned above the overstride is one of them, along with a reduction in the knee window as you can see on the right. Overstride came with trunk lean and increased knee extension, these are braking forces which cause increase the force experienced by the runner.

STRIDE



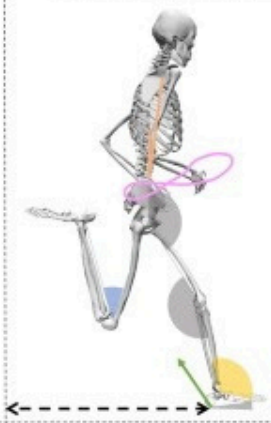
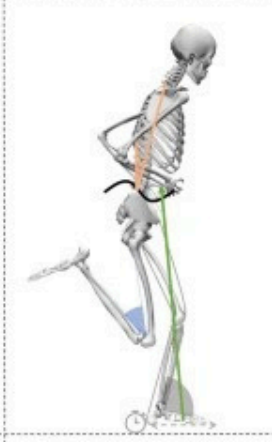
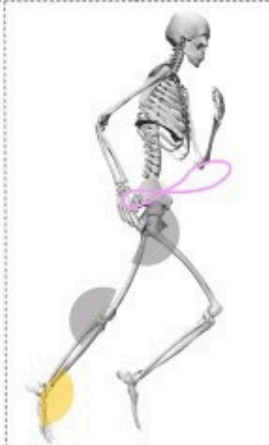
KNEE WINDOW



Ways to improve your running technique

Advice above on body position and risk of injury has been summarised by the below.

Reference; https://link.springer.com/article/10.1007/s40279-024-01997-3

	Lower energy cost / Better economy	Higher energy cost / Poorer economy	Biomechanical differences of lower EC relative to higher EC	GRADE evidence
Initial contact			↓ trunk flexion ROM during gait cycle ↘ elbow/arm ROM during gait cycle ↔ COM-heel distance at IC ↔ hip & knee flexion stance leg at IC ↔ thigh/shank angle stance leg at IC ↓ knee flexion swing leg during gait cycle ↗ ankle dorsiflexion at IC ↔ footstrike angle/index at IC ↘ peak braking GRF/braking impulse ↑ cadence /↘ step length	Low (*k*=1) Low (*k*=2) High (*k*=7) Moderate (*k*=4-8) Low-high (*k*=1-4) Low (*k*=1) Moderate (*k*=8) Moderate (*k*=8) Low (*k*=4) Moderate (*k*=19-37)
Mid stance			↓ trunk flexion ROM during gait cycle ↓ vertical oscillation pelvis/COM ↘ hip & knee ROM during stance ↘ peak knee flexion during stance ↑ vertical and leg stiffness ↓ knee flexion swing leg during gait cycle ↔ muscle activation during stance ↔ ankle angle mid-stance ↘ normalized peak vertical GRF ↔ spatiotemporal metrics during gait cycle (e.g., contact time, duty factor)	Low (*k*=1) Moderate (*k*=23) Moderate (*k*=3) Moderate (*k*=9) Moderate (*k*=18) Lw (*k*=1) Moderate-high (*k*=2-7) Moderate (*k*=4) Low (*k*=6) Moderate-high (*k*=8-40)
Toe-off			↓ trunk flexion ROM during gait cycle ↘ trunk rotation during gait cycle ↘ elbow/arm ROM during gait cycle ↔ hip angle at TO ↔ knee angle at TO ↘ ankle extension at TO	Low (*k*=1) Low (k=2) Low (*k*=2) Low (*k*=5) Moderate (*k*=6) Moderate (*k*=7)

Programming

TRAINING

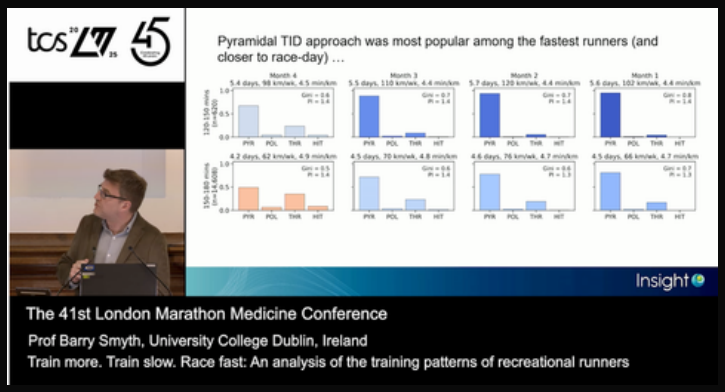
Running programming is all about the goal, what are we trying to achieve. Focus should be on the way the athlete approaches an event and what their lifestyle can manage.

The main problem individuals face is they want everything all at the same time. We have to create the direction and set the structure. Identify which days that you can train and what consistency you can create.

The body requires consistency to develop behaviour. The brain likes predictability, it allows it to be efficient, reducing anxiety, develop forecasting and reduce sudden responsiveness.

The aim of training has to be to expose individuals to different challenges that create stimuli that build all energy systems. The energy systems are all used during all training, some will need to be favoured and stronger. This means we should develop the system by exposing a person to all different types of training.

This can be categorised by training intensity distribution. We know the person in



Pyramidal training distribution seems to be the most successful.

Hydration & Electrolytes

Even mild dehydration can slow you down before you notice you're thirsty.

Fluid loss of just 2% of bodyweight during a run measurably slows pace — well before real thirst kicks in. The goal isn't maximum intake, it's matching what you drink to what you're actually losing.

Start runs already hydrated rather than catching up mid-run. Pale, straw-coloured urine beforehand is a good sign; dark yellow means you're starting behind.

For anything under an hour, water is usually enough. Past that — especially in heat, or if you're a heavy sweater — you need electrolytes alongside fluid, not instead of it. Sodium matters most: it's what you lose the most of in sweat, and what helps your body actually hold onto the water you drink.

A practical starting point: 400–800ml of fluid per hour, and 300–600mg of sodium per hour once you're past 60 minutes — adjusted for heat and your own sweat rate.

This is exactly what the RRS Recovery domain looks at alongside sleep and fatigue: the quiet habits that shape how you perform and recover.

Race-Day Strategy

THE WEEK BEFORE THE RACE MATTERS MORE THAN ANY SINGLE SESSION INSIDE IT.

Tapering isn't rest — it's targeted reduction. Cut weekly volume by 40–60% over the final 7–14 days while keeping some intensity in the mix. Volume is what causes the fatigue you're shedding; intensity keeps your legs sharp and your nervous system primed.

Sleep and nutrition matter more this week than any last-minute session. You cannot out-train a bad taper by adding one more long run — by this point the training is banked, and the job now is recovery.

Don't experiment. New shoes, new gels, new breakfast: race week is not the time to test anything you haven't already used in training.

Plan your morning backwards from the start gun: wake time, breakfast (2–3 hours before, foods you've already tested), transport, bag drop, toilet queues — and a buffer for all of it taking longer than expected.

Pace the first third conservatively. Starting even slightly too fast is one of the most common ways runners fade late — race-morning adrenaline makes an unsustainable pace feel deceptively easy in the first mile.

Write your fuelling plan down, not just in your head. Under race-day stress, "I'll just wing it" quietly becomes "I forgot."

Recovery Modalities

RECOVERY ISN'T THE ABSENCE OF TRAINING — IT'S A TRAINABLE SKILL OF ITS OWN.

Sleep is the single highest-leverage recovery tool you have, and it's free. Aim for 7–9 hours consistently rather than banking extra on weekends — the body responds better to a steady pattern than a big catch-up sleep after a short week.

A short post-run cooldown — 5–10 minutes of easy walking or jogging — helps clear metabolic byproducts faster than stopping dead. Small habit, genuinely useful.

Soreness that fades within 48–72 hours is normal training stress. Soreness that gets worse with each session, or pain that changes how you move, is a different signal — that's when to back off, not push through.

Foam rolling and massage don't repair tissue directly, but they can reduce perceived soreness and improve how a muscle feels moving into the next session — useful, just not magic.

Ice and heat both have a place: ice for acute swelling in the first 24–48 hours after a sharp injury, heat for loosening a stiff, aching muscle before activity.

Rest days aren't wasted days. Adaptation — the improvement you're training for — happens during recovery, not the session itself. Skipping recovery to fit in more training is how progress stalls, not how it speeds up.

This is exactly what the RRS Recovery domain tracks: sleep, fatigue and between-session recovery, scored alongside everything else.

Cross-Training & Strength

THE RUNNERS WHO STAY INJURY-FREE LONGEST ARE RARELY THE ONES WHO ONLY RUN.

Strength work isn't about building bulk — it's about giving tendons and muscles the capacity to absorb the repeated impact running demands. Twice a week is enough for most runners: squats, deadlifts or their variations, single-leg work, and calf-specific loading.

Calf and Achilles capacity is chronically under-trained. Most running injuries cluster around the lower leg, and slow, heavy calf raises — weighted, full range, both bent and straight knee — are one of the highest-value exercises a runner can do.

Strength sessions compete with running for recovery resources. Schedule them the same day as a hard run rather than the day before an easy one, so your legs aren't compromised going into quality work.

Low-impact cross-training — cycling, swimming, the elliptical — lets you build aerobic fitness while your joints get a break from repeated impact. Most useful during injury recovery or when weekly mileage is already near its ceiling.

It is not a direct substitute for running. Cross-training builds cardiovascular fitness, but running-specific tendon and bone adaptation only comes from running itself — exactly why a jump back to full mileage after a cross-training block needs to be gradual.

Mobility work matters most where you're stiffest, not everywhere equally. A few minutes on ankle dorsiflexion and hip extension covers the two ranges most commonly limited in runners.

This is the RRS Physical Capacity domain in practice: strength and mobility work is what moves that score, session by session.

Glossary of Terms

CADENCE

Steps per minute, both feet combined. Commonly landing between 170–180 spm, though the "right" number depends on your height and mechanics, not a universal rule.

LSI (LIMB SYMMETRY INDEX)

A percentage comparing your weaker side to your stronger side on a strength or hop test. Below roughly 90% is generally considered a meaningful asymmetry worth addressing.

RRS (RUN READY SCORE)

MAP's 5-domain readiness assessment — Health & Symptoms, Physical Capacity, Training Capacity, Recovery and Running Performance — combined into a single 0–100 score alongside a separate Injury Risk Profile. It looks at whether your body is ready for the training you're asking of it, not just how fast you ran last time.

Glossary of Terms

OVERSTRIDE

Landing with the foot well ahead of the body's centre of mass. Associated with increased braking force and higher impact load at the knee — often linked to reduced cadence.

RSI (REACTIVE STRENGTH INDEX)

Jump height divided by ground contact time. A simple way to quantify how efficiently your tendons store and return energy — useful for tracking power output over time.

TAPER

A planned reduction in training volume before a goal race, while keeping some intensity, so you arrive recovered but not detrained. Typically 7–14 days for a marathon, shorter for shorter races.

Cutting too much too late is as risky as cutting too little — the taper deserves as much planning as any training block, not an afterthought once the hard work is done.

Ready When You Are

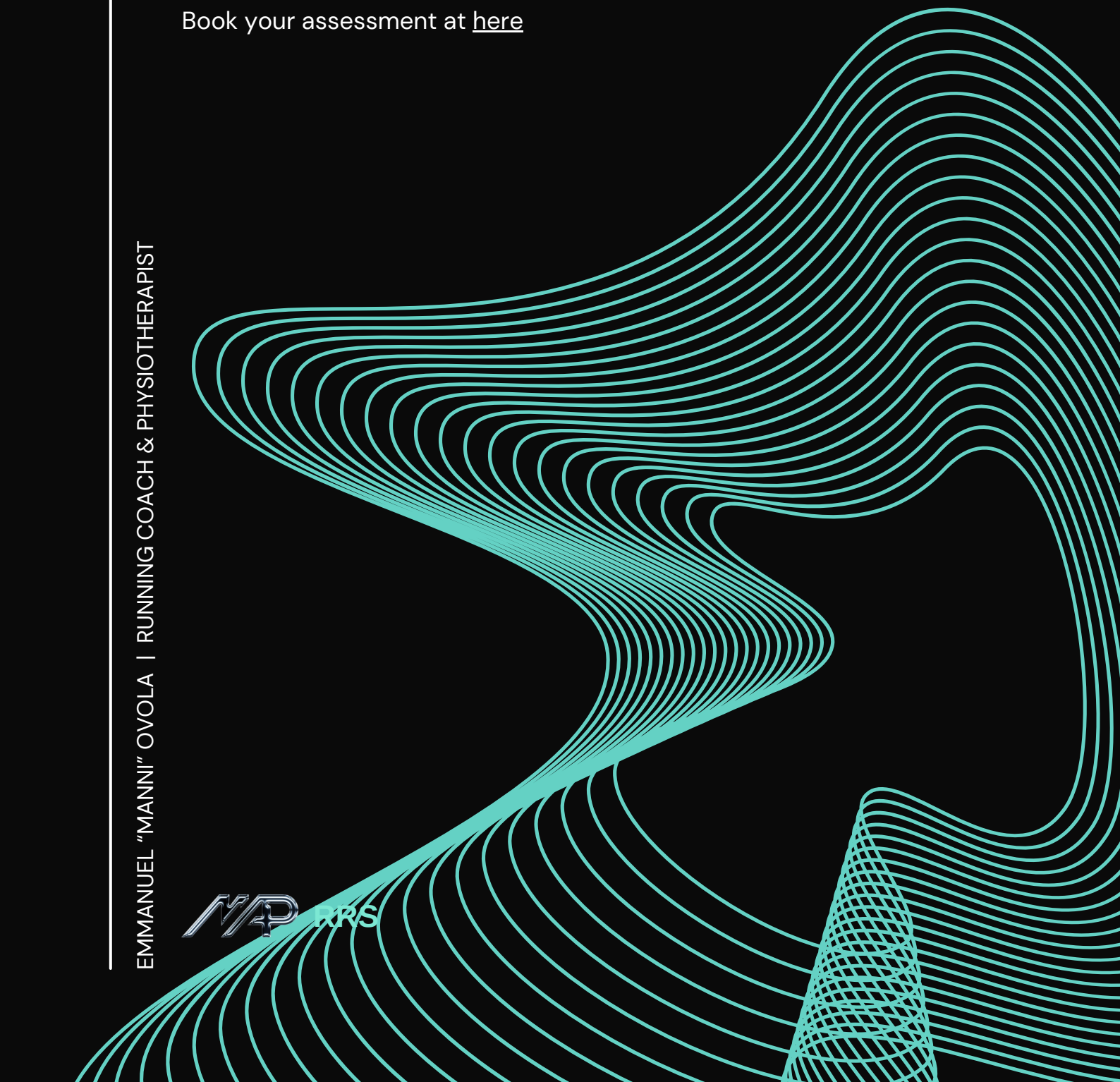
The **Run Ready Score** — £129.99

You've just read the thinking behind the Run Ready Score. The RRS turns it into a plan built specifically around your body — not a generic template.

Five domains. One number. A clear next step.

A full 5-domain assessment, your Injury Risk Profile, a personalised action plan, and a follow-up review to track progress.

Book your assessment at here



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