



# RUNNING

# 101

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# WHERE DO WE START...



...WHAT DO WE WANT TO GET OUT OF IT? & WHAT CAN I GET INVOLVED IN?



## RUNNING BASED WORKOUTS CAN BE FOR **EVERYONE**

- The word "running" sparks images of **long distance efforts on the road, steady pace, out & back routes** – this can be an attractive thought to some and a unattractive one to others!
- There are **many different ways you can incorporate running activity into your physical program**, some of which are more obvious than others.
  - The list of **benefits to including running in your physical program is extensive!**



# GETTING STARTED...



...WHERE TO START IF THIS IS BRAND NEW?



- ❑ Making a plan gives you a **level of accountability!**
- ❑ Just how we **schedule gym sessions into your app calendar** of the app – the same can be done with running based sessions.
- ❑ **Thinking ahead of time** about what you are going to perform takes away the barriers on the day!



- ❑ Like any form of training program – whether is be in the gym or cardio based. **Structure & repeatability is paramount.**
- ❑ The term **progressive overload** is the same principle when it comes to running!
- ❑ Doesn't mean **elements of spontaneity** can't be included in your running habits – but not before we nail the basics!

- ❑ If running is something which is totally new for you – the initial aim should have the **number 1 focus of just getting moving!**
- ❑ Set **realistic & achievable goals** in terms of your planned **distances & paces.**
- ❑ Incrementally over time we can improve these – but completing is key.



- ❑ Lack of motivation is the biggest factor why people don't stick with the decision to include running training in their physical program.
- ❑ To maintain this we need to keep things **goal orientated to see achievement.**
- ❑ We also need to try and **stem monotony** in our training – plan new routes, playlists, running partners...

# TRAINING TYPES TO GET FASTER & LONGER...



... HOW DO YOU "KICK ON" WITH YOUR RUNNING PERFORMANCE?



## IF WE WANT TO IMPROVE OUR RUNNING PERFORMANCE WE NEED TO GIVE THE BODY THE RIGHT STIMULUS

- We can approach improving our running performance with the same physiological principles as we do with improving our strength / size in the gym.
- We need to input specific physical stimuli on the body which are large enough to achieve an adaptation response. And we need to periodise this adaptation through progressive overload!
- In weights training this is "Volume (Sets/Reps)" OR "Intensity (Weight/Load)"... In running training this is: **Volume = Distance/Time** & **Intensity = Speed**
  - The running programs we can create can range from very simple to highly complex – but this should be individual to your needs.

### LONG RUNS

- One of the simplest ways to improve your running is to have a designated "long run" day. This will be your what drives your volume. Usually towards the back end of a training week, with a day before & a day off after it usually following. This is where you can push the distance! And this should be the focus!
- We can pace this run off your target time for your target distance.

### "TEMPO" OR THRESHOLD RUNS

- Prepares you to run faster for further!
- Here we want to push your "anaerobic threshold" higher... This is the point at which your body can no longer utilize oxygen efficiently and waste products start to accumulate.
- We can calculate paces for tempo runs (Short / Medium / Long) manipulating known times, such as your 5km OR 10km pace!

### INTERVALS / FAST RUNS (Track OR Treadmill)

- These kinds of sessions should be fun... but also should hurt!
- They are shorter & faster runs compared to "LONG" or "TEMPO". The speeds will be higher. Higher intensity efforts with periods of static OR slower recovery.
- These provide a great higher intensity stimulus to the body to adapt to

Example:

7km @ Predicted 10km Pace + 15 seconds (7:30 / km)

Example:

3km @ Med Temp Pace (6:45 / km)

Example:

5 x 400m @ 5:40 / km OR 10.5 kph on Treadmill

# TRAINING TYPES TO GET FASTER & LONGER...



... HOW DO YOU "KICK ON" WITH YOUR RUNNING PERFORMANCE?



Run 1 - Fast Runs			Run 2 - Tempo Runs			Run 3 - Long Runs
Distance	Pace Calculations	Pace (time/ mile)	Distance	Pace Calculations	Pace (time/ mile)	Paces
400m	10km pace - 55 seconds	<b>07:56</b>	Short Tempo (ST)	10km pace	<b>08:51</b>	PMP (Planned Marathon Pace) + Scheduled adjustments  PMP = 4 Hours : 15 mins  <b>Time / mile = 09:44</b>
600m	10KM pace - 50 seconds	<b>08:01</b>				
800m	10km pace - 45 seconds	<b>08:06</b>				
1000m	10km pace - 42 seconds	<b>08:09</b>	Mid Tempo (MT)	10km pace + 15 seconds	<b>09:06</b>	
1200m	10km pace - 40 seconds	<b>08:11</b>	Long Tempo (LT)	10km pace + 30 seconds	<b>09:21</b>	
1600m	10km pace - 35 seconds	<b>08:16</b>				
2000m	10km pace - 30 seconds	<b>08:21</b>				

Estimated 10km Time:	55 minutes
Estimated 10km Pace:	<b>Time / mile</b>
	08:51

# TRAINING TYPES TO GET FASTER & LONGER...



... HOW DO YOU "KICK ON" WITH YOUR RUNNING PERFORMANCE?



Week	Day	Date	Session	PACING	Total Weekly Miles
Week 1	Monday	20/06/2022	Run 1 - Fast Run: 400m / 600m / 800m / 1200m / 800m / 600m / 400m - 90 sec Recovery Walk between intervals	See Run 1 Pacings Tab	18
	Tuesday	21/06/2022	-		
	Wednesday	22/06/2022	Run 2 - Tempo Run: 5 mile run @ Mid Tempo Pace	09:06 / mile	
	Thursday	23/06/2022	-		
	Friday	24/06/2022	-		
	Saturday	25/06/2022	Run 3 - Long Run: 10 mile run @ PMP + 15 sec. / mile	09:59 / mile	
	Sunday	26/06/2022	-		
Week 2	Monday	27/06/2022	Run 1 - Fast Run: 800m x 6 - 90 sec Recovery Walk between intervals	8:06 / mile	22
	Tuesday	28/06/2022	-		
	Wednesday	29/06/2022	Run 2 - Tempo Run: 7 mile run @ Long Tempo Pace	09:21 / mile	
	Thursday	30/06/2022	-		
	Friday	01/07/2022	-		
	Saturday	02/07/2022	Run 3 - Long Run: 12 mile run @ PMP + 30 sec. / mile	10:14 / mile	
	Sunday	03/07/2022	-		
Week 3	Monday	04/07/2022	Run 1 - Fast Run: 1200m / 1000m / 800m / 600m / 400m / 200m - 200m Recovery Walk between intervals	See Run 1 Pacings Tab	29
	Tuesday	05/07/2022	-		
	Wednesday	06/07/2022	Run 2 - Tempo Run: 6 mile run @ Long Tempo Pace + 1 mile Easy + 3 miles @ Short Tempo Pace + 1 mile Easy	09:21 / mile & 08:51 / mile	
	Thursday	07/07/2022	-		
	Friday	08/07/2022	-		
	Saturday	09/07/2022	Run 3 - Long Run: 15 mile run @ PMP + 45 sec. / mile	10:29 / mile	
	Sunday	10/07/2022	-		
Week 4	Monday	11/07/2022	Run 1 - Fast Run: 1000m x 5 - 400m Recovery Walk between intervals	08:09 / mile	25
	Tuesday	12/07/2022	-		
	Wednesday	13/07/2022	Run 2 - Tempo Run: 5 mile run @ Long Tempo Pace	09:21 / mile	
	Thursday	14/07/2022	-		
	Friday	15/07/2022	-		
	Saturday	16/07/2022	Run 3 - Long Run: 17 mile run @ PMP + 45-60 sec. / mile	10:29 / mile TO 10:44 / mile	
	Sunday	17/07/2022	-		
Week 5	Monday	18/07/2022	Run 1 - Fast Run: 1600m x 3 - 1 min Recovery Walk between intervals	08:16 / mile	31
	Tuesday	19/07/2022	-		
	Wednesday	20/07/2022	Run 2 - Tempo Run: 6 mile run @ Long Tempo Pace + 2 mile Easy + 3 miles @ Short Tempo Pace + 2 mile Easy	09:21 / mile & 08:51 / mile	
	Thursday	21/07/2022	-		
	Friday	22/07/2022	-		
	Saturday	23/07/2022	Run 3 - Long Run: 15 mile run @ PMP + 45sec. / mile	10:29 / mile	
	Sunday	24/07/2022	-		

# TRAINING TYPES TO GET FASTER & LONGER...



... HOW DO YOU "KICK ON" WITH YOUR RUNNING PERFORMANCE?



Week 6	Monday	25/07/2022	Run 1 - Fast Run: 1200m x 2 + 800m x 4 - 2 min Recovery Walk between intervals	08:11 / mile & 08:06 / mile	26
	Tuesday	26/07/2022	-		
	Wednesday	27/07/2022	Run 2 - Tempo Run: 5 miles @ Mid Tempo Pace	09:06 / mile	
	Thursday	28/07/2022	-		
	Friday	29/07/2022	-		
	Saturday	30/07/2022	Run 3 - Long Run: 17 mile run @ PMP + 45-60 sec. / mile	10:29 / mile TO 10:44 / mile	
	Sunday	31/07/2022	-		
Week 7	Monday	01/08/2022	Run 1 - Fast Run: 6 x 800m - 1.5 min Recovery Walk between intervals	08:06 / mile	25
	Tuesday	02/08/2022	-		
	Wednesday	03/08/2022	Run 2 - Tempo Run: 9 miles @ Long Tempo Pace	09:21 / mile	
	Thursday	04/08/2022	-		
	Friday	05/08/2022	-		
	Saturday	06/08/2022	Run 3 - Long Run: 13 miles @ PMP + 15 sec. / mile	09:59 / mile	
	Sunday	07/08/2022	-		
Week 8	Monday	08/08/2022	Run 1 - Fast Run: 2 x (400m x 6) - 1.5 min Recovery Walk between intervals (2 min 30 between sets)	07:56 / mile	34
	Tuesday	09/08/2022	-		
	Wednesday	10/08/2022	Run 2 - Tempo Run: 6 mile run @ Long Tempo Pace + 2 miles Easy + 3 miles @ Short Tempo Pace + 2 mile Easy	09:21 / mile & 08:51 / mile	
	Thursday	11/08/2022	-		
	Friday	12/08/2022	-		
	Saturday	13/08/2022	Run 3 - Long Run: 18 miles @ PMP + 30 sec. / mile	10:14 / mile	
	Sunday	14/08/2022	-		
Week 9	Monday	15/08/2022	Run 1 - Fast Run: 800m x 6 - 1.5 min Recovery Walk between intervals	08:06 / mile	28
	Tuesday	16/08/2022	-		
	Wednesday	17/08/2022	Run 2 - Tempo Run: 10 miles @ PMP	09:44 / mile	
	Thursday	18/08/2022	-		
	Friday	19/08/2022	-		
	Saturday	20/08/2022	Run 3 - Long Run: 15 miles @ PMP + 20 sec. / mile	10:04 / mile	
	Sunday	21/08/2022	-		
Week 10	Monday	22/08/2022	Run 1 - Fast Run: 3 x (1200m x 2) - 2 min Recovery Walk between intervals (4 min 30 between sets)	08:11 / mile	29
	Tuesday	23/08/2022	-		
	Wednesday	24/08/2022	Run 2 - Tempo Run: 7 miles @ Mid Tempo Pace	09:06 / mile	
	Thursday	25/08/2022	-		
	Friday	26/08/2022	-		
	Saturday	27/08/2022	Run 3 - Long Run: 19 miles @ PMP + 30-45 sec. / mile	10:14 / mile TO 10:29 / mile	
	Sunday	28/08/2022	-		

# TRAINING TYPES TO GET FASTER & LONGER...



... HOW DO YOU "KICK ON" WITH YOUR RUNNING PERFORMANCE?

Week 11	Monday	29/08/2022	Run 1 - Fast Run: 1000m x 5 - 400m Recovery Walk between intervals	08:09 / mile	31
	Tuesday	30/08/2022	-		
	Wednesday	31/08/2022	Run 2 - Tempo Run: 10 miles @ PMP	09:44 / mile	
	Thursday	01/09/2022	-		
	Friday	02/09/2022	-		
	Saturday	03/09/2022	Run 3 - Long Run: 17 miles @ MPM + 10 sec. / mile	09:54 / mile	
	Sunday	04/09/2022	-		
Week 12	Monday	05/09/2022	Run 1 - Fast Run: 1600m x 3 - 400m Recovery Walk between intervals	08:16 / mile	28
	Tuesday	06/09/2022	-		
	Wednesday	07/09/2022	Run 2 - Tempo Run: 5 miles @ PMP	09:44 / mile	
	Thursday	08/09/2022	-		
	Friday	09/09/2022	-		
	Saturday	10/09/2022	Run 3 - Long Run: 20 miles @ PMP + 30 sec. / mile	10:14 / mile	
	Sunday	11/09/2022	-		
Week 13	Monday	12/09/2022	Run 1 - Fast Run: 400m x 10 - 400m Recovery Walk between intervals	07:56 / mile	26
	Tuesday	13/09/2022	-		
	Wednesday	14/09/2022	Run 2 - Tempo Run: 8 miles @ PMP	09:44 / mile	
	Thursday	15/09/2022	-		
	Friday	16/09/2022	-		
	Saturday	17/09/2022	Run 3 - Long Run: 15 miles @ PMP	09:44 / mile	
	Sunday	18/09/2022	-		
Week 14	Monday	19/09/2022	Run 1 - Fast Run: 2000m x 3 - 400m Recovery Walk between intervals	08:21 . Mile	29
	Tuesday	20/09/2022	-		
	Wednesday	21/09/2022	Run 2 - Tempo Run: 5 miles @ PMP	09:44 / mile	
	Thursday	22/09/2022	-		
	Friday	23/09/2022	-		
	Saturday	24/09/2022	Run 3 - Long Run: 20 miles @ PMP + 30 sec. / mile	10:14 / mile	
	Sunday	25/09/2022	-		
Week 15	Monday	26/09/2022	Run 1 - Fast Run: 800m x 6 - 1.5 min Recovery Walk between intervals	08:06 / mile	21
	Tuesday	27/09/2022	-		
	Wednesday	28/09/2022	Run 2 - Tempo Run: 5 mile run @ Mid Tempo Pace	09:06 / mile	
	Thursday	29/09/2022	-		
	Friday	30/09/2022	-		
	Saturday	01/10/2022	Run 3 - Long Run: 13 miles @ PMP	09:44 / mile	
	Sunday	02/10/2022	-		

# TRAINING TYPES TO GET FASTER & LONGER...



... HOW DO YOU "KICK ON" WITH YOUR RUNNING PERFORMANCE?



Week 16	Monday	03/10/2022	Run 1 - Fast Run: 1000m x 3 - 400m Recovery Walk Between Sets	08:09 / mile	17
	Tuesday	04/10/2022	-		
	Wednesday	05/10/2022	Run 2 - Tempo Run: 4 mile run @ Mid Tempo Pace + 1 miles Easy + 2 miles @ Short Tempo Pace	09:06 / mile & 08:51 / mile	
	Thursday	06/10/2022	-		
	Friday	07/10/2022	-		
	Saturday	08/10/2022	Run 3 - Long Run: 8 miles @ PMP	09:44 / mile	
	Sunday	09/10/2022	-		
Week 17	Monday	10/10/2022	Run 1 - Fast Run: 400m x 5 - 200m Recovery Walk Between Sets	07:56 / mile	4.5 miles + Race
	Tuesday	11/10/2022	-		
	Wednesday	12/10/2022	Run 2 - Tempo Run: 3 miles @ PMP	09:44 / mile	
	Thursday	13/10/2022			
	Friday	14/10/2022			
	Saturday	15/10/2022			
	Sunday	16/10/2022	Marathon - Race Day - 26.2 Miles	RACE PACE	

# CONSIDERATIONS...



## ...WHAT ARE SOME FACTORS TO CONSIDER WHEN INCLUDING RUNNING?



### ORGANISING RUNNING INTO YOUR TRAINING ROUTINE / SCHEDULE

- ❑ To make your running sessions work well alongside your other physical commitments, there will be an "optimum" arrangement for their location / time in the week – relevant to other sessions.
- ❑ How to best arrange will depend on; How many running sessions per week / Types of these running sessions / Content of your gym program / Content of other training.
- ❑ **For example** – if you have a "long run" session to factor into your training, this needs to be organised so they day before you have no heavy posterior chain lower body work – We can guide you individually on this!

### HYDRATION

- ❑ Hydration status can have a massive effect on running performance AND risk of injury / suffering from factors like muscle cramp.
- ❑ Amounts of water you need vary deepening on: Biometrics (weight) / Sweat rate / Temperature & Climate factors / Duration & Intensity of the run.
- ❑ **BEFORE & AFTER** are just as important as during... Aim for 0.5-0.75 litres of water in the two hours leading up to a run and in the two hours following a run! This is on top of your regular consumption during the day. (7ml per 1kg BW)
- ❑ **DURING:** Depending on the weather if your run is <30 minutes you should be fine to rehydrate after. If it is over this mark... then it is recommended that 0.4-0.8 litres per hour of exercises (more in the heat!)

### FOOT WARE CHOICES!

- ❑ This may seem self explanatory... but it is a factor often overlooked by many who are new to partaking in in running training!
- ❑ The types of foot ware we use can have a massive effect on our: Running performance / Comfort / Injury Risk.
- ❑ It is advisable to avoid shoes such as "Fashion trainers" / "Flat bottomed gym shoes" / "Canvas pumps" when running – especially on the road.
- ❑ A basic pair of running shoes is not an expensive investment if you are new to running. Gait / Foot analysis can advise on the level of support – cushioning – width – insoles etc you need if this becomes needed.

### ROUTE PLANNING

- ❑ Route planning is often overlooked – but is easy to do and can offer many benefits!
- ❑ Planning a route before your run / in your program makes you accountable for the distance you are planning to run – lot harder to take that shortcut OR turn back early if you planned it!
- ❑ This process can also enable you to foresee elevation gain & loss / surface changes / wind direction AND help you plan something scenic!
- ❑ Basic things like Google Maps can be useful. But many free apps like Strava can be amazing training tools to plan & analyse your runs!

# CONSIDERATIONS...



...WHAT ARE SOME FACTORS TO CONSIDER WHEN INCLUDING RUNNING?



## "WARM UPS" / "COOL DOWNS"

- ❑ It is debated over the need for a defined "warm-up" routine before a run or running session. With some arguing that it is not needed and other that it is essential.
- ❑ My take as a practitioner than that physical preparation needs to be specific to what is about to be undertaken... and therefore the length & content of any warm-up is dictated by the session intensity & volume.
- ❑ **LONG RUNS:** These are your slowest in terms of pace and the longest in terms of volume. Therefore due to the mechanical stress demanded at the start of the session being small... The warm-up routine does not need to be extensive. Some will argue to "take the first mile / km slow"... But I do not like this take. This disturbs the pace of the run and your consistency. **Try doing a 3 minute light jog followed by 2 minutes of dynamic stretching. This will not take too long will prepare you for the session enough!**
- ❑ **TEMPO RUNS / INTERVALS:** These are at a faster pace compared to long runs. Therefore more stress at the beginning of the session. We want the distance to be set. So take **a 5 minute light jog building the pace towards the end to a faster run. From there perform 5 minutes of dynamic stretching to fully activate key muscle groups (hamstrings / calves) for the intensity to come.**

## NUTRITION

- ❑ Including running based activity in your physical content during the week will **change your calorie output daily and therefore weekly.** This is why people who are looking to lose bodyweight OR improve body composition may choose to incorporate this into their routine.
- ❑ Because of its impact on your individual energy balance it **may be worth adjusting your overall daily calories** – however this needs to be done on an **individual basis – with no blanket rules applied.** As everyone will have their own:
  - ❑ Volume / Intensity of running being performed (and therefore calorific impact)
  - ❑ Body composition goals (are you trying to lose / put on weight)
- ❑ Those of you that already partake in running activity (like any other CV work) **already have this factored into your PAL when creating your calorie targets. But if you are new to adding this in lets have a conversation and see if we need to adjust your nutritional strategy!**
- ❑ Timing is also really important for success in your runs... **If your running less than 30 – 45 minutes a "pre-run" meal becomes less important. But anything over a 45 minute effort on the road or treadmill you need to consider timing a main meal 2-3 hours before the run. This having a "Quality Carbohydrate" & "Lean Protein" component. But something low in Fat & Fibre to avoid GI distress.**



# STRENGTH TRAINING / PREHABILITATION...



... WHAT CAN WE DO IN THE GYM TO SUPPORT OUR RUNNING PROGRESS?

## STRENGTH BASED TRAINING IN THE GYM / SPECIFIC RUNNING FOCUSED PREHABILITATION

- ❑ What we do in the gym can massively impact both our **running based performance** AND help us **mitigate the risk of picking up soft tissue injuries** while running.
- ❑ This might be focusing on **particular exercises that are already present in your training** – but may also mean adding in “extras” to focus on specific areas with a **prehabilitation effect in mind**.



### CALF

- ❑ When we run loads of up to **4-8x our own weight** are absorbed by our skeletal system.
- ❑ Calf complex is **first point of contact**.
- ❑ Also mechanically responsible for the “rocker” motion of the ankle



### KNEE LIGAMENTS

- ❑ Evidently the knee is a crucial **structure / joint in the mechanics of our running gait**.
- ❑ It is important we support this structures surroundings ligaments / tissue to help avoid overuse injuries OR loading injuries like **Tendinitis & Patellofemoral Syndrome**.

### HAMSTRINGS

- ❑ The hamstring has major duties at both the **knee (eccentric flexion - decelerate) & hip (concentric extension – propel)** while running.
- ❑ We need to keep **all heads of the hamstrings strong** – and prioritise **eccentric & isometric** contractions.



### ADDUCTORS / GROIN

- ❑ These are the muscles that run from the inside of your hip to just above the knee,
  - ❑ They help keep the femur (upper leg) **properly aligned during your running gait**.
- ❑ These are susceptible to injury when other muscles groups fatigue.





# QUESTIONS?

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