DRIVER DEVELOPMENT GUIDE

MORE THAN EQUAL

 Acknowledgements The authors would like to express their gratitude to the following [companies, individuals] for their contributions to the [Driver Development Guide]: Scott Mansell from Driver 61, Riccardo Ceccarelli, Zara Nelson and the team at Formula Medicine, Baz Moffat, Dr Emma Ross and team at The Well HQ and finally the whole team at F1 ACADEMY.

Welcome to the F1 ACADEMY Driver Development Guide.

My name is Susie Wolff, I started racing karts at the age of 8, competing at club level before progressing through to the British, European and World Championships.
I then moved into single seaters and became a 'Mercedes-Benz' driver in the German Touring Car Championship before achieving my dream of making it to F1® as a Test Driver with the Williams F1 Team.

I know how challenging and complex it can be to navigate the world of motorsport. That's why now, as part of the team at F1 ACADEMY, we created this development guide. We have taken specialists in their respective fields and put together information and guidance that we believe can help you on your journey. Our goal is to provide you with the resources you need to help you become the best racing driver you can be.

You will all be at different stages but today, there are more opportunities for female drivers than ever before. In whatever category you are racing, or if you're just entering the sport—grab whatever opportunities come your way. Leave no stone unturned in your preparation to set yourself up for success.

But remember, there is only ever one winner, failure is part of the journey. It's how you cope with the tough days that will define you. Learn from your mistakes, always pick yourself back up and never stop fighting for performance.

I wish you the best of luck on your motorsport journey and I hope one day to see some of you racing in F1 ACADEMY.

Susie Wolff – F1 ACADEMY Managing Director

My name is Tom Stanton, and I have the privilege of leading More than Equal —an organisation on a mission to find and develop the first female Formula 1® World Champion. It's an ambitious goal, but one grounded in a belief that talent knows no gender, and that with the right support and systems, female drivers can reach the pinnacle of our sport.

We are proud to stand alongside F1 ACADEMY as they aim to provide clarity, guidance and practical tools to support the next generation of female talent. This guide contributes meaningfully to that effort, offering insights that reflect many of the same challenges and opportunities we see in our own work.

Now more than ever, the landscape is beginning to shift. Female drivers are making their mark at every level of the sport, but the path to the top remains complex and fiercely competitive.

For those of you reading this guide as young drivers, coaches or parents—use every tool at your disposal. Keep asking questions. Keep seeking performance. And know that you are not alone in your ambition.

There has never been a better time to chase this dream.

Tom Stanton
CEO, More than Equal

MORE THAN EQUAL


30
Mobil
8
16
17

CONTENTS

DISCOVER YOUR DRIVE

This body of research, endorsed by >= More than Equal—the Official Driver Performance & Research Partner of F1 ACADEMY—has been created in order to provide you (and your support network) with information and guidance on how to put yourself in the best possible position for potential performance within the F1 ACADEMY Racing Series and beyond.

Just simply being fast behind the wheel isn't enough to 'make it' – teams are looking for far more than just quick lap times, and often you have to look beyond the car to unlock those extra tenths.

To make it to the top, you have to work hard on all areas of performance, both on track and off track. This means being structured in your approach to training, planning and preparation and being innovative with your development. Ask yourself 'what am I doing that my competitors are not'? – what is going to give you the extra edge? This guide will give you some top tips and insights into how you can uncover new performance factors and development opportunities, and unlock your full potential.

It is recommended that you share this resource with your parents/guardians and your coach, mechanic or engineer to work through the relevant sections with you.

If you're a young driver currently participating in competitive karting and looking to progress into single seater racing, this guide is for you!

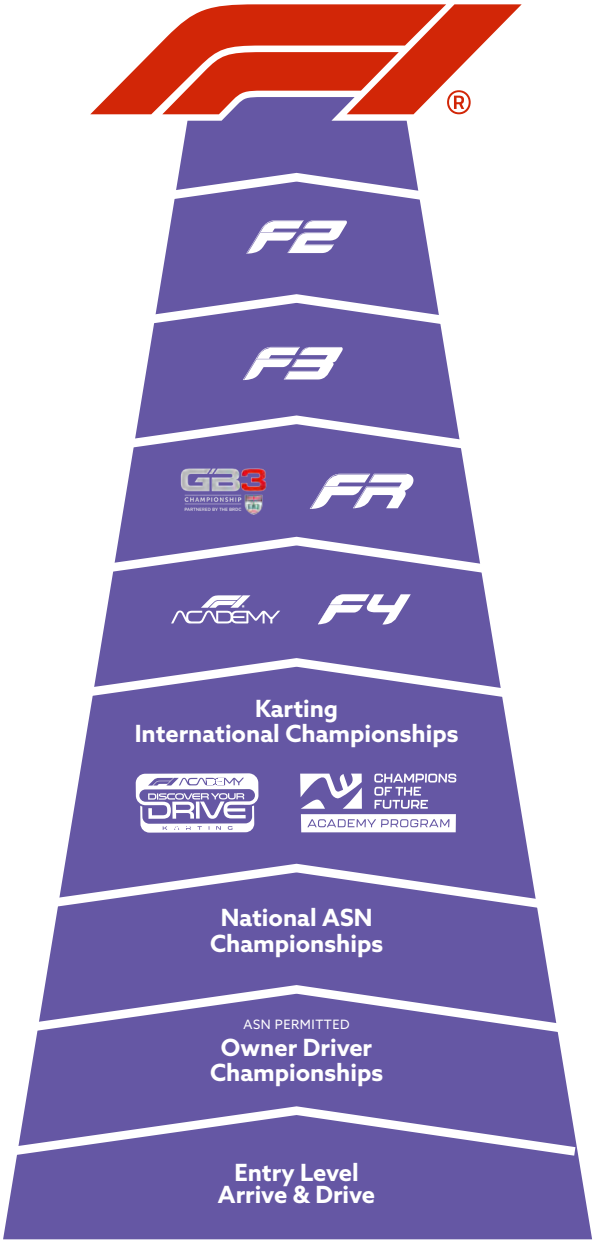
THE PATHWAY

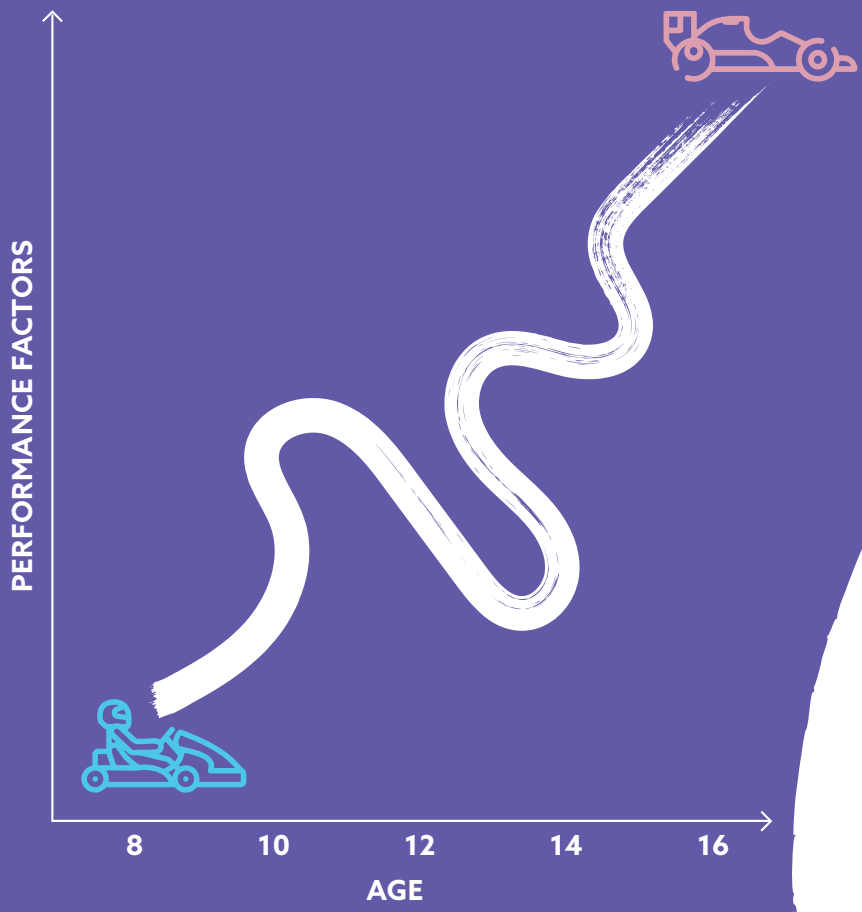
To progress to the top levels of the sport there is a 'pathway' to follow. The diagram on the next page shows how you might progress from karting into single seater cars, and where F1 ACADEMY is positioned within this pathway. Of course, this isn't the only way and. You will need to map out your own journey depending on your age, experience so far, support network and resource, and your ultimate goals. We'll take a look at this in the next section.

It is important at this point to highlight that the transition from junior to senior karting, or karting into cars can be a difficult one to navigate – it can be quite a big step up and almost like entering into a different sport. The performance demands change as you progress, in particular the physical, mental and social aspects can really start to ramp up. This is why it's important to think about your journey and be ready for the next step, before you even get there.

As your age and experience levels begin to increase, so do the demands on performance factors both on, and off track. When to make the step up is a very individual decision and we hope that this resource helps you to prepare in the best possible way.

KARTING PATHWAY



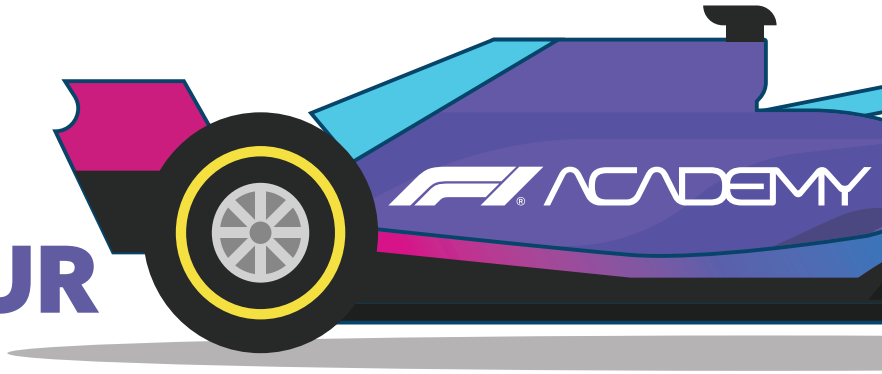


The driver eligibility criteria for F1 ACADEMY is as follows:

1. All drivers must be women aged 25 years or younger, and 16 years of age or older when entering their first race event of the season.
2. All drivers participating must hold a Grade B, C or D International FIA Licence.
3. All drivers must meet or exceed the F1 ACADEMY performance benchmark for the relevant season: i.e. the best female drivers possible at this level will be selected.

UNLOCK

"leave no stone unturned in your preparation to set yourself up for success"



YOUR POTENTIAL


ABBI
PULLING
BELL
BWT

SECTION ONE

WHAT DOES IT TAKE?

There has never been a better time to be a female racing driver. The opportunities, support and visibility of women's sport is continually on the rise and that's no different in motorsport!

F1 ACADEMY is more than just a racing series, it provides a platform to inspire, support and champion change for females in motorsport. So, what does it take to race in F1 ACADEMY?

01

Being talented is important, of course, but it's not enough on its own – you'll need the complete package to reach these levels. It not only takes hard work, commitment, determination—but also technical and tactical skill, physical proficiency, mental preparedness, and awareness of social factors that influence performance.

GET YOUR TRAINING INTO GEAR

Within these key areas of performance, you will need to be able to identify your strengths and areas for development, set yourself actionable goals and understand how to get the best from your support network whether that's your parents/guardians, coaches, physical fitness trainers, sport psychologists, engineers or other team members. It will also help you to understand where you might be able to gain an advantage – it might be in the gym, on your plate, or in your mind. Wherever it is, it could be the difference between winning, a podium, or neither.

This development guide is broken down into the keys areas of performance to help you reach your ambitions. But first, we need to look at 'what it takes' in more detail, as well as your own goals and your Individual Development Plan.

OVERVIEW

YOUR INDIVIDUAL DEVELOPMENT PLAN

There are many young talented drivers around the world already working towards their Individual Development Plans (IDPs). An Individual Development Plan is a personal development plan owned by you, the athlete. It helps direct and inform your training, competition, and lifestyle management to support achievement of your goals.

Let's take a look at what it takes to achieve success, and where you are on your own journey.

Who is your sporting hero?

What are their strengths?

Why are these skills or qualities important?

Your sporting hero will have had a long term goal which helped motivate them to work hard, focus on their training, and improve their skills. For example, Maya Weug's sporting hero is Charles Leclerc after she met him at a karting track when she was 13 years old. Charles' long-term goal was to reach Formula 1® with one of his strengths being resilience, having faced many challenges in his career. Resilience is important because when you feel like giving up, or things aren't going your way you need to find that extra motivation, energy and strength to keep going and chase your dream.

Write down what you think your hero's ultimate goal was when they were your age:

Have a look at Chloe Chambers' journey below as well as some things she had to consider along the way:

2013

US & Canada

WINTER SERIES KARTING

"I never actually did a full championship in karting other than smaller winter series championships which were typically only three race weekends."

2014 - 2019

SKUSA SUPERNATS

Juniors

Various karting including Rotax (micro & mini), Rok (junior & senior), IAME (mini, junior & senior).

"This was my final, and biggest year in junior karting where I finished 3rd place against the likes of Kimi Antonelli and Freddie Slater."

2022

W SERIES

"Tough for the rookies - there was no in-season testing, we had one practice session during the weekends, and it was all new tracks and car for me. It made it a bit harder for us too that we had to change engineers every weekend."

2023

Formula Regional Oceania Championship, NZ

"This was the most growth I had as a driver until that point. The tracks were super old school so it really required me to hone in my driving techniques."

2020

SENIOR KARTING

"We made the decision to prioritize this year because of my weight heading into senior. I needed a lot of lead weights which heavily affected the handling of the kart so senior would always be a tough year."

2021

F4 US CHAMPIONSHIP OPPORTUNITY

"Supported drive but didn't finish full year, contract terminated early, new team, I was inexperienced and it was very difficult to make myself heard. A really tough racing year."

Porsche Sprint Challenge, GT4 Cayman

"I had to step away from open wheel racing for a short while due to an opportunity not coming to fruition - so I raced in the Porsche Sprint Challenge winning approximately 7 races."

Spanish F4 with Campos

"My last step on the ladder before breaking through into F1 ACADEMY was testing in a Spanish F4 car with Campos to prove my ability and secure my seat in F1 ACADEMY. I signed with a management company at this time."

2024

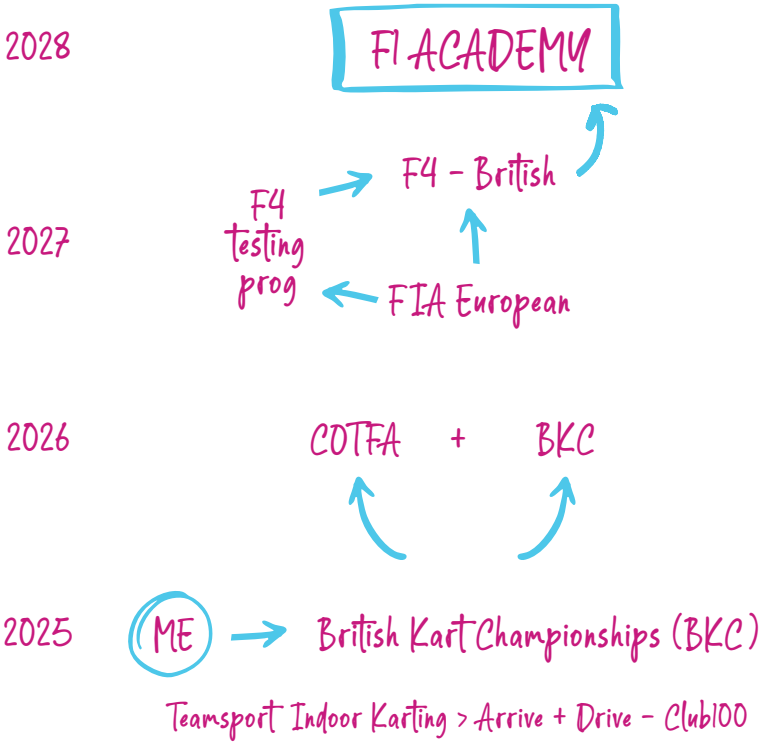
F1 ACADEMY

Now thinking about your own journey. What is your ultimate goal in motorsport? What do you want to achieve and what might the journey look like to get there?

Everyone's journey is slightly different, depending on your age, where you live, whether you have sponsors, if you join a team or it's your family supporting you!

Have a go at drawing a picture to represent your own journey, thinking about the things you might need to consider at each stage.

You might want to include multiple options as not all pathways will follow a straight line. As you have seen from Chloe's journey, she had to step away from single seaters for a short while – think about your back-up plan, or alternative routes which can still lead to your ultimate goal:



Things I need to consider at each stage

Budget

Planning ahead of time.

Racing Fitness

Preparing for the next level before I get there. Find out what the demands in F4 are.

Pressure

Pressure will increase, think about strategies to manage.

School Work & Exams

Map out the pinch points.

Understanding The Car vs Kart

How it responds and handles, how to drive it.

Prepare for your long term goal, now.
Have a go at drawing your own career journey.

What is your goal, what are your timescales, what different routes can you take, what sponsorship do you need at each stage? What are the key transitions – fitness, skill and knowledge?

INDIVIDUAL DEVELOPMENT PLAN

YOUR INDIVIDUAL DEVELOPMENT PLAN

Now you know what you want to achieve, it's time to look at how you're going to do it. An Individual Development Plan (IDP) is a roadmap for your development. It gives you focus and motivation, accountability, and helps those around you to support your development. It provides a framework for evaluating your progress and making adjustments to your training plan as needed — ultimately helping to improve your performance.

Take a look at the example before having a go at completing your own!

SECTION 1

ME & MY PERFORMANCE

EXAMPLE

NAME Jane Bloggs

AGE 14

THIS YEAR I'M RACING IN COTFA

NEXT YEAR I WANT TO RACE IN COTFA & FIA European Karting

MY BIGGEST STRENGTH IS

Seeing a gap and going for it!

I'M AT MY BEST WHEN:	I'M AT MY WORST WHEN:
I have my usual mechanic with me and my family around	I have lots of distractions, including worries about school work

THINGS THAT HELP MY PERFORMANCE:	THINGS THAT HINDER MY PERFORMANCE:
Giving me one or two things to focus on in race rather than lots of things	Saying things like 'be careful' – before a race as it makes me overthink

RACE READY!

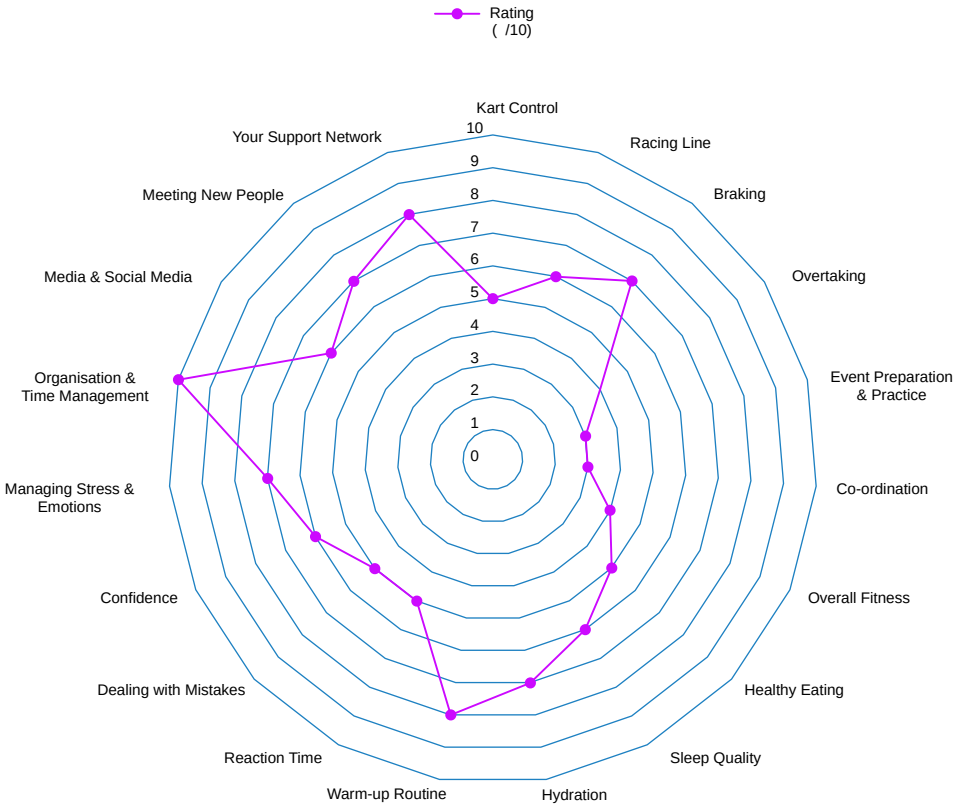
SECTION 2

MY PERFORMANCE PROFILE

A good way to analyse your strengths and areas for improvement is to fill out a Performance Profile.

A Performance Profile is an important tool within your IDP that helps you analyse your performance to highlight your super strengths and your work-on areas. We have taken the common factors that most drivers believe are relevant and have grouped them into the performance areas we described earlier.

EXAMPLE



Rating:

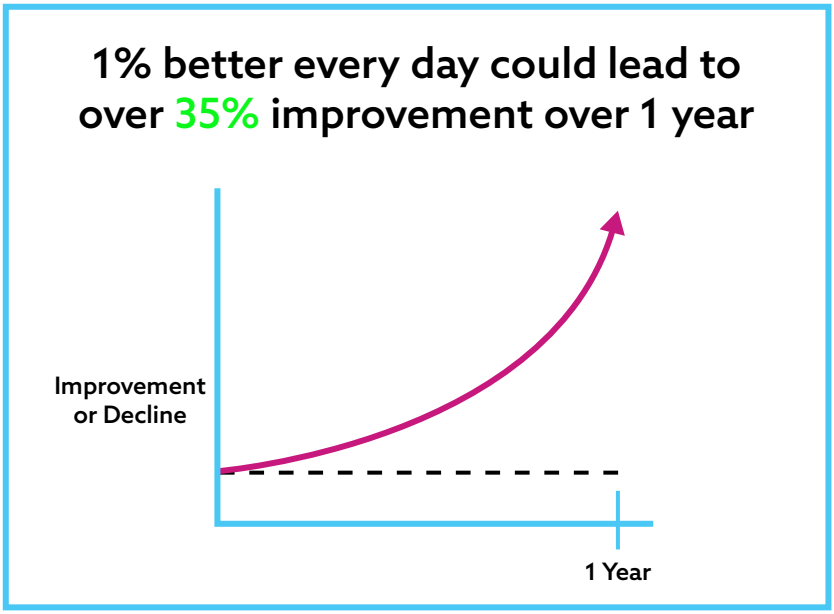
1 = I'm finding it hard | **5** = I'm doing ok! | **10** = I'm doing really great!

PERFORMANCE AREA	PERFORMANCE FACTORS	RATING	NOTES/ EXAMPLES
TECHNICAL & TACTICAL	KART CONTROL	5	AWARENESS OF HOW THE KART FEELS AND HOW TO RESPOND WITH INPUTS –STEERING, PEDALS, WEIGHT TRANSFER
	RACING LINE	6	UNDERSTANDING AND ABILITY
	BRAKING	7	HAVE YOU MASTERED YOUR BRAKING ZONES?
	OVERTAKING	4	YOUR CONFIDENCE AND ABILITY
	EVENT PREPARATION & PRACTICE	3	REVIEWING ON BOARD FOOTAGE, SIMULATOR TRAINING, RESEARCHING YOUR COMPETITORS
PHYSICAL	CO-ORDINATION	3	MOVING DIFFERENT PARTS OF YOUR BODY AT THE SAME TIME
	OVERALL FITNESS	4	DO YOU FEEL STRONG BEHIND THE WHEEL?
	HEALTH EATING	5	DO YOU HAVE A BALANCED MEAL MOST OF THE TIME (IS YOUR PLATE 'COLOURFUL')
	SLEEP QUALITY	6	IS YOUR DURATION AND QUALITY OF SLEEP GOOD ENOUGH? DO YOU FEEL SHARP AND FRESH WHEN YOU ARRIVE AT TRACK?
	HYDRATION	7	DO YOU DRINK ENOUGH WATER, AND REGULARLY?
	WARM-UP ROUTINE	8	HAVE YOU GOT ONE?
MENTAL	REACTION TIME	5	HOW QUICKLY CAN YOU RESPOND TO ACTIVITY IN FRONT OF YOU?
	DEALING WITH MISTAKES	5	WHEN THINGS DON'T GO SO WELL, HOW WELL ARE YOU ABLE TO CARRY ON?
	CONFIDENCE	6	DO YOU FEEL CONFIDENT BOTH ON AND OFF TRACK?
	MANAGING STRESS & EMOTIONS	7	WHEN THERE IS PRESSURE, HOW DO YOU FEEL?
SOCIAL	ORGANISATION & TIME MANAGEMENT	10	DO YOU KNOW WHERE YOU NEED TO BE AND WHEN?
	MEDIA & SOCIAL MEDIA	6	ARE YOU EXPERIENCED/COMFORTABLE TALKING TO THE MEDIA/IN FRONT OF THE CAMERA?
	MEETING NEW PEOPLE	7	HOW CONFIDENT ARE YOU MEETING AND TALKING TO NEW PEOPLE?
	YOUR SUPPORT NETWORK	8	DO YOU HAVE PEOPLE AROUND YOU TO HELP YOU WITH YOUR DEVELOPMENT? PERHAPS PARENTS, COACHES, MECHANICS, TEAM MANAGERS, FRIENDS AND FAMILY?

SECTION 2

MARGINAL GAINS

The Performance Profile helps you to identify what we would call a 'Marginal Gain'. Marginal Gains on their own might seem quite insignificant, but lots of small gains combined across multiple areas of performance could lead to significant overall performance improvements.



source: https://jamesclear.com/marginal-gains

"This graph shows the power of tiny performance gains over 1 year. By discovering where you can make small improvements both in the car and away from track, could mean that you are almost 38% better than when you started!"

SECTION 3

MY ACTION PLAN

Pick some performance factors that you'd like to develop, including your two lowest scoring and analyse them in greater detail using the questions below.

EXAMPLE PERFORMANCE PROFILE ANALYSIS

	WHY DID I CHOOSE THIS RATING:	HOW WILL I WORK AT IT?	WHAT SUPPORT DO I NEED?
TECHNICAL & TACTICAL: EVENT PREPARATION & PRACTICE	I don't always feel I know the track well enough before I arrive	Watch on-boards and use a simulator to familiarise	Get my coach to help with confirming the best racing line
PHYSICAL: CO-ORDINATION	Sometimes my hands and feet aren't working together!	Get some reaction balls or lights	Reminding me to practice at home
PHYSICAL: OVERALL RACE FITNESS	Need to understand more about how to train	Attend all of the Formula Medicine sessions at COTFA	Ask questions when I am not sure
MENTAL: MANAGING STRESS & EMOTIONS	Need to find some coping strategies when I get nervous	Be confident to tell people how I feel	Understand more how I can deal with pressure

This will help you to create some goals and actions on how you might develop them, as well as how they might support your medium and long-term ambitions and goals:

EXAMPLE GOAL ANALYSIS

MY GOALS	MY ACTIONS	DEADLINE
SHORT TERM (PERFORMANCE PROFILE)		
EVENT PREPARATION & PRACTICE	Watch online on-board footage of tracks I do not know Practice tracks on a simulator & record lap times to track progress	Round 1 @ Portimão 28th Feb
PHYSICAL: CO-ORDINATION	Research some different co-ordination tasks that I can do at home Practice co-ordination tasks, keep track of my success rate Add some pressure - e.g. a time limit	By the end of April 2025, and then ongoing practice
PHYSICAL: OVERALL RACE FITNESS	Enquire with Formula Medicine to attend a pre-season assessment to find out my current level Find out fitness benchmarks/demands of F4 level and what I need to work on most	By the end of December 2025
MANAGING STRESS	Read the 'Mental Performance' section of the handbook Try out some different techniques during the winter series and during esports competitions, and review	29th December 2025
MEDIUM TERM (MY AMBITIONS)		
SECURE AN F1 ACADEMY SEAT	Map out my next steps and secure an F4 testing programme 2025 Identify what fitness and financial requirements are for F4 Confirm an F4 programme for 2026	2027
LONG TERM (MY ULTIMATE GOAL)		
FORMULA 1®	Gain experience in all areas - competition, training, personal development Create a structured plan to develop all areas of performance Create a personal brand, build a network and share my vision Map the journey - make it happen!	2030

TASK

USE THE FOLLOWING PAGES TO CREATE YOUR OWN INDIVIDUAL DEVELOPMENT PLAN

SECTION 1

ME & MY PERFORMANCE

NAME:

AGE:

THIS YEAR I'M RACING IN:

NEXT YEAR I WANT TO RACE IN:

MY BIGGEST STRENGTH IS:

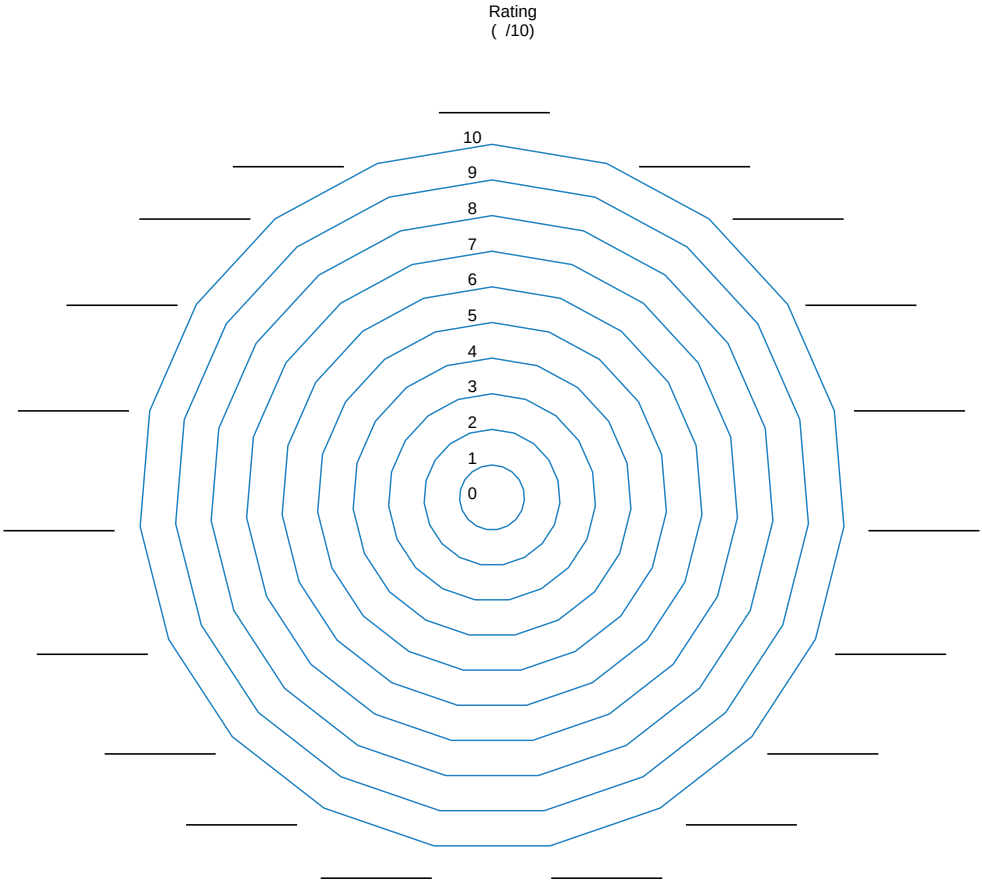
I'M AT MY BEST WHEN:	**I'M AT MY WORST WHEN:**

THINGS THAT HELP MY PERFORMANCE:	**THINGS THAT HINDER MY PERFORMANCE:**

SECTION 2

MY PERFORMANCE PROFILE

Using the profile sheet, use the table to rate yourself on each factor out of 10. Then, plot your scores on the graph to create a visual profile.



Rating:

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PERFORMANCE AREA	PERFORMANCE FACTORS	RATING	NOTES/ EXAMPLES
TECHNICAL & TACTICAL			
PHYSICAL			
MENTAL			
SOCIAL			

SECTION 3

MY ACTION PLAN

Pick some performance factors that you'd like to develop, including your two lowest scoring and analyse them in greater detail using the questions below.

Pick three to five performance factors you'd like to develop, including your two lowest scoring factors from your profile

YOUR PERFORMANCE PROFILE ANALYSIS

	WHY DID I CHOOSE THIS RATING:	HOW WILL I WORK AT IT?	WHAT SUPPORT DO I NEED?

This will help you to create some goals and actions on how you might develop them, as well as how they might support your medium and long-term ambitions and goals:

YOUR GOAL ANALYSIS

MY GOALS	MY ACTIONS	DEADLINE
SHORT TERM (PERFORMANCE PROFILE)		
MEDIUM TERM (MY AMBITIONS)		
LONG TERM (MY ULTIMATE GOAL)		

It is important to regularly review your IDP, as there is always something you can continually improve – even if you think you are at the 'top of your game' you need to think about how to stay there! It's a good idea to share your IDP with the people around you, whether that's your family or your coach – this way, everyone knows what you are trying to achieve, and they can help you with it too.

There are some extra Performance Profile sheets at the end of the booklet as you might want to complete one for each area of performance as we start to look at performance factors in more detail.

To help with goal setting, we'll go into more detail on how to set your goals and apply strategies to reach them in the 'Mental Skills Development' section with Formula Medicine.

PERSONAL PERFORMANCE TEAM

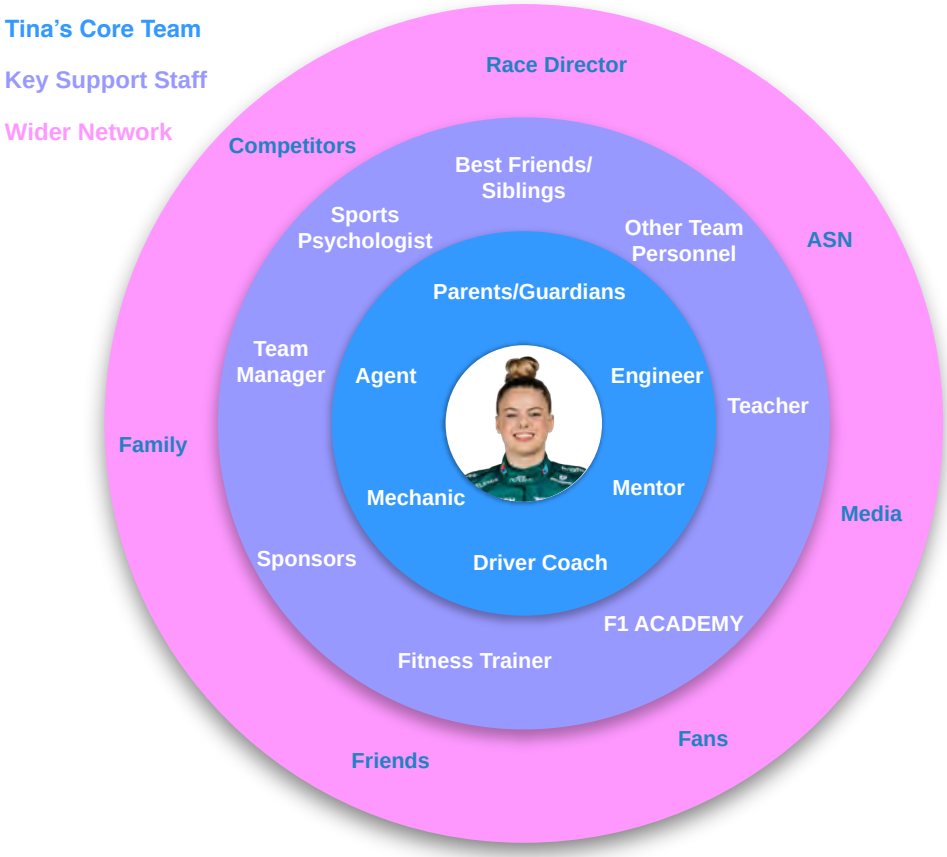
YOUR PERSONAL PERFORMANCE TEAM

To help you unlock some of these performance factors, you may need help from the people around you, whether that is your parents/guardians, instructors, coaches, trainers, friends or family. In this guide we'll refer to them as your 'Personal Performance Team.'

During your motorsport journey you will have a Personal Performance Team (PPT) around you and this will change during your career. It's really important that you understand who is in your Team and how you can get the best out of them to help you achieve your goals.

You will have different levels of support from different groups of people, but to help you to be successful, they all need to be working together. You are at the centre of all of this and should think of yourself as the Captain of your own team.

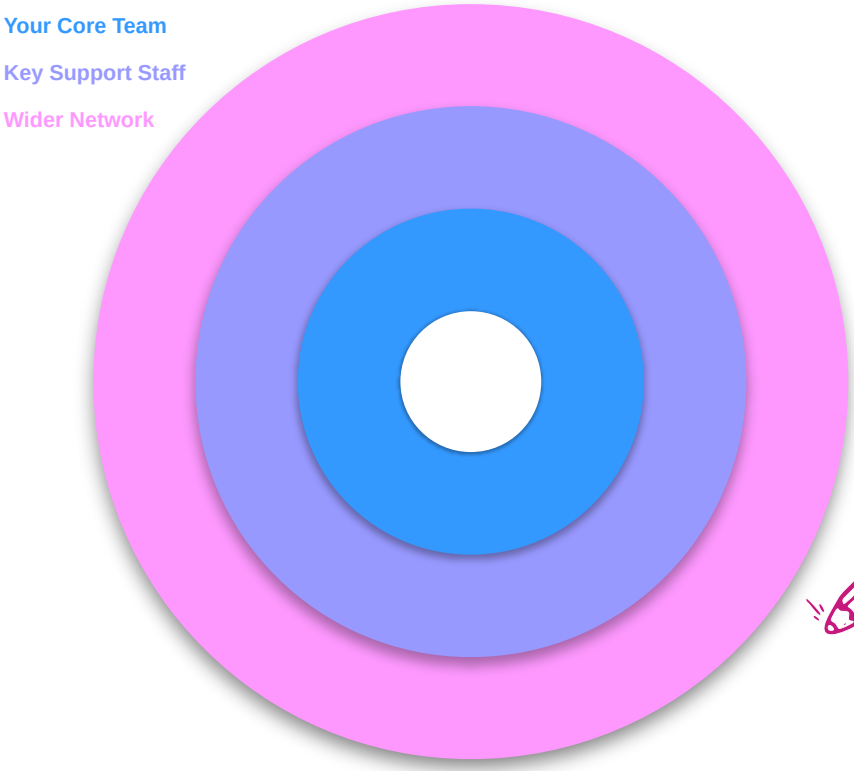
Let's take a look at who is in Tina Hausmann's Personal Performance Team:



As you can see, a Personal Performance Team is made up of many people who must all work together and communicate really clearly. Thinking about your own support network:

- Who are they?
- Do they know they are part of your team?

Have a go at filling out your own Personal Performance Team:



Do they know your goals and share your dreams?

Do you and your Personal Performance Team talk regularly?

Now think about three actions that you can take to improve your Personal Performance Team:

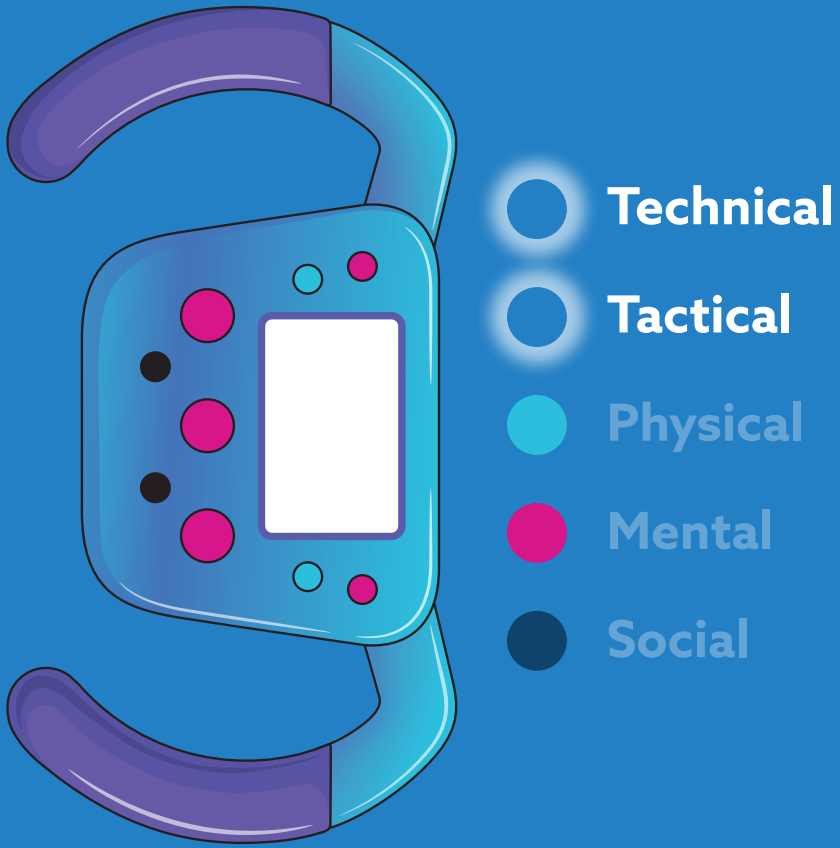
For example:

- Show my PPT where they are in my support network profile.
- Share my racing calendar with each person in my core team and key support network and tell them where there are pressure points.
- Talk to my teacher as I might need to extend my homework deadline some weeks.

1

2

3


Technical
Tactical
Physical
Mental
Social

TECHNICAL + TACTICAL SKILLS

02

When considering 'technical' and 'tactical' performance factors in motorsport specifically in relation to the driver, we are focusing on the driving skills and decisions that the driver brings to the race. These factors are critical because the driver's performance directly influences the outcome of the race and the effectiveness of the car. In this section we'll explore these skills as well as other supporting factors such as understanding rules and regulations, getting the most out of track walks, understanding data and more!

Before we get into the detail, it's important that we are using consistent language. So here's a list of key terminology that we'll use within this section, with a short description of what we mean by these.

KEY TERMINOLOGY

Acceleration | an increase in speed

Apex | sometimes referred to as the 'clipping point', the innermost point of the driving line taken through a corner. Driving as close as possible to the apex ('hitting the apex') ensures the driver is taking the straightest possible line and maintaining the highest speed through a corner

Blistering (tyres) | when the tyres overheat and then blister - essentially a chunk of rubber breaks off

Box | single word used by race engineers to instruct their driver to pit at the end of the lap

Brakes | the system which makes the car go slower or stop, by using its brake pedal. The harder you press it, the more you will slow

Camber | the angle of a car's wheel in relation to the track surface

Deceleration | slowing down of your car

Degradation | wearing down of a tyre, losing performance, which in turn increases lap times

Downforce | aerodynamic force applied in a downwards direction when a car is running at speed

Drag | the air resistance of a moving object

Friction | the action of one surface or object rubbing against another, like the tyre over tarmac

Grip | tyres maintaining a firm contact with the tarmac

G-force | a force acting on a body as a result of braking, cornering or acceleration

Installation Lap | exploratory lap a driver will usually complete at the start of a test or practice session for a systems check

Jump Start | when a driver moves from her grid slot before the red lights have gone off - resulting in a penalty from race control

Lateral Force | a horizontal or sideways force

Marginal Gain | finding tiny advantages that, when combined, can lead to bigger overall improvements

Out Lap | the first lap a driver completes after leaving the pitlane

Oversteer | when your car turns too much causing it to lose grip - specifically, when the rear tyres lose grip before the fronts

Racing Line | The fastest line around a circuit

Strategy | The plan a team/driver devises for how to approach the race in order to achieve the best possible result

Track Limits | Defined areas of tarmac and kerbing that driver's can use

Telemetry | The technology that allows engineers to monitor and calculate performance data from the car whilst it is out on track

Testing | mileage undertaken away from a race weekend in order to maximise a car and drivers performance

Traction | or 'Grip' is what keeps us on the track, allowing us to brake, accelerate and turn

Trail Braking | technique of lightened, yet continued braking while turning into a corner

Threshold | the level or point at which something would happen, would cease to happen, or would take effect

Understeer | when your car doesn't turn as much as you ask it to (causing it to go 'wide') - caused by a lack of grip in a car's front wheels when steering through a corner

RULES & REGULATIONS

Motorsport can be a complex sport with many rules and regulations. These rules are in place to ensure fairness and safety for all drivers. However, knowing these rules well can also help you optimise your performance. This could be anything from personal equipment, competition licences, technical regulations, or 'on-track' tactical rules.

For example, understanding the rules about overtaking can help ensure you make the right moves at the right time, without risking a penalty. Knowing the rules about tyre changes can help you agree and plan your pit stops or general race strategy for maximum efficiency. Even if you think it's not your job – you should familiarise with the regulations about car design and setup as this can help you communicating with the team about a setup and/or design which is both fast and legal. Remember, you are the Captain of your own team.

If you are unsure about any of the rules or regulations, or where to find them, then ask your support network to help you – it's better to ask rather than guess and get it wrong, which could cost you on track. Don't leave it until the drivers briefing to find out what you can / can't do on track – be prepared and find out before you get there.

In summary, knowing the rules and regulations of the category you are racing can give you an advantage. It allows you to race more efficiently, make smarter decisions, and ultimately, win more races.

Write down one rule or regulation from your racing series/category and why it's important to your performance:

Have you ever broken a rule or regulation because you were not aware of it, or did not understand it? If so, what was it:

YOUR KIT & EQUIPMENT

Kit and equipment, such as Personal Protective Equipment (PPE), play a crucial role in ensuring the safety and comfort but also the performance of racing drivers.

When choosing your equipment, you should ensure that first and foremost, it meets the competition regulations and is in line with the safety standards required for your particular discipline.

The second most important factor is comfort. Make sure your kit fits well and is from good quality, reliable brands. This will make a difference to your performance and give you:

IMPROVED FOCUS
Comfortable equipment allows drivers to focus on the task at hand without distractions from discomfort. This can help prevent errors.

REDUCED FATIGUE
Optimal equipment can help reduce fatigue, allowing drivers to maintain their concentration and stamina throughout a race.

REDUCED INJURY RISK
Well fitting kit can help to reduce injury and discomfort.

For example, a suit that's too tight can restrict movement; ill-fitting gloves can create lack of grip, friction and potentially cause blisters impacting performance. A helmet which is too tight might cause headaches.

For information on other equipment and the safety benefits (such as a HANS device / Frontal Head Restraint), scan this QR code to view the FIA Driver Safety Equipment information pack:

TOP TIPS

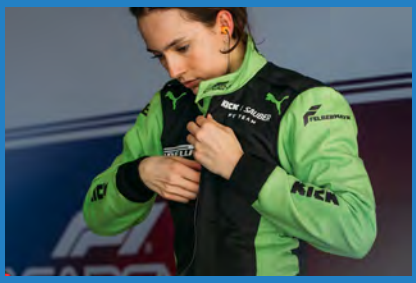
Boots

- Adequate padding in key areas like the heel, ankle and toe box
- Choose boots with good ventilation to keep your feet cool and dry, preventing blisters and discomfort
- The sole should have a good grip pattern to prevent slipping on the pedals

Gloves

- The palm material should provide a good grip on the steering wheel
- Some drivers prefer gloves with thinner materials to enhance sensitivity and feel for the steering wheel
- If you're prone to thumb blisters, consider gloves with reinforced thumbs

Suit

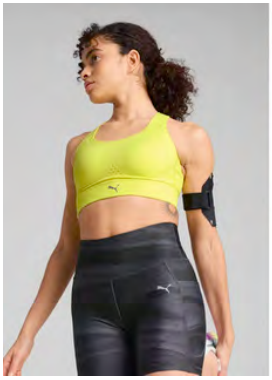


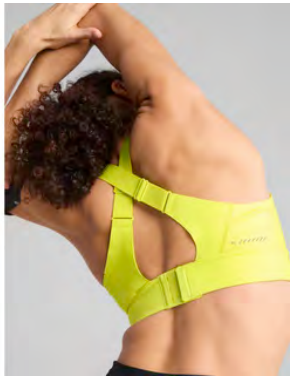
- The suit should allow for a full range of motion to enhance your performance on the track
- A lighter, more breathable, suit can reduce fatigue (especially in hot conditions)

Helmet

- The helmet should be snug but comfortable
- Look for a helmet with good ventilation to keep your head cool and prevent fogging
- If you're racing in team events, consider a helmet with a built-in communication system

As female athletes we also need to consider gender-specific kit, like – **sports bras!** Not just when we're behind the wheel but when we're training, whether that's outside or in the gym.





When our body moves, or force is exerted on our body like in driving, our breast tissue moves, and this can impact perception of effort, comfort and performance. In running activities, a well fitting bra can improve performance by 4%*. In a sport where performance margins are so small, this could make a big difference in your training (think about 'Marginal Gains').

According to research, a poorly fitting sports bra:

- Can make exercise feel harder (your body has to work harder!)
- Can make breathing feel more difficult (research suggests females breathe differently when wearing an ill-fitting sports bra. This means: less oxygen reaching your muscles, meaning you'll fatigue more quickly!)
- Increases injury risk (motion creates a force that transfers through the body, tension and pain in the shoulders, neck and back causing posture issues!)

The Well HQ have some great resources on finding the perfect fit for performance, check it out here: www.thewell-hq.com/category/breast-support/

Of course, when you are racing or testing, you also need to consider undergarments and personal underwear that protect you from flames and exposure to heat in the event of an accident. This includes any personal underwear worn between your skin and the compulsory, approved undergarments, such as a sports bra.

If drivers wish to wear personal underwear, they can wear:

- additional personal flameproof underwear, which is not FIA approved
- FIA-approved personal underwear,
- in case of justified medical reasons, non-FIA-approved underwear. However, the use of synthetic, non-flameproof materials in contact with the driver's skin is not authorised

With this in mind, you need to do your research when looking for suitable underwear, many of the well-known motorsport safety manufacturers have different options to suit your needs.

The FIA Standards (on all protective equipment and clothing) can be found here (www.fia.com/sites/default/files/guidelines_safety_clothing_web.pdf) ...but if you are taking part in non-FIA competition then you should check the relevant rules and regulations.

* White, J. L., Scurr, J. C., & Smith, N. A. (2009). The effect of breast support on kinetics during overground running performance. Ergonomics, 52(4), 492–498. https://doi.org/10.1080/00140130802707907

Are you sitting comfortably? Finally, work with your team to ensure your seat positioning and fit is optimised. The seats and cockpit area of racing cars have been designed around male body shapes, anatomy and biomechanics. Therefore, sometimes, depending on your own size and shape, you might need to work with your team to make some adaptations. For example, raising the seat height and padding to ensure you can comfortably reach the pedals and steering wheel without straining. You might also look at pedal adjustments such as spacing between them.

Ensuring you have a correctly fitted seat and your overall seating position has been tailored to you will ultimately enhance your comfort, control and precision and therefore, performance.

Depending on the discipline you are participating in, there may also be other specific equipment such as rib protectors in karting, or HANS devices in racing.

The principle for any equipment remains the same:

Comfort = Performance Optimisation

This would be considered a 'Marginal Gain'.

FLAGS

Here is a summary of the most important flags that are waved by marshals and/or displayed digitally (light panels) around the track during F1 ACADEMY practice, qualifying and races. Failure to comply with some flags can result in penalties. It's important that you familiarise yourself with the relevant flags to the competition you are participating in whether that is karting or racing as they may be different:

Yellow flag: There's danger ahead—maybe a car has spun out or broken down. Slow down, be prepared to drive around a stranded car, and do not overtake until you pass the next marshal's post or green flag. The level of danger can be shown by the yellow flag being stationary, waved or double waved.

Yellow and red striped flag: There's debris or fluid on the circuit. Be prepared to avoid debris or to experience a reduction in grip.

Blue flag: A warning flag shown to slower drivers instructing them to get out of the way of a faster car approaching from behind. Blue flags are shown in practice and qualifying when a slower car is hindering a faster car, and in races when slower cars are being lapped by the leading cars.

Red flag: A red flag indicates to the drivers that a session or race has been stopped, normally due to a serious accident or dangerous weather conditions. When a red flag is shown, drivers must immediately stop racing and return to the pits.

Black flag: Shown to a driver (alongside their race number) who has been disqualified from the race and must return to the pits immediately to retire. This might be for technical or on-track infringements.

Chequered flag (checkered flag): The black and white flag, which resembles a chequer (checker) board and is waved on the Start/Finish line to indicate the end of the race.

As you progress through competitive karting or racing you will need to be familiar with additional flags as a condition of your competition licence. Your ASN or the series will provide you with information on these - make sure you learn them as it's the only way the race control can communicate with you when you're on track.

TECHNICAL SKILLS

BROUGHT TO YOU BY
DRIVER61™

INTRO

Exceptional drivers use their technical and tactical abilities to outperform their competitors, making the difference in closely matched races and giving a competitive edge. In this section Scott Mansell, Founder of Driver61.com will take you through some of the fundamental techniques to make you faster, more consistent and, importantly, safer.

Technical skills include driving technique – being able to handle the car through various conditions and understanding how the inputs (steering, braking, throttle control) affect performance. When we talk about 'technical' factors, we're also considering consistency & precision (ability to consistently drive precise laps, hitting the optimal racing line, braking point and apexes), car feedback (providing useful feedback to the engineer) and technical knowledge such as understanding the mechanics of the car to effectively communicate to the team.

THE RACING LINE

How to drive the perfect racing line is a fundamental driving theory we need to master before we can be fast on circuit.

From the braking point, through turn-in, apex (clipping point) and exit, the racing line is critical to lap time.

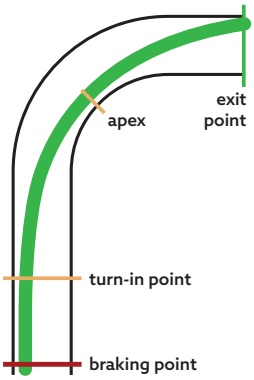
The racing line is the fastest line or arc through a corner on a race circuit.

The goal is to always carry as much speed in the braking zone, through the corner and onto the next straight.

There are a few terms you'll hear drivers talk about when describing a racing line. It's straightforward, but it's important that you know the key terms. The four main sections of a racing line are the braking point, turn-in point, apex (or 'clipping point') and the exit point.

Here's a summary of how to take the racing line:

1. Brake to maximum capacity at your braking point
2. Move your vision to the apex point
3. Turn in your car at the turn-in point
4. Make the apex of the ideal racing line
5. Begin to introduce the accelerator
6. Open up steering to the corner's exit point

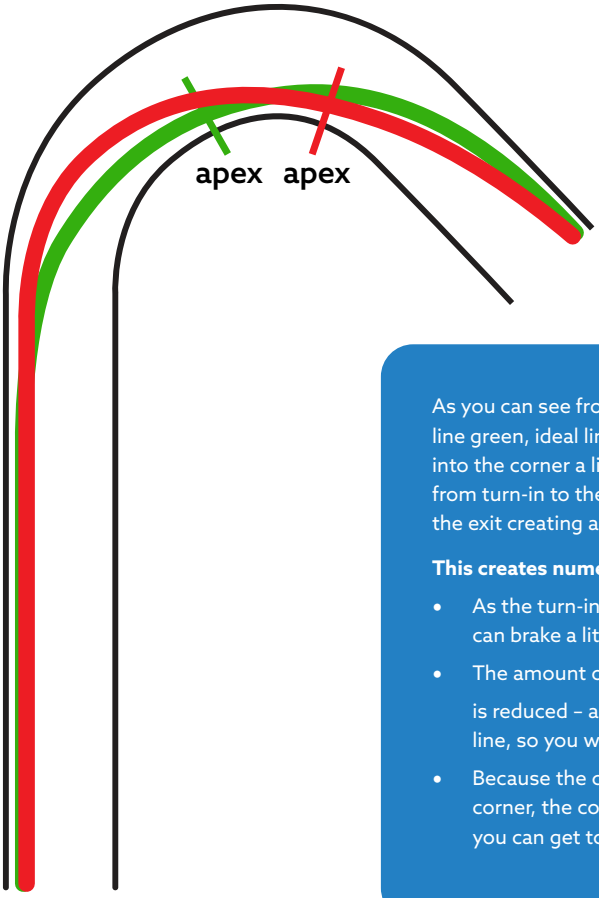


Check out the Driver61 Tutorial on how to Drive the Perfect Racing Line

https://driver61.com/uni/racing-line/

THE IDEAL RACING LINE

The ideal line will turn in and apex a little later than the geometric line and allow for a straighter and easier line from apex to exit – the more straight the racing line is here, the more you can accelerate and the faster you'll hurtle yourself down the following straight.



As you can see from this diagram geometric line green, ideal line red), the ideal line turns into the corner a little later, turns sharper from turn-in to the apex and then opens up the exit creating a straighter line after apex.

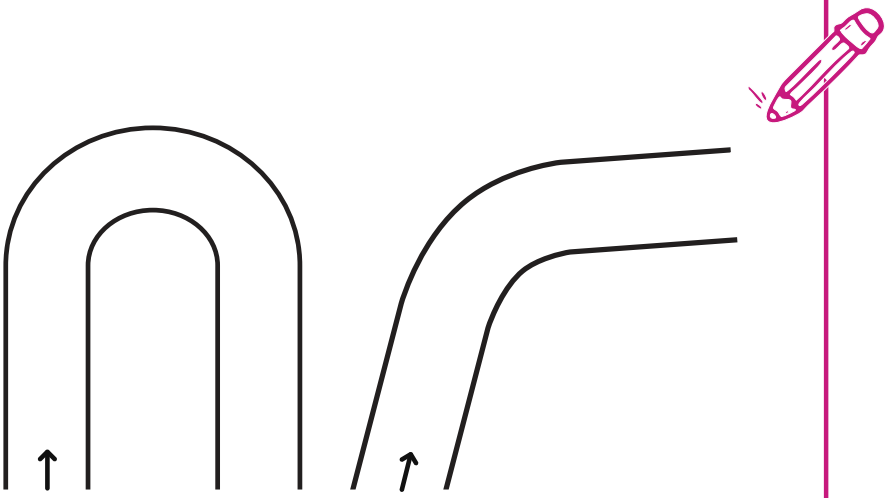
This creates numerous advantages

- As the turn-in point is slightly later, you can brake a little later, saving lap time
- The amount of time you spend turning is reduced – a car is fastest in a straight line, so you want to optimise this
- Because the car is turned earlier in the corner, the corner exit is opened up, and you can get to full throttle sooner

The ideal racing line focuses on **exit speed**. With Scott's coaching experience, it's clear that this is an area where most drivers – beginners and experienced – can improve.

Most drivers are impatient and will try to make too big of a gain on corner entry, and destroy their exit speed. The trick here is to be patient, get the car turned and pointing out of the corner, and get on the throttle as soon as possible.

Have a go at plotting the racing line on these corners:

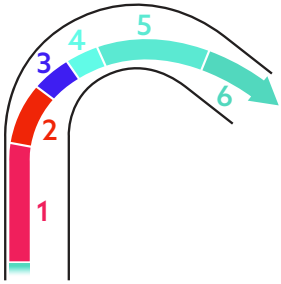


CORNER PHASES

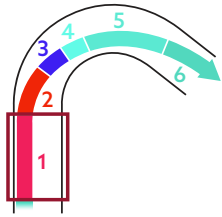
Now that we understand what a racing line is, it's time to look at the six phases of a corner – basically, what we're supposed to be doing at each point through a corner and how we should do it.

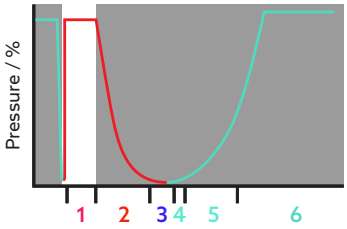
There are six phases to any corner:

1. Braking and downshifting
2. Trail braking
3. Pedal transition
4. Balanced throttle
5. Increasing throttle
6. Maximum throttle



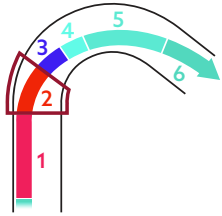
1 BRAKING AND DOWNSHIFTING

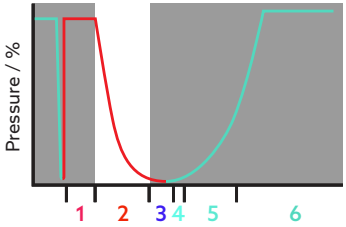




Almost all of the deceleration before the corner will take place in this first phase. The car should be in an entirely straight line – like this you can use 100% of the car's grip for slowing down (as soon as the car turns even a little, you're taking grip away from braking).

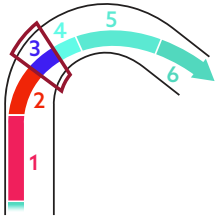
2 TRAIL BRAKING

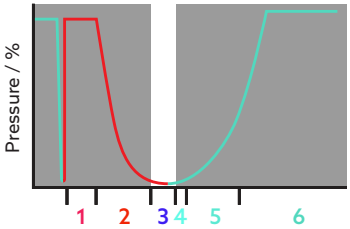




Trail braking is a technique whereby you turn into the corner while you're still on the brakes – at a much-reduced pressure. This is not a technique for beginners, but if you want to learn more about how to trail brake, see article here: https://driver61.com/uni/braking/

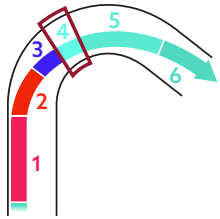
3 PEDAL TRANSITION

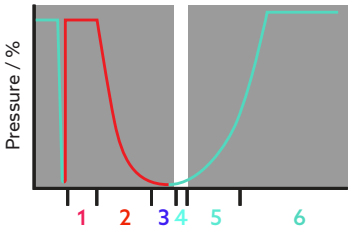




The pedal transition phase is where you come completely off the brake pedal and move across to the accelerator pedal. This phase is critical for smooth (and fast) circuit driving.

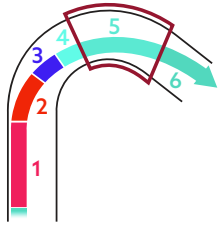
4 BALANCED THROTTLE

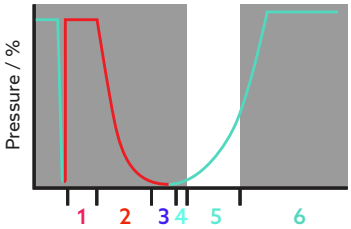




By phase four, we're back on the accelerator a tiny amount and at this point, the car is turning as much as possible. This phase isn't where we begin accelerating, but instead where we re-engage the engine and maintain the speed at the apex.

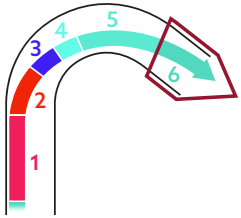
5 INCREASING THROTTLE

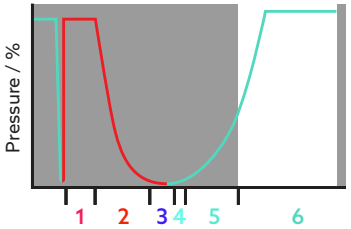




This is the phase where we'll go from 10-20% throttle to almost flat out, but your inputs must still be completed with smoothness and correlation to steering angle.

6 MAXIMUM THROTTLE





This phase should progress quite naturally from phase five, but the idea is to get to maximum throttle as soon as you can. That way you'll propel yourself down the next straight as quickly as possible and reduce your lap time.

Corner Phases Quiz

Which phase would you come off the brake pedal?

Which phase should the car be completely in a straight line?

Where do we want to be re-engaging the engine by applying the throttle a tiny amount?

Where do you apply maximum throttle?

For more detail about each section, check out the Driver61 tutorial on how to take a corner and what you should be doing at each point through it.

https://driver61.com/uni/corner-phases

THE FIRST CORNER: THE DO'S & DON'TS

Along with the excitement comes much opportunity to gain – or lose – positions. A skilled driver can make up numerous places, while someone with less experience could easily move backwards.

https://driver61.com/uni/first-corner/

Watch the tutorial on The First Corner Do's & Don'ts and write down the key points to remember in a race to give you the best start:

THROTTLE & ACCELERATION

Being smooth is possibly the most important aspect of applying the throttle. It does depend on how powerful your car is, and how much grip it has, but it is always the best practice to be as smooth as possible. Your car's tyres only have a certain amount of grip; if this grip is being used completely by cornering (lateral forces), there's no room for acceleration (longitudinal forces). So, before you can begin accelerating out of a corner, you must begin to reduce the steering angle.

The simplest way to think about this is to imagine that there is a piece of string from the position of your left hand on the steering wheel to the top of the accelerator pedal. Now imagine you have 90 degrees of steering angle, you're off the throttle pedal completely, and the string is taut. In order to accelerate, you must release the tension on the string, which is possible only when you reduce the steering angle. This means that as you open up the steering more, you can accelerate more.
This concept continues proportionally until the steering is completely straight and it's possible to use 100% of the throttle.

At which point of the steering sequence would you start to accelerate?

At which point of the steering sequence would it be possible to apply 100% throttle?

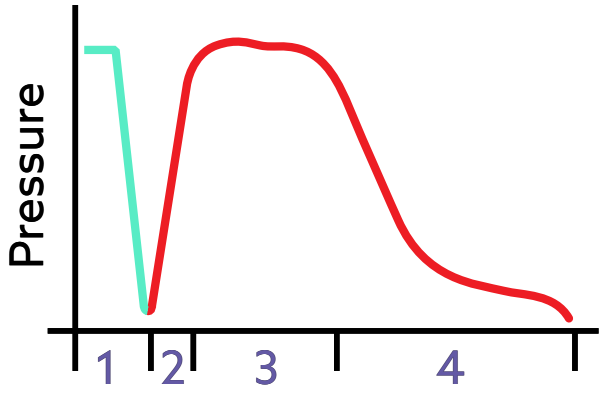
Circle the correct steering position for 100% throttle

BRAKING

You can win or lose lots of lap time during the braking phase, as well as adjust the balance of your car on corner entry.

The later you can brake, the better – so long as you arrive into the corner at the correct speed. Braking as late as possible means that you've used 100% of the grip available all the way through the deceleration phase – if you're not using 100% of the grip available while braking in a straight line, you could've braked later.

The diagram below shows what a brake trace should look like for a typical corner that requires a reasonable amount of deceleration (slowing of speed).



Let's run through the diagram, thinking about our inputs into the car as we go.

THE STEPS ARE AS FOLLOWS:

1. Transition from throttle to brake pedal
The movement from the throttle to brake pedal must be as fast as possible. Any time lost here isn't huge, but it's still time lost.

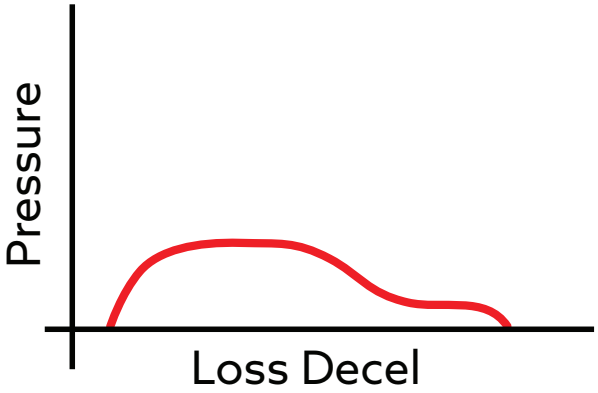
2. Squeezing on brake pedal and increasing to maximum braking capacity
When we are applying the brakes we don't want to shock the car, which will cause it to break traction. However, we don't want to take too long to get to maximum braking capacity. It's a fine line to get this perfect and this phase requires a lot of feel.

3. Modify pressure to maintain grip
Next, it's a case of modifying brake pressure to keep the car at maximum deceleration and around the threshold of grip.

4. Easing off the brake pressure smoothly
Finally, as you're approaching turn-in, you'll begin to smoothly release the brake pressure, so the front of the car rises to a balanced platform. Hopefully, at this point, you're at the correct speed and on the perfect racing line. If so, you're almost halfway to taking the perfect corner!

Watch a detailed guide on braking with Scott Mansell, Founder of Driver61.com here: https://driver61.com/uni/braking/

Take a look at the brake trace below.



What do you notice? What time of corner might this be - slow or fast?

"YOU CAN WIN OR LOSE LOTS OF LAP TIME DURING THE BRAKING PHASE"

STEERING

Using your steering input more effectively, with precision and control can offer almost instant performance improvement.

TOP TIPS FOR QUALITY STEERING INPUTS:

Consistency is key

Maintain a firm grip on the steering wheel with your hands positioned correctly and comfortably to provide optimal stability, control and leverage.

Keep it smooth!

Avoid sudden movements. Smooth, calm and progressive steering helps maintain control and prevent oversteer or understeer.

Power it up!

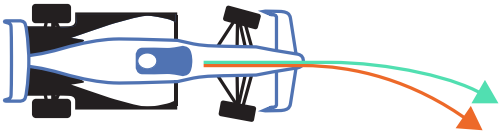
Steering can be heavy, depending on your category. Ensuring you are physically prepared and have good posture (particularly shoulders and elbows) is essential. We'll talk more about this in the 'Physical Development' section.

UNDERSTEER

The simple definition of understeer – also known as 'push' – is when your car doesn't turn as much as you ask it to with your steering input. Quite literally the car is 'under-steering' due to an imbalance in grip between the front and rear of the car.

The car will have broken traction at the front, and the front tyres will slide across the track surface, however, the rear tyres will still have grip. Therefore, the car is imbalanced and at that particular point in the corner, you are limited by front grip.

The drawing below shows the intended line by the driver (orange) and the path a car with understeer (green) would take.



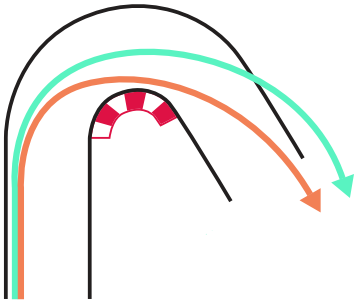
–Intended Line
–Actual Line

How does this affect the racing line:

The front tyres have lost grip and the car has understeered wide, missing the apex.

What are the causes:

- Braking too hard (locking the fronts) when turning in
- Entering the corner with too much too much speed
- Accelerating too much through the the corner
- Poor car setup



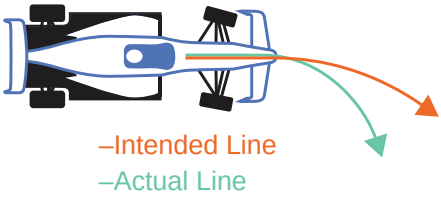
To find out more on the causes, and how to correct it – watch the Driver61 tutorial here:

https://driver61.com/uni/understeer/

OVERSTEER

A little oversteer makes for a faster line, however, it can be very difficult to control and to have too much oversteer can often cause you to have an 'off'.

Oversteer happens when the rear tyres break traction - it's quite easy to feel. A driver will sense the movement, the rotation of the car and through the seat and their body. Oversteer can be caused by braking and turning at the same time as you enter a corner, or pressing the throttle too harshly on exit, causing wheel-spin and reduced traction.

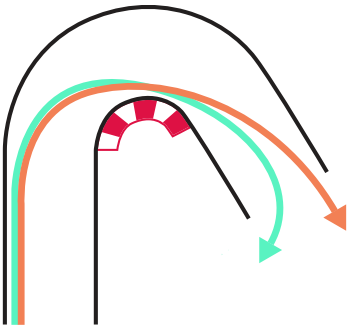


How does this affect the racing line:

The driver has started to oversteer before the apex and failed to correct the slide, before spinning to the inside of the circuit.

What are the causes:

- Entering a corner too fast
- Entering a corner while braking too much
- Turning into a corner too violently
- Lifting off the throttle
- Accelerating too hard out of the corner (in a RWD)
- Poor car setup



To find out more on the causes, and how to correct it – watch the Driver61 tutorial here:

https://driver61.com/uni/oversteer/

Steering Quiz

Thinking about your own steering technique, what do you think you could work on to improve it?

Think about a time where you have experienced understeer. What did it feel like?

Think about a time where you have experienced oversteer. What do you think caused it?

Scenario

You brake too hard when entering a corner and your front wheels lock up – do you understeer or oversteer?

You enter into a corner too fast, and apply too much steering – does this result in understeer or oversteer?

VISION

Good vision is a fundamental technique to get right when driving on track. What do we mean by vision? It's not necessarily about good eyesight!

It means absorbing as much information from the circuit as possible.

Most of the inputs you'll put into the kart or car, come from what you see on track. So, where you're looking on the circuit is critical to being fast and consistent.

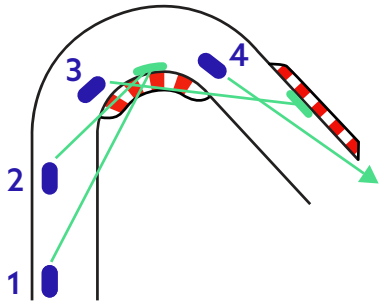
Not looking far enough ahead, or broadly enough around the circuit will limit your vision and hinder most aspects of driving on track – for example, corners will seem to arrive more quickly and you will not have enough time to make decisions about where to brake, turn in, apex or re-engage the throttle.

A professional driver will look much further ahead of their actual position on the circuit and, therefore, have much more time to see what's coming up and alter inputs accordingly.

Put simply; you need to be looking one stage ahead of your position on the circuit. For example, when braking or turning, you should be looking at the apex and when arriving at the apex, looking at the exit.

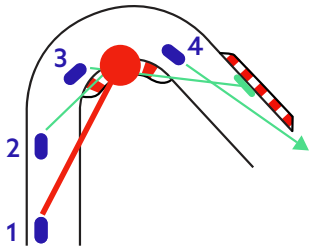
The diagram below shows a typical right-hand corner with a car at four different points on the track:

1. Braking Zone
2. Turn-In Point
3. Apex (Just Before)
4. Corner Exit



1 VISION IN THE BRAKING ZONE

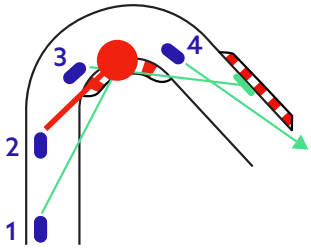
In the braking zone, your vision should be focused at the apex of the corner. You could be hundreds of metres away from the corner, but you should be searching for the curbing on the inside or any apex reference you can find.



If your vision is at the apex, you know where you and your car are wanting to end up in a couple of seconds. This means that you're best able to gauge at which point to brake, and later, how much speed to carry into the turn.

2 VISION AT THE TURN-IN POINT

At the turn-in point, you'll still want to be looking at the apex. When you're about to turn, it's important that you're already looking in this area, otherwise, how do you know exactly when to turn and how much steering angle to use?

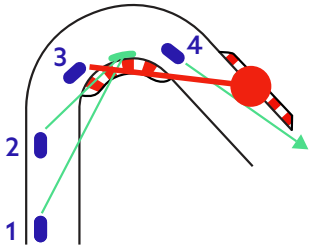


So many drivers only start to look at the apex only as they begin to steer. This means they cannot consistently enter the corner at the correct speed and on the right line – this costs time and limits lap time consistency.

On tighter corners, you will need to physically turn your head to be able to look far enough around the corner.

3 VISION JUST BEFORE THE APEX

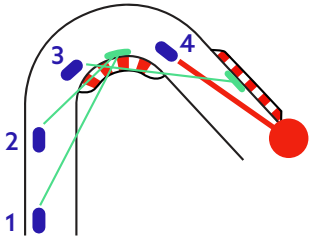
As you're coming into the apex, the car is turning, and you're changing direction quickly. It's the point at which you're transitioning back onto the throttle pedal and thinking about exiting the corner. Therefore, it's important that your vision has moved up the circuit to where you're going to be in a couple of seconds: the exit point.



Knowing exactly where you're aiming for ahead of time is going to give you plenty of opportunity to decide precisely when to reintroduce the throttle, how much to accelerate and where to steer the car.

4 EXITING THE CORNER

By the time you're at point four on the diagram, the majority of the hard work is done. The car has turned, you're back on the throttle, and the end of the corner is in sight (...and has been for a while).



If there's another corner coming up in quick succession, ensure your vision is focused at its apex as you'll need to be adjusting your line and changing speed appropriately.
If you have a straight following the corner it's a good opportunity – really the only opportunity – to take a look in your mirrors and check your temperature gauges.

EXTRA TIPS ON VISION

- As we have said, our vision needs to be a stage ahead of where you currently are on the track, but what you can also do is to visualise the racing line through the corner.
- Imagine the line you want to be on in a couple of seconds, you will give yourself sufficient time to adjust and arrive correctly.

We're on board with Doriane Pin during her pole lap in Jeddah, 2024. Mark on the image where you think she should be looking during these corners.

If you're new to track driving or driving a quicker car than you're used to, your vision will become shorter and narrower. So...

...consiously think about where you are looking. With so many other things going on it's easy to reach mental capacity and become lazy with your vision. To work on this, spend a couple of sessions constantly focused on looking further ahead and after some time it should become natural.

We're on board with Abbi Pulling during her pole lap in Zandvoort, 2024. Mark on the image where you think she should be looking during these corners.

By following all of these tips in this section, you'll give yourself so much more time to understand what you need to be doing with your car. You'll see improvements in all aspects of your driving, from perfecting the racing line to becoming more consistent.

FOR MORE INFORMATION...

...as well as technical skill development tutorials and further guidance on topics such as:

- **Driving the Limit**
- **Understanding Weight Transfer**
- **Understanding Grip**

... plus much more, please visit:

FORGE NEW LIMITS

www.driver61.com/

TACTICAL SKILLS

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TACTICAL SKILLS

Tactical skills include factors such as race craft (overtaking, defending and navigating traffic), tyre management (tyre wear and degradation to maintain optimal performance), car setup, fuel management, pace management, situational awareness and team communication. We'll have a look at some of these factors in this section as well as some techniques you can use to prepare for testing and competition.

RACE CRAFT

What do we mean by race craft? It is the art of reading and anticipating the track, and your competitors to make quick decisions on your next move. For example, this might be a combination of:

- **Overtaking / attacking**
- **Defending**
- **Navigating traffic**
- **Making a good race start**
- **Taking a great first or last corner**

Race craft is a skill that takes experience, time and practice to develop. It is a complex and constantly evolving environment on track, but it's an essential part of being a successful race car driver. So how can you develop this skill?

STUDY

- Study the racing lines of experienced drivers. Notice how they set up for corners, where they make common overtakes.
- Watch Driver61's tutorial

PRACTICE

- ..practice, practice.
- The more you drive, the better you'll become at reading the track and anticipating other drivers' moves.
- Utilise simulators and esports to practice.

INQUIRE

- Ask your coach, mentor or engineer for feedback on your driving. They can help you identify areas where you can improve.
- Analyse on-board footage and compare good vs bad decisions.

COMMIT

- Developing race craft takes time. Don't get discouraged if you don't see results immediately. Just keep practicing and learning.

Research some reputable drivers and watch some on-boards of their race craft.

What do you notice?

What do their race starts look like? First corner?

Where are the common overtaking opportunities?

How do they set up for an overtake?

How do they navigate traffic?

What are they doing to defend?

TYRE MANAGEMENT

As you will probably know already, tyre management can be one of the most important factors in a race strategy and overall performance. If you can manage your tyres well, it can lead to a real advantage over other drivers, especially towards the end of a race.

Some key factors in tyre management are as follows:

Tyre Temperature

If the tyre temperature goes too high, the compound can break up more quickly impacting its ability to grip the surface. In low temperature the tyre can slide across the track surface more and will be worn away.

Tyre Pressure

Tyre pressures control the shape of the tyre contact patch with the track so setting them perfectly is critical to maximising grip.

Wear & Degradation

Tyre degradation is the effect of temperature on the compound, whereas tyre wear is the deterioration of the tyre surface through contact with the track.

Driving Style

A smooth driving style is an essential part of saving tyres. Driving aggressively puts temperature into a tyre and can also make it slide. 'Locking up' can create vibrations and adds to deterioration too.

Tyre Choice & Climate

Softer compounds perform well in hot weather and harder compounds are best for cooler temperature.

Track Surface

Different tracks are made using different materials and some are really smooth while others are rough. This will impact the tyres differently, so it's important to analyse the track during your track walk and understand what you're working with.

Track Layout & Conditions

The types of corners can make a big difference on how the tyre is loaded, and that will affect how it deteriorates. Fast corners mean high energy transfer, heating the tyres quickly. Slow corners like hairpins can see lower tyre temperatures causing more tyre slip.

In wet conditions, the surface can become slippery and unpredictable. Effective wet weather management strategies are therefore essential.

Scenario - you're racing in 30 degree heat, at a track with some really fast corners on a rough surface.

How might this impact your tyres and what do you need to consider when you're driving?

HOW TO WARM UP TYRES

Warming tyres is a critical part of getting up to speed efficiently on track. Too cold and they will slip, slide and wear out quickly; too hot and they could blister.

Whether tyre warming for testing or racing, it's important to know how to bring them into the optimum temperature range and how it feels.

The first thing to understand is the type of tyre you're using – for example, racing slick tyres could take much longer to warm.

Ideally, you'll want to heat the rear tyres before the fronts. The reason being that understeer is preferable to oversteer when the tyres aren't offering optimum grip.

1

To do this, simply accelerate hard a few times in a straight line. You'll want to keep the rears loaded up for 2-3 seconds and then begin to brake.

2

Now the rears have more temperature than the fronts and you will have also put some temperature in the brakes. Using the brakes when warming tyres is important as the heat will transfer from the discs and pads, through the wheel and into the core of the tyre.

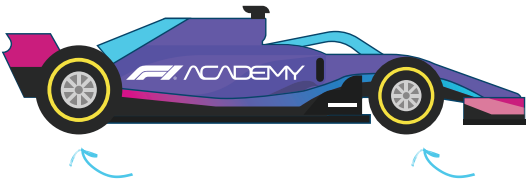
3

Once you've started warming the rear tyres, it's time to work on the fronts. You can do this by weaving side to side. When weaving, you'll want to make the turns as wide as possible, in order to keep the tyre 'loaded' for a long time. This helps to generate more heat in the tyre.

As you've already warmed the rear tyres, you should not be risking oversteer. However, you should still be careful when transitioning from left to right as you won't have fully warm tyres and mistakes can easily happen.

4

If you're testing, once you feel like you have around 80% of your warm tyre grip, you should begin to drive on the normal racing line and cease tyre warming.
If you're racing and have a standing start, you should accelerate and brake in a straight line a few times – similar to our suggestion at the beginning – to warm the rears further. This will help you get off the line as quickly as possible.



CAR SETUP

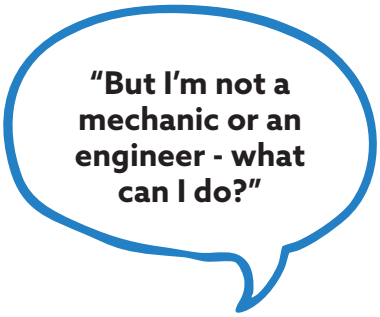
The setup of the car plays a huge role in your progression. For you to be able to move forward, you need to be aware of the behaviour of the car, and you need to be able to describe it.

What does a good setup actually mean?

By improving the balance of your car, you're sending grip to the tyres that need it the most. This results in faster lap times. Other factors that affect tyre forces include suspension setup, ride height, centre of gravity, downforce and brake balance.

After learning car control technique, understanding what your car is doing is the most important thing you need to learn next.

When you first start you can get out of the car after a few laps and barely be able to remember anything. It's completely normal, you're "at capacity" on the circuit meaning there's little space in your mind left to record all of the details of the circuit.



You will be completely surrounded by people that understand your car/kart and have been running these cars/karts themselves for years. Giving feedback can be really hard and takes a while to get right. If you're not sure (it's OK to not be sure!) then ask a driver coach to help you work on this area until you both agree your feedback makes sense.

It's incredibly useful to understand setup, but it's much more effective just to ask for help. If you've got a car that behaves in a limited way, then you need to tell your mechanic.

Rather than attempting to suggest the solution yourself - just explain the problem, and ask for help. Watch the video together as that can really help. When you make a step forward in setup, the difference in lap time and your confidence could be huge.

Sample Car Setup

Pick one corner of each speed: Slow | Medium | High

Record how the car behaves in the entry, mid and exit phases of the corner. How did the car behave or respond to your inputs? How does it feel? Why might it feel like that?

You'll probably also have video; watch the corners you have identified, and watch what you're doing with the steering wheel too.

Practice writing down or giving feedback to your mechanic, engineer or driver coach —talk through it with them and agree consistent or common terminology to describe it.

Eventually understanding what the car is doing becomes natural but it definitely helps to practice.

Feedback To My Mechanic/Engineer:

SLOW CORNER

ENTRY PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

MID PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

EXIT PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

Feedback To My Mechanic/Engineer:

MEDIUM CORNER

ENTRY PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

MID PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

EXIT PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

Feedback To My Mechanic/Engineer:

FAST CORNER

ENTRY PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

MID PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

EXIT PHASE

How did the car/kart behave?

How did it feel?

Why did it feel like that?

RACE STRATEGY

A race strategy is a plan that teams and drivers use to make the most of their opportunities on track. It involves making decisions about things like when to pit, tyre management, your driving style or tactics, and communication with your team, engineer or coach.

By having your own plan, or working with your team to agree a plan, you can give yourself a better chance of success on track. Your strategy might change depending on the length of the race, the circuit (type, surface, layout), weather conditions or climate, tyres and analysing other competitors' performances. It might even change during a race depending on the decisions of other teams and their drivers. Good communication is essential for executing a race.

Write your own race strategy for the following scenario:

TRACK	You're at a track with lots of tight corners, where overtaking is difficult. The average lap time is 1:14.260
POSITION	You had a good qualifying session and are P2 to start the race
WEATHER	It has been hot all day but there is a sudden downpour of heavy rain just before the race start. The track slowly starts to dry up during lap 4/20
TYRES	All cars start on full wet tyres – this tyre only performs well when the tarmac is very wet
PIT STOP	At this track, a pit stop costs you around 16 seconds overall
COMPETITORS	The race leader decided to stay out until lap 7, before coming in to make a tyre change

My race strategy:

Does this change at the start of the race, compared to during the race?

TRACK WALKS

To get the most from a track walk, you need to know what you're looking for and what is important to look for.

Below is a Track Walk Checklist which you can use as a guide:

- **Which way the circuit goes** | important for obvious reasons!
- **Surface changes** | as circuits evolve over the years, different sections may be resurfaced causing differences in grip levels
- **Bumps** | affect grip level and how quickly a car might break traction (grip)
- **Curbs** | more important to know at the older circuits, where there are big differences in construction
- **Braking references** | for the larger deceleration zones, using references can bring you up to pace more quickly
- **Circuit camber** | the more camber a corner has, the more load goes through the tyre, equalling more grip
- **Elevation** | when a car is pushed into an elevation it has more grip
- **Where it's safer to push** | knowing where you can make a mistake and get away with it will help you get up to speed more quickly

There are a few other things that are important to know - they won't make you any faster, but as a good driver you should now them:

Start/finish line location | they can be slightly different and are important to know for obvious reasons

Green flag line location | important to remember when racing. If there's a safety car, you'll need to know when you can overtake. Some championships allow overtaking as soon as the flag is waved, whereas others will make you wait until you're over the line

Where the pit entry is | often overlooked when learning a circuit. Always find out where it is before you head on track and have a look for it on your first lap

Where the pit speed limit lines are | crucial for racing with pit stops. You can make up a lot of time by attacking the pit entry/exit lines

Overtaking/defending areas | there'll be some common areas where it's easier to overtake, usually tight corners after long straights, so make sure you know these

Your Track Walk Checklist


3
30
14

MAKING THE MOST OF A TEST DAY

We know that time on track is really important for your development, it's where you can learn about your driving techniques, tactics you might use, the car itself and the circuit you're visiting.

It's not always easy to find opportunities to test, especially if you're not signed to a team yet—and it costs money. That's why it's essential that when you do get on track, you are making the most of it and using the time as efficiently as possible – especially if you are transitioning from karts into cars.

Tip #1 – Have A Plan: What's Your Goal Of The Day?

It's important that you discuss with your team and driver coach **what's the goal of your test day** before you arrive at the circuit. You should never arrive at the track "just to do some laps".

This will lead to an ineffective use of track time and less improvement than you might hope to see.

So have a think, what's the priority for you, your car and your team? Here are some questions you might want to ask:

- **Do you need to learn the circuit?**
- **Do you need to work on driving technique?**
- **Does the team want to test any mechanical parts?**
- **Do you feel you need to work on setup?**
- **Are you preparing for a race weekend?**
- **Do you need to run a qualifying or race simulation?**

If you're working towards a race weekend, you'll also want to keep in mind if/when you use a new set of tyres. New tyres will usually increase overall grip levels and can change the balance of the car, so it's important to note these changes when you use new ones.

The team will also be refuelling the car throughout the day – changing the overall weight of the car. It's important to be mindful of these changes too, as it'll affect handling.

You might be lucky enough to have a session plan designed for you by your team, a coach or whoever you are testing with, but if not, check out this example plan – there is a blank one for you to use if you need it and some extras' at the back of the handbook.

You might also want to add some additional notes alongside or at the end for you to refer back to in the future (see tip #4).

Test Day Sample Plan

Name Jane Bloggs	**Date** 7/12/2024
Age 14	**Circuit** Zandvoort

Session Overview

F4 testing
Second time in an F4 car
Never been to zanvoort before - new circuit

Session Objectives

Familiarisation of car and circuit
Learning to feedback about setup
Identifying technique work-on areas
Qualifying simulation - with new tyres

SESSION	FOCUS AREA
Session 1	Installation lap (one lap and return to pits, team to check car) Bring tyres and brakes up to temperature Spend remaining time getting up to speed as quickly as possible and set a reference lap
Break	Speak with my driver coach about feeling of the car and circuit Watch data video to check for any technique issues
Session 2	Work on entry to the high-speed corners - think about vision The last seven minutes of the session are for a reference driver (or my coach) to drive and set a reference lap
Break	Discuss whether I thought my high-speed entry had improved and why Compare my data to reference driver/my coach Discuss setup and balance - think about how I can feedback on this Make a ride height adjustment due to slight understeer
Session 3	Work on gap between me and the reference driver/my coach Consider if setup change is beneficial Continue to work on high-speed corners
Break	Discuss setup change Discuss high-speed corner technique - am I concious of my inputs? Compare data to see if driving and setup have improved Adjust ride height even more, as previous change wasn't enough Discuss the following session plan
Session 4	Think about setup change Continue to focus on high-speed corners Pit midway through the session to change to new tyres Second half of session is a qualifying simulation - push as much as possible and think about how new tyres affect balance
Debrief	Explain how new tyres felt - if grip increased and how balance was affected Look at data and video Discuss any other issues and areas of improvement

Your Test Day Plan

Name	Date
Age	Circuit
Session Overview	Session Objectives

SESSION	FOCUS AREA
Session 1	
Break	
Session 2	
Break	
Session 3	
Break	
Session 4	
Debrief	

Testing Notes

Your Test Day Plan

Name	Date
Age	Circuit
Session Overview	Session Objectives

SESSION	FOCUS AREA
Session 1	
Break	
Session 2	
Break	
Session 3	
Break	
Session 4	
Debrief	

Testing Notes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Tip #2 | Utilise The First Session Of The Day

The first laps you complete on your test day are important as it's likely that you and your car haven't been out on the circuit for some time.
These first laps should be used to check the car's systems, bring yourself up to speed and check the circuit conditions.

Think about the following:

	Do you need an installation lap? – a lap where you drive quite slowly and then return to the pits so the team can check for mechanical issues
	Do you have new brakes? – perhaps they'll need 'bedding' in
	Is there anything else you need to check with the car?
	Bring the tyres up to temperature
	Warm the brakes – some brakes need to come up to temperature gently
	Once you've been circulating for a few laps you'll want to check the water and oil temperatures to ensure they're within the required window
	Start to make the car work and feel where the limit is (for more about how to find the limit quickly, **https://driver61.com/uni/efficient-testing/**)
	Once you've started to get the car working, it's time to get your head down and begin to put some laps together
	The first session is important to set a base time/data for the day, so make the most of it!

Once you've finished the first session, it's time to head into your program and focus on whatever you need to for your test day.

Tip#3 | Use A Driver Coach

As you can see in the testing programme example, a driver coach is mentioned. If you want to progress as a driver as quickly as possible, you should consider using a driver coach.

While hiring a good coach for the day can be expensive, they will get you up to speed efficiently. By using a driver coach, you'll become faster more quickly and with the high cost of running a car on track, you'll get more from the experience.

Finding a Coach

A good driver coach can help you improve your skills, reach your goals, and have fun while doing it. They can provide expert instruction, feedback, and motivation as well as helping you develop important life skills like teamwork.

'There are lots of coaches around, but what makes a good coach and how can I find one?'

Qualities of a Good Coach

Knowledge & Experience
A good coach has a deep understanding of the sport and can teach you the proper techniques and strategies. You should find out their experience and any qualifications.

Communication
A good coach can explain things clearly and give constructive feedback.

Positive & motivational
A good coach is encouraging and supportive, even when things get tough.

Fair & Understanding
A good coach treats all of their athletes fairly and equally. You should never feel uncomfortable, under pressure or afraid to ask questions.

Passionate
A good coach loves the sport and is excited to share their passion with others.

Finding a Good Coach

Do Your Research
Look for coaches who have experience working with drivers at your level, have good experiences and have had good successes. Read reviews. See what other people have to say about the coach.

Speak To Others
Talk to others in the sport. They may know of a good coach in your area.

Speak To Your ASN
Some ASN's have their own coaching programmes, like Motorsport UK who have a Coach Finder tool.

Meet With The Coach
Talk to them about your goals, see if you like their communication style and see if they are a good fit for you.

Tip #4 – Make Notes

Aside from the use of a driver coach and data analysis, it's a really good idea to make notes about your driving, the car's balance and the circuit after each session.

The simple process of consciously thinking about each of these areas and writing it down will help you as a driver.

To help, you could think about a few of the following areas:

- **Braking points**
- **Apexes**
- **Bumps**
- **The car's balance**
- **Overall grip levels**
- **Areas for improvement**

Tip #5 – Don't Drive Too Much

With the amount of concentration required to drive at the limit, it's easy for drivers – especially beginners – to run out of energy before the day is over. This could be physical or mental tiredness – or both!

The session and day length can vary between drivers, but we would recommend keeping each test session to a maximum of 20 minutes. By the 20 minute point, most young drivers are beginning to tire and start to make mistakes. Also, if you can't achieve what you're trying to – whether it be tweaking technique or feeling a setup change – within 20 minutes, you need to come in and give it more thought anyway.

As your circuit driving becomes faster and you're driving at the limit for more of the day, you'll likely become fatigued earlier in the day.

For example, if you have been pushing hard in the morning sessions, it's probably best to only complete one session in the afternoon – attempting another session would be unproductive, and even unsafe.

The time to stop – whether it be in a particular test session or the day as a whole – is when you feel you're making 'silly' mistakes or begin to lose your consistency. It is important that you are honest with yourself, your team and your coach about this. No one will think any less of you, in fact you will be respected for your self awareness. It's better to stop when you are tired (physically or mentally) than to risk damage to the car, yourself or any others around you.

That final session of the day where you, and other drivers, are exhausted is always the most dangerous.

To watch the video tutorial for more information on effective testing, watch the video here:

https://driver61.com/uni/efficient-testing/

PREPARING FOR ON-TRACK PERFORMANCE

We know that it's not always possible to train or practice behind the wheel or on track, but there are other things you can do to help develop your technical and tactical abilities. For example:

USING CIRCUIT GUIDES

Along with the driving technique tutorials, Driver61 has produced some video circuit guides (**see them here: https://driver61.com/resources/circuit-guide/**), where tracks are examined in great detail – almost frame-by-frame –. Driver61 draws over the onboard footage and commentates to explain braking references, lines, curbs and more from the driver's eye view.

These guides are useful both before and after your time on track. Before you head to a circuit, watch the guides to learn the progression of corners and get some **idea of the racing line**. After you've completed some laps, watch the guides again, when you'll be more familiar with the circuit and can focus on the more detailed information.

Watch Videos

YouTube is a fantastic resource for finding some extra info about a circuit. However, be careful. Just because someone knows how to upload a video to the internet doesn't mean that their technique and racing lines are world-class.

Driver61 has created a playlist of high quality driving at various circuits – so that you can be sure you're absorbing good information – you can find the playlist here:
https://driver61.com/resources/circuit-guide/

When watching a video, you'll want to take note of a few things.

The Driver61 Top Tips:

- Watch the whole lap a few times – this helps you to 'get into the flow' of the circuit
- Start to look at racing lines, most importantly apex points (think distance along an inside curb) and how much exit curb the driver is using – pause or slow down the footage if necessary
- Examine where a driver is braking for the large deceleration zones – think about references that you can search for when you're on the track
- Estimate the corners speeds – not mph accuracy here, but knowing which gear the driver is in will help

It's also worth noting down a few valuable pointers including potential braking references, apex points and other things you feel you might need on a track map. The process of writing down this information will help you recall when you're in the car and close to your mental capacity.

NOTE: you cannot just head out onto the track and copy a fast driver right away. When watching videos it's impossible to know how the cars or circuit might differ – you're only using video as a guide.

Find a video on youTube and practice making some notes:

USE A SIMULATOR

Watching videos is all well and good, but the next step is to get into a simulator. The blend between real-world and simulated racing is getting closer each year, meaning real-world and sim drivers can blend between disciplines more easily.

Many of the circuits in the simulator software are laser scanned and the detail and realism are incredible – bumps, curbs and grip levels are all very close. It's possible that your car will be in the software too, meaning sim lap time won't be far from real lap time.

The best way to use a sim is for track learning (especially if you haven't been to a circuit before) – and later to help improve consistency. If you're new to sim driving, leave many of the driving aids on so that you can get as many laps in as possible without constantly spinning the car.

However, keep in mind that **practice doesn't necessarily make perfect"**. Simply sitting on a simulator completing lap after lap is not useful unless it is purposeful and you are engaging in what we might call **Quality Practice**.

Karting-F4 Transition Tip

It has been reported by multiple development coaches that those who make the step from karting to single seaters most effectively are those who have been both training and competing in simulators. These days, it is becoming an essential (and accessible) part of the driver development journey.

Quality Practice means:

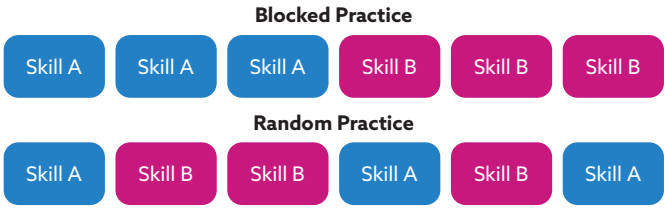
Make a plan.
Just like in a testing session. Think about what your goals for the session are, what are you trying to achieve and how you might structure your time.

Keep it varied.
Doing the same thing repeatedly will return the same results. This means you won't adapt when things change around you. For example, practice a problem corner from different racing lines.

Quality Practice

"Random" practice.
Instead of practicing the same skill repeatedly (blocked), try practicing two skills that you'd like to improve that are completely different in the same session.

Create challenge. Push yourself to try slightly harder and new tasks—don't try to avoid making mistakes. You learn so much more and get far more feedback from making mistakes than not... But you need to challenge yourself to do this—don't take the easy route and practice things you're already good at.



It's also a good idea to have a coach with you. They can transfer their real-life experience to the sim, and help you with your practice structure as described. The great thing about simulators is that your coach can join you virtually, so you can gain insight and guidance without being in the same place or even country!

Structuring your simulator training will help to keep you healthy too. For example by limiting your screen time to your practice session length, which will have a positive influence on sleep, taking breaks for physical activity, hydrating and good nutrition. Take a look at the physical and mental training guides later in this handbook for advice on healthy training habits. You should apply the same training principles to simulator training as you would in real life.

For simulator setup guides, choosing equipment and using racing sims to get faster in karting check out Driver61's Sim Racing Uni here - **https://driver61.com/sim-racing/uni/**

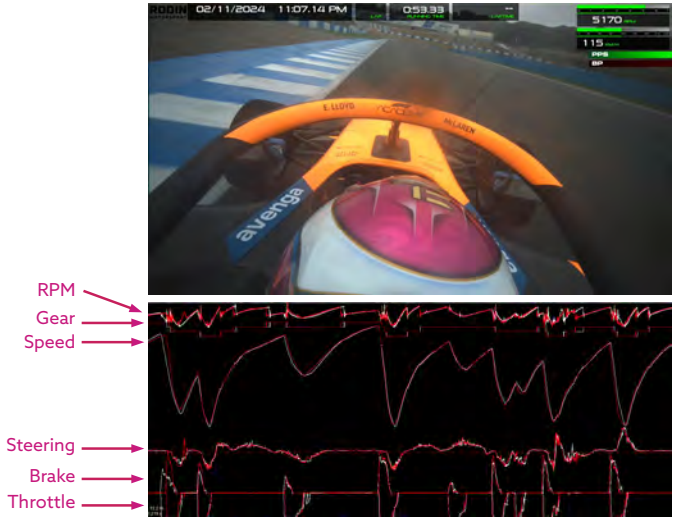
Did You Know?

Blue light coming from your screen tricks the brain into thinking it's daytime. When that happens, the body stops releasing a sleep hormone called melatonin which is essential for helping you sleep.

UNDERSTANDING & REVIEWING DATA

You can learn a lot about your driving performance by analysing the shapes and timing of your inputs. You might have an engineer or coach who will help you to analyse data but it's really important that you understand the basics to help get the most out of your feedback or debrief sessions. Teams look for intelligent drivers who are able to understand their own data as well as take on feedback and implement changes to improve their performance. Much of this information can be taken from your data trace and analysed along with your on-board video (if you have one).

The main inputs you can analyse are speed, throttle trace, brake pressure, steering inputs and gear changes which are displayed as follows in a data trace:



The key is to:

Select critical points

Don't try and fix everything at once. Focus on the points where the most time is lost. Corners are where we see the biggest variation in speeds and where you will likely spend the most time analysing the data. As we know from the technical section on cornering, a corner is broken down into different phases. You might focus on one particular phase of the corner, such as braking.

Look at technique

The data will help you to analyse your technique whether that is braking, steering or something else. For example, if your brake data is showing that you're braking too early or it's inconsistent, this might be an area to make some changes during your next session.

Implement changes

During your next session, you can make changes to your driving technique based on your data analysis to improve your performance. Based on the example above, you might focus on braking earlier. The data might also help you to identify car setup changes with your engineer - for example suspension changes or tyre pressures.

Review

Once you have made your changes, you can sit down and review whether these adjustments in your technique or setup have made improvements to your performance. You can do this by comparing an earlier lap's data with the most recent. However, sometimes comparing to your own lap can make it difficult to find any significant gains, especially if you're consistent. It's often better to compare with reference laps from professional drivers or coaches, ideally same day, same conditions - this will highlight more, or bigger, opportunities to find time.

If you can, it's also good to synchronise video footage alongside the data to confirm the position of car on track and highlight any obvious errors. This will accelerate the learning process by having a visual reference as well as the data.

For more information on data logging, watch the Driver61 video here:

https://driver61.com/uni/how-to-use-data-logging/

ENGINEERING YOUR PERFORMANCE

The relationship between you and your engineer, or mechanic in karting, is really important. Effective communication and common understanding allows you and your engineer to trust each other and work together as a team. Ultimately, the better you work together, the more likely you are to achieve faster lap times and better race results.

Driver | your role is to feel how the car is handling and to be able to communicate this effectively back to your engineer.

Engineer | your engineer will understand the car's technology and can make changes to improve its performance.

However, the driver/engineer relationship is much more than this. The teamwork starts long before the race, and doesn't end at the chequered flag!

Before the race | you will be in communication well ahead of the race weekend, discussing the car setup, perhaps the strategy based on the type of track and the conditions, and maybe you will use a simulator to agree an initial starting setup and prepare alternative options.

During the race | your engineer will be your main communicator from the pit lane. It's important to agree some common and consistent terminology, and tone of voice. It's good to tell your engineer how you'd like them to communicate with you, especially if the pressure is high or things aren't going as well.

After the race | you will debrief with your engineer, looking at your own technique as well as providing feedback on the feel, and how the car is handling. It's good to learn the basics of engineering, car setup and how a car responds to certain inputs or external factors. This will allow you to give your engineer better insights into what a problem might be, and how to improve it. It's not much use just saying 'the car feels slow' or 'its not handling well' – the engineer needs more detail than this, why does it feel slow, how is it responding to inputs and what specifically is happening as a result.

Plan a meeting with your mechanic or engineer and consider agreeing the following (if you haven't already):

Do you have a pre-race plan?

Do you have the right amount of information leading into the race?

Have you agreed some common terminology for during the race – short phrases or words

How is it best communicated? Especially when under pressure

What do you need from your engineer if you are feeling nervous? How can they help you?

How does your engineer like you to feedback to them? Is there anything specifically that they would like you to report back on? What information do they need from you?

If a race doesn't go well – what do you need from them after a race? A bit of time and space? Or do you want to jump straight into the debrief?

When you need encouragement? What can they say to help – during or after a race

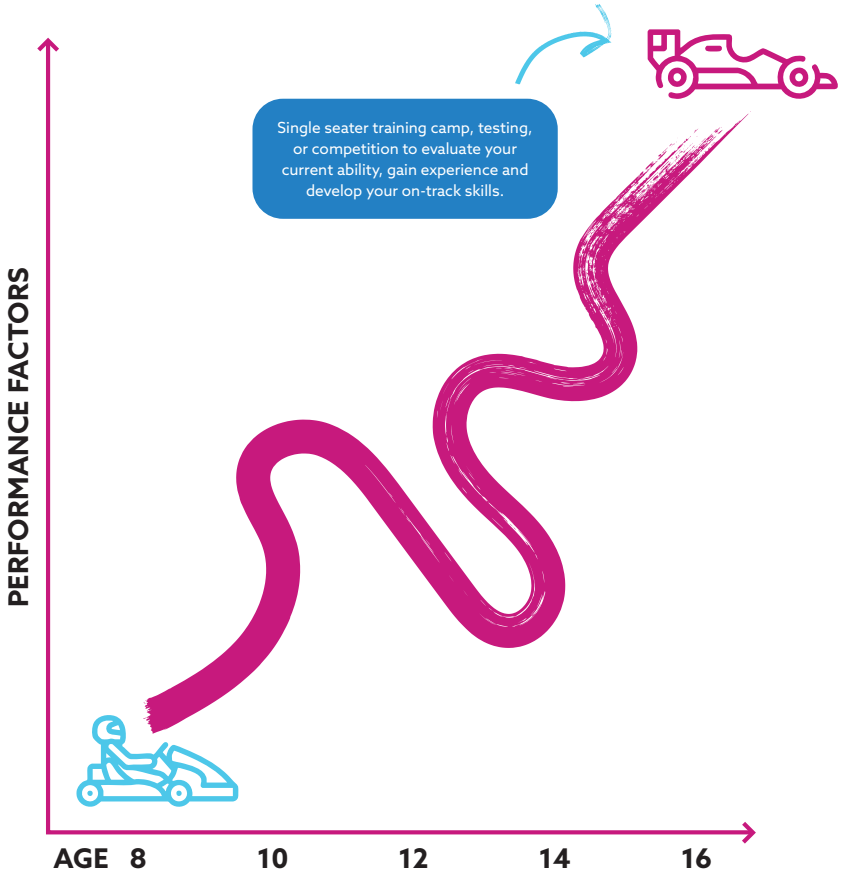
If you don't understand something, do you feel comfortable to ask your engineer to explain it again?

SUPPORTING YOUR TECHNICAL PROGRESSION

As we enter into our third season, securing a seat in F1 ACADEMY is becoming increasingly competitive.

With the minimum age for F1 ACADEMY participation being 16 years, this gives opportunity for young drivers to gain experience in F4, or equivalent, in advance of F1 ACADEMY as part of their preparation.

To be considered for selection, teams will be looking for recent performance data including timesheets and reports which evidence your on-track ability in order to compare with existing performance benchmarks. This might mean providing information on recent performances or testing if you are already competing in a single seater series and/or seeking opportunities to gain this experience.



SUPPORTING YOUR TECHNICAL DEVELOPMENT

To support your development and gain experience in single seaters you may want to consider attending a training school or development centre, some of which may offer preferential deals for prospective F1 Academy drivers

With 60+ years as a leader in driver development, Winfield Racing School has shaped young talents like Isack Hadjar, Doriane Pin, and Maya Weug through programs focused on both performance and personal growth, on and off the track. Use the promotional code F1ACADEMY2025 at checkout to receive a €500 discount on any booking for young driver programs.

CONTACT:

contact@winfieldracingschool.com

WEBSITE:

https://winfieldracingschool.com/

Unlock your 25% discount on MPA's introductory course providing drivers with the basics they need to begin the transition from karting to cars.

CONTACT:

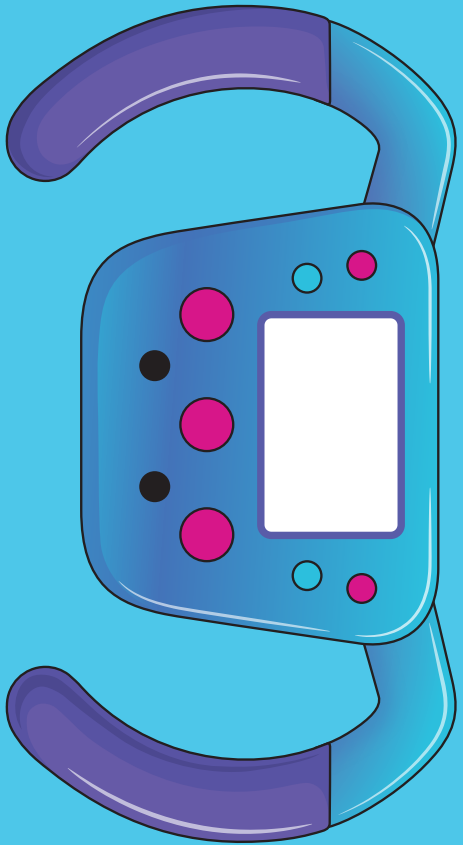
info@motorsportperformanceacademy.com

WEBSITE:

https://www.motorsportperformanceacademy.com

To find more driver development opportunities in your region, please visit:

https://www.f1academy.com/Discover-Your-Drive



- Technical
- Tactical
- **Physical**
- Mental
- Social

PHYSICAL DEVELOPMENT

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FORMULA MEDICINE

03

As drivers, you will already know that being physically fit and healthy is important. However, do you know how to improve your own physical performance? In this section, Formula Medicine will use their expert guidance to take you through the basics of physical performance and what you can do to make sure you are in the best condition to fulfil your driving potential.

PHYSICAL TRAINING

The Fundamentals

1. Individuality
2. Sports Specificity
3. Aerobic Endurance
4. General Strength
5. Sport-Specific Strength
6. Neuromuscular Co-ordination

All training is aimed at creating physical changes (called adaptations) in the body, but no two bodies are the same. A good, effective training programme must consider the specific history, abilities, needs and goals of the individual that it is designed for.

1 Individuality

As human beings we do all have a lot in common, but we also have a lot of differences, including genetics, age, weight, body type, gender and limb lengths, training history, and previous injuries.

We are all unique and, because of that, we all adapt differently to exercise and training. Bear this in mind when you are training with a group or comparing progress as part of a team – don't expect to automatically get the same results at the same time as others, and don't feel bad about it. What works for a gym buddy might not work for you – and equally, what works for you won't necessarily produce good results for her.

Genetics make us all predisposed to being good at certain activities, and not so good at others. This doesn't mean that you are destined to be bad at something if you're not naturally gifted in that respect. It just means that you may need to work a little harder for a little longer to get a particular result that comes more easily to someone else.

2 Sports Specificity

As a driver, your training programme needs to stimulate adaptation in the specific skills and abilities that are essential for motorsport. It also needs to be further personalised for you as a unique, individual athlete, to build on your personal strengths and improve your weaker areas in this sport.

Formula Medicine began collecting data from F1® drivers at races 35 years ago, monitoring various physical parameters including their heart rates while they were driving. By investigating what happens inside a driver's body during such demanding races, we were able to identify and prioritise the specific athletic requirements for motorsport. Formula Medicine were then able to work out how to train drivers properly to develop those abilities and optimise their performance. As motorsport has diversified and developed over the years, they have also extended their research to include drivers of all ages and from all categories.

Every sport requires specific characteristics that must be trained. For motorsport, we'll focus on 3 main areas for now:

Aerobic Endurance | General & Sport-Specific Strength | Neuromuscular Co-ordination

3 AEROBIC ENDURANCE

Aerobic = involving, needing, or relating to oxygen

DEFINITION | Aerobic endurance is the ability to continue prolonged physical activity and resist fatigue. It depends on the cardiorespiratory system's (heart and lungs) ability to supply enough oxygen to working muscles, and on the muscles' ability to use that oxygen efficiently.

Aerobic endurance is also referred to with other names including cardiovascular endurance/fitness, cardiorespiratory endurance/fitness, aerobic fitness or stamina. Don't be confused - their definitions are identical: your ability to keep exercising at moderate intensity for extended periods of time.

Aerobic endurance training is often called cardio training because it uses the cardiorespiratory system.

Aerobic endurance training improves the efficiency of the whole cardiorespiratory system, making your heart stronger, increasing your lung capacity and improving your blood circulation so you can exercise for longer without getting tired. But it also has some other benefits:

Aerobic Benefits

Decreases the risk of health conditions like heart disease, high blood pressure and diabetes

Enables your body to become more efficient at converting carbohydrates and fat to energy

Helps to regulate your blood sugar levels

Improves your sleep quality and mood

Decreases your resting heart rate

Formula Medicine's investigations into F1® drivers' heart rates recorded average rates up to 184 beats for up to two hours, demonstrating that driving places the body under an extremely high cardiovascular load. Drivers' heart rates are also affected by hormones - like adrenaline - during driving, and by the high temperatures inside the car. This level of physical performance requires extraordinary cardiovascular fitness, more than is required for a marathon or any other sport.

Fun Fact

- **Running** is a straightforward form of aerobic training that can be done anywhere, but it has a high impact on the spine and joints like knees and ankles
- **Cycling** is a lower-impact alternative that provides cardiovascular benefits without the same repetitive physical impact
- Generally speaking, running can raise the heart rate higher than cycling because it involves more body muscles, but cycling allows you to maintain a raised heart rate for a longer period of time due to its lower impact on the body

Mix things up in your cardio training routine. Alternate between different activities, indoors and outdoors, and vary the intensity levels to stimulate adaptation and keep you motivated.

4 GENERAL STRENGTH

DEFINITION | Strength is the ability to exert force in order to overcome resistance.

Muscular strength is the force a muscle or group of muscles can apply against a resistance in a push, pull or lift motion. We can divide it further into three types:

- **static strength**, when the muscles contract and hold one position (e.g. wall sits)
- **dynamic strength**, when the muscles move both ways in contraction and extension (e.g. squats)
- **explosive strength** or power, when the muscle contraction happens at high speed (e.g. squat jumps)

Muscular strength is the amount of force you can create, and muscular endurance is how long you can do it for without getting tired.

General muscular strength and endurance are important not only for sport, but also for everyday activities. Improving your strength will also reduce your risk of injury, increase the density of your bones, help you maintain a healthy body weight, and it's great for your confidence and mental health too.

5 SPORT-SPECIFIC STRENGTH

A racing driver's body is subjected to particular stress in certain areas, particularly the neck and core.

The Neck

G-force, or gravitational force, is the force of gravity acting on an object. One G is equal to the normal pull of earth's gravity on the body. In motorsport, drivers have to cope with much higher G-forces as they accelerate, brake, and corner at high speeds.

Fun Fact

The average human head weighs around 5kg, but in a high-speed F1® corner, for example, side-to-side G-forces can make a driver's helmeted head weigh up to five times more than normal. The neck muscles are responsible for maintaining proper head position, and it takes a super-strong and resistant neck to be able to cope with these forces for a whole Grand Prix race. Keeping the head in a proper position and keeping it stable means you can see better, and your brain receives better information to help you make fast, precise decisions as you drive. A strong neck is also less likely to get injured.

did you know?

There are more than 20 muscles in the neck, stretching from the jaw and base of the skull all the way to the shoulder blades and collar bone, and they all need to be stimulated to keep your neck training balanced and effective. You should do both static and dynamic exercises.

Static training, which means you contract muscles and maintain that contraction by staying still, can be done with a helmet and cord or simply using your own hand to create resistance against your head.

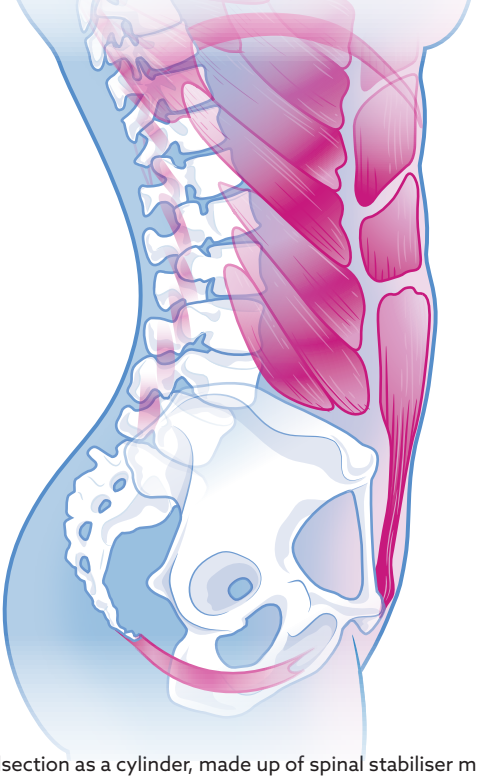
Resistance bands and elastics have several benefits for dynamic or moving neck training:

- They increase in resistance as they stretch and provide constant tension throughout the full range of motion of the movement. This reproduces better the dynamics of a high-speed curve
- You can do multidirectional exercises with them - flexion in all directions, extension and rotation, fully replicating the neck's natural movements
- You can train all the muscles in the neck with just one elastic, and as you get stronger you can change up for a thicker band.
- You can stimulate greater muscle activation, balanced growth and stability, getting better results from your training with elastics

In addition, they're portable and easy to set up, so you can train anywhere, at home or on the road, and not just in the gym.

The Core

Core is the term used for the group of muscles within your midsection that stabilise your spine and pelvis in an anatomically correct position, so the arms, head and legs can move freely and properly without excessively loading on the spine. Without your core, you wouldn't even be able to sit or stand up. Your abdominal muscles are only one part of the core group, so don't mistake abdominal training for core training.



see diagram

Imagine your midsection as a cylinder, made up of spinal stabiliser muscles in the back, several layers of abdominals in the front and wrapping round the sides, a layer of pelvic floor muscles on the bottom, and the diaphragm on the top. Core exercises train this group of muscles to work in a co-ordinated way, and to become stronger. This leads to better balance and steadiness, also called stability.

The core also has another important function in transferring force from the lower body to the upper body and vice versa. A strong core can make movements smoother and more effective, reducing the risk of injury and improving your performance and skill.

Training your core doesn't just mean performing 100's of sit ups or crunches. You should be looking to include a variety of core exercises such as:

- Planks (of different varieties such as elbow plank, side planks)
- 'Bird Dog' exercise
- Rotation exercise (such as cable twists, Russian twists)
- Resistance exercises
- Lateral exercise (such as dumbbell raises)

In addition to neck and core strength, the secondary focus should be on developing good:

Leg Strength | to ensure you can repeatedly achieve the required braking forces as well as accurately control the pedals.

Grip and Arm Strength | to enable management of steering loads, especially under fatigue and with good control and accuracy.

Excellent leg and grip/arm strength are also required in relation to managing G Forces, particularly during deceleration and cornering.

Sport Specific Coach/Trainer

When you start to become serious about your progression in motorsport, you should consider working with a Physical Performance Coach/Trainer, sometimes called a Strength & Conditioning (S&C) coach. At this point, ideally you should work with a trainer who specialises in motorsport fitness.

This is important as we have already discussed the unique physical demands of motorsport, and a trainer who is familiar with these demands can design a training program that specifically addresses these needs. If you are working with a general Personal Trainer (PT), then its important that you tell them about your sport – share this guide with them if it helps! This will ensure that you are engaging in the right type of training, at the right times to support your performance.

It's also good to keep in mind, that if you use a specialist motorsport trainer/coach – they can often also provide drivers with mental and emotional support. Racing is a high-pressure sport, and they will have an understanding of this and how to manage performance stress, and stay focused on your goals.

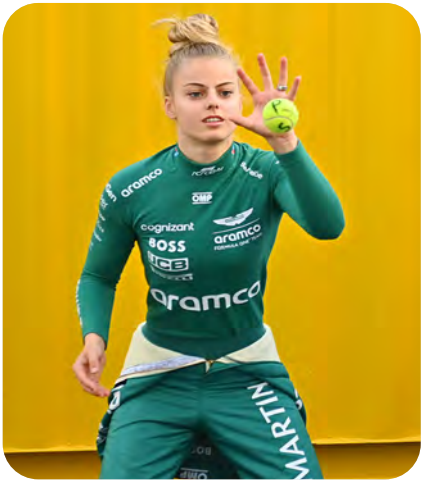
6 NEUROMUSCULAR CO-ORDINATION *(your reactions and co-ordination)*

Neuromuscular Co-ordination is simply the interaction between the nervous system (brain, spinal cord and network of nerves) and the muscles – in other words, the nervous system's ability to efficiently and automatically tell a muscle or a group of muscles to perform a specific task. You may hear it referred to also as *motor control or muscle memory*.

Neuromuscular training stimulates and challenges the nervous system, strengthening the connection between the brain and muscles through specific exercises that require **balance, agility, and co-ordination**. Neuromuscular training improves the transmission of signals from your brain through your nervous system and into your muscles, enabling you to perform movements with precision, fluidity and speed. These are all important characteristics for a driver and can help you make significant improvements in your performance at the wheel.

Neuromuscular Training

Balance exercises challenge stability, forcing the body to recruit muscles and activate neural pathways to maintain balance when doing exercises on one leg or on unstable surfaces. **Dynamic Stability** exercises require control and balance across multiple planes of motion. **Agility Training** drills with cones, ladders or lights will improve speed, reaction time and accuracy.



In addition to taking your driving skills up a gear, neuromuscular co-ordination training will reduce your risk of injury in sports and in daily activities by improving body awareness and control, and optimising movement patterns.

Your Physical Training Fundamentals

Write down some activities that you currently do that you think will help to improve aerobic endurance. If you don't currently do any, what could you bring into your training to develop this?

Why is sport-specific strength important for your development?

What activities or exercises could you do to improve your co-ordination and reactions?

PERIODISATION

DEFINITION | Periodisation is a way of planning and managing physical training with the goal of bringing an athlete to peak performance either for one important competition, or to keep that performance across a long season, as is the case for drivers.

Periodisation is simply a process of dividing the annual training plan into a series of smaller and more manageable phases which focus on different goals within a specific time period. These phases are called cycles. Well-planned cycles can maximise results while minimising the risk of injury or overtraining through a long, competitive season.

- We break up the training programme into Pre, In and Off season
- We divide the cycles into Macro, Meso and Micro cycles, from longest to shortest
- Periodisation needs to be personalised!

MACRO, MESO & MICRO CYCLES IN MOTORSPORT

Training programmes are planned carefully in cycles to make sure you're in top form at the start of the racing season, then stay strong, resistant and reactive when it matters most on the track.

Macro Cycle: generally covers the entire season or year. The goal is to build a gradual progression for driving preparation, improving and then maintaining both general fitness and sport-specific skills.

- **Pre-Season:** general preparation period, working progressively on aerobic endurance, general and sport-specific strength, and neuromuscular co-ordination.
- **In-Season:** competition period, and it's long. During the season we can identify specific preparation periods immediately before competitions (race weeks), to work on specific muscular endurance, reactivity training and mental preparation, but without overloading. You should have a specific pre-performance routine for race days, which we will talk about separately. Non-race weeks focus on recovery and maintenance.
- **Off-Season:** unloading phase for recovering and regenerating both mentally and physically from the intense race season. Even the most dedicated athletes need some downtime. However, that doesn't mean doing nothing at all. Depending on the length of the off-season, you can take a well-deserved break but then it's time to reflect on the successes and challenges of the past season, to identify areas for improvement, and start working on them.

Meso Cycle: each macro cycle is divided into meso cycles of 3-8 weeks. For a driver, a meso cycle could focus on specific aspects, such as muscular strength, neuromuscular co-ordination or reaction speed.

- **Neck strength** training to deal with all those G-forces and avoid injury
- **Core strength** training for stability of upper body and pelvis
- **Muscular endurance** to prevent upper body fatigue while driving
- **Aerobic training** such as interval training to improve aerobic endurance

Micro Cycle: the weekly cycle. Each micro cycle is structured to improve a specific physical ability within the meso cycle. A specific training week might include:

- **Muscular strength** and endurance with bodyweight exercises or light loads
- **Visual reactivity** and reaction speed with co-ordination exercises
- **Active recovery** which is essential to avoid overload and fatigue
- **Aerobic training** to maintain aerobic capacity

OFF-SEASON PROGRAMMING

The off-season is a strategic pause, rest and reset. The length of this phase depends on how much time you have until your pre-season starts, but it is always an opportunity to look back at the past season and then look forwards to the next one, so you can be even faster, stronger, and more resilient. It's an essential phase for physical and mental regeneration, and for working on aspects that can be improved.

Physical and Mental Recovery: training in this phase is low-intensity, with a focus on activities that promote regeneration, like stretching, outdoor walks, yoga and breathing exercises. Just like your muscles, your mind needs time to recover and refocus, so take a mental break and have some fun with friends and family.

Core Strength and Injury Prevention: During the off-season, the focus shifts to neck, core and upper body strength exercises. Isometric exercises for the neck and core can help prevent injuries and improve endurance while driving.

Work on Weaker Areas: The off-season is the ideal time to work on the aspects that need to be improved. We also use this time to perfect exercise techniques and learn new ones that will be needed for pre-season.

Don't forget that a complete training programme for a driver is not just physical preparation in the gym. To maximise results and support the body through the season, you also need to fuel it with good nutrition and hydration, and let it get enough rest. We'll talk about this more later in the guide.

Massage can really help with muscle recovery, especially in the neck, shoulders and back. It helps to relax muscles, improve circulation and prevent injuries, keeping you in an optimal state of physical readiness for the next training or driving session. Massage therapy also gives you some downtime, boosts your mood and generally contributes to overall physical and mental wellbeing.

> **DIVIDING YOUR TRAINING INTO A SERIES OF SMALLER PHASES MAKES ACHIEVING YOUR GOALS MORE MANAGEABLE**

Periodisation Example:

This is an example of a periodised annual plan. The phases of competition and maintenance continue to be alternated as many times as necessary until the end of the athlete's competitive calendar. This enables physical form to be maintained through the season with specific preparatory work done in the week before a competitive event and a pre-performance routine on race days.

<table>
<tr><th colspan="2">MACRO 1 PREPARATION</th><th colspan="2">MACRO 2 PERFORMANCE</th></tr>
<tr><th>MESO 1 OFF-SEASON
(E.G. DECEMBER – JANUARY)</th><th>MESO 2 OFF-SEASON
(E.G. FEBRUARY – MARCH)</th><th colspan="2">IN-SEASON
(E.G. APRIL– NOVEMBER)</th></tr>
<tr><td>Building the athletic base. Focus is on improving all conditional physical abilities. Do a full panel of athletic assessments. Design a personalised athletic program based on the results.

Goals:
• Increase general and sport-specific strength
• Increase aerobic capacity
• Improve neuromuscular co-ordination
• Improve joint mobility & core stability</td><td>Performance optimisation phase. Focus is on fine-tuning athletic abilities specific for motorsport.

Goals:
• Optimise general and sport-specific strength
• Optimise aerobic capacity
• Optimise neuromuscular co-ordination
• Further improve and/or optimize joint mobility & core stability</td><td colspan="2">Phases of competition and maintenance alternated as many times as necessary until the end of the competitive calendar. Physical form is maintained through the season with specific preparatory work done in the week before a competitive event and a pre-performance routine on race days.</td></tr>
<tr><td colspan="2"></td><th>MESO 3 COMPETITION WEEK</th><th>MESO 4 MAINTENANCE</th></tr>
<tr><td colspan="2"></td><td>Best possible conditions for peak competitive performance. Avoid accumulation of fatigue and physical stress.</td><td>With back-to-back races, focus is on rapid recovery. If there is more time between races, focus on strength maintenance and aerobic endurance.

Goals:
• Maintain strength and endurance
• Recover fatigue accumulated between races
• Work on mobility and flexibility to prevent stiffness and muscle pain
• Improve joint mobility & core stability</td></tr>
<tr><th colspan="2">MICRO</th><th colspan="2">MICRO</th></tr>
<tr><td>4–5 training sessions per week

2–3 recovery days to include physiotherapy, massage and stretching</td><td>4–5 training sessions per week

2–3 recovery days to include physiotherapy, massage and stretching</td><td>2 training sessions:
• Aerobic (bike or indoor run)
• Core stability and joint mobility</td><td>4–5 training sessions per week

3–4 recovery days to include physiotherapy, massage and stretching</td></tr>
<tr><td colspan="2"></td><th>RACE DAYS</th><td></td></tr>
<tr><td colspan="2"></td><td>Pre-performance routine (neuromuscular activation)</td><td></td></tr>
</table>

The duration and division of each phase will depend on the competitive calendar.

Training Planning Practice

Using the template, practice planning your training across a:

Macro cycle | Meso cycle | Micro cycle

You might need to ask a coach/trainer or parent/guardian to help you work through this.

FORMULAMEDICINE

PHASE	PREPARATION (OFF-SEASON)	COMPETITION		RECOVERY & MAINTENANCE	COMPETITION	
MACRO CYCLES	GENERAL & SPORT-SPECIFIC	RACE WEEK	RACE DAYS	BETWEEN RACES	RACE WEEK	RACE DAYS
MESO CYCLES						
MICRO CYCLES			ROUTINE			ROUTINE

PRE-PERFORMANCE ROUTINES

(your warm up!)

Do you warm up before you get into your car or kart?

Getting your body and mind ready before each driving session is essential—it's what helps you handle the intense demands of the track. This pre-driving warm-up, called neuromuscular activation, includes exercises for mobility, reactivity, co-ordination, and specific muscle activations.

Why does it matter so much? Because it's all about sharpening the connection between your brain and muscles, which improves your reaction time and hand/eye co-ordination. These are essential in motorsport, where even the tiniest fraction of a second can make a difference. With targeted exercises before you drive, you can improve your stability, steering precision and control, making it easier to navigate fast turns and resist those intense side-to-side G-forces. Adrenaline is a hormone that has a very important impact on a driver's performance. It's released by the adrenal glands – you have two of these small, triangular-shaped glands, one on top of each kidney. Adrenaline triggers the so-called 'fight or flight response', which is your body's natural reaction to perceived challenges or danger.

Even if you don't actually need to fight or escape, adrenaline is beneficial also within the context of a race. It increases your heart rate, improves the blood flow to your muscles, speeds up your reflexes and makes you more alert - all of which help you react faster and better. Adrenaline also improves your resistance to discomfort and fatigue so you can stay in control, even during long or stressful driving sessions.

Sounds perfect? Unfortunately, having a high adrenaline level for too long does have a downside. It might temporarily turbo-charge your body and brain, but, if it sticks around too long, it can actually wear you out faster. Too much adrenaline can also make it harder to keep calm when you have to make fast decisions.

When you manage adrenaline well, it becomes a powerful advantage instead of something that could have a negative effect. You need to keep the positives - like that extra burst of energy and alertness - while maintaining a calm and strategic mindset. Breathing and focus techniques can help – we'll look at these separately, but they should be part of your pre-race routine, along with neuromuscular activation.

So, what does a good motorsport warm up look like?

- Your warm up should activate your key sport-specific muscle groups – switching them on ready to perform
- It should raise your heart rate, body temperature, and mobilise your joints

Pre-Performance Activation

The intensity should increase as you near to the session and match the intensity you are expecting to compete at

1 Circuit
No rest

General joint mobility	Shoulders 45″	Shoulders 45″	Forearms wrists, hands 45″	Ankles 45″	Neck 45″
Injury prevention with elastic	Internal rotators 15 R + 15 L	External rotators 15 R + 15 L	Row (bent over or with anchor) 20	Overhead open arms 20	Chest open arms 20
Neck	3″ push against resistance 15 R + 15 L + 15 rear				
Whole Body	Squat with band 15				
Cardio 1		Run on spot 20″	Jumping jack 20″	Burpees 20″	
Cardio 1		Rope jump 1′			

increase intensity

Design your own pre-performance warm up routine:

VARIATION (playing other sports!)

Playing different sports makes you a better, more well-rounded athlete, and the skills you learn in other sports can make you better at your main sport. Diversifying also reduces the risk of psychological stress, burn-out and overuse injuries.

Overuse Injuries

A 2020 study in the Orthopaedic Journal of Sports Medicine found that young athletes up to 18 years old who specialise in just one sport are at higher risk for overuse injuries, and this was particularly true for young, growing, female athletes. Intensive repetition of the same movement patterns and the absence of variety can cause overuse injuries, but the risk of these injuries can be decreased by diversifying the sports you do, and allowing proper rest and recovery.

Different Sport, Different Skills – *better results!*

Different sports develop different athletic skill sets. Some sports, like cross country running and distance swimming, focus on cardiovascular health and building endurance. Others, like tennis and netball, improve hand/eye co-ordination and agility. Learning and practicing new movement patterns and skills can improve performance in your main sport, because these skills are transferable. Variety encourages better overall athletic development.

Life Skills

Playing different sports also requires you to develop different life skills. When you play a team sport, for example, you have to work towards a shared goal with a group of players. This helps you build strong interpersonal skills, improves mental flexibility, and teaches you about effective communication to solve problems. These are all skills that will benefit you in motorsport.

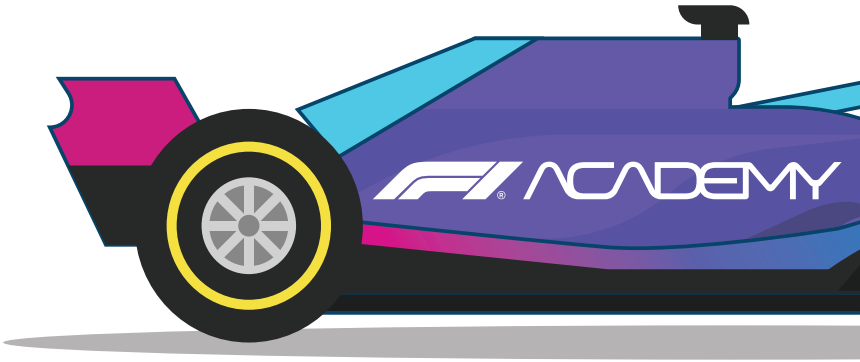
Social & Psychological Benefits

- Diversifying also has social benefits as you get to meet and train with new friends outside motorsport who can be there for you as a support system
- Learning new skills is always stimulating and beneficial for your brain
- Trying new things is part of developing a growth mindset
- Confidence gets a boost when you manage something new that seemed out of reach at first
- Enjoyment - you can have fun and experiment doing a different sport, without pressure or expectations

If you don't already, have a look at some other sports you might want to take part in.

Write down the potential sports, where you take part, how it fits into your schedule and the potential benefits of participating:

Playing different sports makes drivers more well-rounded athletes, making them stronger, sharper, and more adaptable when it matters most.



SLEEP MATTERS

Fun Fact

We spend approximately a third of our lives asleep. It is as essential as breathing, eating and drinking, and we can't function properly, physically or mentally, without an adequate amount of good quality sleep. The sleeping brain goes through a cycle of stages, from light to deep sleep, to a dreaming phase. The different stages vary in length throughout the night, but a complete cycle generally lasts around 90 minutes before starting again. Good quality sleep means spending enough time in all of these stages.

When your brain and body 'power down' in sleep, they can repair, restore, and reset for the following day, which isn't possible while you are still awake and active.

- **Energy storage.** Cells throughout your body contain stores of essential resources which they use up while doing their jobs during the day. These stocks are replenished while you're asleep.
- **Recovery and repair.** This generally happens during the deep stages of sleep. Your body repairs and rebuilds cells and produces hormones that promote bone and muscle growth. This is why sleep is so important for growing teenagers and for athletes.
- **Brain organisation.** Your brain gathers, processes and stores new information, a bit like filing paperwork – it makes accessing and using knowledge easier and more efficient. Your brain also cements information into your memory while you sleep, so it's very important for learning.

Poor sleep can cause a number of problems like chronic fatigue, inability to concentrate, slower reaction times, poor co-ordination, lapses in memory, irritability, and excessive emotional reactions. In the long term, poor sleep can contribute to depression and anxiety.

When we sleep and how many hours we sleep changes a lot through our lifetimes, but good sleep is particularly important for the teenage phase of mental, physical, social and educational development.

8-10 hours a night is the recommendation for age 13-18.

SLEEP ROUTINE

A little preparation and a bedtime routine will help to 'train' the brain that it's time to power down, enabling you to get good quality sleep to support optimal physical, mental and emotional function:

- **Avoid heavy meals before bed.** Avoid caffeinated drinks in general but particularly in the afternoon and evening. Caffeine stays in the body for many hours, so energy drinks, cola drinks, tea and coffee will make it harder to fall asleep.
- **Avoid exercising very close to bedtime.** This can stop you falling asleep quickly.
- Get as much **natural light** as possible **during the day**, and especially in the morning. This clearly signals the day and the night for the brain, keeping your body clock well-aligned.
- **Create a sleep-friendly environment.** A bedroom should be a place where you can relax and feel safe —a quiet room with a comfortable bed, and room temperature around 16-20°C. Lights should ideally be switched off, or very dim. Nightwear needs to be comfortable, non-restricting, and preferably made of natural fibres.

Scientific research shows that the **use of screens** at or just before bedtime makes it harder to go to sleep for people of all ages, not just teenagers. The blue light emitted by electronic screens blocks the production of melatonin, the hormone that controls the sleep-wake cycle.
In addition, scrolling through social media or watching action movies, for example, causes a heightened state of awareness (or even anxiety) instead of encouraging your brain to switch off.
Stop screen use (TV, phone, tablet or computer) **1 hour before you need to sleep**.

- Get a **normal alarm clock** instead of using the alarm on your phone, and then leave your phone in another room when you go to bed.
- **Read a book**, do some meditation or breathwork and allow your brain and body to naturally wind down.
- Maintain your bedtime routine when you're at home and when you are away, on school days, holidays and through race weeks. The more consistent you are, the better it will work.
- **Consistent wake-up times**, natural light exposure, and gentle alarms can also help reduce morning sleep inertia – that feeling of grogginess and disorientation on waking.

Using the tips above, create yourself a sleep strategy. What can you do to ensure you get quality, and consistent sleep?

Think about how this might change if you are at an event, what can you do to help you prepare. For example, if you're staying away from home, can you take your own pillow?

NUTRITION
You are what you eat

The teenage years are an important time for growth and development. A healthy, varied diet is essential for all teenagers to provide the energy and nutrients that the body needs to grow and function well in this phase. Good nutrition enables athletes to optimise training and recovery every day, and also plays an important role on competition days to make sure you have enough energy at the right time.

If you want to get the best out of your body and brain, you need to put the best in.

THE FUNDAMENTALS

MACRONUTRIENTS are the nutrients that your body needs in large amounts for a variety of essential needs, not just as energy sources but also for many other important functions. You need all three macronutrients as part of a healthy diet, so don't exclude or seriously restrict any of them.

Carbohydrates are divided into two main types:

- **Simple carbohydrates (or sugars):**

These are the basic building blocks of carbohydrates. They're found in all products that are made with refined sugar, like cake, cookies, chocolate, fizzy drinks and ice cream, and they occur in naturally sweet foods like fruit, milk and honey. Some simple sugars, like those in fruit and milk, come with additional beneficial nutrients but others, like the refined sugars in processed sweet products, drinks and snacks, just provide "empty" calories with little to no nutritional value.

- **Complex carbohydrates (or starches):**

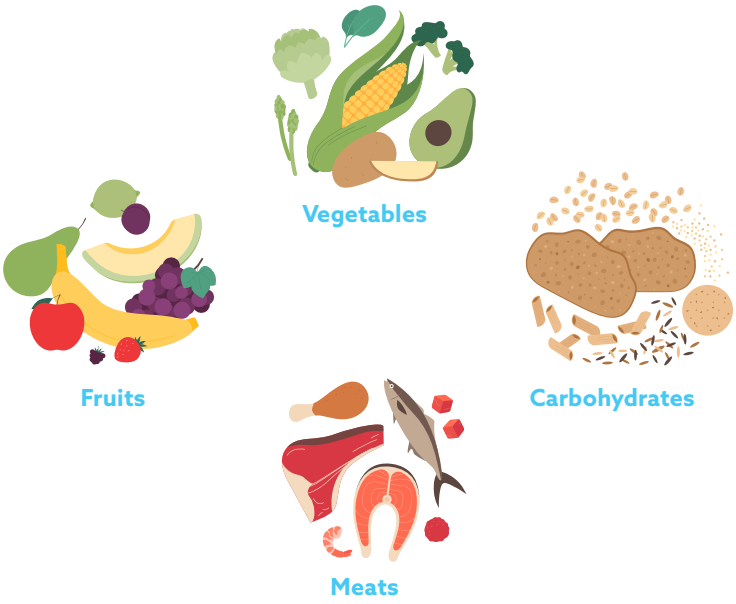
These are made of long chains of simpler sugars linked together. They're found in foods like bread, rice, pasta and cereals, and starchy vegetables like potatoes.

How does your body use carbohydrates?

Carbohydrates are the primary source of energy for your body. When you eat carbs, your body breaks most of them down into the simplest sugar called glucose which goes into circulation in your bloodstream, which is why we talk about "blood sugar". Once glucose is in the blood, it travels to cells throughout your body, where it's used in reactions that provide energy for a cell's activities and vital processes.

Simple and complex carbs work a little differently:

- Simple carbs break down quickly in your body, giving you glucose fast. This means they can provide a quick hit of energy, but it doesn't last long.
- Complex carbs take longer to break down into glucose. They release energy more slowly and keep you fueled for longer.
- You need both types, and their specific characteristics can be an advantage in different situations: simple carbs can be useful for a quick energy boost shortly before a race, while complex carbs can be used for a steady supply of energy for a long training session.



Avoid eating too much simple sugar in your diet – it causes spikes and crashes in blood sugar levels, and in the long term this can interfere with your body's ability to use glucose properly. It also has a negative impact on your teeth, leading to cavities and other dental problems.

Fat is essential for your body. It helps build cell membranes and nerve tissue and keeps your hormones working the way they should. Fat is also used for fuel supply, and because it provides more than twice as much energy per gram than carbs or protein it's the best way for your body to store energy. Plus, some vitamins need fat to be absorbed, so without it, you'd miss out on them. A moderate amount of fat is essential for a healthy diet, but there are different types of fat, and not all of them are good for you.

There are three main types of fats:

- Unsaturated fats are absolutely necessary for good health. You can get these from fatty fish (salmon, sardines, mackerel, herring, trout), most nuts and seeds (and their oils), avocados, and extra-virgin olive oil.
- Saturated fats can be unhealthy if eaten in large amounts. They are found in animal products like fatty cuts of meat, poultry skin, and full fat dairy products like butter, cream, milk and cheese. Palm oil and coconut oil contain a lot of saturated fat, and so do processed foods like pies, pastries, doughnuts, cakes and biscuits.
- Trans fats are made through an industrial process and are the unhealthiest type of fat to eat. They have no known health benefits – on the contrary, research has shown they can raise the risk of heart disease. Some countries have laws to reduce or ban the use of trans fats in commercial products. Industrial food producers use them in baked, fried, frozen, and snack foods because they add texture and flavour, and help keep products fresh longer. Trans fats are cheap to produce and can be reused in deep fat fryers, so they are the fat of choice for fast food chains.

Some foods are advertised as low-fat or fat-free. The fat in these products has to be substituted with something else, which quite often is sugar, and that's not so good for you either.

Instead, focus on getting good unsaturated fats from natural sources like fish, nuts, seeds, avocado and healthy oils, with a moderate quantity of saturated fats from animal sources like dairy and eggs.

Protein has lots of functions in the body. It's essential for growth, cell and tissue repair, producing enzymes and hormones and maintaining a healthy immune system. You've probably heard of protein as a builder of muscle tissue, but you can't build muscle just by eating lots of protein. Correct and consistent exercise combined with adequate nutrition and rest will increase muscle mass. The body can also use protein as a source of energy, if necessary, as a last choice after carbohydrate and fat.

Amino acids are the building blocks of proteins. When we eat a protein food source, the body breaks it down into amino acids, and then reassembles them to form other protein structures that have a specific role within the body.

There are two types of amino acids:

- Non-essential amino acids can be made by the body. 'Non-essential' doesn't mean you don't need them, it just means it's not essential to get them from somewhere else, because you can make them yourself.
- Essential amino acids cannot be made by the body, and you have to get them from food.

Protein In Food

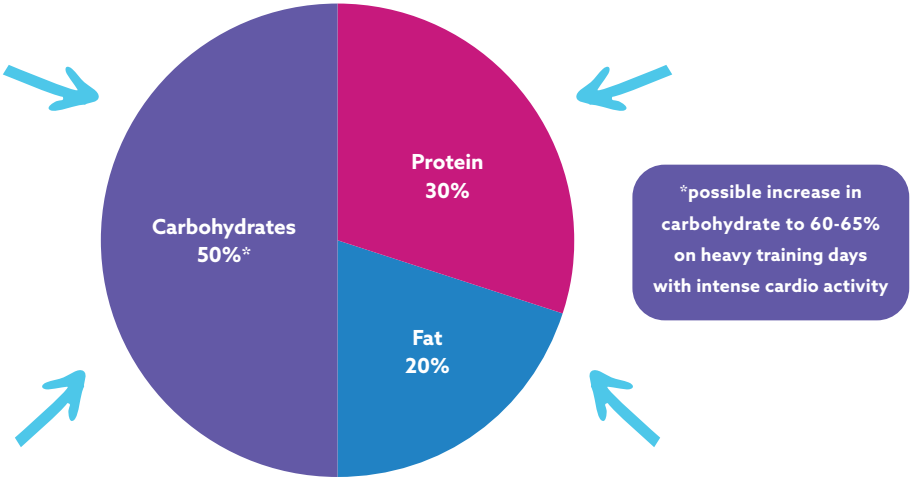
We can get all the protein we need from the food we eat.

There are many dietary sources of protein:

Animal Protein	Plant Protein
MEAT | FISH | POULTRY EGGS AND DAIRY PRODUCTS	**BEANS, LENTILS, CHICKPEAS, SOY (TOFU, TEMPEH, SEITAN), NUTS, ALGAE, SEEDS AND GRAINS**
Animal-based foods provide all the essential amino acids in adequate amounts, making them complete protein sources. If you eat animal proteins, avoid cuts of meat with visible fat, processed meats, and poultry with skin. Choose healthier options like lean chicken breast, fish, eggs and dairy products.	Plant-based foods contain amino acids too, but they don't necessarily provide all the essential amino acids. Quinoa, for example, does - but other plant-based foods might not. If you prefer to eat plant proteins, be sure to eat a wide variety, and combine different plant proteins in each meal (like rice and beans) to get all the essential amino acids you need.

What does all of this look like on your plate?

As a general rule:



MICRONUTRIENTS are nutrients that our bodies only need in small amounts. They don't provide fuel, but they are essential for your body to be able to use fuel efficiently and do a whole lot of other things besides. There are two types of micronutrient:

Vitamins are organic substances made by plants or animals. They can be divided again into two subcategories:

- Water-soluble vitamins (B and C) dissolve in water. Your body can't store them so any B or C vitamins that your body doesn't use are eliminated in your urine. You need a fresh supply of these vitamins every day.
- Fat-soluble vitamins (A, D, E, and K) dissolve in fat and can be stored in your body.

Minerals are inorganic elements that come from soil and water and are absorbed by plants or eaten by animals. You need more of some minerals, like calcium, while other minerals like chromium, copper, iodine, iron, selenium, and zinc are called trace minerals because you only need very small amounts of them. But you do need them!

What Do Vitamins and Minerals Do?

There is really no bodily function that doesn't depend on at least one vitamin or mineral. They help our hearts beat and our lungs breathe. They enable our bodies to build new muscle, skin and bone cells. They allow nerves to communicate with the brain so we can move. They support the immune system so we can fight illness and also recover faster after training and races. We literally can't live without them.

How Do I Get the Vitamins and Minerals I Need?

You need to get your vitamins and minerals from your food, because your body can't produce them. You need a variety of vitamins and minerals, so you need to eat a variety of foods to make sure you've covered all your needs every day.

Try "eating the rainbow" to make sure that you get enough variety. Find fruits and vegetables of each colour that you like and aim for at least 3 different colours (red, orange/yellow, green, purple/blue, white) at each meal.

If you're a vegetarian or vegan athlete, you'll need to plan your nutrition extra-carefully to make sure it includes not only all the macronutrients (protein, carbs, fat) but also all the micronutrients (vitamins and minerals) you need. This may be a job for a qualified nutritionist or dietitian with specific experience in sports nutrition.

HYDRATION FOR ATHLETES

Water makes up 75% of the human body at birth. This decreases with age and for females aged 12-18 the average is 56%. We lose water through our breath, sweat, pee and poo, and we have to continually replace it to make sure we have enough. You wouldn't survive more than a few days without water because it is essential for many of your body's most vital functions.

For instance, your blood, which is around 50% water, carries oxygen and nutrients to all the cells of your body. Water is also in lymph fluid that is part of your immune system, which helps you fight off illness. Water helps keep your body temperature normal. You need water to digest your food and get rid of waste.

Most water inside the human body is contained inside cells, so big organs that contain a lot of cells also contain a lot of it, like your brain, heart and lungs which are around 80% water.

Muscles are about 75% water, which is needed for maintaining proper muscle function and nutrient delivery during exercise. In sports, staying hydrated helps optimise performance, prevents muscle cramps, and improves the transport of nutrients and removal of waste products for better recovery.

Any liquid you drink will contain water, but pure water itself is always the best choice. Lots of foods contain water too, like fruit and vegetables, and dry foods that have been cooked in water and absorbed it, like rice and pasta. You should be getting about 20% of your daily water intake from food.

How Much Is Enough?

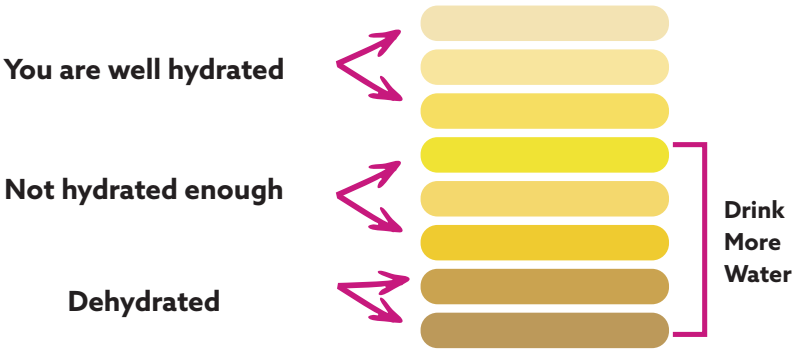
Your daily water intake comes from both drinking and eating. The amount of water you need to drink depends on your age, your body size, the food you eat, exercise intensity and duration, and the conditions of the environment, like temperature and humidity. Exercise and the environment will affect how much water you lose through sweat and how much you need to replace.

The guidelines from the European Food Safety Authority consider girls of 14 years and above to have the same requirements as adult women for adequate water intake, which is 2 litres a day for moderate activity in a mild climate. Add at least 1 extra litre for every hour of hard training and for hot days.

When you drink is also important. It's best to reach your daily water requirement by dividing it into smaller amounts regularly throughout the day, rather than downing litre bottles in one go. You should also be drinking before, during and after training sessions.

Don't wait to be thirsty before drinking. **Thirst is a warning flag** that your body raises when you are already mildly dehydrated.

Your body holds on to water when you don't have enough or gets rid of it if you have too much. Any water that's not needed will simply come out in your urine. On the subject, your pee should be a very pale yellow colour. If it's darker than that, you need to hydrate. Use the chart below to check your hydration levels. It's a good idea to print one off to remind you!



DEHYDRATION & PERFORMANCE

Adequate hydration is essential for optimal performance and endurance. Even mild dehydration affects both physical and mental function, so you won't be as fast and as sharp as you could be, while a bad case of dehydration can cause serious problems.

- You get tired more quickly
- Your heart rate increases
- You sweat less which makes it harder for your body to regulate its temperature
- It's harder to stay concentrated and make decisions
- Your nervous system is less able to control your movements precisely

DEHYDRATION
(>2% of your weight)

Can impair athletic performance, cognitive performance and recovery

Sweat & Sports Drinks

Sweat's main function is to control body temperature, so you don't overheat. When sweat reaches the surface of your skin, it evaporates, and this process cools your skin and the tissues underneath. Sweat is mainly water, but it also contains some mineral salts like sodium, chloride, potassium, calcium and magnesium, which are important for good functioning of nerve signals and muscle contractions in your body. During intense exercise, and especially in hot or humid conditions, you typically sweat more so you lose more of these mineral salts.

There are many sports drinks available for athletes, already in liquid form or as powders and tablets to dissolve in a bottle of water. They contain mineral salts to replace the ones that your body loses when you sweat, and some also contain sugar to provide energy.

Sports drinks can be a good choice to support the body during training sessions and race events. The ingredients are combined at specific levels to help provide the body with what it needs depending on the situation:

- Isotonic – contains similar levels of minerals and sugar as in the blood, good for use during short and long activities
- Hypertonic – contains higher levels of minerals and sugar than in the blood, for use in recovery after long, high intensity activities (endurance events over 90 minutes)
- Hypotonic – contains lower levels of minerals and sugar than in the blood, for quick rehydration with less of a focus on providing energy

Sports drinks should also be drunk slowly over time, and not a whole bottle in one go. Be careful not to use them excessively just because they taste nice. Your total intake should always be more plain water than sports drinks - particularly if the drink contains sugar. Aim for 3-4 times as much water as sports drink for every hour of hard training.

"JUST A 3% DROP IN HYDRATION CAN NEGATIVELY IMPACT YOUR PERFORMANCE"


Santander

DEVELOPMENT

PERFORMANCE MENU

What does all of this mean?

Take a look at the following example meal plans and recommendations for a regular training day vs a race day.

REGULAR TRAINING DAY MEAL PLAN EXAMPLE

THE MENU

Breakfast

1 cup Greek yogurt with muesli, chia seeds and mixed berries
1 slice wholegrain toast with mashed avocado
1 boiled egg
1 glass of water

Snack

1 slice of bread with peanut butter and banana
1 glass of water
or
Smoothie with banana, apple, kiwi with chia seeds

Lunch

Grilled chicken salad with mixed greens, cherry tomatoes, cucumbers, olive oil & lemon dressing
1/2 cup of rice/pasta/quinoa
1 kiwi
2 glasses of water

Pre-Workout Snack

1 banana + small handful of nuts
1 glass of water + sips of an isotonic sports drink
or
1 small sandwich with ham

Dinner

Grilled salmon with spinach and baked sweet potato
Wholegrain bread
1 apple
2 glasses of water

RACE DAY GENERAL RECOMMENDATIONS

Foods to Prioritise

- Easily Digestible Carbs: white bread, rice, pasta, bananas, low-fibre fruit
- Light Proteins: low-fat Greek yogurt, egg whites, lean chicken
- Sports Drinks/Gels: for quick energy before or during the race

Foods to Reduce:

- Vegetables: it's better to prioritise easily digestible and carb-rich food sources

Foods to Avoid:

- High-Fibre Foods: leafy vegetables, wholegrains, beans (to avoid digestive discomfort)
- High-Fat Foods: fried foods, cheese, processed or fatty meats
- New Foods: avoid anything new or unfamiliar on race day – just in case
- Sugary Snacks: candy, pastries

THE MENU

This menu prioritises easily digestible carbs and lean proteins to maximise energy during the race and support muscle recovery afterward.

Breakfast

2 slices of white bread with jam or oatmeal with blueberries
1 scrambled egg
1 banana
1-2 glasses of water

Lunch (3 hours before the race)

Plain rice or pasta with tomato sauce
Grilled chicken breast with carrots and zucchini
1 small apple
1 glass of water

Dinner

Baked white fish
Sweet potatoes or 1/2 cup of pasta/rice/quinoa
Steamed green beans
Wholegrain bread
1-2 glasses of water to aid recovery and hydration

FUEL FRAMEWORK

PRE-PERFORMANCE MEAL

3-4 Hours Before

main carb meal to fuel up

PRE-PERFORMANCE SNACK

1.5-2 Hours Before

a small carb top up, more solid & sweet. e.g. cereal bar, fruit

PRE-PERFORMANCE PRIMER

During Warmup

A liquid carb top up

e.g. isotonic drink

PHASE 1 RECOVERY

ASAP Post-Performance.

Cover the 3 R's of recovery. Refuel, Rebuild & Rehydrate. Go sweet for palatability.

e.g Chocolate milk, recovery shake, jellies

PHASE 2 RECOVERY

1-2 Hours After

a balanced meal with all the components

carbs + protein + colour

Source: Sport Ireland Institute

Fuel your performance! Remember: Refuel, Rebuild, and Rehydrate, and you'll unlock the energy, power, focus, and recovery when you need it most.

To help you plan your menu across the week, use the following guide.

	PLAN OF THE WEEK					
	MON	TUE	WED	THUR	FRI	SAT
BREAKFAST	+	+		+		+
SNACK	+	Leftovers +	→	+		+
LUNCH	+	+		+		+
SNACK	+					
DINNER	Beef +	Chicken	Cod +	Pork	Salmon +	Turkey
SNACK	+		+		+	

NOTES: Signify bigger days with a plus + to remind you where more carbohydrates are important

1. STRUCTURE

Use the rule of 3 to add routine to your schedule

- 3 Mains
- 3 Snacks
- Every 3–4 hours

2. PICK YOUR PROTEINS

List out 6 protein options and place one in each dinner slot

eg: Chicken, Turkey, Pork, Beef, Salmon, Cod

3. CHOOSE RECIPES

Search online or in cookbooks for recipes to try for each meal.

eg: BBC Good Food

4. CREATE A LIST

Check your storage for ones you have already.

Go shopping!

Now try planning your own.

Source: Sport Ireland Institute

Keep a food diary for a normal week which includes training.

Take a look at what you are eating and drinking. Is this enough, is it balanced? Is it the right type of foods? If not, practice making a meal plan for the next time you race.

Week Type: Regular

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Today's activities or exercise							
Breakfast							
Lunch							
Dinner							
Snacks							
Drinks							

Notes:

Keep a food diary for a race week.

Take a look at what you are eating and drinking. Is this enough, is it balanced? Is it the right type of foods? If not, practice making a meal plan for the next time you race.

Week Type: Race

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Today's activities or exercise							
Breakfast							
Lunch							
Dinner							
Snacks							
Drinks							

Notes:

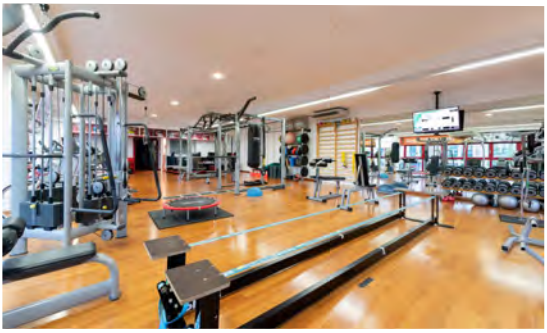
FOR MORE INFORMATION

The services that Formula Medicine can provide to support your physical and mental development in motorsport, include:

- **Driver Assessments**
- **Mental and Athletic Training**
- **Driver Development Programs**
- **Medical Check ups**
- **Trackside Support Services**

Please visit:

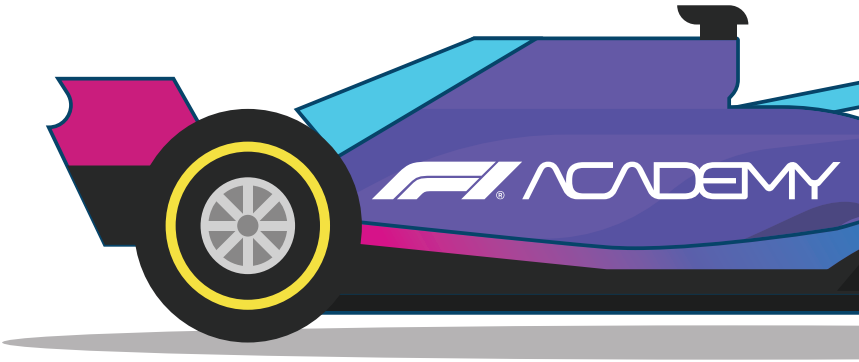
https://formulamedicine.com/



For prospective F1 ACADEMY participants, please contact:

info@formulamedicine.com

Master the basics of physical performance to make sure you are in the best condition to fulfil your driving potential



ANTI-DOPING

Doping in sport is the use of banned (prohibited) substances or methods to improve performance. Sometimes banned substances can be found in the ingredients of some medications (even over the counter) or supplements - and this is usually where athletes fail a test.
Even if it's a mistake, you are still liable for anything you consume, and it can result in suspension, or even a permanent ban from the sport.

At this level, you need to have an awareness of anti-doping, to make sure that you are prepared and familiar with the anti-doping values as well as your rights as an athlete. To help, the FIA have developed the 'Race True' programme which gives you all of the information about your responsibilities, how to check medication, the testing process and who can be tested.
https://www.fia.com/files/fia-race-true-anti-doping

What can drivers do?

Tell – medical personnel (such as your doctor), your coach and any other support personnel who work with you, that as an athlete you must operate in line with the Anti-Doping Rules.

Check – follow the process of 'Search, Check and Apply' before using any medication:

- Search for ingredients in your medication – you could use tools like Global DRO to help (not available in all countries) - https://www.globaldro.com/uk/search
- Check if you need an exemption for taking particular medications - https://www.fia.com/therapeutic-use-exemptions-process
- Apply for a Therapeutic Use Exemption (TUE) if you need one

Ask – if you are unsure about any anti-doping matter then 'ask'. You can keep yourself up to date, and join the FIA Race True webinars here - **https://www.fia.com/files/fia-race-true-anti-doping**

Adopt - a 'Food First' approach. Don't use supplements unless it's absolutely necessary.

Supplements can sometimes become contaminated during production and traces of banned substances could make their way into the ingredients without being listed. If it's absolutely necessary to use supplements, there are some tools to help check they are clear of contamination such as using Informed Sport - **https://sport.wetestyoutrust.com/**.

Source: https://www.ukad.org.uk/introduction-clean-sport

Research to see if your motorsport ASN or National Sporting Governing Body have any guidance specific to your region.

For example, in the UK, UK Antidoping (UKAD) have some helpful education tools such as the '100% ME' programme **https://www.ukad.org.uk/100-me**

Sign up to the introductory FIA webinar to learn more about your responsibilities. (link above)

FEMALE DRIVER HEALTH

Being a female athlete is a unique and amazing experience. Our bodies are incredible and capable of amazing things. One way we can ensure we get the most out of our brilliant body, is to understand our experience of our menstrual cycle.

Instead of seeing this as a disadvantage, we can use this knowledge to our advantage. By understanding how our bodies work, we can tailor our training and nutrition to optimise our performance. The earlier we start to learn about our bodies, the better equipped we will be to reach our full potential.

This section of the handbook will explore how aspects of the menstrual cycle can impact preparation and performance in different ways and how it links to other things such as training plans, nutrition, injury prevention and mental wellbeing.

The aim is to empower you to better understand how to optimise your health and performance as a female racing driver.

THE WELL HQ

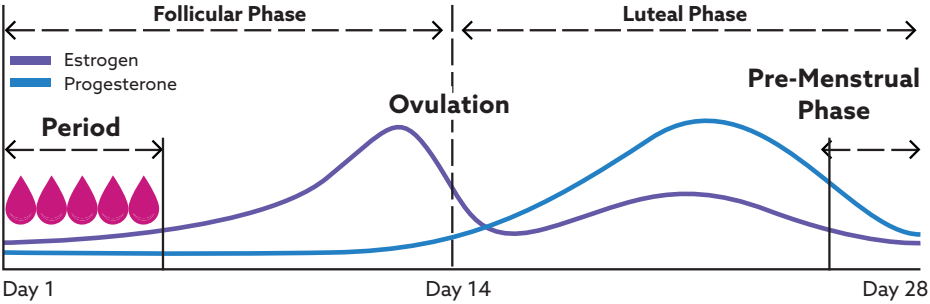
04

Female athlete health refers to the specific physical, mental and social considerations that can impact female performance. As a female driver, your body has unique biological processes that can influence your training, recovery, nutrition, and injury risk. In this section, The Well HQ give you some basic tools to manage your period around your performance, ensuring you get the best out of your body whatever time of the month it is!

The Menstrual Cycle

The menstrual cycle is a repeating pattern of fluctuating hormones, which can affect how a female athlete feels, behaves and performs, both physically and emotionally. Every athlete's experience of her menstrual cycle is unique. Not everyone will experience symptoms that relate to their cycle. We've included the most common ones, but you might experience others, or none at all.

Every female experiences her cycle differently. Although the chart on this graphic shows the typical hormone pattern, the timing, peaks, troughs and levels that hormones can reach may be markedly different from one woman to another.



Source: https://www.thewell-hq.com/menstrual-cycle/under-the-hood-of-the-menstrual-cycle/

The late follicular phase Estrogen is awesome	The mid-luteal phase Hormones in flight	Pre-menstrual phase (often) the rubbish bit
• Increased confidence • More energy • Greater motivation to train • Qulcker/more efficient recovery • Improved muscle adaptation • Extra capacity for high intensity exercise • Better visual/ spatial awareness • Resistant to illness • More willingness to take on feedback • More inclined to take risks	• Altered appetite and food cravings • Better sleep • Digestion Slows • Water retention • Calmness • Reduced anxiety • Less pain • Impaired co-ordination/ clumsiness • Less appetite for risk • Increased body temperature • Harder to build muscle	• Pre-menstrual symptoms (headaches, fatigue, reduced motivation to train) • Stress, lack of sleep and what we eat can make symotoms more severe • Breast swelling/pain • More susceptible to illness • Emotionally fragile **PMS solutions include:** • Low intensity exercise, yoga • Magnesium, zinc, calcium, vitamin D • Avoid dietary triggers • Allow more recovery time

Managing Symptoms

Period pain

- Take an over the counter non-steroidal anti-inflammatory, like ibuprofen, take it early (i.e. before the pain gets too bad) and consistently throughout the days where you usually have pain or cramps' *according to the dosage guidelines.
- Warm baths or apply heat to your abdomen
- Low intensity (aerobic) exercise, yoga
- Consider magnesium, zinc, calcium and vit D - women who have adequate levels of these micronutrients have fewer symptoms. Remember the 'food first' approach, and if you take supplements make sure they are 'informed sport' approved.
- Try to notice if what you eat or drink makes your pain worse. Cutting down on processed food, caffeine and alcohol might help, and being dehydrated can make pain worse.

Heavy periods

- Ibuprofen can reduce menstrual flow by up to 30%
- Omega III and turmeric may help
- Try avoiding cow's dairy
- Hormonal contraceptives can lighten or eliminate bleeding
- GP can test iron levels if symptoms suggest low iron

Headaches

- Hydrate
- Avoid excessive caffeine
- Regular meals and snacks to stabilise blood sugar levels

Bloating

- Eat little & often, avoid large meals, chew food well
- Eat one portion of fruit at a time, avoid fruit juices/smoothies
- Reduce salty and processed foods
- Stay hydrated
- Low intensity exercise eg. yoga

Knowing more about the menstrual cycle, and your body, will help you prepare for performance at any time of your cycle

The best way to understand YOUR experience of your cycle, so that you can get the best out of yourself on any given day is to:

THE WELL HQ

Track it **Understand it** **Prepare** **Control** **Talk about it** **Use it**

Track it

There are many apps that can help you to do this, or a traditional diary or calendar is just as good. Note down how you feel physically and emotionally, and when. This can help you to predict which phase you are in and when and how to train effectively.

Understand it

Understand it - knowing what is normal for you is essential for your health as well as your training, nutrition and managing injury risk.

Prepare

Once you know what your normal looks like, you can plan for any symptoms and manage them effectively, ensuring you're getting the best out of your body.

Control

You can take control of your cycle by managing your lifestyle accordingly whether that is your sleep, your nutrition, managing pressure, stress and fatigue.

Talk about it

This might seem difficult at first, especially in motorsport, but it's good to get comfortable with talking about it with your team. This will help your support network to support you better - especially if you're finding things hard, or maybe you're in pain or need more regular breaks in testing, for example.

Use it

as a superpower. Know when you can push the hardest, have the most energy and make the most physical gains

For more information on Female Athlete Health, visit The Well HQ:

https://www.thewell-hq.com/

To take your understanding to the next level and get the most out of your body, The Well HQ's book, 'The Female Body Bible' offers evidence-based insight, strategies and how-to so you can take control and release what makes you incredible.

https://www.thewell-hq.com/about/book/

Managing Periods

There are many different products available these days and it's worth checking out which one(s) is right for you and the activity you are doing. These include:

- Conventional tampons and pads. These days they are made more environmentally friendly and better for our bodies
- Reusable tampon applicators that can last a lifetime and save on thousands of plastic applicators ending up in the oceans
- Menstrual cups which collect rather than absorb you period. They are often plastic free, made from materials like silicone, and can be used month after month
- Period underwear - underpants with built-in absorbent lining that can hold up to three or four tampons' worth of blood. Some can be worn for twenty-four hours leak-free holding up to ten tampons' worth. Similarly you can also get waterproof period swimwear too

Nutrition to support good hormone and menstrual health

What's in your diet can influence how you experience your menstrual cycle- alleviating symptoms and supporting hormone balance. Sprinkle some stardust on your cycle, and make sure you are eating for your cycle by ensuring your diet includes enough of these foods!

Anti-Inflammatory Foods for your Cycle

Higher levels of inflammation in the body have been connected to worse symptoms before your period. Also, the chemicals we release to have a healthy period can have knock on inflammatory effects. Using our diet as an anti-inflammatory strategy can help:

- Fruits like raspberries, plums, peaches and avocados.
- Vegetables like garlic, onion, beetroot and sweet potato.
- Oily Fish like salmon, sardines and mackerel.
- Herbs like ginger, paprika and turmeric.

Food for Gut Health

There's a set of bacteria in the gut called the oestrobolome, which can influence the amount of oestrogen in our body. Poor gut health can lead to excess oestrogen which can make symptoms worse and periods heavier. You can use certain foods to encourage really health gut bacteria:

Get enough fibre from foods groups like vegetables, beans and fruits, especially foods like asparagus, bananas, garlic, onions and whole grains.

- Eat a diet that's diverse.
- Eat fermented foods like yoghurt, kefir or kimchi.
- Avoid sweeteners.
- Take probiotics.

Micronutrients for your Cycle

Micronutrients are the vitamins and minerals found in your food. Certain micronutrients have good evidence for helping reduce menstrual cycle symptoms and support hormone health, start boosting these vitamins if you want to starting eating for your cycle!

Omega III
Found in oily fish (like mackerel and salmon) nuts (especially walnuts) and seeds (chia and flax).

Zinc
Found in animal products (especially red meat), whole grains (like wheat, quinoa, rice and oats), legumes (like chickpeas, lentils and beans), nuts (especially cashews and almonds) and seeds (like flax or pumpkin), dairy and eggs.

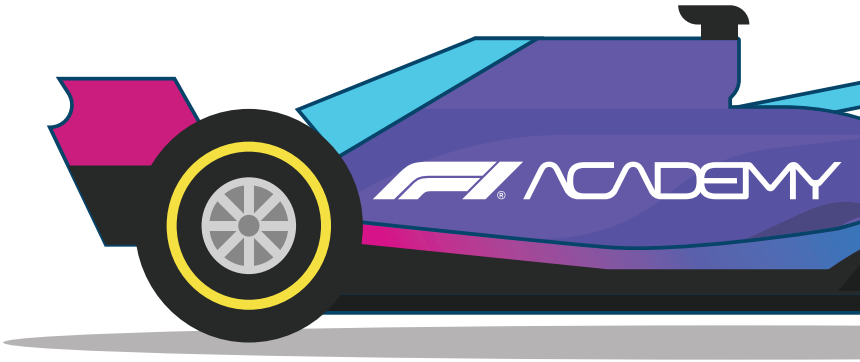
Vitamin D
Found in fish (like salmon, sardines and tuna), mushrooms, egg yolks, cows milk, soy milk and fortified cereals.

Magnesium
Found in seeds and nuts (especially pumpkin seeds, almonds and cashews, peanuts or peanut butter), dark chocolate and legumes (like lentils, beans, chickpeas, peas), fruits like bananas and avocados, and leafy greens like kale and spinach.

Track your cycle for a month and write down what you found. Note down how you feel physically, emotionally and when as well as anything that helped or things to avoid.

If anything changes from your 'normal' such as periods becoming less regular or symptoms getting worse, then it could be an indication that something needs attention (like fuelling or recovery, or menstrual health) and drivers should seek support from your doctor or a doctor in the first instance.

Working with your body's natural rhythms, including your menstrual cycle, isn't a limitation—it's a superpower. Mastering this insight unlocks consistent peak performance ...in every phase!



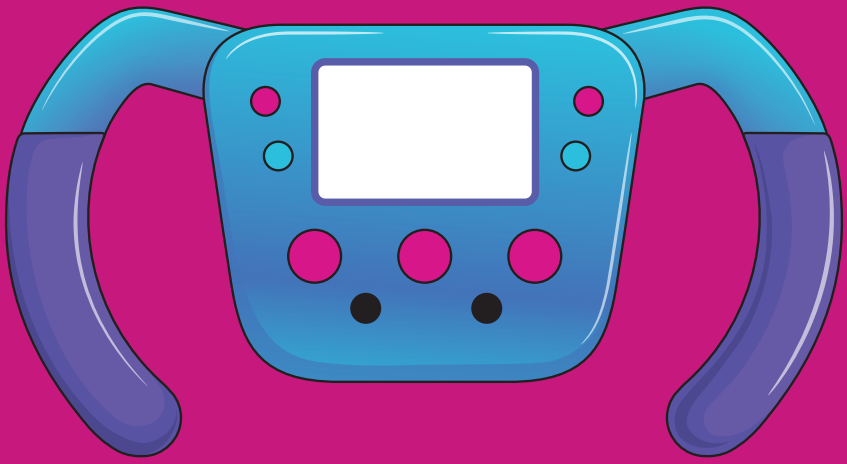
Technical

Tactical

Physical

Mental

Social



MENTAL SKILLS DEVELOPMENT

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FORMULA MEDICINE

05

On-track success can often come down to what goes on inside your head! This section of the guide will help you consider and understand the importance of mental skills, which are just as important as your physical driving ability. In racing, you'll face intense pressure, split-second decisions, and moments of both success and disappointment. Mastering your mind will help you stay focused, make the right choices under pressure and learn from mistakes.

THE PSYCHOLOGY OF COMPETITIVE SPORT

Psychology | the scientific study of the human mind and its functions, especially those affecting behaviour in a given context.

Peak athletic performance requires more than 'just' optimal physical fitness, sport-specific skills, correct nutrition and a good night's sleep. If you're getting all those aspects right, you're already doing a great job, but it's not the whole picture and doesn't guarantee you'll be able to express your full potential behind the wheel, especially when you're under pressure in competition. What's going on in your head plays a huge role in how well you perform.

This is where sports psychology comes in.

Sports psychology focuses on how mental factors affect physical activity and performance and, vice versa, how doing sports can affect mental factors and wellbeing. It's a science that integrates knowledge from various fields, including psychology, physiology, biomechanics and kinesiology. Mental variables like motivation, focus, stress, anxiety and resilience can all influence performance during training and competition. Different sports psychology approaches and techniques can work on these variables in different ways. But they all have one goal in common - to help you improve your performance.

Sports psychology shouldn't only come into play when an athlete has a specific difficulty that they need help with. In fact, discovering your own personal psychological profile and improving your mental performance should be an ongoing part of your development as a driver, in parallel with the athletic training, correct nutrition and good sleep habits we mentioned earlier.

MENTAL TRAINING FUNDAMENTALS

If we want to improve our physical abilities, we start with an unbiased assessment of our current physical strengths and weaknesses, to identify 'What' we need to train and 'Why'. Then we can design a personalised training programme that is the 'How'. It's no different for the mind.

Just like your muscles, your brain can be trained. Physical skills need consistent training to stimulate adaptation over time, and so do mental habits and tendencies. By working on your mental skills, you can learn to do some really important things like:

- **Maintain high levels of focus for prolonged periods of time**
- **Minimise anxiety and doubt in pre-race preparation**
- **Deal with mistakes or disappointment, and recover quickly**
- **Adapt calmly to changing situations and unexpected events**

This process starts by identifying individual mental strengths and weaker points. To do that, we need a focus that is less fixated externally on pure performance results and more oriented internally towards the approach that produced those results. We call this self-awareness.

Self-Awareness: I Can Only Manage What I Know

Put simply, self-awareness is the ability to tune in to your own feelings, thoughts, desires and actions. People with good self-awareness understand their own strengths, challenges and needs. They also recognise other people's feelings and needs, and how their own behaviour affects other people. This helps them cultivate healthy personal relationships with friends and family and good working relationships with colleagues. It also means they have a good relationship with themselves, which is the most important relationship of all.

Good self-awareness enables you to recognise and learn from mistakes because it improves your self-analysis, which means thinking through what you did and what happened, so you can find ways to do it better next time. Good self-awareness also means tuning in to your physical sensations - like knowing when your heart is starting to beat faster, or you are building tension in your arms and hands. These aspects can have a negative impact on your performance, but, if you are aware of them, you can manage them in real time.

Self-awareness helps you to manage emotions, make better decisions, and improve your self-control, even when things are difficult. It is the basis of a growth mindset that can really accelerate your development as a driver.

Getting To Know Me

The more you know about yourself, the better you can manage yourself, so take some time for self-reflection and write down everything that comes to mind.

Take some time to think about, and answer the following questions

What do I like about myself?

What qualities do I have?

What challenges and obstacles have I overcome?

What challenges and obstacles have I had most difficulty with?

What achievements am I most proud of?

What is important to me in life?

What do other people appreciate about me?

If someone had the same characteristics as me, what would I like about this person?

Self-Awareness Training

You might be wondering how to *train* self-awareness.
The following questionnaire helps you focus on your approach and start building your self-awareness for better management of mental resources.

At the end of each driving session – practice, tests and races - consider these statements and evaluate yourself from 1 (not at all) to 10 (a lot). Then reflect further on each aspect and answer the questions. This will help you to identify your difficulties, particularly when you are under the pressure of competition, and track your improvements from session to session.

There are some extra sheets at the end of the resource.

Self-Awareness Questionnaire

I was fully focused on what I was doing, without any irrelevant/distracting/negative thoughts.

1 2 3 4 5 6 7 8 9 10

What thoughts did you notice that distracted you? When did they arise?
What effect did they have? How did you manage them?

I was physically free of any unnecessary muscular tension.

1 2 3 4 5 6 7 8 9 10

If you felt tension in any part of your body, where was it? (shoulders, hands, feet/ankles etc.)

The focusing technique I used in my pre-performance routine was helpful.

1 2 3 4 5 6 7 8 9 10

Which technique did you use? Did you manage to do it properly with enough time in a quiet place? Have you been practicing it every day?

I was able to fully express my potential in this session.

1 2 3 4 5 6 7 8 9 10

Did I reach my goal for this session? (Whether you did or didn't, think about your own approach and your actions, and try to identify how these affected the outcomes.)

How can I improve my next session?

FOCUS

DEFINITION | *the ability to centre attention on an object or a stimulus while disregarding any other irrelevant incoming information. For competitive athletes, we can simplify this as paying attention to what is relevant when you compete.*

Focus is a skill that can be trained and improved, just like physical skills.

To perform well, you need to be focused. The problem is that when you are competing, there are a lot of other things also competing for your attention and most of them aren't relevant to what you are doing right now. Repeated changes of focus are tiring for your brain, and it's also not always easy or quick to refocus on the task in hand once you've been distracted by something irrelevant. In a sport where even the tiniest fraction of a second can make a difference, a moment of distraction can be all it takes to slide down the standings.

Distractions can be external - things from the outside, like other drivers, spectators, track conditions, or the weather - or internal, which means things from the inside, like your thoughts. According to Stanford University research, the average person has around 60,000 thoughts a day (Dr. F. Luskin, Stanford University), which is a lot of thoughts flowing freely through your mind, whether you want them or not.

When you're driving, interfering and distracting thoughts can really impact your performance. You need to be automatic – this means that the reactivity, co-ordination skills and driving technique that you've trained so well can express their full potential without you overthinking the process, or worrying about results, past mistakes and the previous lap.

Improving Your Focus

To train the ability to stay focused despite what is happening around and inside you, it's important to know what focus feels like and when you have lost it. Use this simple breathing exercise to help you recognise when your mind is wandering and learn to refocus it.

Focusing Technique

Lie down and relax or sit comfortably on a chair and close your eyes. Focus on the physical sensations you can feel, like the floor underneath you or the chair against your back and legs, and the sounds you can hear from the outside environment. After about a minute, bring your attention to your breath, inhaling and exhaling through your nose. Focus on the physical sensation of coolness in the air that enters when you inhale and the sensation of warmth in the air that comes out when you exhale. Stay for a while with these perceptions and observe them, using them as an anchor to stay in the present moment, here and now. After a while you will probably notice that your mind begins to wander and think about other things. If that happens simply take note, without criticism, that your mind has wandered. You can gently repeat in your head the words "thinking" or "wandering", then let the irrelevant thought go, and redirect your mental focus back to your breathing. Continue the technique for several minutes, observing any thoughts that arise, letting them go, and returning focus to your breath. Slowly reopen your eyes, stretch and move the muscles in your body and stand up calmly.

The more you practice using your breathing to create a calm state of focus, the easier it will become to use it when you need it, like in your pre-race preparation routine or when waiting in the car in parc fermé.

Refocusing Strategy

Create a personal refocusing word or phrase, something short and simple to use in moments when you need to clear away distracting thoughts and refocus your mind. This could be as simple as the word "breathe" or "focus", or anything at all that works for you. Refocusing movements also work when driving, like opening and closing your hands on the wheel when on a straight.

Focus Training

Sit comfortably on a chair in a quiet room and choose an object in the environment around you. Relax, take a few deep, calming breaths and then observe this object for a minute. Look at it as though it was the very first time you've seen it. Visually explore every aspect of its physical appearance, colours and patterns, shape and form, how the light reflects on it - make a mental note of every detail you can see. Imagine how it feels to touch, its temperature, weight, the material it is made of.

Then set a timer for 5 minutes, you can use the one on your phone. Close your eyes and slowly recreate the object in your mind. Imagine as many details as possible from your previous observation and hold the object in your mind. When you finish the visualisation, open your eyes and check how long you spent on it. The goal is to gradually increase the time you can remain focused in visualisation, just like a training session, aiming to maintain it until the timer finishes.

"A CUE WORD OR ACTION CAN HELP TO RESET YOUR FOCUS AT KEY MOMENTS"

Practice the focusing technique, and then focus training.

Focus Technique

Ask a family member to read the focus technique to you whilst you have your eyes closed so that you get used to practicing and visualising the technique, what to look for and how to use it.

Refocusing Strategy

When you lose focus and become distracted, you might want a refocus word to bring you back to a state of calm, like "breathe" or "focus". Decide a word to use and test it out when you become distracted – you could try using it on a simulator first to see if it helps you.

Focus Training

Try the visualisation exercise described above. Start bringing it into your weekly training. Start by trying it once or twice a week and then gradually increase how often you do this.

MANAGING MISTAKES & EMOTIONS

Every athlete makes mistakes - it's part of sports. And even if you personally manage to do everything perfectly, there's a whole field of competitors around you who do things that can involve you. Races won't always go as you had hoped, expected, or deserved, whether it's your responsibility or not. Learning to deal with mistakes and disappointing performance is part of being a competitive athlete.

Top athletes are able to rebound quickly when competing, and afterwards they use their experiences as opportunities for learning and growth.

Letting Go of Mistakes During Competition

It's normal to have an immediate rush of powerful emotions if you make a mistake while doing something that's really important to you. It's ok to feel angry, frustrated, maybe even embarrassed or scared of the consequences, but those strong emotions can make you lose focus and take too long to pick up your race pace again. You can even lose your temper completely, and make bad, impulsive decisions that make the situation even worse.

This is where your refocusing cue comes into play, and that's why you need to practice using it, so you are prepared for the unexpected. Take a deep breath and **use a cue**, whether it's words or a gesture, to 'clean off' the mistake and quickly return to performing your best in the present moment. You can create a specific cue for mistakes like **"let it go"** – the mistake is made, and brooding on it or beating yourself up with negative self-talk in the middle of a race is not going to change it. In fact, those are the kind of mental processes that make one mistake become two mistakes, or even more.

After A Disappointment

When a competitive event doesn't go as hoped, it's a big disappointment, whether it's due to your own error or events outside your control. Either way, you may find that you need some time to process and decompress - talking about it immediately while you still feel angry or sad isn't always the best thing to do. It's natural to feel upset and you can't stop yourself from feeling emotions, in fact you shouldn't even try to. That's why we talk about managing mistakes, which is very different to not caring about mistakes.

Remember that whatever happened today won't make or break your driving career, it has nothing to do with your value as a person, and you can reframe it as a learning opportunity.

Changing How You View Mistakes

This is a mindset shared by the most successful athletes – each error or loss represents a chance to analyse, adapt, and improve. It's a long-term approach and will require some work on your part. Learning from mistakes means you have to take responsibility for them. The word "mistake" makes us feel that we have done something bad, which can make us automatically look for excuses to defend ourselves. Excuses prevent us from identifying our own input in what happened, learning from it, and moving on with some new tools in our toolkits. So, start by rephrasing that as "taking responsibility for your actions".

Analyse the situation by asking yourself a few questions:

- What did I do well today?
- What did I do that didn't have such good results?

- What can I learn and improve on from this experience?
- What is my strategy for managing this if it happens again?

Resilience

DEFINITION | *the capacity to withstand or to recover quickly from difficulties; the ability of a substance or object to spring back into shape; elasticity.*

Without difficulty there would be no resilience. We all experience stress and setbacks at times in life, but it's the comeback that counts. Resilience is the ability to adapt and 'bounce back' during or after something difficult and return to feeling as good as, or even better than before, because we have also learned from the difficult experience. You become resilient when you develop internal strength, and not by relying on an external protective shell.

Resilience isn't something you're born with, and you can work on developing it. In a stressful and difficult experience, you can develop your resilience by:

Don't mistake resilience for any of the following. You **don't** need these:

- **Toxic positivity** - being falsely and excessively positive when things are really bad. This kind of denial won't help you to actually deal with the situation and move through it
- **Gritting your teeth** – resilience is about elasticity and solving problems, not just hanging in there and hoping it will all blow over
- **"Just get over it"** – resilience is not about denying your feelings, but about taking care of yourself through a difficult situation so you can be stronger and wiser next time
- **Suffering in silence** – know when you need help and ask for it. Resilience is about having healthy coping strategies

Think of a 'cue' you might use when you make a mistake, to help you move on from it.

Try practicing using it and see if it helps!

If you make a mistake, analyse the mistake and taking responsibility to improve - use the following questions:

What did I do well today?

What did I do that didn't have such good results?

What can I learn and improve on from this experience?

What is my strategy for managing this if it happens again?

GOAL SETTING

Goal setting is one of the most important and effective strategies we can implement for success in any activity, personal or professional, including competitive sport. Goal setting helps you focus on what is important, puts you in control, and reinforces your commitment and confidence. It's an essential part of your self-management toolkit.

Big dreams and goals can sometimes seem far away and unreachable, no matter how much you desire them. That can make you feel like you'll never get there, or what you're doing now doesn't really make much difference. But that's the whole point of goal setting – we work out what we need to do or achieve to reach that big dream, and break it down into smaller, more manageable steps, each of which moves you closer to where you want to be.

Goal setting gives you a clear direction both in the short term and the long term. You get the rewarding feeling of success as you achieve each short term goal, and this really helps keep you focused and motivated.

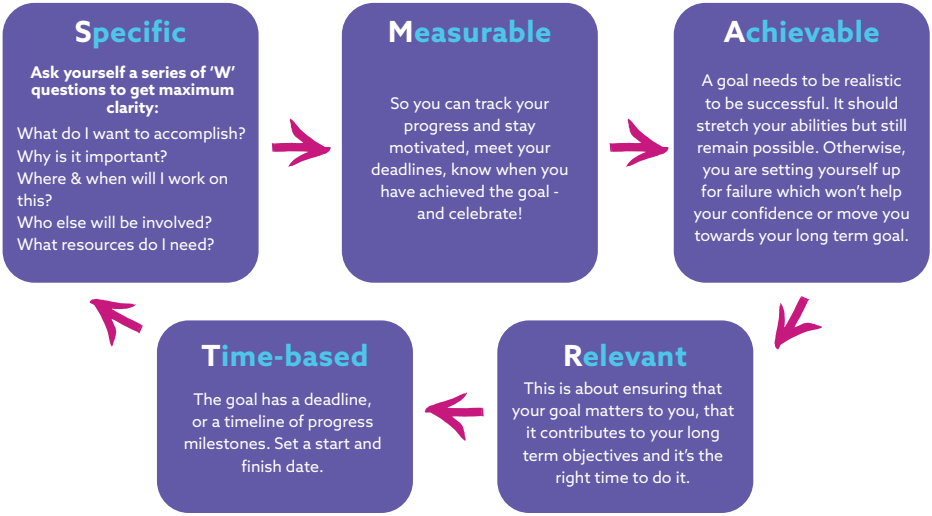
Writing a goal plan

Work backwards to break the big picture down into its component parts. Write down your long term goal, and then all the medium term goals you need to complete before you can achieve it. For each medium term goal, write down all the short term goals you can think of to achieve it. Short term goals are actionable - you can do them now, or soon, and take control of the situation.

- A collection of short term goals join together to achieve a medium term goal
- A collection of medium term goals combine to achieve your ultimate long term goal

SMART Planning

Setting SMART goals makes you really think about your objectives and clarify your ideas. This approach optimises your use of time and resources and gives you direction. When setting your goals, it is important that each one is:



Know your long term goals, but focus and act on your short term goals!

Revisit the goals you set in your IDP. Are they SMART?

If not, then have a go at writing them again and apply the SMART principle for the best results!

PRE-PERFORMANCE ROUTINES:
Mental Preparation (a warm up for your mind!)

A pre-performance routine is essential preparation for driving. A routine should include both physical (already covered) and mental preparation, so you go on track with a warmed-up body and a clear, focused mindset. Develop a personalised routine that works for you, considering where and when you will be able to do it, making sure you have enough time before you have to actually get in the car.

Here are some focus exercises to experiment with as part of your routine. Try them and find the one that works best for you. If you've never done any focus techniques before, start with the first, most simple breathing technique to gain familiarity with breath focus work.

The more you practice a mental technique, the more effective it becomes – remember that practice makes perfect, so find 5 minutes to practice your focusing technique every day, and not only on race days. Daily practice will make the technique a powerful part of your toolkit that helps you quickly enter into a state of mental clarity and focus when needed.

Breathing Technique

(bitesize version from the 'Focus' technique described earlier)

1 Breath Focus

Close your eyes.

Start by breathing deeply and slowly, noticing the air entering and leaving your body.

Don't force your breath; let it be as natural as possible.

2 Relaxation

Every time you exhale, imagine releasing not only the air but also any unnecessary thoughts, worries and anxiety.

Feel your mind freeing itself from any pressure in this moment.

3 Conclusion

Before finishing, take a few deeper breaths, feeling how your body and mind have become lighter and freer from tension.

Slowly bring your attention back to your surroundings, maintaining a sense of calm and relaxation.

Breath & Body Technique

1 Breath Focus

Close your eyes and begin to breathe slowly, focusing on the flow of air entering and leaving the body. Each inhale and exhale should be smooth and regular, aim to relax with every exhale.

2 Body Connection

Now direct your attention to one part of the body.

Mentally explore this body part – what is its position, can you feel any tension or sensations?

Release all tension with the exhale.

You can focus on a different body part each time you practice this technique, or move your attention slowly across multiple body parts in one practice.

3 Return to Focus

If you notice that your mind has wandered, take note of it without frustration and calmly bring your focus back to the body part.

Sound-based Technique

1

Initial Focus

Find a place where you can sit down, close your eyes and bring your attention to your breathing.

Relax as much as possible, releasing muscle tension.

2

Active Listening

Now shift your attention to a specific sound in the environment.

Focus on it, without straining but trying to isolate it as much as possible from the other sounds around you.

3

Return to Focus

If a thought should arise and you notice that you have become distracted, take note of it without frustration and calmly return to listening to the sound.

4

Conclusion

End the exercise by bringing your attention back to your body and breath, then slowly open your eyes.

Diaphragmatic Breathing

Diaphragmatic breathing has many benefits:

1

It helps you relax, reducing the harmful effects of the stress hormone cortisol on your body.

2

It helps you focus, reducing the intrusive thoughts in your head, which are usually irrelevant or negative anyway.

3

It lowers your heart rate and blood pressure.

4

It increases the amount of oxygen in your blood.

5

It helps to manage anxiety, nerves or anger.

Diaphragmatic Breathing

You may find it a bit difficult or strange at first, but the more you practice it, the easier it will be to use it whenever you need, so find a regular time to practice diaphragmatic breathing for 10 minutes each day. This could be when you are in bed, and in fact it's a great way to relax before sleeping, or equally when you wake up to start the day with a calm mind and an oxygen boost. Multiple short practices are also beneficial, anytime and anywhere. The important thing is to make it a familiar way of breathing and keep it in your toolkit, ready for use when needed.

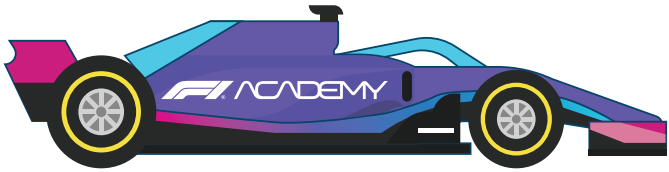
How To Do It

For your daily practice, find a quiet place where you won't be disturbed, and close your eyes. It's generally easier to practice lying down when you're first learning how to breathe with your diaphragm. Then, once you've got the hang of it, you can practice while sitting in a chair.

- First, to feel how you usually breathe, put one hand on your upper chest and one on your bellybutton. Breathe slowly through your nose and feel how the hand on your chest rises and falls with each breath. This is thoracic breathing.
- Now, continue to breathe through your nose but as you inhale send the air down to the hand on your bellybutton so that your stomach moves out, causing that hand to rise. The hand on your chest should now remain as still as possible.
- If you're lying down, you can imagine your stomach as an ocean and your bellybutton hand as a boat - each breath is a wave that makes the boat rise and fall on the ocean. Make the wave rise as high as you can, and fall as low as possible by gently pulling your stomach muscles in.
- You can count slowly in your head as you breathe – IN for 4 counts, and OUT for 4 counts. This will also keep you focused if your mind starts to wander.

Waiting To Race

Diaphragmatic breathing can intervene quickly on stress and anxiety and, because it is so effective, it's a particularly powerful ally when you are in the car and waiting in parc fermé. This stationary waiting time can be quite difficult to manage - pressure, nerves and anxiety are at their highest, you're surrounded by external distractions, and your mind can start racing away before you do, with all sorts of irrelevant or negative thoughts about what might or might not happen in the race. Use diaphragmatic breathing to bring yourself 'back to centre', staying calm, clear and focused on what you need to do. You'll also get the physical benefits of lower heart rate and blood pressure, and increased oxygen in your blood just when you need it.



Try out some of the different mental warm up techniques. Keep a log of what you have tried, what worked for you and if/when you might use them:

Technique:

Did it work for you?

When might you use it?

Technique:

Did it work for you?

When might you use it?

Technique:

Did it work for you?

When might you use it?

FOR MORE INFORMATION

The services that Formula Medicine can provide to support your physical and mental development in motorsport, include:

- **Driver Assessments**
- **Mental and Athletic Training**
- **Driver Development Programs**
- **Medical Check ups**
- **Trackside Support Services**

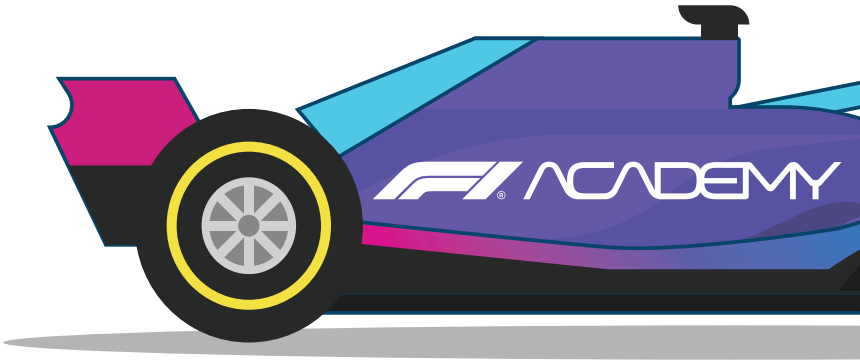
Please visit:

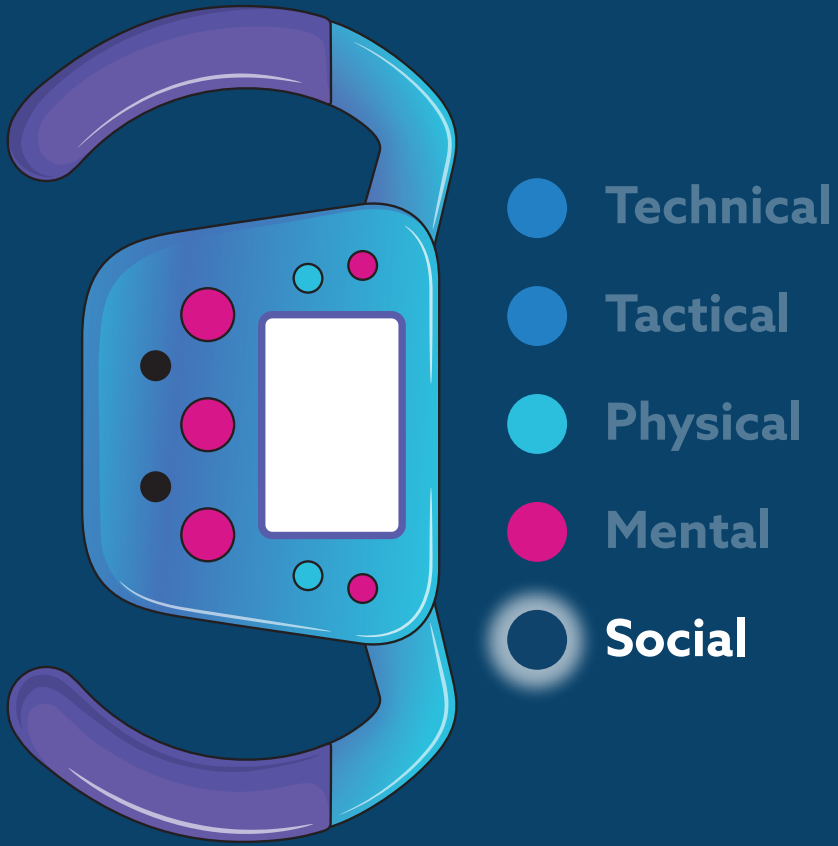
https://formulamedicine.com/

For prospective F1 ACADEMY participants, please contact:

info@formulamedicine.com

The strongest force on track is the power of your mind! Every decision, every overtake, every comeback begins in the mind. Turn pressure into performance by mastering your mental skills.




Technical
Tactical
Physical
Mental
Social

SOCIAL FACTORS & PERFORMANCE LIFESTYLE

06

As we know, success isn't just about driving fast. It's about being a well-rounded person, both on and off the track. This section will explore the importance of developing all areas of your life, from education and life skills to personal development and wellbeing. As you progress in your career, the external pressures will increase, so it's important to learn how to manage your time, deal with stress, and maintain a healthy sport/life balance.

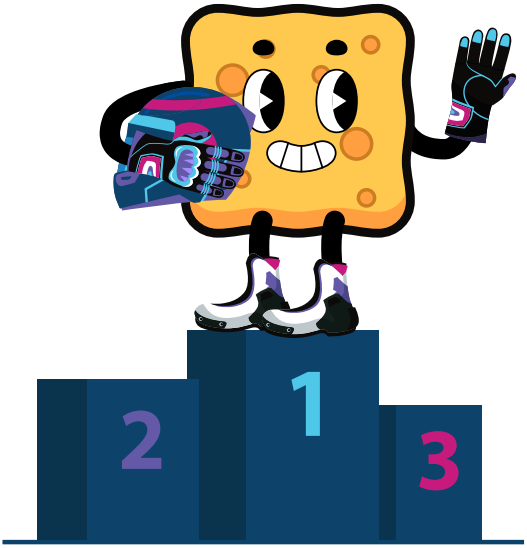
Coachability

Everything we have described in this resource so far can only help you if you are willing to take taking responsibility for your own development. This means being coachable. So, what does being coachable actually mean?

Think of being coachable, as being a sponge. A sponge absorbs water, a coachable driver absorbs feedback and information, retains it and uses it when its needed.

When you are being given feedback by the coaches and experts around you, being coachable might include:

- Always tries hard and puts in effort
- Applying what you've been taught and implementing into training and performance
- Not taking feedback as criticism
- Not taking things personally
- Responding positively by listening, taking on information and making improvements in your next session



Someone who is un-coachable might:

- Become Defensive When Receiving Feedback
- Not Listen Properly
- Give Up Easily
- Have a Negative Attitude

Being coachable is not only good for your overall development but it also makes you a more enjoyable person to work with. You will often find that drivers are recommended to teams, partners or sponsors based on what they are like as a person and how well they engage with coaches, engineers and managers. So being coachable won't just make you faster on track, it might also result in more opportunities being presented to you throughout your career.

Match up the statements with coachable/un-coachable:

Draw a line from the statement to the correct word.

Ellie is given some feedback about a problem corner and her coach has asked her to try a different braking technique on her next few laps. She becomes a bit argumentative and gives lots of reasons why she won't try this.

Sammie has a race coming up and has never been to the circuit before. Her coach asks her to use a simulator to practice track familiarisation, but she doesn't have one at home. Sammie researches some simulator facilities and finds one near her school. She calls them and books in some sessions after school before her race.

COACHABLE

UN-COACHABLE

Elisa's coach notices that she is struggling with two fast corners in quick succession. She tells Elisa that her technique looks good but perhaps she isn't looking far enough ahead to the next corner. In the next session, her coach asks her to think about looking ahead to the next corner, as soon as she's hit the apex of the first corner. Elisa says she's not sure if this is the reason and thinks she might be braking too early at the first corner, but, she will definitely try it. After the next session, she is nearly a second quicker and told her coach that thinking about her vision set her up well for the next corner and really helped.

Performance Behaviours & Expectations

Just like being coachable, your behaviours, attitude and conduct are essential to your progression throughout your journey. Teams and sponsors want to work with drivers who are respectful, professional and are committed to their development. You will often find in sport that teams select good people above good performances. They want to be associated with athletes who can represent their brand as a positive ambassador and uphold the same values.

It's important to set your own values – these will help to guide you through your sporting journey, help you when things get tough, keep you motivated as well as align with potential sponsors, partners or teams. They describe you as a driver, and represent the way you 'show up' and behave on and off track, online and offline.

Some examples of good sportsperson values are:

RESPECT | PROFESSIONALISM | DETERMINATION
EMBRACING CHALLENGE | BEING KIND

Draw a picture to show your values and how you might demonstrate these.

This could be a diagram, things that are important to you, or a picture of yourself.
For example, you might draw a picture of you wearing a watch (being on time) or with a pen and notepad (prepared for your data session/learning).

Organisation & Time Management

Balancing all of your commitments such as school or college, homework, clubs and other activities or sports, time with friends, family as well as finding time to train on the simulator, in the gym, analysing data and video, and race can be tough!

Having good time management and organisation skills can lead to better performance in all areas of life, including your racing. When drivers are well-organised, they are less likely to make mistakes and more likely to achieve their goals. So, how can you manage this?

Prioritise tasks! Not all tasks are created equal. Some things are more important than others. Prioritise your tasks, whether they are on track or off track related so you can focus on the most important things first.

Use a planner or calendar. This will help you keep track of all your commitments and deadlines.

Break down large tasks into smaller ones. This will make them seem less daunting and more manageable. Don't try to do too much at once.

Reward yourself for your achievements. This will help you stay motivated.

FOR A RACE WEEKEND:

1 Write a kit list

Note down everything you need before you travel in a packing list, including your kit and equipment, any travel documents you might need (depending on the location) and whether you need to take your own lunch or snacks.

Example List

helmet
gloves
boots
race underwear
earphones
towel

equipment for warm ups or downtime:
–tennis balls
–book
–games
chargers

travel adaptor
pen & notepad
bank cards/cash
snacks and/or pre-made lunches
water bottle

trainers
training gym gear
clothing
hat
sunglasses
waterproofs

2 Pack your own bag

If you've packed your bag yourself, you know exactly what is in there and you are taking responsibility for it. If it helps, you can double check everything with a parent or guardian. Do this all in advance to save the stress of rushing and forgetting anything.

3 Look at the schedule

Know the schedule in advance. Make sure you know what is happening, and when.

4 Set reminders

If you're on time, you're late! Always be a few minutes early – this will give you some flexibility if something unexpected happens, you could use an alarm on your phone or watch to help.

Write a list of everything you need to do this week.

Now have a go at prioritising them; put the most important thing at the top and least important at the bottom.

Task list this week:

Prioritisation:

HIGH

MEDIUM

LOW

DRIVERS WHO ARE BETTER ORGANISED, MAKE LESS MISTAKES AND ARE MORE LIKELY TO SUCCEED

Take a look at Maya Weug's calendar this week

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
Travel to gym	Travel to Team factory	Cycling Session	Travel to race: 3 hours flight
Gym Session	Simulator session: preparation for next race		
Travel to sponsor meeting	Travel to gym	Follow up meeting with sponsor (online)	Q&A with local school
Sponsor meeting Pitching for 2026 sponsorship	Gym Session		Drivers Briefing
Travel to team factory	Travel Home		
Meeting with Engineer Debrief from last race			
Travel Home			

What do you think she might need to organise and when will she need to do it?

FRIDAY	SATURDAY	SUNDAY
	Practice session	Race 1
Media and partner activation commitments		
	Media and partner activation commitment	Race 2
Practice Session		
	Qualifying	Travel home late night flight
Networking Event		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Communication

You need to own this!

Excellent two-way communication is essential for an aspiring racing driver. A desired attribute of an elite athlete is self-reliance, so this is an important factor to develop. As a driver you'll be expected to take responsibility for communicating with a variety of different people around you, in an appropriate way and in a timely manner.

If you can communicate promptly and politely this will help you to build relationships as you progress through your career.

Written communication, such as email, is a great way to stay connected with coaches, teams and partners.

If you are a minor (under 18 years of age), then it is recommended that you keep your parents or guardians copied into any written communication, and ask them to send any other types of messages (such as WhatsApps or Direct Messages) on your behalf.

If you receive any communication directly from an adult and/or someone that you don't know, you should always inform your parents or guardians and get them to check in and then reply on your behalf.

Tips for good communication:

- **Listen Actively**

  Pay attention and ask questions if you can (this shows you are interested in the conversation)

- **Eye Contact (if you can)**

  Maintaining good eye contact shows people that you are engaged in what they are saying

- **Speak Clearly**

  Try not to cover your mouth, mumble, or speak quietly – this shows confidence and maturity

- **Be Polite & Check Your Spelling**

  Avoid using slang or emojis. Good grammar and spelling will look more professional.

- **Be Concise**

  Avoid any unnecessary information and be clear with what you are trying to say.

- **Thank the sender for their email**

  This is a good way to show your appreciation.

Email Practice

Jayne is a 14 year old karter who has received an email from a management company, below.

Can you help her with writing a reply? When would you send it and who would you include?

Sample Email x

From: eliteracing@poleposition.com
RE: Management Agency

Dear Jayne,

I hope you are well.

I am contacting you from the Elite Racing department at 'Pole Position Management Agency'. We have been following your progress and have noticed you are looking for opportunities to step into single seater racing from karting.

We have a long history of developing elite racing drivers, supporting them all the way to F1® and we are confident we can help you to achieve your goals. It would be great to discuss our packages with you and how we can help. Would you be interested in a discussion?

I look forward to hearing from you.

Miles A Head.

Practice Your Reply x

To:

Cc:

RE: Management Agency

Scheduled Send for: ____:____ AM/PM SEND

circle one

Media & Interview Techniques

Your motorsport journey will be well documented across various media platforms and during your time as a driver, you will very likely be interviewed at some point – whether that is live or pre-recorded. This might not only be when things go well, but also when things don't quite go to plan.

You should be prepared to talk in front of a camera or to a journalist and practice this as much as possible. Once you get to the top – speaking to the media will feature regularly in your schedule. It can feel a bit daunting at first, but once you get used to it and it becomes more natural it gets a lot easier!

Here are some tips for you to think about when being interviewed:

BE YOURSELF!

Your audience will be more engaged if you show personality and tell your story, rather than pre-rehearsed "offical" lines, That's not to say you cant have some go-to answers, but really listen to the question.

BREATHE

Dont be afraid to pause, take a breathe and give yourself time - especially if you've been asked a difficult question.

MAKE FRIENDS

Introduce yourself to the interviewer and the crew. If you're friendly and engaging, they're more likely to help you out - especially if you need them to edit something out.

ASK QUESTIONS

Ask for the questions in advance if you can - this will help you prepare and find out how they will approach the interview.

You can always ask them to repeat the question during the interview to give yourself more time to think.

YOUR AGENDA

Always think about what you want to get across. Is it thanking your sponsors? Is it promoting your next race? Is it something you're doing outside of racing?

KEEP CALM

Dont get drawn into an argument or commenting something you do not understand, or are not comfortable with. It's okay to say you don't want to comment on something, and move on.

As you begin to progress to higher levels, it's a good idea to engage with some professional media training to help you refine your techniques, and build your confidence.
In the meantime, have a go at the following task.

Interview Practice

Write down some common questions you might get asked in an interview in different scenarios:

Before a big race where you're a favourite for a podium:

After a race where another competitor crashed into you and ruined your race weekend:

After testing where you topped the time sheets:

Before a race weekend, following a previous weekend where you had mechanical failures and the team were not able to fix it in time:

Camera Practice

Now ask your family members, friends or teachers to practice asking you these. Set up a camera if you can and watch your interviews back. You will learn a lot from analysing your interview, just like when you review your on-boards! Look at things like your body language, how you stand, where you're looking, what you say, and how you say it (tone, volume).

Social Media

Social media is a great way to stay connected with your friends, family, sponsors and supporters when it is used in the right way. However, it's important to be aware of the potential risks and negative impact social media can have.

Here are some Do's and Don'ts to be aware of:

Do	Don't
Use social media to support your racing profile. It's a simple and cost-effective way to get your messages across and to connect with the public and the media.	Don't overshare – protect your privacy and don't share personal information, such as your home address or phone number. You might want to consider a separate personal account for close friends and family.
Think before you post - once something is online, it's difficult to take it back. Think about how your post might be perceived by others, and whether it could be used against you.	Don't post anything that is unkind, hurtful, or offensive. Anything you write becomes 'public' property for many years to some and reflects on you, your team, sponsors and partners.
Be respectful of others and maintain a professional image.	Don't engage in arguments or negative comments. Remove them and report it if necessary.
Use social media to connect with other athletes. Follow other athletes in your sport, and use social media to share your own achievements.	Don't spend too much time on social media – set daily time limits to help, take breaks and be present when in person. Being on your phone too much can come across rude and distracting, especially when you're in company or at a race.
Use social media to learn about motorsport. Follow sports news accounts and watch videos of others competing.	Don't meet up with someone you've only met online. It's important to be careful about who you talk to online – not everyone is who they say they are.
Express yourself and your personality. Who are you when you're not racing? You can share your photos, videos, and writing with others.	Don't share your teams' secrets or sensitive content. Sharing technical details like close up photos of your setups or telemetry sheets won't be appreciated.
Show what it takes behind the scenes – it takes commitment, determination, skill and preparation. Keep your audience interested and show the human and lifestyle side of the sport, rather than just photos of your car or the track.	Don't accept harassment or bullying. If you're being cyberbullied or being harassed online, tell a trusted adult and report it to the social media platform.

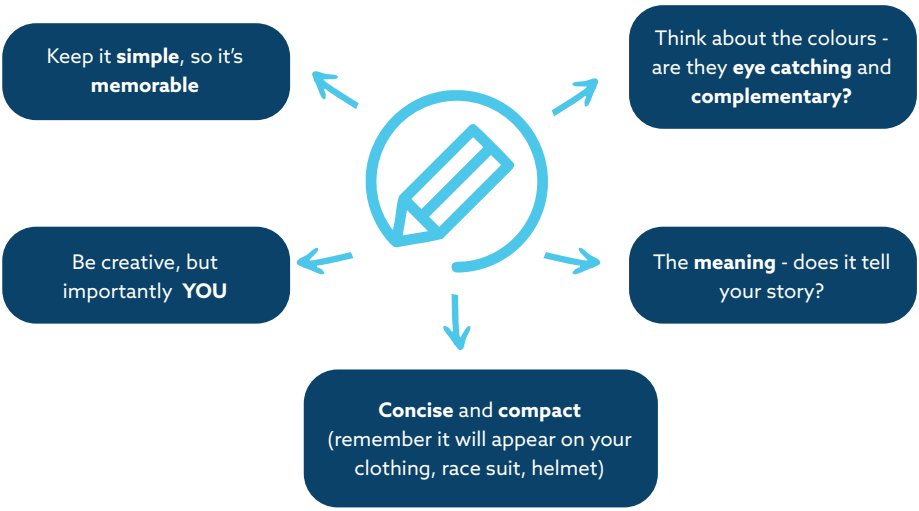
Social Media

Having a strong personal brand is an important part of being a successful racing driver. It not only gives you a professional appearance, but it also helps with:

- Leveraging and activating sponsorship – helping you to stand out
- Portraying your values, personality and your story
- Increasing effectiveness of your online presence
- Building a fan base – this can be valuable for lots of reasons, such as increasing social media engagement

Here are two examples of F1 ACADEMY™ drivers' brands

When creating your logo think about:



Your Personal Brand

You don't have to be a graphic designer to create a logo, you can use some handy tools to create a logo such as:

Canva | Adobe Express | Google | Markmaker

Funding Your Future

Now you've got your own brand, it's time to look for some sponsors! Attracting and maintaining sponsors is an important element of being a racing driver. Whether that is finding them yourself, or being able to engage, communicate and network with sponsors if you have someone doing this for you.

Take A Look At F1 ACADEMY's 5 Steps To Funding Your Future:

1 Identify & Analyse

- Work out what you need – is it money or products (e.g. tyres, helmet).
- Think about what you can offer – is it hospitality? Tickets? Social media posts?
- Analyse potential partners – and start local! Who is operating in this space, can you offer them something different, how will they benefit?

2 Research & Networking

- Attend industry events, connect with people on social media, and reach out to companies that you think would be a good fit.
- Identify the right person at the company you are interested in – for example, use LinkedIn and search for their contact details.

3 Create A Proposal

- This should be bespoke to the company you are pitching to – tailor it to their objectives, target audience and values.
- Outline your value and how you can benefit the company.
- Be unique – what can you offer that others can't.
- Incorporate your racing history, your goals, and your values – and where there is alignment with the company.

4 Make A Contract

- Make sure anything agreed is in writing – not just a handshake!
- Include the length of the deal, the fee and the exact details.
- Use a template if you need to – there are examples online.

5 Over – Deliver & Retain

- It's much easier to keep a sponsor than to find a new one, so if you can, give them more than you promised! E.g inviting them to an extra event.
- Give them regular updates about your progress such as race reports.
- Provide them with reports on the partnership to show them the return on their investment with you – for example, ask your championship for data such as number of live feed views or social media analytics.

Attracting sponsorship is not easy and it can be a challenging process. It takes time, effort and dedication – you might contact 100 companies and only get 1 reply so you have to be willing to put in the work.

Have a go at creating a Sponsorship Proposal

Think about the questions below to help.

What is the company?

Who are their target audience?

Who is the best person to contact – can you find their details?

What is important to the company (what are their values)?

What are you asking for from them? How much / what products?

Who are you – what's your story?

What achievements or results can you share?

What is your brand?

What are you offering them in return?

What is your unique selling point?

The Art of Networking

"You can only make a first impression, once"

You never know when an opportunity might arise, it might be when you first meet someone, or it might be in four years time. Either way, a coach, team manager, scout or sponsor will always remember your first interaction with them.
Networking is a great way to make connections with people who can help you achieve your goals. It's about building relationships with people who share your interests and who can help you learn and grow.

When meeting people, and especially for the first time:

- **Be professional and prepared.** Always be on time and be prepared to talk about your goals and ambitions. What do you want to achieve in motorsport? What are you working on to improve your skills?
- **Be yourself.** People can tell when you're being fake and it's hard to keep that up, so just be yourself – you'll feel a lot more relaxed.
- **Be positive and enthusiastic.** People are more likely to want to talk to someone who is positive and is enjoying their sport.
- **Be a good listener.** Ask questions, listen to the answers, and show that you're interested in what the other person has to say.
- **Be grateful for the opportunity to network.** Thank the people you meet for their time and for their advice.

To help with networking, it's a great idea to have an 'Elevator Pitch'.

What is an Elevator Pitch?

Imagine this.... you've just stepped into the elevator of a hotel, and just before the doors close, the Sponsorship Manager for Puma Motorsport steps in. You've got a 30 second opportunity to speak to her... what do you say?

An Elevator Pitch should be a 30 second speech that you could give to anyone to sell yourself. This is so important because you can meet a sponsor anywhere and you need to be ready to impress. Remember, ***"You can only make a first impression, once"***.

Of course, it doesn't have to be in an elevator it could be at an event, in the gym or at a restaurant - wherever it is you still need to be able to do it confidently.

So, what should be in it?

Introduction – who you are, your age, what you do

Something interesting – about your racing achievements

A memorable closing comment – such as your dream goal

How they can follow you – for example, your professional social media page

Write your own Elevator Pitch

Now practice this in front of your family, friends or coaches until you have perfected it! You'll now be prepared to use this next time you meet someone new!

practice!

Managing a Performance Lifestyle

For a racing driver, performance lifestyle is about taking care of yourself and having the tools and support so you can perform at your best on the track as well as in your personal life.

Some of the key factors to think about to manage a Performance Lifestyle are:

Personal development

This is about becoming the best version of yourself, both on and off the track. This means:

- Thinking about, and making time for, your education, career or continued learning outside of racing and professional development. Sometimes this is called a 'dual career'
- Making time for interest and passions outside of racing – this can really help you to maintain balance

---

Of the phrases below, circle which ones you think are a BENEFIT of Personal Development and a dual-career

(vs those which are a CHALLENGE – leave these blank)

Juggling Logistics

Managing Expectations

Creates Balanced Lifestyle

Expands Social Network

Demands On Time

Prepares Me For Later Life

Develops Transferable Skills

Conflicts Between Commitments

Hopefully you can see that the benefits outweigh the challenges but it is good to be aware of these to help with time management and prioritisation.

Lifestyle management

This includes managing your time, balancing priorities, maintaining relationships. It's about creating a healthy and balanced lifestyle that supports your racing career. This means:

- Planning what you need to do vs what you have been asked to do. Learning to, and being confident to, say 'no' (in an appropriate way) in order to manage time and stress.
- Knowing when to prioritise training and competition – self discipline.
- Making time for socialising with friends, self care and rest. Your racing career will demand a lot of your time and energy and you will have to make compromises but it's really important to maintain relationships with your friends and family.
- Asking for help if you need it.

Write down how you think you can maintain a balanced lifestyle

For example, protecting time in your diary regularly to organise a catch up with your friends.

Managing transitions

This includes preparing for key transitions throughout your career. This means:

- Identifying key transitions (for example, competition or discipline, junior to senior, education or career, age, sponsorship level, living circumstances)
- Developing strategies to cope with these and support the transition

Make a Transition Plan

To help you manage transitions, it's a good idea to plan for them. Have a go at identifying some key transitions that you might face. Think about what support you might need, what you might need to know or learn before it happens and what challenges you might face. Finally, write down what strategies you will use to manage it.

Your Transition Plan:

What is the transition?

What support will I need?

What do I need to know or learn?

What challenges will I face?

What management strategies will I use?

Wellbeing

This includes taking care of your physical and mental health. It's about awareness of stressors, educating yourself on signs of poor mental health and utilising your support network. This means:

- Knowing what makes you feel good – managing your downtime and doing things you enjoy
- Giving yourself a break / allowing yourself to switch off
- Planning something in the future to look forward to
- Knowing who is around you – who you go to for support if you're not feeling yourself

Make yourself a wellbeing plan by finishing the following sentences:

Things that make me feel good are.....

Things that help me switch off are.....

People that I can talk to are.....

Something to look forward to is.....

Managing Your Career – 'Do I Need An Agent/Manager?'

Having a manager or agent can be helpful in motorsport, but it's not always necessary. It really depends on your individual goals and needs. You might also have a family member who acts in this role already.

HERE ARE SOME THINGS TO CONSIDER:

What stage of your career are you at? If you're just starting out, you may not need a manager or agent yet. You can focus on building your skills and experience and networking with people in the industry.

What are your goals? If you're aiming for the top level of motorsport, having a manager or agent can be helpful in securing sponsorships, negotiating contracts, and managing your media and public relations.

How much time and energy do you (or your family) have to manage your career? If you're already busy with racing and other commitments, a manager or agent can take some of the burden off you. If you decide to get a manager or agent, here are some things to look for:

Experience: Look for someone who has experience working with racing drivers. They should have a good understanding of the industry and know how to help you achieve your goals.

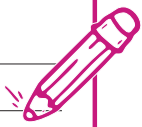
Reputation: Ask around and see what other people think of the manager or agent. Do they have a good reputation for being honest, reliable, and professional? Have they had previous credible successes? What does their portfolio of drivers or other athletes look like?

Rapport: It's important to have a good relationship with your manager or agent. You should be able to communicate openly and honestly with your manager or agent. They should be able to give you honest feedback and advice. You should feel comfortable working with them and trust their judgment.

Ultimately, the decision of whether or not to get a manager or agent is up to you. There is no right or wrong answer. Just weigh the pros and cons and make the decision that's best for you.

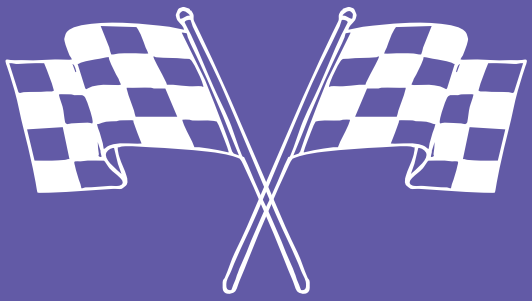
Do I need a manager?
Write a list of why you might need a manager vs why you might not. This may help you to come to a decision.

REASONS FOR	REASONS AGAINST



"THERE'S NO RIGHT OR WRONG ANSWER, MAKE A DECISION THAT'S BEST FOR YOU"


PULLING
BELL
HELMETS
BWT



This guide has covered many areas of performance and development to support prospective F1 ACADEMY drivers.

We hope this information will be useful to you as you continue your motorsport journey.

Keep a look out for the virtual F1 ACADEMY development workshops where we'll cover some of this content in more detail with specialists and industry experts.

We wish you all the best in your future endeavours and hope to see you on the F1 ACADEMY grid in the future!

For enquiries, please contact :
development@f1ACADEMY.com

ACKNOWLEDGEMENTS

The creation of this F1 ACADEMY Driver Development Guide was made possible through the invaluable contributions of several key individuals and organisations. In particular we extend our thanks to:

Scott Mansell - Founder of Driver 61, for his expertise in technical driver coaching and performance analysis, which has significantly shaped the driving technique and tactical sections of this resource. Specifically contributing to the following sub sections: Technical: the racing line, corner phases, throttle & acceleration, braking, steering, vision; and Tactical: tyre management, car setup, track walks, making the most of a test day, preparing for on track performance.

Riccardo Ceccarelli, Zara Nelson and the team at Formula Medicine for their contributions in the field of physical development and mental performance which have been vital in ensuring a holistic approach to driver development within this guide. Including content on the following topics: Physical Development: physical training fundamentals, periodisation, pre-performance routines, variation, sleep matters, nutrition & hydration; and Mental Skills Development: the psychology of competitive sport, mental training fundamentals; self awareness, focus and managing mistakes & emotions, goal setting, pre performance routines.

Baz Moffat, Dr. Emma Ross and The Well HQ team for leading the way in Female Athlete Health, ensuring the guide addresses and supports the unique physiological and performance considerations of female drivers. This specifically includes information on the menstrual cycle and its phases, managing symptoms, tracking, understanding and controlling it, period management and micronutrients for your cycle.

Finally, we would also like to acknowledge the F1 ACADEMY team for their dedication and support throughout the creation of this body of research.


Red Bull
Ford
VISA
Cash App
Red Bull
Pepe Jeans

BLANK WORK PAGES

SECTION 1
ME & MY PERFORMANCE

NAME:

AGE:

THIS YEAR I'M RACING IN:

NEXT YEAR I WANT TO RACE IN:

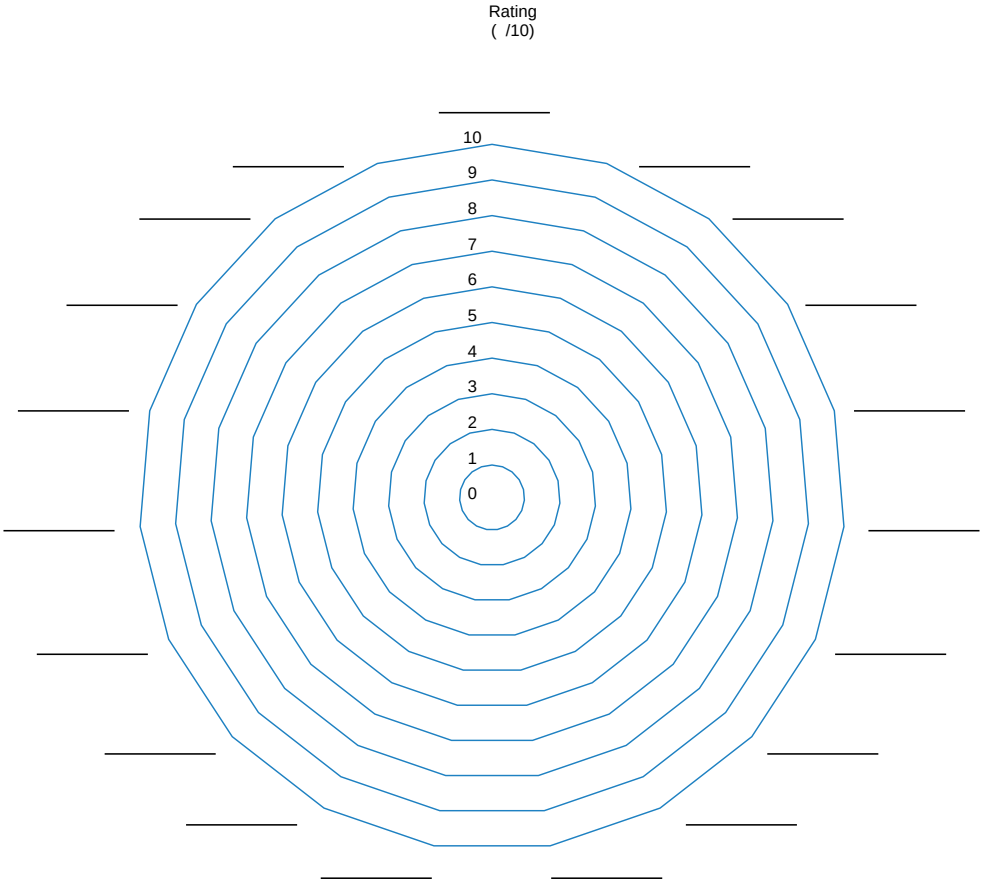
MY BIGGEST STRENGTH IS:

I'M AT MY BEST WHEN:	**I'M AT MY WORST WHEN:**
THINGS THAT HELP MY PERFORMANCE:	**THINGS THAT HINDER MY PERFORMANCE:**

SECTION 2

MY PERFORMANCE PROFILE

Using the profile sheet, use the table to rate yourself on each factor out of 10. Then, plot your scores on the graph to create a visual profile.



Rating:

1 = I'm finding it hard | **5** = I'm doing ok! | **10** = I'm doing really great!

PERFORMANCE AREA	PERFORMANCE FACTORS	RATING	NOTES/ EXAMPLES
TECHNICAL & TACTICAL			
PHYSICAL			
MENTAL			
SOCIAL			

SECTION 3

MY ACTION PLAN

Pick some performance factors that you'd like to develop, including your two lowest scoring and analyse them in greater detail using the questions below.

YOUR PERFORMANCE PROFILE ANALYSIS

	WHY DID I CHOOSE THIS RATING:	HOW WILL I WORK AT IT?	WHAT SUPPORT DO I NEED?

This will help you to create some goals and actions on how you might develop them, as well as how they might support your medium and long term ambitions and goals:

YOUR GOAL ANALYSIS

MY GOALS	MY ACTIONS	DEADLINE
SHORT TERM (PERFORMANCE PROFILE)		
MEDIUM TERM (MY AMBITIONS)		
LONG TERM (MY ULTIMATE GOAL)		

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Your Track Walk Checklist

Your Test Day Plan

Name	Date
Age	Circuit
Session Overview	Session Objectives

SESSION	FOCUS AREA
Session 1	
Break	
Session 2	
Break	
Session 3	
Break	
Session 4	
Debrief	

Testing Notes

Your Test Day Plan

Name	Date
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Testing Notes

Pre-Performance Activation

The intensity should increase as you near to the session and match the intensity you are expecting to compete at

1 Circuit
No rest

General joint mobility	Shoulders 45″	Shoulders 45″	Forearms wrists, hands 45″	Ankles 45″	Neck 45″
Injury prevention with elastic	Internal rotators 15 R + 15 L	External rotators 15 R + 15 L	Row (bent over or with anchor) 20	Overhead open arms 20	Chest open arms 20
Neck	3″ push against resistance 15 R + 15 L + 15 rear				
Whole Body	Squat with band 15				
Cardio 1		Run on spot 20″	Jumping jack 20″	Burpees 20″	
Cardio 1		Rope jump 1′			

increase intensity

Design your own pre-performance warm up routine:

Keep a food diary for a normal week which includes training.

Take a look at what you are eating and drinking. Is this enough, is it balanced? Is it the right type of foods? If not, practice making a meal plan for the next time you race.

Week Type: Regular

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Today's activities or exercise							
Breakfast							
Lunch							
Dinner							
Snacks							
Drinks							

Notes:

Keep a food diary for a race week.

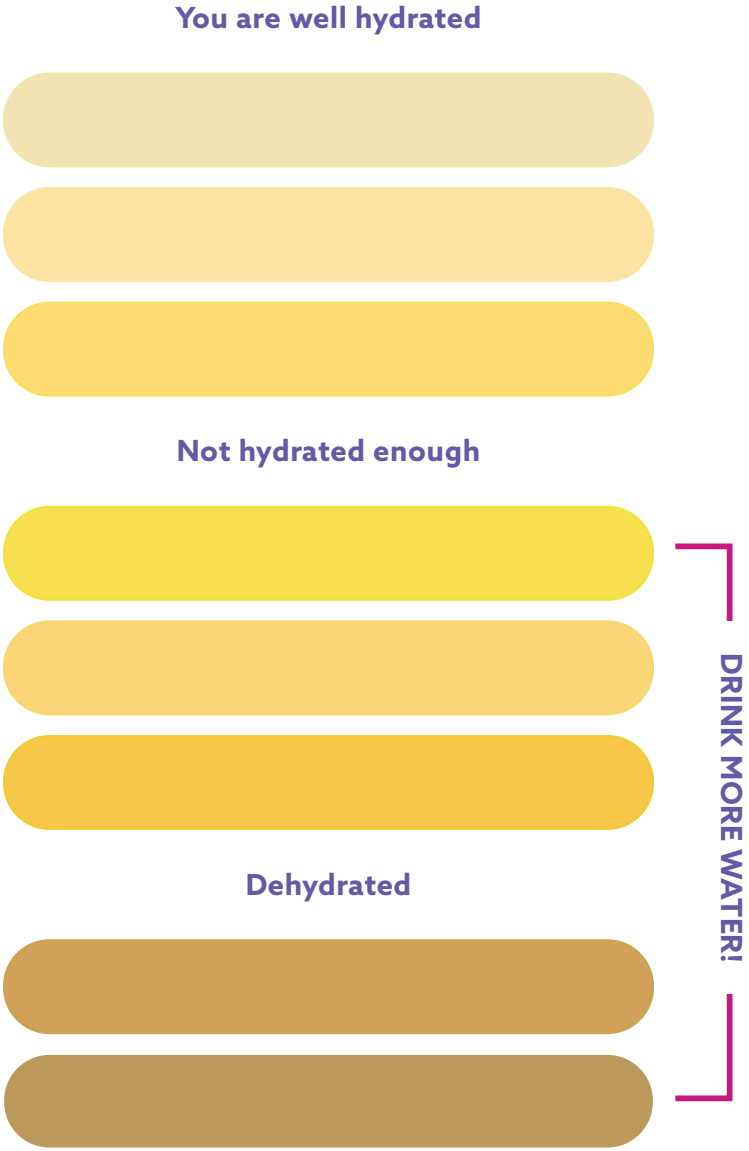
Take a look at what you are eating and drinking. Is this enough, is it balanced? Is it the right type of foods? If not, practice making a meal plan for the next time you race.

Week Type: Race

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Today's activities or exercise							
Breakfast							
Lunch							
Dinner							
Snacks							
Drinks							

Notes:

REMEMBER TO STAY HYDRATED!



Self-Awareness Questionnaire

I was fully focused on what I was doing, without any irrelevant/distracting/negative thoughts.

1 2 3 4 5 6 7 8 9 10

What thoughts did you notice that distracted you? When did they arise?
What effect did they have? How did you manage them?

I was physically free of any unnecessary muscular tension.

1 2 3 4 5 6 7 8 9 10

If you felt tension in any part of your body, where was it? (shoulders, hands, feet/ankles etc.)

The focusing technique I used in my pre-performance routine was helpful.

1 2 3 4 5 6 7 8 9 10

Which technique did you use? Did you manage to do it properly with enough time in a quiet place? Have you been practicing it every day?

I was able to fully express my potential in this session.

1 2 3 4 5 6 7 8 9 10

Did I reach my goal for this session? (Whether you did or didn't, think about your own approach and your actions, and try to identify how these affected the outcomes.)

How can I improve my next session?

Try out some of the different mental warm up techniques. Keep a log of what you have tried, what worked for you and if/when you might use them:

Technique:

Did it work for you?

When might you use it?

Technique:

Did it work for you?

When might you use it?

Technique:

Did it work for you?

When might you use it?

Write a list of everything you need to do this week.

Now have a go at prioritising them; put the most important thing at the top and least important at the bottom.

Task list this week:

Prioritisation:

HIGH

MEDIUM

LOW

DRIVERS WHO ARE BETTER ORGANISED, MAKE LESS MISTAKES AND ARE MORE LIKELY TO SUCCEED

Interview Practice

Write down some common questions you might get asked in an interview in different scenarios:

Before a big race where you're a favourite for a podium:

After a race where another competitor crashed into you and ruined your race weekend:

After testing where you topped the time sheets:

Before a race weekend, following a previous weekend where you had mechanical failures and the team were not able to fix it in time:

Camera Practice

Now ask your family members, friends or teachers to practice asking you these. Set up a camera if you can and watch your interviews back. You will learn a lot from analysing your interview, just like when you review your on-boards! Look at things like your body language, how you stand, where you're looking, what you say, and how you say it (tone, volume).

Have a go at creating a Sponsorship Proposal

Think about the questions below to help.

What is the company?

Who are their target audience?

Who is the best person to contact – can you find their details?

What is important to the company (what are their values)?

What are you asking for from them? How much / what products?

Who are you – what's your story?

What achievements or results can you share?

What is your brand?

What are you offering them in return?

What is your unique selling point?

Write your own Elevator Pitch

Now practice this in front of your family, friends or coaches until you have perfected it! You'll now be prepared to use this next time you meet someone new!

practice!

Make a Transition Plan

What is the transition?

What support will I need?

What do I need to know or learn?

What challenges will I face?

What management strategies will I use?

Make yourself a wellbeing plan by finishing the following sentences:

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Something to look forward to is.....

Test Day Sample Plan

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Testing Notes

Training Planning Practice

Using the template, practice planning your training across a:

Macro cycle | Meso cycle | Micro cycle

You might need to ask a coach/trainer or parent/guardian to help you work through this.

FORMULAMEDICINE

PHASE	PREPARATION (OFF SEASON)	COMPETITION		RECOVERY & MAINTENANCE	COMPETITION	
MACRO CYCLES	GENERAL & SPORT-SPECIFIC	RACE WEEK	RACE DAYS	BETWEEN RACES	RACE WEEK	RACE DAYS
MESO CYCLES						
MICRO CYCLES			ROUTINE			ROUTINE

FORMULAMEDICINE

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MESO CYCLES						
MICRO CYCLES			ROUTINE			ROUTINE