

MLA METHOD

**4 WEEK HIGH INTENSITY INTERVAL
TRAINING PROGRAMME
USED BY ELITE ATHLETES.**

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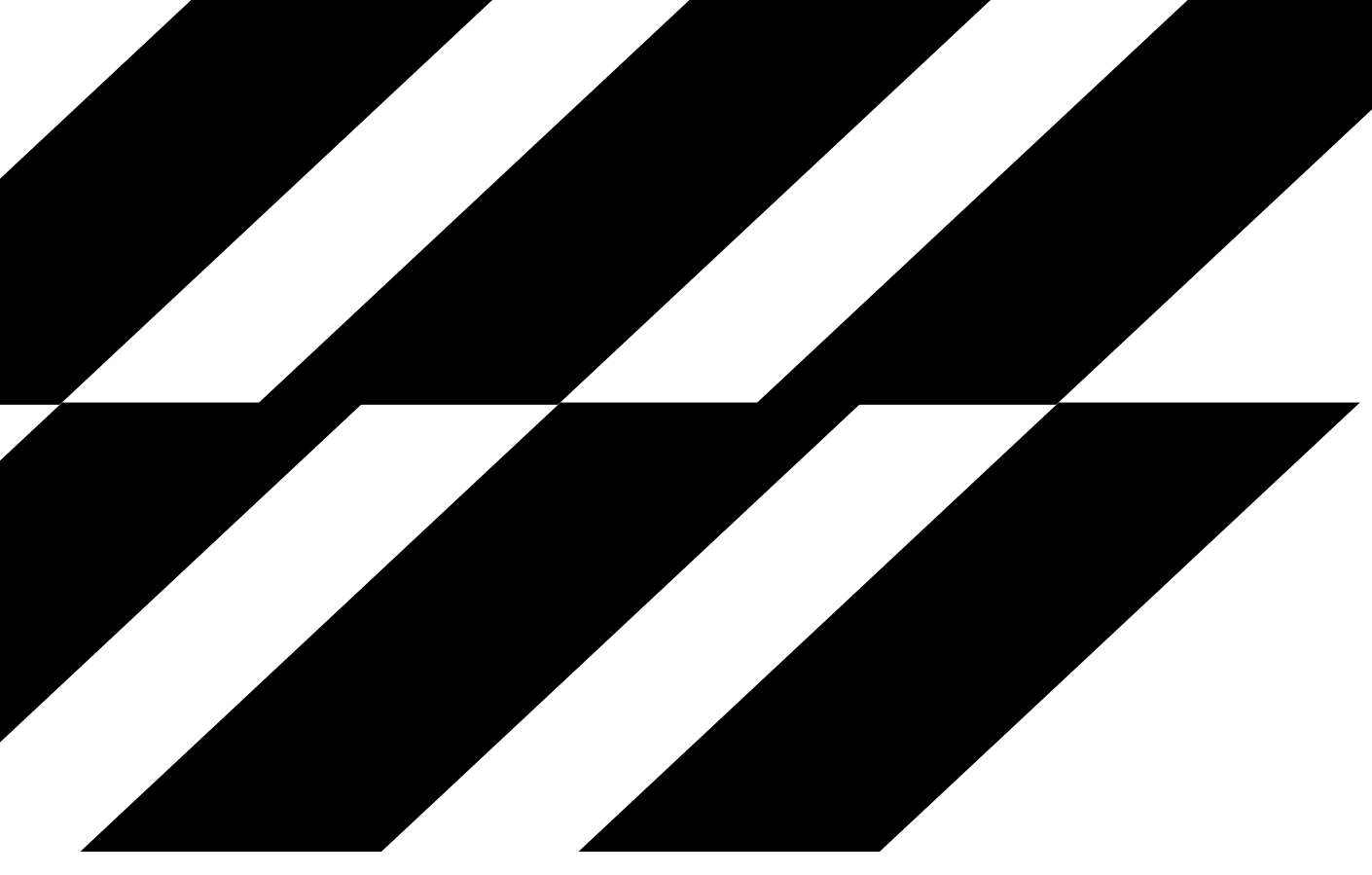
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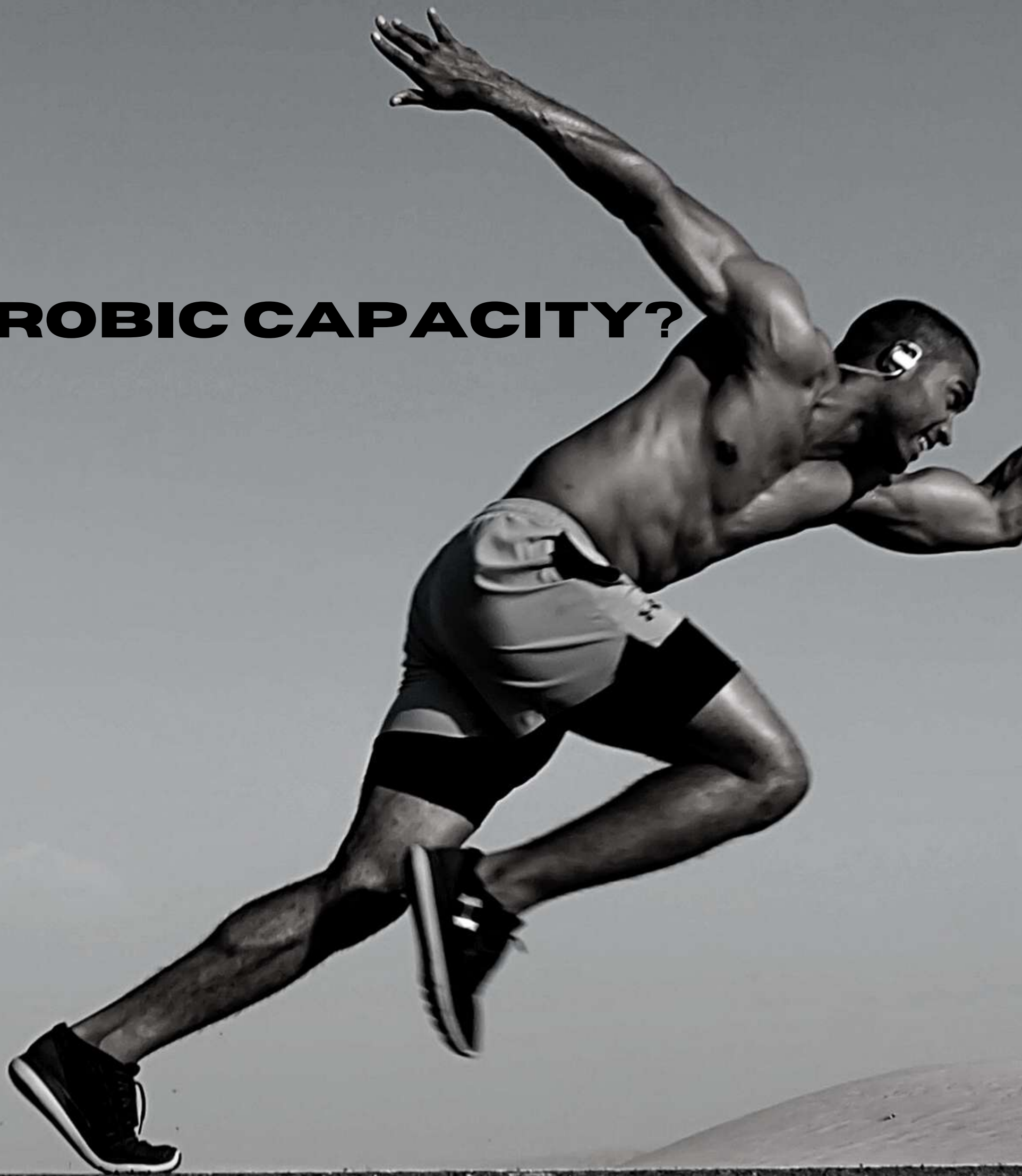


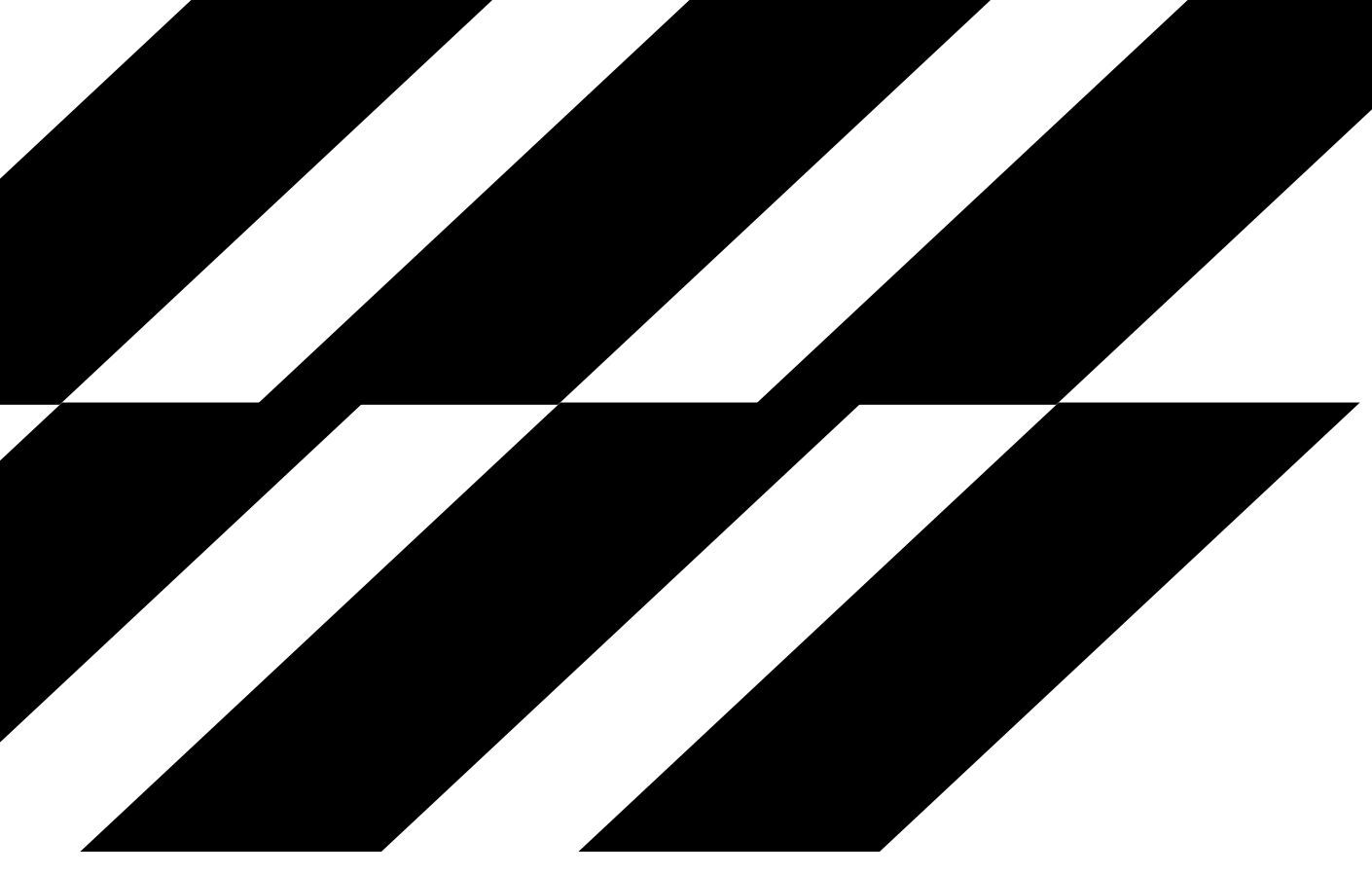
**WELCOME TO MLA PERFORMANCE.
THIS E-BOOK IS SPECIFICALLY DESIGNED TO
IMPROVE YOUR AEROBIC CAPACITY AND HIGH
INTENSITY RUNNING PERFORMANCE. IN OUR
EASY TO FOLLOW PROGRAMME WE'LL TAKE
YOU ON A PROGRESSIVE JOURNEY THAT WILL
TRANSFORM YOUR FITNESS AND YOUR
APPROACH TO TRAINING.**

**THIS PROGRAMME CAN BE USED ON VARIOUS
PIECES OF FITNESS EQUIPMENT SUCH AS THE
ROWER, SKI, BIKE AND TREADMILL. THE MLA
PERFORMANCE APPROACH TO IMPROVING
YOUR AEROBIC MACHINE HAS BEEN USED WITH
ELITE AND NOVICE ATHLETES. RANGING FROM
RUGBY PLAYERS, FOOTBALLERS, AND FITNESS
ENTHUSIASTS. BE PREPARED TO MAKE SERIOUS
PROGRESS IN JUST 4 WEEKS.**



WHAT IS AEROBIC CAPACITY?

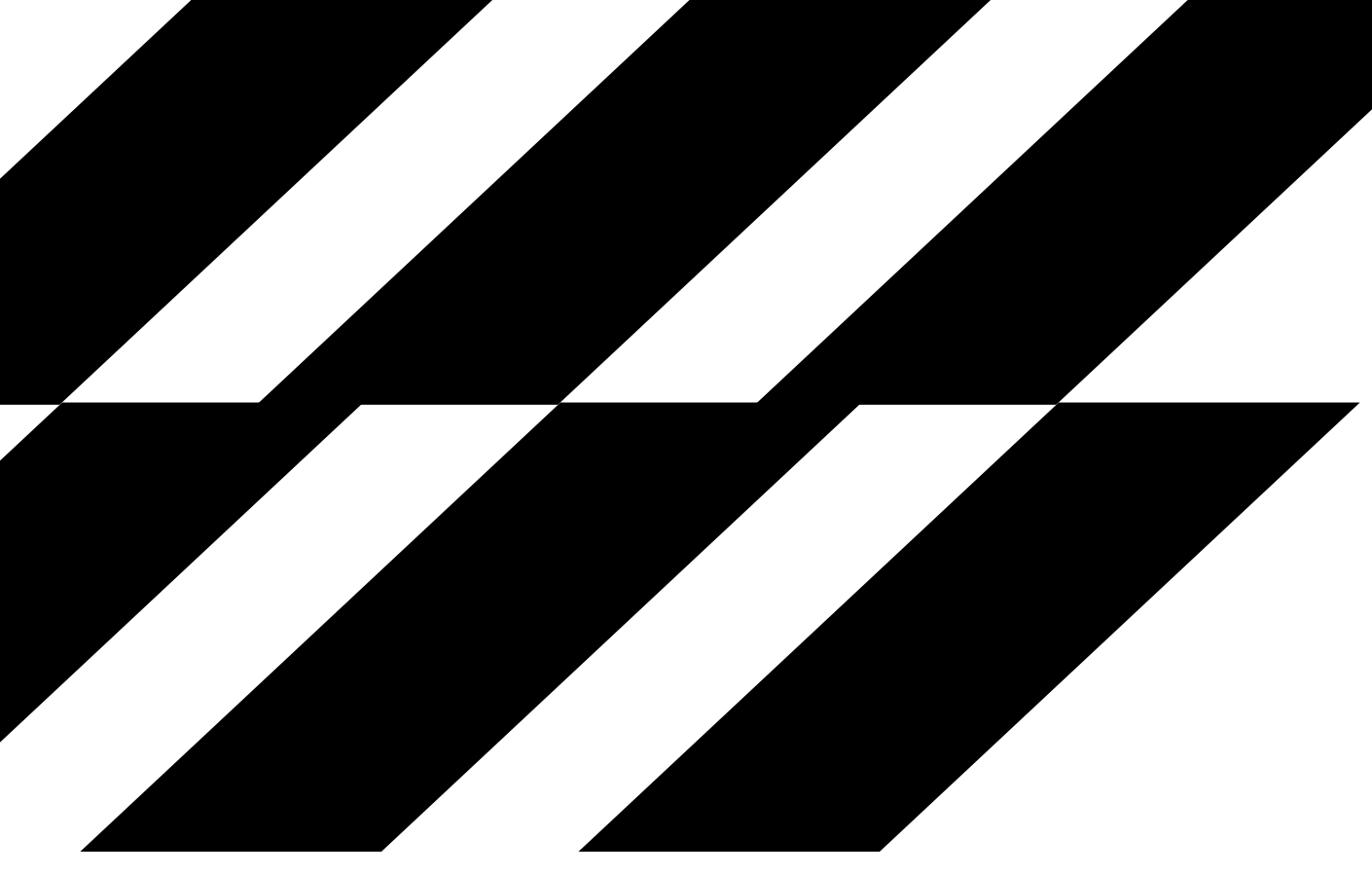





AEROBIC CAPACITY IS EVALUATED USING ESTIMATES OF VO₂MAX (ALSO KNOWN AS MAXIMAL OXYGEN UPTAKE) VO₂MAX REFLECTS THE MAXIMUM RATE THAT THE RESPIRATORY, CARDIOVASCULAR, AND MUSCULAR SYSTEMS CAN TAKE IN, TRANSPORT, AND USE OXYGEN DURING EXERCISE.

HAVING A WELL-ADAPTED AEROBIC ENGINE IS ESSENTIAL TO YOUR PERFORMANCE AND IS SOMETHING ALL ATHLETES SHOULD PAY ATTENTION TO.





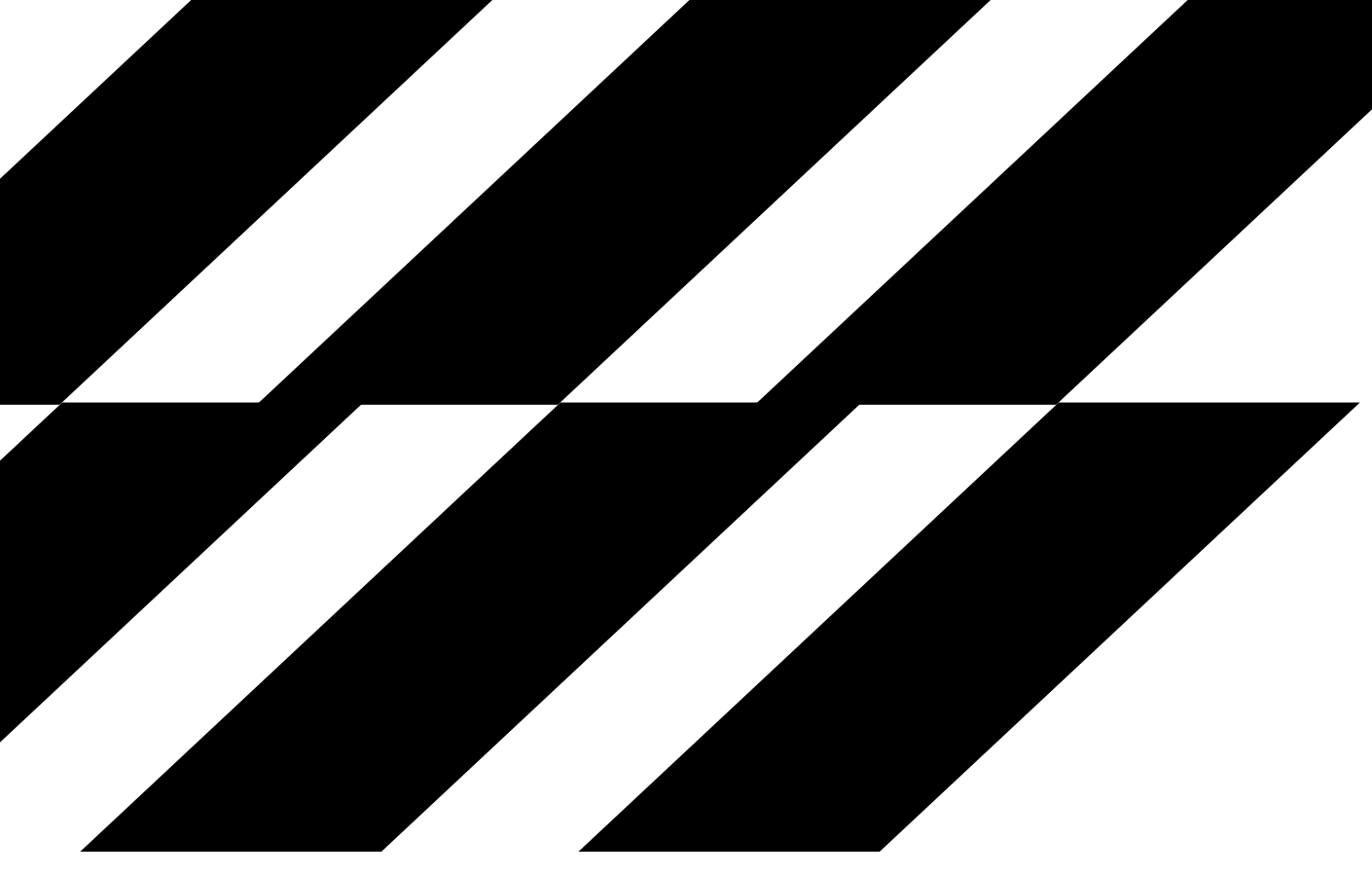
IF YOU'RE AN ATHLETE WHO PLAYS A FIELD SPORT SUCH AS FOOTBALL, RUGBY UNION, RUGBY LEAGUE, OR FIELD HOCKEY. YOU'LL KNOW FROM PLAYING EXPERIENCE THAT EACH SPORT INVOLVES VARYING MOVEMENT SPEEDS, MULTIPLE CHANGES OF DIRECTION AND ELEMENTS OF STOPPING AND STARTING. AS A RESULT OF THIS, IT REQUIRES THE TRAINING OF ALL THREE ENERGY SYSTEMS. (ATP-PC, ANAEROBIC GLYCOLYTIC AND OXIDATIVE SYSTEM)



MLA
PERFORMANCE



ENERGY SYSTEMS




**WE HAVE THREE MAJOR ENERGY SYSTEMS:
ATP-PC SYSTEM (AKA ALATIC SYSTEM)
ANAEROBIC GLYCOLYTIC SYSTEM (AKA
LACTATE SYSTEM) AND, OXIDATIVE SYSTEM
(AKA AEROBIC SYSTEM)**

**THE ATP-CP SYSTEM PROVIDES IMMEDIATE
ENERGY FOR BURSTS OF EXERCISE SUCH AS FOR
A THROWING, SPRINTING OR JUMPING. IT
ALLOWS FOR UP TO APPROXIMATELY 12
SECONDS (+ OR -) OF MAXIMUM EFFORT.**

**THE ANAEROBIC GLYCOLYTIC SYSTEM KNOWN
AS THE LACTATE SYSTEM PROVIDES ENERGY
FOR VERY HARD EFFORTS LASTING ROUGHLY
12 - 120 SECONDS.**

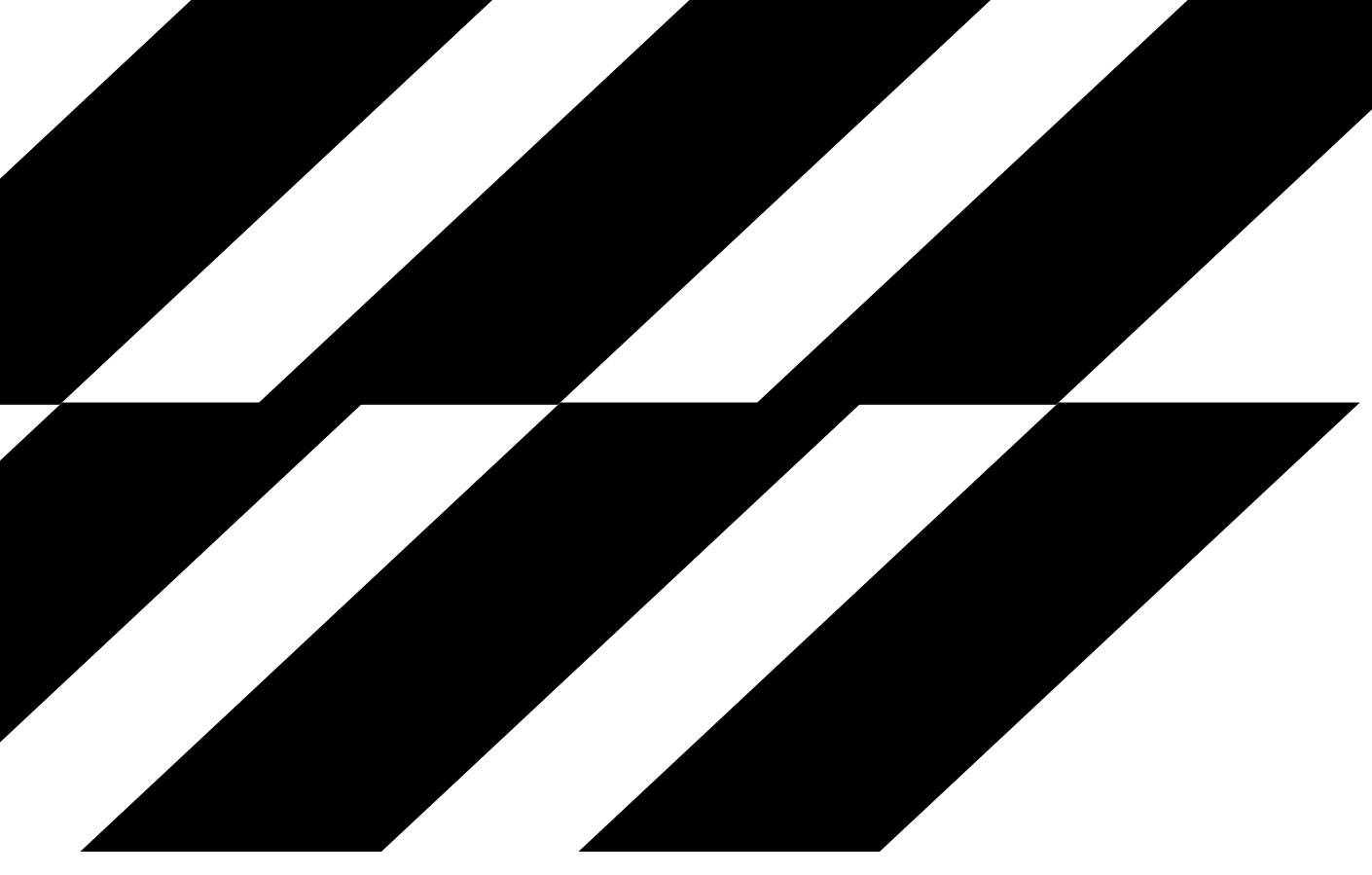
**THE OXIDATIVE SYSTEM PROVIDES ENERGY
FOR ACTIVITIES THAT LAST ANYWHERE FROM
TWO MINUTES TO A FEW HOURS. THE OXIDATIVE
SYSTEM REQUIRES OXYGEN AND TAKES MUCH
LONGER TO OVERLOAD. SPORTS AND
ACTIVITIES THAT USE CONTINUOUS SUSTAINED
EFFORTS SUCH AS LONG DISTANCE RUNNING,
CYCLING AND ROWING RELY ON THE AEROBIC
SYSTEM.**



WHAT IS HIIT?



THE
STRENGTH
OF OUR
MEMBERS
DEFINE
OUR
GROWTH



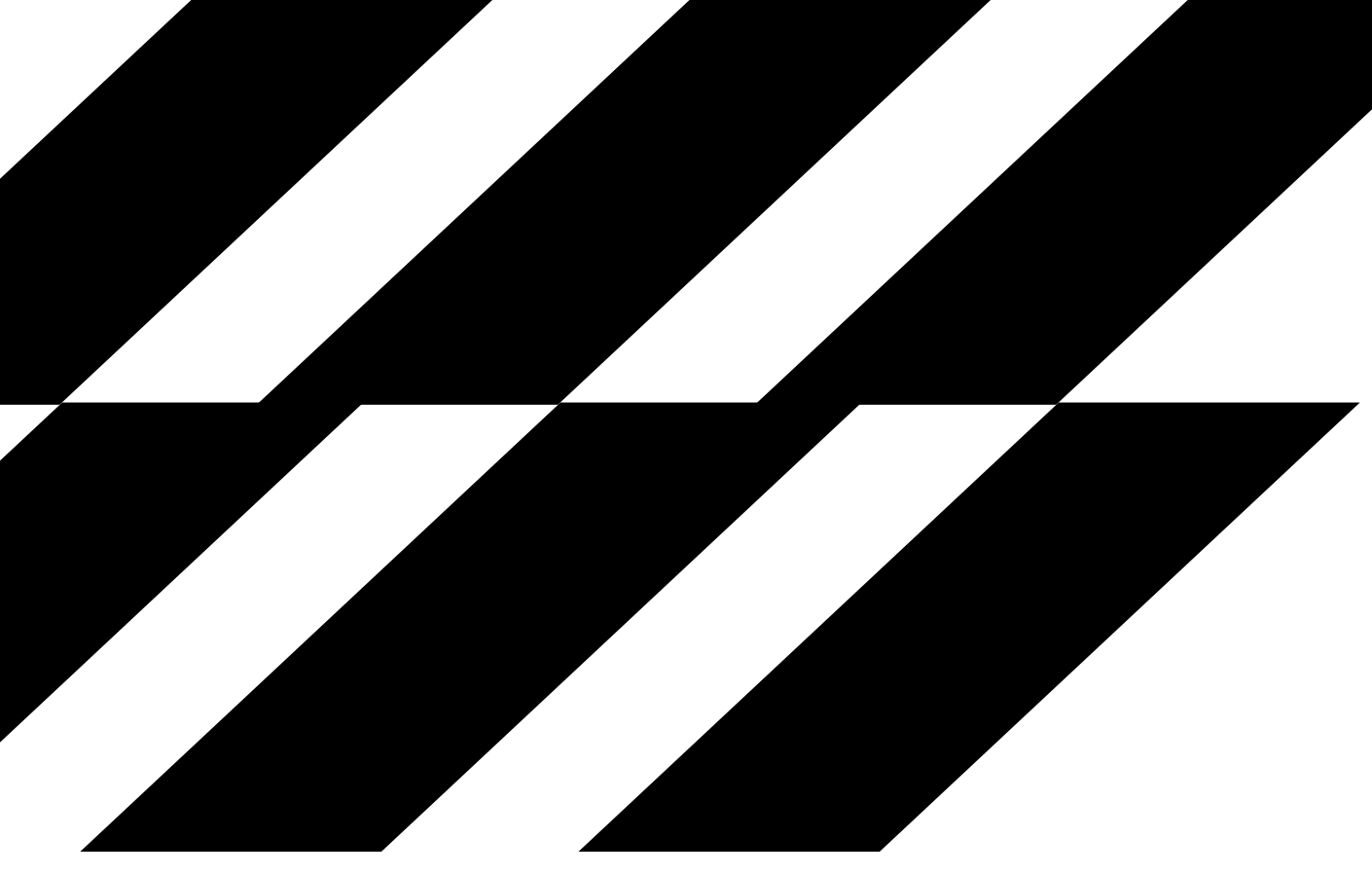
HIIT IS USUALLY DEFINED AS EXERCISE CONSISTING OF REPEATED BOUTS OF HIGH-INTENSITY WORK PERFORMED ABOVE THE LACTATE THRESHOLD (A PERCEIVED EFFORT OF “HARD” OR GREATER) INTERSPERSED BY PERIODS OF LOW-INTENSITY EXERCISE OR COMPLETE REST.

BY THIS DEFINITION THERE NEEDS TO BE AN IDEAL WAY TO MEASURE INTENSITY. TO DO THIS WE WILL BE USING RATE OF PERCEIVED EXERTION OR A HEART RATE MONITOR WHICH WE WILL DISCUSS FURTHER..




QUANTIFYING INTENSITY. HOW TO MEASURE IT?





THE MAIN AIM OF THIS 4 WEEK HIGH INTENSITY INTERVAL TRAINING PROGRAMME IS TO IMPROVE YOUR MAXIMAL OXYGEN UPTAKE, AND HIGH INTENSITY RUNNING PERFORMANCE. IN ORDER TO DO THIS WE NEED TO SPEND A SIGNIFICANT AMOUNT OF TIME AT 80 - 90% OF YOUR MAX HEART RATE.

TRAINING AT THIS INTENSITY WILL CAUSE THE PHYSIOLOGICAL ADAPTATIONS RESPONSIBLE FOR MAXIMAL OXYGEN UPTAKE. WE CAN USE HEART RATE MONITORS OR FITNESS TRACKERS AS THERE'S A GOOD RELATIONSHIP BETWEEN OXYGEN UPTAKE AND HEART RATE.





TO ESTIMATE YOUR MAX HEART RATE YOU CAN USE THIS EQUATION BELOW. PREDICATIONS ARE A GOOD STARTING POINT ALTHOUGH THEY ARE NOT ENTIRELY ACCURATE.

MAXIMUM HEART RATE EXAMPLE

**MAXIMUM HEART RATE
BPM (BEATS PER MINUTE) = 220 - AGE**

AGE / 20

220 - 20

MAX HEART RATE / BPM = 200

TO FIND OUT IF YOU'RE WORKING AT THE RIGHT INTENSITY YOU WILL THEN WORKOUT 80% - 90% OF THIS NUMBER 200

80% OF 200 = 160 BPM

160 BPM WOULD BE THE MINIMUM REQUIRED INTENSITY FOR EACH SESSION IF YOU ARE 20 YEARS OF AGE.

IF YOU DON'T HAVE A HEART RATE MONITOR OR FITNESS TRACKER YOU CAN USE RATE OF PERCEIVED EXERTION (RPE)





PERCEIVED EXERTION

THE EXERTION SCALE IS A WAY OF MEASURING PHYSICAL ACTIVITY INTENSITY LEVEL. PERCEIVED EXERTION IS HOW HARD YOU FEEL LIKE YOUR BODY IS WORKING. IT IS BASED ON THE PERSONS EXPERIENCES DURING PHYSICAL ACTIVITY. INCLUDING INCREASED HEART RATE, INCREASED BREATHING RATE, AND MUSCLE FATIGUE. THE SCALE WE WILL BE USING IS CALLED THE FOSTERS MODIFIED BORG CATEGORY SCALE.

1 - VERY VERY EASY

2

3 - MODERATE

4

5 - HARD

6


7 - VERY HARD

8

9

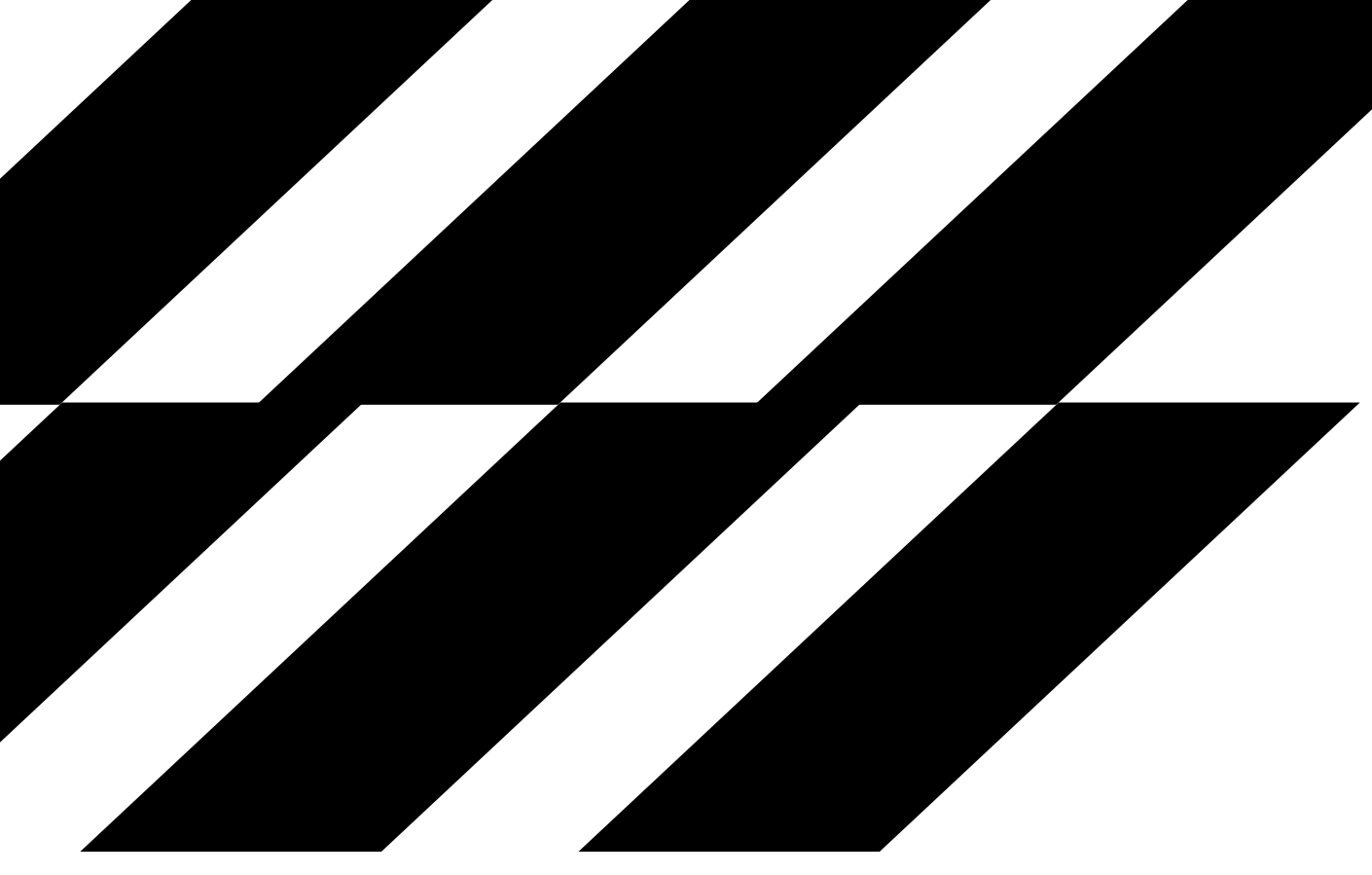
10 - MAXIMUM EFFORT

IF YOU'RE HONEST ABOUT HOW HARD THE INTERVAL WAS RATE IT AN 8 OR 9. YOU'LL BE WORKING AT THE REQUIRED INTENSITY TO MAKE THOSE PHYSIOLOGICAL ADAPTATIONS RESPONSIBLE FOR MAXIMAL OXYGEN UPTAKE.




WHAT ARE THE IMPROVEMENTS FROM HIIT TRAINING?

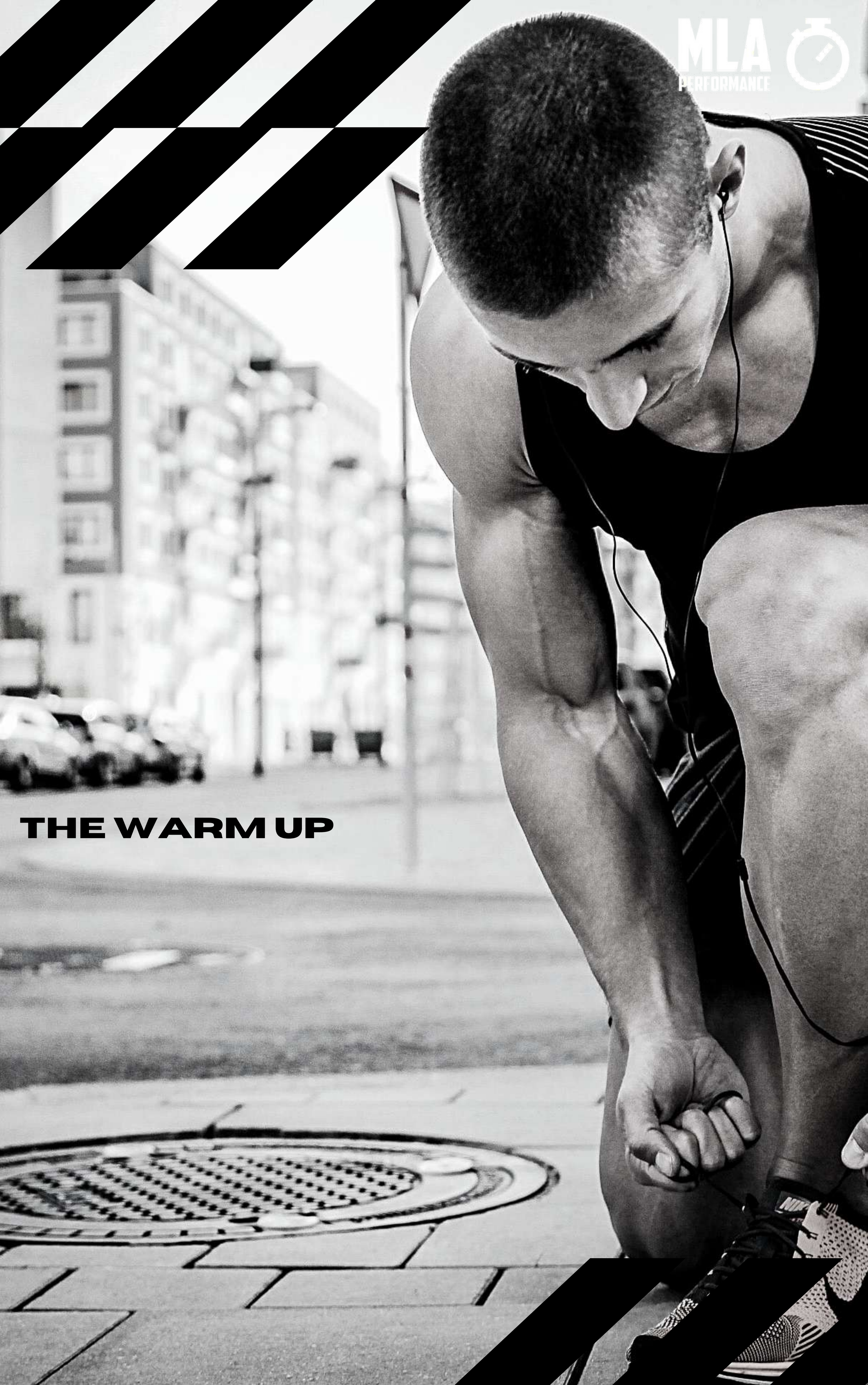




THE ANALYSIS OF STUDIES SHOWED THAT SUSTAINED BLOCKS OF HIGH-INTENSITY INTERVAL TRAINING LED TO SIGNIFICANT IMPROVEMENTS IN AEROBIC PERFORMANCE. IMPROVEMENTS IN AEROBIC PERFORMANCE DEPEND ON INTENSITY RATHER THAN DURATION.

SOME PHYSIOLOGICAL ADAPTATIONS ARE SUMMARIZED BELOW.

- 1. IMPROVED BONE DENSITY**
 - 2. INCREASED STROKE VOLUME**
 - 3. IMPROVED HEART AND LUNG HEALTH**
 - 4. IMPROVED METABOLIC HEALTH, WHICH INCLUDES CHOLESTEROL AND BLOOD PRESSURE LEVELS**
 - 5. LOWER RESTING HEART RATE**
 - 6. INCREASED MITOCHONDRIAL DENSITY**
 - 7. IMPROVED OXIDATIVE CAPACITY OF MUSCLE AND ENHANCED AEROBIC EFFICIENCY**
- 



THE WARM UP



WARMING UP BEFORE A SESSION IS CRUCIAL TO GET THE BEST RESULTS FROM YOUR SESSION. IT IS VITAL TO SQUEEZE IN TEN MINUTES OF PREP BEFORE YOUR WORKOUT. NO MATTER HOW SHORT ON TIME YOU ARE.

A RAMP WARM UP IS A GREAT WAY TO MAKE SURE THAT THE BODY IS WELL PREPARED AND READY TO GO

RAMP STANDS FOR

R - RAISE BODY TEMPERATURE WHICH CAN BE DONE BY DOING A 5-10MIN PULSE RAISER SUCH AS A JOG

A - ACTIVATE THE MOST IMPORTANT MUSCLES WHICH INCLUDE YOUR LUMBO-PELVIC HIP AREA, CORE MUSCLES AS WELL AS YOUR POSTURAL BACK MUSCLES

M - MOBILISE KEY JOINTS AND RANGES OF MOTION USED IN THE SPORT OR ACTIVITY

P - POTENTIATE THE MAIN MUSCLES THAT YOU ARE GOING TO USE DURING THAT PARTICULAR SESSION.



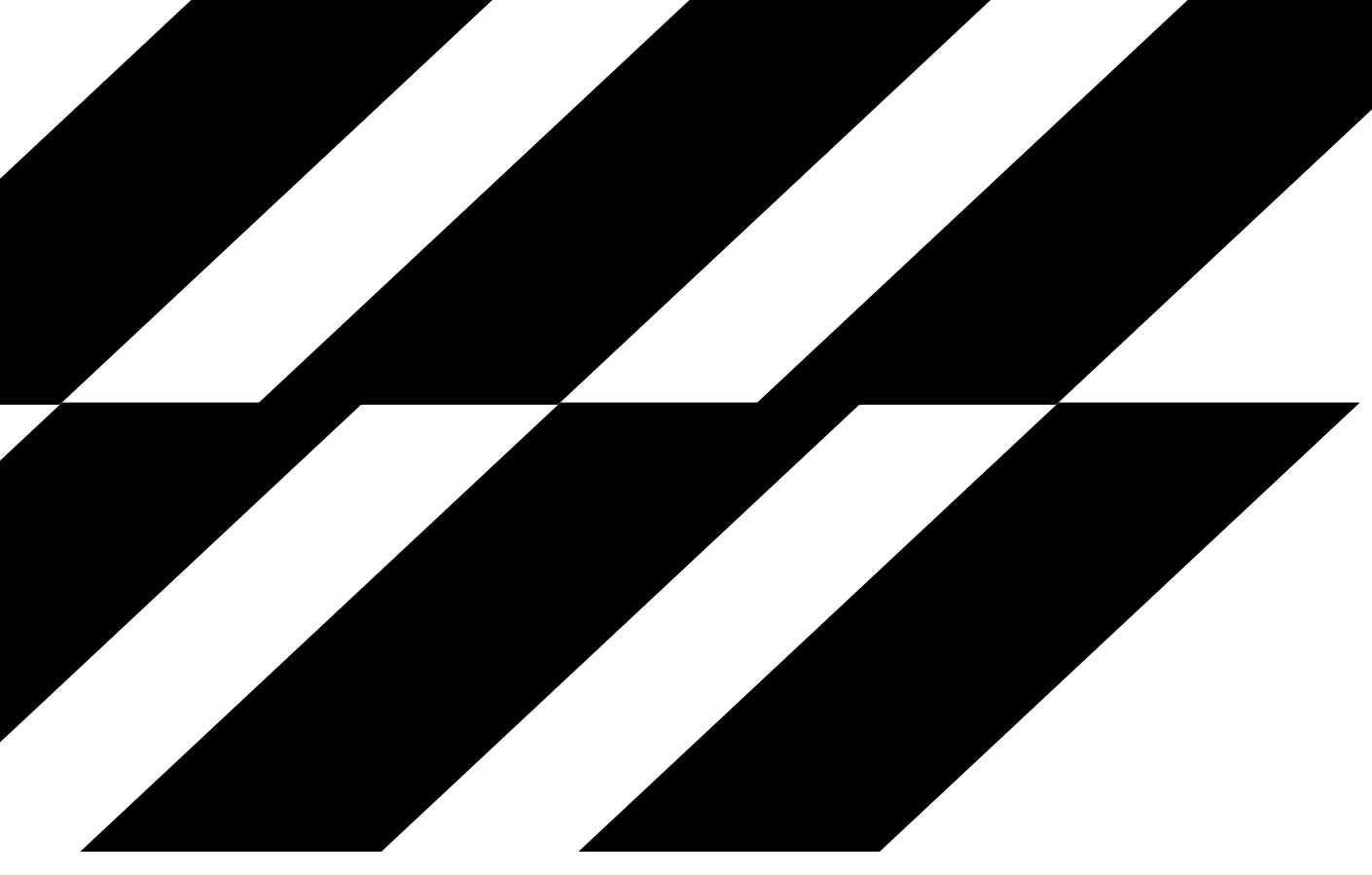
**RAISE - 5-10MINS OF ANY CARDIO EXERCISE
(JOG, CROSS TRAINER, WALKING, BIKE, ROWING
MACHINE) UNTIL YOU START FEELING WARM
AND YOUR HEART RATE RAISED.**

**ACTIVATE - 2 X (30S PLANK, 30S, SIDE PLANK)
2 X 12 GLUTE BRIDGES OR SINGLE LEG GLUTE
BRIDGES
2 X 12 SUPERMAN'S**

**MOBILISE - 10 X LEG SWINGS EACH SIDE
10 X INCHWORM
10 X KNEE HUGS
10 X ARM ROTATION CLOCKWISE
AND ANTI-CLOCKWISE**

**POTENTIATE - 5 PLYOMETRIC EXERCISES
(UNILATERAL AND BILATERAL JUMPS AND
BOUNDS)
5 SHORT ACCELERATIONS (0-20M)**

THE COOL DOWN



A COOL DOWN IS ANY ACTIVITY THAT HELPS IN THE RECOVERY AND PHYSICAL REPAIR OF AN INDIVIDUAL AFTER PHYSICAL ACTIVITY OR EXERCISE.

DURING INTENSE EXERCISE YOUR BODY GOES THROUGH A NUMBER OF STRESSFUL PROCESSES SUCH AS MUSCLE FIBERS GETTING DAMAGED, AND WASTE PRODUCTS BUILDING UP WITHIN YOUR MUSCLES.

THE COOL DOWN WILL ASSIST YOUR BODY IN ITS REPAIR PROCESS.

FOR EXAMPLE IF YOUR WORKOUT INVOLVED A LOT OF RUNNING, COOL DOWN WITH LIGHT WALKING..

FOLLOW WITH ABOUT 5 TO 10 MINUTES OF LONG-HOLD (30 TO 60 SECONDS) STATIC STRETCHING.

THE AIM HERE IS IT'S TO GENTLY LENGTHEN OUT THE MUSCLES THAT HAVE BEEN CONSTANTLY WORKED DURING YOUR WORKOUT





**EXAMPLES OF STRETCHES YOU COULD DO
ARE SHOWN BELOW**

STANDING QUADRICEPS STRETCH

CAT/COW STRETCH

CHILD'S POSE

GLUTE STRETCH

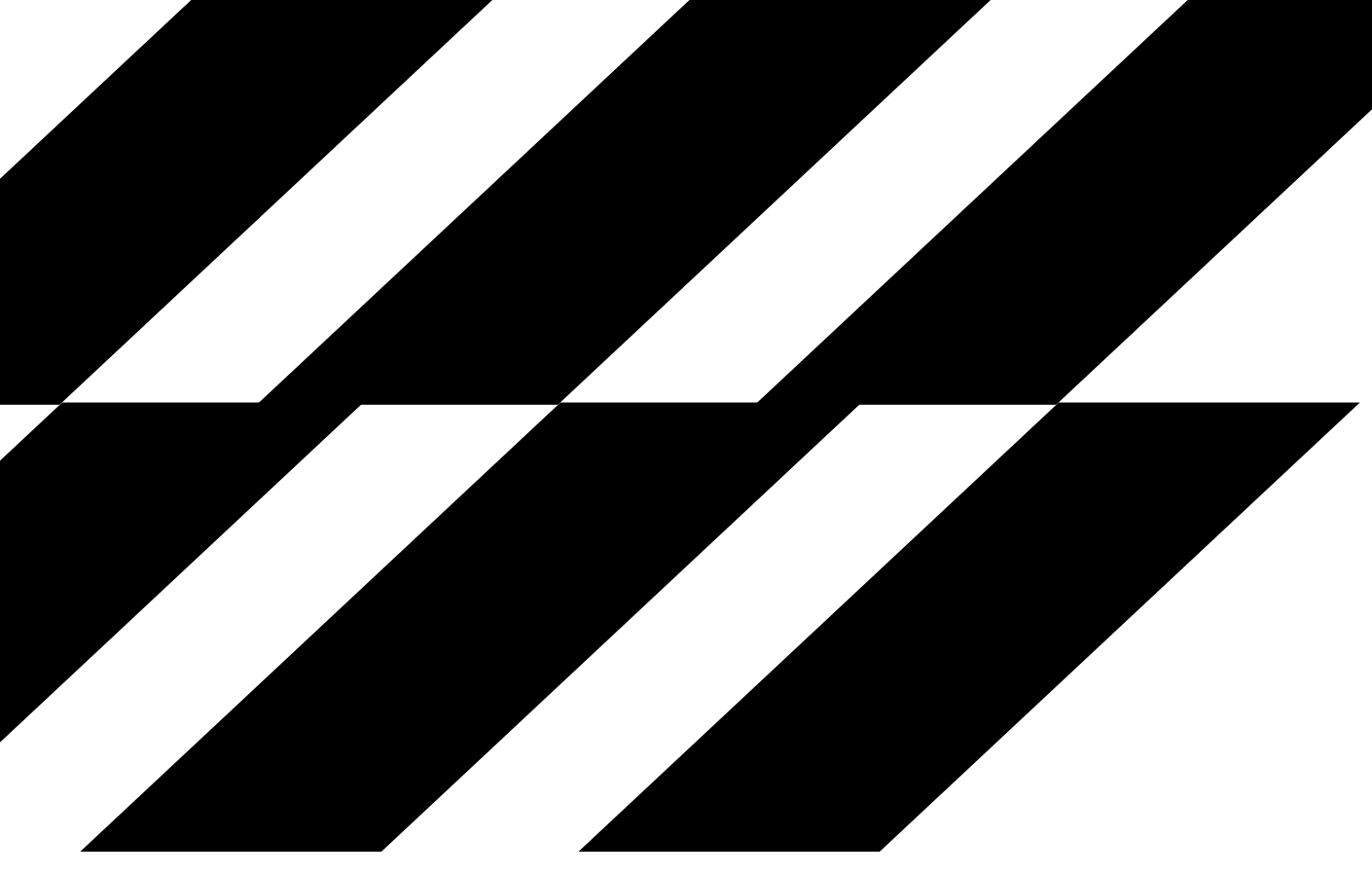
ARM-CROSS SHOULDER STRETCH

OVERHEAD TRICEPS STRETCH


HAMSTRING STRETCH

GROIN STRETCH



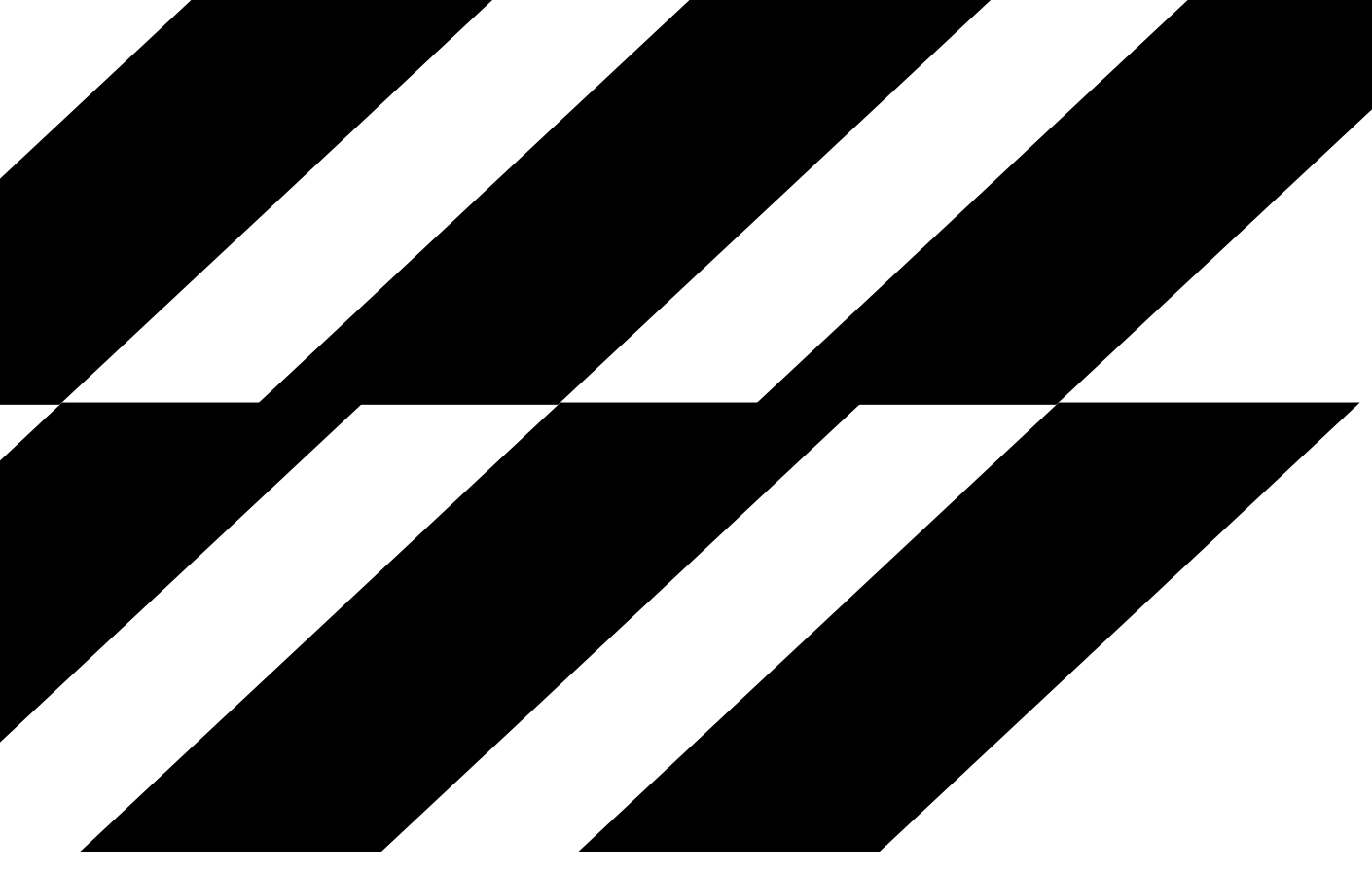


AS MENTIONED BEFORE THIS PROGRAMME WILL TAKE YOU ON PROGRESSIVE JOURNEY. OVER THE 4 WEEKS WE ARE INCREASING THE INTENSITY TO PROVIDE YOU WITH A STIMULUS FOR ADAPTATION. THIS INCREASE IN INTENSITY FOLLOWS THE PRINCIPLE OF PROGRESSIVE OVERLOAD. WHICH MEANS YOU HAVE TO INCREASE THE INTENSITY, DURATION, TYPE, OR TIME OF A PROGRAMME PROGRESSIVELY IN ORDER TO SEE ADAPTATIONS.



**MLA PERFORMANCE TIPS FOR
SUCCESS**





**KEEPING AND CULTIVATING THE MOTIVATION
TO TRAIN IS AN AREA MOST PEOPLE WILL
STRUGGLE WITH. HERE'S A FEW IDEAS WHICH
WILL HELP YOU SUCCEED USING THIS
PROGRAMME.**





- SET YOURSELF A GOAL IN FITNESS. WHICH COULD BE TO GET STRONGER, LOSE FAT, BUILD MUSCLE OR IMPROVE ENDURANCE.

- CREATE GOOD DAILY HABITS WHICH ALIGN WITH YOUR GOALS

- SET AN EARLIER ALARM. PACK YOUR GYM CLOTHES THE NIGHT BEFORE OR WORKOUT AT THE SAME TIME EACH DAY.

- HAVE THE SESSION AVAILABLE SO YOU'RE READY TO GO WHEN IT'S TIME TO TRAIN.

- UNDERSTAND WHY YOU'RE DOING THE SESSION. IT SHOULD BE RELATED TO YOUR OWN PERSONAL GOALS.


- THROUGHOUT THE DAY STAY HYDRATED AND FUEL UP APPROPRIATELY FOR THE SESSION.

- LASTLY, GET A COACH OR SERVICE THAT WILL HOLD YOU ACCOUNTABLE IF YOU MISS ANY TRAINING SESSIONS.



THE FITNESS TEST




2021
Lisboa
CAPITAL EUROPEIA DO DESPORTO
EUROPEAN CAPITAL OF SPORT




2021
Lisboa
CAPITAL EUROPEIA DO DESPORTO
EUROPEAN CAPITAL OF SPORT





PRIOR TO STARTING THE PROGRAMME YOU WILL UNDERTAKE EITHER TEST SHOWN BELOW. THIS CAN BE DONE THE DAY BEFORE YOU INTEND TO START THE PROGRAMME.

DOING THE TEST WILL GIVE YOU A GOOD IDEA OF WHERE YOUR FITNESS LEVELS ARE AT. ALSO, IT CAN BE USED TO ESTIMATE YOUR CURRENT MAXIMUM AEROBIC CAPACITY.

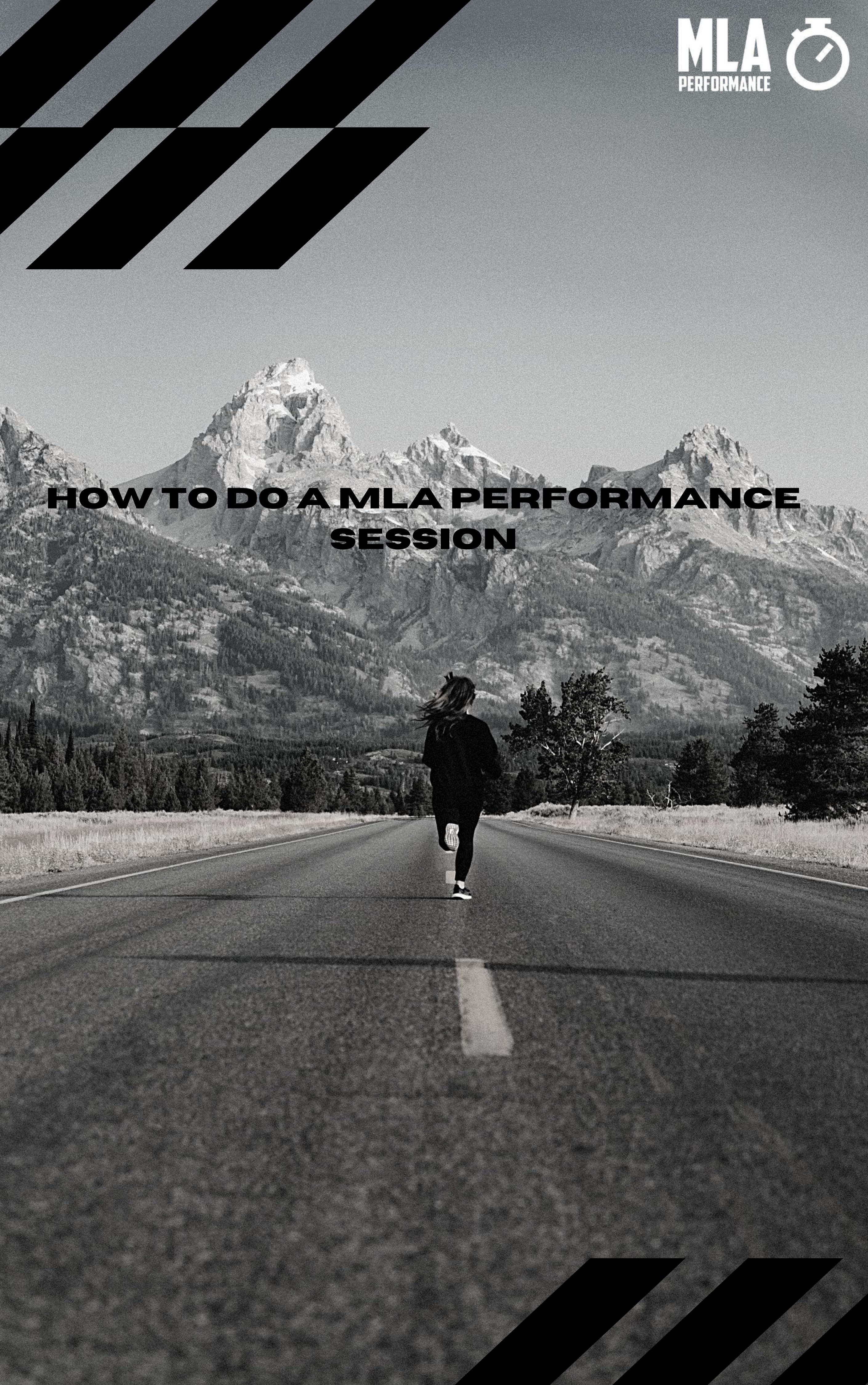
THE TEST CAN ALSO BE USED TO MONITOR ANY CHANGES IN FITNESS WHEN THE PROGRAMME IS COMPLETED. YOU'LL THEN COMPLETE THE SAME TEST AGAIN TO COMPARE RESULTS.



**8 MINUTE TIME TRIAL = DISTANCE COVERED IN
THAT TIME**

**2.5K TIME TRIAL = TIME TAKEN TO COMPLETE
THE DISTANCE**

HOW TO DO A MLA PERFORMANCE SESSION



- **WARM UP AND COOL DOWN USING THE GUIDE PROVIDED**
- **WORK THROUGH THE SESSION WITH MAX EFFORT ON EACH INTERVAL**
- **ON = HOW LONG YOU WILL BE WORKING FOR**
- **OFF = THE AMOUNT OF REST TIME / ACTIVE OR PASSIVE REST**
 - **X = NUMBER OF TIMES YOU DO THE INTERVAL**
 - **INTERVAL = BLOCK OF REPS**
- **2 MINUTES REST = COMPLETE RECOVERY TIME**
- **TRY TO LEAVE A DAYS REST BETWEEN EACH SESSION. FOR EXAMPLE / MONDAY / WEDNESDAY / FRIDAY / COULD BE A TRAINING WEEK WHEN USING THE PROGRAMME.**

WEEK 1

SESSION 1

INTERVAL 1

2 MINUTES ON / 1 MINUTE OFF / X 3

INTERVAL 2

20S ON / 10S OFF / X 8

INTERVAL 3

10S ON / 10S OFF / X 12

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 1

SESSION 2

INTERVAL 1

2 MINUTES ON / 2 MINUTES OFF / X 2

INTERVAL 2

30S ON / 15S OFF / X 8

INTERVAL 3

15S ON / 15S OFF / X 8

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 1

SESSION 3

INTERVAL 1

3 MINUTES ON / 90 SECONDS OFF / X 2

INTERVAL 2

40S ON / 20S OFF / X 4

INTERVAL 3

30S ON / 30S OFF / X 4

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 2

SESSION 1

INTERVAL 1

2 MINUTES ON / 1 MINUTE OFF / X 4

INTERVAL 2

20S ON / 10S OFF / X 8

INTERVAL 3

10S ON / 10S OFF / X 15

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 2

SESSION 2

INTERVAL 1

2 MINUTES ON / 2 MINUTES OFF / X 3

INTERVAL 3

30S ON / 15S OFF / X 8

INTERVAL 3

15S ON / 15S OFF / X 10

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 2

SESSION 3

INTERVAL 1

3 MINUTES ON / 90 SECONDS OFF / X 3

INTERVAL 2

40S ON / 20S OFF / X 5

INTERVAL 3

30S ON / 30S OFF / X 5

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 3

SESSION 1

INTERVAL 1

2 MINUTES ON / 1 MINUTE OFF / X 5

INTERVAL 2

20S ON / 10S OFF / X 10

INTERVAL 3

10S ON / 10S OFF / X 18

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 3

SESSION 2

INTERVAL 1

2 MINUTES ON 2 MINUTES OFF / X 4

INTERVAL 2

30S ON / 15S OFF / X 10

INTERVAL 3

15S ON / 15S OFF / X 12

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 3

SESSION 3

INTERVAL 1

3 MINUTES ON / 90 SECONDS OFF / X 3

INTERVAL 2

40S ON / 20S OFF / X 7

INTERVAL 3

30S ON / 30S OFF / X 7

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 4

SESSION 1

INTERVAL 1

2 MINUTES ON / 1 MINUTES OFF / X 6

INTERVAL 2

20S ON / 10S OFF / X 12

INTERVAL 3

10S ON / 10S OFF / X 18

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 4

SESSION 2

INTERVAL 1

2 MINUTES ON / 2 MINUTES OFF / X 4

INTERVAL 2

30S ON / 15S OFF / X 12

INTERVAL 3

15S ON / 15S OFF / X 14

REST 2 MINUTES BETWEEN EACH INTERVAL

WEEK 4

SESSION 3

INTERVAL 1

3 MINUTES ON / 90 SECONDS OFF / X 3

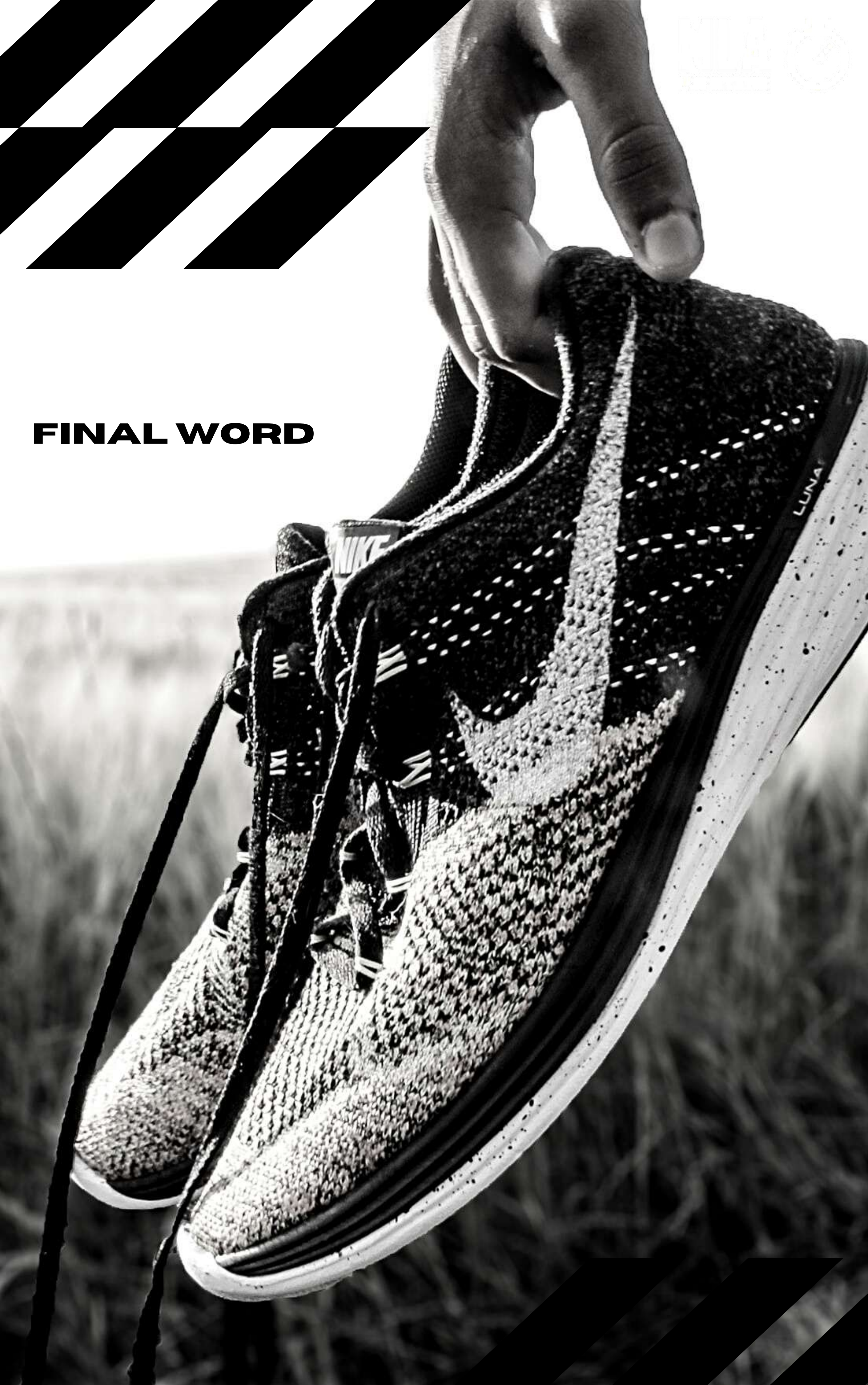
INTERVAL 2

40S ON / 20S OFF / X9

INTERVAL 3

30S ON / 30S OFF / X 9

REST 2 MINUTES BETWEEN EACH INTERVAL



FINAL WORD

LUNAR+



**CONGRATULATIONS ON COMPLETING
THE MLA METHOD.**

GET READY FOR THE NEXT INSTALLMENT!

WE GO AGAIN.



DISCLAIMER

**THIS PROGRAMME IS NOT A SOLUTION FOR
PROFESSIONAL DIAGNOSIS, CARE OR
TREATMENT.**

**IF YOU ARE IN DOUBT OR HAVE POOR HEALTH,
PRE-EXISTING MENTAL/PHYSICAL CONDITIONS
OR ANY EXISTING INJURIES. PLEASE DO NOT
ATTEMPT THIS PROGRAMME UNLESS CLEARED
BY YOUR DOCTOR OR PHYSICIAN.**