Formula 1



JELLE GROEN

Physical Demands of Formula 1

- High G-forces experienced during acceleration, braking, and cornering
- Endurance required for races lasting up to two hours
- Weight loss during the race (2-3 kg)
- Mental focus and reaction time under extreme pressure



Explained: Why do F1 drivers get weighted after a race. (2024, March 29). RacingNews365. https://racingnews365.com/why-do-f1-drivers-get-weighed-after-a-race#:~:text=Do%20F1%20drivers%20lose%20weight,due%20to%20the%20extreme%20heat.

Off-Season Preparation

- Specific strength training programs to build
 muscle endurance and core strength
- Cardiovascular conditioning for improved stamina



Keith, P. (2024, April 18). F1 drivers spill their fitness secrets. Red Bull. https://www.redbull.com/int-en/formula-one-drivers-fitness-plans#3-how-do-drivers-get-in-shape-for-the-f1-season

Competition

•Specific training regimes during the racing season

Different circuits -> different trainings
Strength, endurance, reaction time drills to improve overall performance

•Balancing physical workouts with travel and race schedules

Importance of recovery between races

•Mental training techniques to maintain focus and concentration



Special Sport Specific Exercises

- Sim Racing
- Simulate race conditions and maintain sharpness

Why?

- Getting to know the track
- Prepare different scenarios

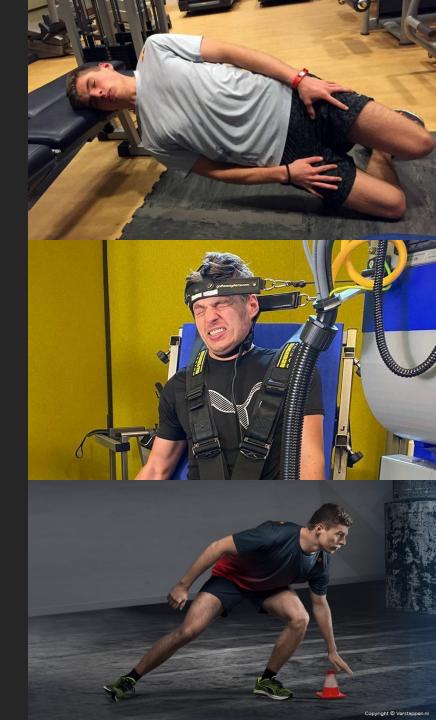


Leporati, G. (2024, January 8). Formula 1 drivers spend hours in a simulator before each race. It can make or break race day. Business Insider. https://www.businessinsider.com/formula-1-simulator-racing-team-alex-albon-williams-2023-11#:~:text=The%20simulator%20is%20particularly%20important,familiarity%20with%20the%20track's%20layout.

Injury Prevention Through Exercise

- Neck strengthening exercises to withstand Gforces
- Core stabilization exercises for improved balance
 and posture
- Flexibility and mobility drills to prevent muscle strains
- Plyometric training to enhance reactive strength and agility
 - Explosive movents, fast twitch muscle activation, better coordination and agility

Lum, D. et al. (2016). Effects of intermittent sprint and plyometric training on endurance running performance. *PubMed*. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6742614/



References

Explained: Why do F1 drivers get weighted after a race. (2024, March 29). RacingNews365. https://racingnews365.com/why-do-f1-drivers-get-weighed-after-a-race#:~:text=Do%20F1%20drivers%20lose%20weight,due%20to%20the%20extreme%20heat.

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