



# MEDICAL GUIDELINES FOR DRIVERS





# TABLE OF CONTENTS

## PRELIMINARY NOTICES AND TERMS

Introduction	4
Disclaimer	4
Limitation & indemnity	4
Governing law & jurisdiction	5

## GUIDANCE MATERIAL

### CARDIOLOGY

Cardiovascular assessment	9
Blood pressure	9
Valvular abnormalities	9
Cardiomyopathy	9
Coronary artery disease	9
Myocardial ischaemia or infarction	9
Rhythm and conduction disturbances	9

### DERMATOLOGY

Acne	10
Eczema and psoriasis	10
Skin cancer	10
Syncope	10
Pacemakers and implanted defibrillators	10
Thromboembolic disorders	10

### GASTROINTESTINAL

Diverticular disease	11
Peptic ulceration	11
Inflammatory bowel disease	11

### GENITOURINARY

Haematuria	11
Chronic renal disease	11
Erectile dysfunction	11
Renal Calculi	11
Renal transplant	11

### HAEMATOLOGY

Abnormal haemoglobin	13
Anaemia	13
Coagulation or haemorrhagic disorders	13
Leukaemia and lymphomas	13

### INFECTIOUS DISEASES

Hepatitis A/B/C	13
HIV	13

### METABOLIC & ENDOCRINOLOGY

Diabetes and abnormal glucose metabolism	14
Obesity	14
Thyroid disease	14

### MENTAL HEALTH

ADHD and ASD	14
Depression and anxiety	14
Psychosis	14

### MUSCULOSKELETAL

Acute injury and recovery	17
Physical disability mechanical or neurological	17

## NEUROLOGY

Dementia or cognitive impairment	17
Epilepsy	17
Head injury	17
Multiple Sclerosis	18
Parkinson's disease	18
Stroke/TIA	18

## OBSTETRICS & GYNAECOLOGY

Gynaecological surgery	19
Pregnancy	19

## ONCOLOGY

Chemotherapy	19
Radiotherapy	19
Surgery	19
Metastatic disease	19

## OTORHINOLARYNGOLOGY (ENT)

Hearing	21
Vestibular disturbance	21

## RESPIRATORY

Asthma	21
Pneumothorax	21
Sarcoidosis	21
Sleep apnoea	21

## VISUAL

Colour vision	22
Correcting lenses and visual acuity	22
Eye surgery	22
Sub-standard vision and visual fields	22

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## INTRODUCTION

1. The Guidelines set out general informational guidance as to how medical conditions may affect the ability to achieve medical fitness to compete and drive in competitions within a motorsport context. This document has no binding regulatory effect and is provided, at the FIA's discretion, to assist National Sporting Authorities ("ASN(s)") and other organisations or individuals (the ASNs and other organisations or individuals together the "Third Party(ies)") involved in granting competition licences for motorsport events ("Motor Sport Event(s)").

2. Use of the Guidelines by any Third Party is strictly driver to the Third Party's acceptance of and agreement to comply with these Preliminary Notices and Terms.

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3. The contents of the Guidelines (including general informational guidance in relation to health and safety, sporting or technical matters) taken in isolation may not be suitable or appropriate for each and every Motor Sport Event (which incorporates all of the following activities i) motor sports competitions, practices, tests, reconnaissance's / "recce's" and demonstrations, ii) any associated entertainment, marketing or commercial activities and iii) any engineering, scrutineering, maintenance or other technical activities, and begins from the time the relevant locations where these activities are taking place are made accessible to any persons, and ends when the relevant locations are closed to access or the activities end, whichever occurs later). This is because the Guidelines are derived from good practice in competitions appearing on the FIA International Sporting Calendar which operate within a regulatory and safety environment that does not apply to Motor Sport Events that do not appear on the FIA International Sporting Calendar.

4. It is the full responsibility of Third Parties to ensure that they understand and comply with any relevant obligations or duties relating to health and safety, product design, construction/ manufacturing or consumer law which are placed on them under i) any applicable National Sporting Authority requirements, regulations and safety standards ("ASN Regulations"), ii) FIA requirements, regulations and safety standards ("FIA Regulations") and/or iii) any relevant transnational, national and/or local laws, regulations, directives and decrees passed by the government, a quasi-governmental entity or by any entity which has the same authority as the government in any applicable country or other territory, including all applicable local, state and federal laws, and any industry practices, codes of practice and/or codes of conduct incorporated into any of the foregoing, and all binding court orders, decrees, and any decisions and/or rulings of any competent authority that are relevant ("Applicable Laws"). The FIA assumes no responsibility in relation to such understanding or compliance.

5. The Guidelines do not contain any advice or guidance in relation to Applicable Laws, and the FIA makes no representation or warranty that the general informational guidance within the Guidelines complies with the Applicable Laws applying to a particular Motor Sport Event. Accordingly, it is the full responsibility of Third Parties to i) take appropriate advice and make their own enquiries as to Applicable Laws and any particular local safety requirements or other relevant considerations applying to a Motor Sport Event and ii) to adapt and implement the Guidelines in a suitable and safe manner depending on the circumstances of the particular Motor Sport Event. The FIA assumes no responsibility in this regard.

6. For the avoidance of any doubt, compliance with the Guidelines in isolation does not guarantee the safety of a particular Motor Sport Event or of the participants to a particular Motor Sport Event.

7. If there is any conflict, or any doubt as to a conflict, between the contents of the Guidelines and Applicable Laws, Applicable Laws always take precedence. If it is possible to comply both with Applicable Laws and the Guidelines (driver to all appropriate adaptations as per paragraph 5), Third Parties should endeavor to do so.

8. The FIA does not make any representation or warranty, express or implied, and does not assume any responsibility as to the quality, suitability or fitness for purpose:

- A. of any equipment, structures, installations, products or facilities that may be referred to within the Guidelines; nor
- B. as to the applicability or suitability of the Guidelines in relation to a particular Motor Sport Event.

9. All Third Parties are made aware that technology utilised in motor sport vehicles, equipment, structures, installations and products is driver to ongoing change and development, as well as good and best practice evolving over time. As a result, the Guidelines are driver to ongoing review and amendment over time.

10. All Third Parties are made aware of the risks that are inherent in the attendance of any person at or within the vicinity of a Motor Sport Event. Depending on the circumstances of the Motor Sport Event, these risks may include (non-exhaustive): the possibility of incidents (resulting from motor sports or otherwise) resulting in physical and/or mental injury or death; exposure to noise; exposure to / interaction with high voltage or other technical / mechanical equipment; or contracting/spreading communicable diseases.

## LIMITATION & INDEMNITY

11. The FIA disclaims, excludes and limits (to the fullest extent permitted under Applicable Laws) any and all claims, liability, costs, expenses, damages, losses (including but not limited to any direct, indirect, incidental, special, consequential or exemplary damages or losses, property damage, breach of intellectual property rights, breach of contract, loss of profit, loss of reputation or goodwill, use, data or other intangible loss, loss of agreements or contracts, loss of sales of business and all interest, penalties and legal costs) and any personal or mental injury (including nervous shock, disease, disablement and death and any financial losses resulting), sustained by any organisation or person (including Third Parties and their subsidiaries, affiliates, licensors, licensees, agents, co-branders, partners, employees, directors, members, officers, advisors, consultants, representatives, successors and assigns (collectively the "Representatives")), howsoever arising from any use or implementation of, or reliance placed on the contents of, the Guidelines in relation to a particular Motor Sport Event by Third Parties or their Representatives, including in relation to:



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- B. any other negligence, lack of reasonable care, breach of any statutory or other duty or Applicable Laws, careless or wrongful act or wilful default by the FIA or its Representatives or Third Parties and their Representatives.

12. Any use or implementation of, or reliance placed on the contents of, the Guidelines in relation to a particular Motor Sport Event by any Third Party or its Representatives is (to the fullest extent permitted under Applicable Laws) strictly driver to acceptance by the Third Party and its Representatives of the following:

- A. the Third Party and its Representatives agree to waive any rights and/or claims, agree to release, hold harmless and not to sue the FIA or its Representatives in relation to any claims, liabilities, costs, expenses, damages and losses (including those referred to in paragraph 11); and
- B. the Third Party and its Representatives agree to indemnify the FIA and its Representatives in relation to any and all claims, liabilities, costs, expenses, damages and losses (including those referred to in paragraph 11), and this indemnity shall apply whether or not the FIA has been negligent or is at fault;

in each case arising from the use or implementation of, or reliance placed on the contents of, the Guidelines in relation to a particular Motor Sport Event.

## GOVERNING LAW & JURISDICTION

13. The Guidelines and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with the Guidelines or their driver matter or formation, shall be governed by and construed in accordance with the laws of France.

14. The courts of France shall have exclusive jurisdiction to settle any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with the Guidelines or their driver matter or formation.

15. Any matters relating to investigation and enforcement of FIA Regulations are driver to the jurisdiction of the internal judicial and disciplinary bodies of the FIA.

# GUIDANCE MATERIAL

This material is a guide as to how medical conditions affect the ability to achieve medical fitness to compete and drive in competitions. Guidance is given for common conditions.

The doctor performing the competition licence medical examination, and where necessary the medical panel at the ASN in the country granting the competition licence should be consulted in the first instance for any decisions regarding fitness to race.

Drivers are reminded to review Appendix L of the FIA International Sporting Code for the regulations regarding medical examination.

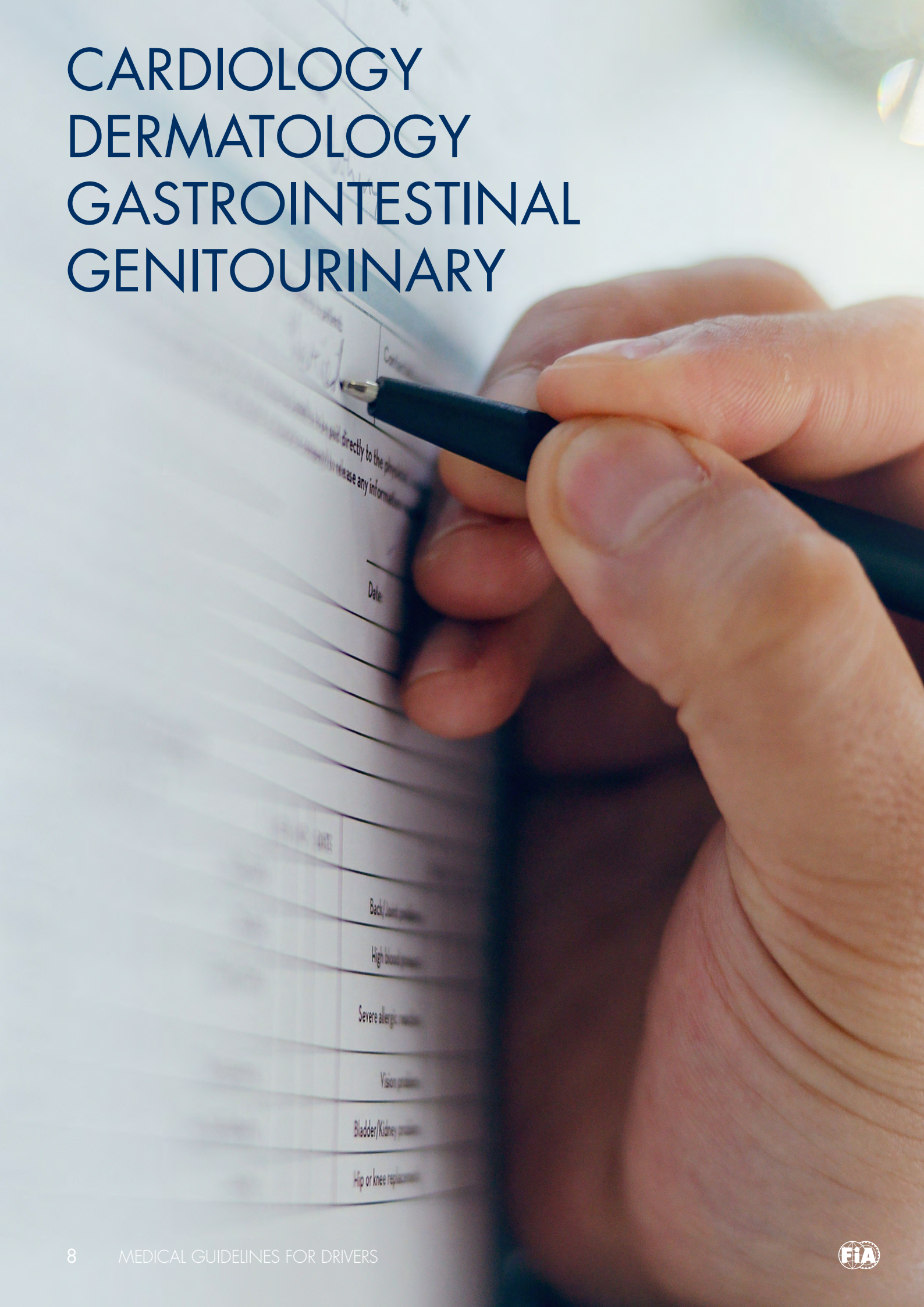
A 2% risk of subtle or sudden incapacity per annum should be considered the upper limit of acceptability for competition.

Where a medical condition exists that may be incompatible with fitness to compete, always follow the advice of the treating doctor. Drivers should not undergo treatment purely in order to seek motorsport medical fitness certification.

Note, drivers must also be aware of WADA anti-doping rules (see Appendix A of the FIA ISC) and request a therapeutic use exemption if required. This is the driver's personal responsibility.



# CARDIOLOGY DERMATOLOGY GASTROINTESTINAL GENITOURINARY





# CARDIOLOGY

## CARDIOVASCULAR ASSESSMENT

For drivers aged 59 or under at the start of the year of their licence application, an electrocardiogram (ECG) should have taken place within the previous 36 months. The result should be evaluated by the doctor performing the medical examination and action taken if any condition is suspected.

For drivers aged 60 or over at the start of the year of their licence application an ECG and an exercise tolerance test (ETT) should have taken place within the previous 12 months. The result should be evaluated by the doctor performing the medical examination and action taken if any condition is suspected.

Subsequently an ECG should take place every year and an ETT and cardiology consultation every two years. The result should be evaluated by the doctor performing the medical examination and action taken if any condition is suspected.

## BLOOD PRESSURE

Where high blood pressure (BP) is suspected, care should be taken to confirm the diagnosis with 3 blood pressure readings on different days or a 24 hour BP measurement. A discussion with the treating doctor should address risk factors such as smoking or increased BMI. A consultation with a cardiologist is strongly recommended.

If commencing medication, care should be taken to ensure the choice is compatible with competition. Note, drivers must also be aware of WADA rules and request a therapeutic use exemption if required.

## VALVULAR ABNORMALITIES

Where a heart valve is stenosed or ruptured an echocardiogram is recommended in order to evaluate the heart and establish the left ventricular ejection fraction. Normal left ventricular size and function and a LVEF >40% can be considered acceptable. A full report from a cardiologist is recommended. A 3-6 month period away from competition post heart valve surgery is recommended with recertification depending on cardiology report.

## CARDIOMYOPATHY

Hypertrophic cardiomyopathy should be evaluated by a cardiologist. There should be no unexplained dizziness or syncope and no significant rhythm or conduction disturbance. Exercise ECG and 24 hour ECG are recommended. An echocardiogram should confirm a

LVEF >40%. Septal thickness should be <2.5 cm.

## CORONARY ARTERY DISEASE

Where coronary artery disease is suspected or diagnosed, a cardiology report should normally be provided to include the results of an exercise ECG, 24 hour ECG and echocardiogram. In some cases a cardiac MRI or perfusion scan will be recommended.

An angiogram result will normally be required. There should be no more than 50% stenosis in any major vessel. A stenosis of more than 30% in the left main or proximal left anterior descending artery should not normally be acceptable.

## MYOCARDIAL ISCHAEMIA OR INFARCTION

Ischaemia causing angina, whether stable or unstable may not be compatible with competing. Post infarction, sufficient time should be given to fully recover, 3-6 months is recommended, before a full cardiology assessment should be undertaken to establish the cardiac function and ongoing risk. This would normally include an exercise ECG, 24hr ECG and echocardiogram as a minimum.

## RHYTHM AND CONDUCTION DISTURBANCES

Any rhythm or conduction disturbance with a risk of subtle or sudden incapacity may not be compatible with competing in the first instance. This includes but is not limited to:

- Second or third degree heart block
- Atrial fibrillation or flutter
- Broad or narrow complex tachycardia
- Long QT syndrome
- Brugada pattern

Where such a condition exists, the driver should follow the advice of their treating doctor and attend for the motorsport medical examination once the condition is investigated, resolved or managed with reports and results for the motorsport medical examining doctor. A report from a cardiologist, together with the results of any investigations such as 24hr ECG, exercise ECG, echocardiogram, conduction studies or cardiac MRI should be provided if undertaken. Where ablation is undergone, a post-procedure report should be provided with the results of a 24 hr ECG.

Extrasystole (ectopy), whether supraventricular or ventricular, is normally accepted provided the burden does not compromise normal cardiovascular function. A 24 hr ECG may need to be provided where the rate of extrasystole is high in order to establish the burden.

## SYNCOPE

A first clear-cut vasovagal syncope, not occurring in a motorsport environment and unlikely to recur during competition is acceptable for medical fitness to compete.

Subsequent events should be investigated by a cardiologist, and if required a neurologist. If there is no clear pointer to cardiac disease and no features suggestive of epilepsy or neurological disease, vasovagal syncope is the likeliest cause. Recurrent syncope requires a period as temporarily unfit to compete in order to assess future risk, typically 6 months.

## PACEMAKERS AND IMPLANTED DEFIBRILLATORS

Where an individual is entirely dependent on a pacemaker such that if it was to fail, incapacity will occur, this is incompatible with medical certification. An implantable defibrillator is never acceptable because of the risk of incapacity when it discharges.

## THROMBOEMBOLIC DISORDERS

Medical certification following a deep vein thrombosis or pulmonary embolism is possible provided recovery from the underlying condition has taken place, the condition has stabilised and the incapacitation risk is acceptable.

Drivers on anticoagulant medication should normally be on a DOAC or a stable dose of warfarin with the INR in range for 3 months. The driver should declare the medication to the Chief Medical Officer of the event.

## DERMATOLOGY

### ACNE

Topical treatments and oral antibiotics are acceptable. Care should be taken with isotretinoin because of the risk of mood changes and depression and the association with photophobia and night blindness.

### ECZEMA AND PSORIASIS

Topical treatments are acceptable. Care should be taken with oral steroid use because of the risk of mood changes and the condition being severe enough to be distracting causing subtle incapacity. Note, drivers must also be aware of WADA rules and request a therapeutic use exemption if required.

### SKIN CANCER

Squamous cell carcinoma in early stage, basal cell carcinoma and actinic keratosis are not disqualifying but should be treated as soon as possible after diagnosis.

Malignant melanoma with a thickness of <4 mm after primary excision and with no lymph node involvement is compatible with medical fitness to compete. Where the condition has spread to lymph nodes or a distant site, that is not normally compatible with medical fitness to compete due to the risk of incapacity caused by a distant lesion.

# GASTROINTESTINAL

## DIVERTICULAR DISEASE

Diverticular disease is compatible with medical fitness to compete if stable and controlled, without evidence of bleeding and once any treatment is completed.

## PEPTIC ULCERATION

Drivers with an active ulcer may not be considered fit until treatment has taken place, such as the eradication of *Helicobacter pylori*. Proton pump inhibitors and H2 blockers are acceptable.

## INFLAMMATORY BOWEL DISEASE

Drivers with inflammatory bowel disease may not be fit to compete until the condition is in remission and stable on minimal medication. In some cases steroid medication is used. Note, drivers must also be aware of WADA rules and request a therapeutic use exemption if required.

# GENITOURINARY

## HAEMATURIA

Significant visible haematuria may not be compatible with fitness and should be investigated. Persistent microscopic haematuria should be investigated to rule out renal calculi capable of causing sudden incapacity.

## CHRONIC RENAL DISEASE

Applicants for motorsport medical fitness certification with chronic renal disease should submit medical reports during the examination. A very low creatinine clearance rate and a low albumin level is not normally acceptable.

## ERECTILE DYSFUNCTION

Medication used for erectile dysfunction can cause a change in blood pressure regulation. Notably Sildenafil can cause a transient change in colour vision on the blue-yellow spectrum in some individuals. This typically returns to normal in around 4 hours.

## RENAL CALCULI

Where an individual has had an episode of ureteric colic, imaging is recommended to establish if stone free. Where there are residual stones or an incidental finding of stones, if the stones are in the parenchyma of the kidney only this is acceptable. Where the stones are in the pelvis of the kidney and there is a risk of incapacity this may not be considered acceptable.

## RENAL TRANSPLANT

Drivers who have undergone renal transplant are considered fit once fully recovered, anti-rejection drugs are in the therapeutic range, renal function and blood pressure stable with an acceptable cardiovascular risk. If taking steroid medication the driver should be aware of WADA rules and request a therapeutic use exemption (TUE) if required.



# HAEMATOLOGY INFECTIOUS DISEASES METABOLIC & ENDOCRINOLOGY MENTAL HEALTH





# HAEMATOLOGY

## ABNORMAL HAEMOGLOBIN

Applicants for medical fitness to compete with thalassaemia trait or sickle cell trait are considered fit.

## ANAEMIA

A haemoglobin of less than 12.0 g/dl in a biological male and less than 11.0 g/dl in a biological female should be investigated. Fitness can be considered when the haemoglobin has returned to an acceptable range.

## COAGULATION OR HAEMORRHAGIC DISORDERS

In thrombocytopaenia, medical certification is considered subject to an acceptable haematology report. Platelet counts below  $75 \times 10^9/l$  should lead to assessment as unfit.

In haemophilia. Medical certification is generally withheld but can be considered in mild forms driver to a haematologist report. A history of spontaneous bleeding is not acceptable for medical fitness to compete.

## LEUKAEMIA AND LYMPHOMAS

Leukaemias and disorders of the lymphatic system are not normally compatible with fitness to compete until in full remission with acceptable laboratory results and specialist reports.

# INFECTIOUS DISEASES

## HEPATITIS A/B/C

Hepatitis A infection may not render the driver unfit. Medical fitness to compete can be considered on full recovery.

Acute hepatitis B may render the driver unfit. Medical fitness to compete can be considered on full recovery (viral clearance). Chronic hepatitis B – fitness to compete can be considered for those in an inactive carrier state.

Acute hepatitis C may render the driver unfit. Medical fitness to compete can be considered on full recovery (viral clearance). Chronic hepatitis C – fitness to compete can be considered following successful treatment that renders the driver disease free.

## HIV

Applicants living with HIV can be assessed as fit. They should be asked to provide a medical report which should include as far as possible:

- A clinical history to include any current symptoms and physical signs
- Any history of AIDS defining illness
- CD4+ and T-cell counts, HIV viral levels and routine laboratory test results.
- Antiretroviral therapy
- Any relevant co-infection
- Any neurocognitive features or impairment

Fitness can usually be considered in those where the viral load is undetectable and the CD4+ count is  $>500$  cells per cubic millimetre.

# METABOLIC & ENDOCRINOLOGY

## DIABETES AND ABNORMAL GLUCOSE METABOLISM

Drivers are recommended to review Appendix L of the FIA Sporting Code. Type 2 diabetes, where the driver is under diet control or taking non-hypoglycaemic medication should not be a problem for medical certification. Type 1 diabetes, on insulin or sulphonylurea medication, where there is a risk of hypoglycaemia may be acceptable with evidence of good diabetes control. Drivers should provide a medical report confirming good management of the condition with a recent HBA1c and 3 months of glucose measurement data. Evidence of cardiovascular fitness may also be required.

## OBESITY

Obesity is defined as a BMI of 30 or more. Drivers with a BMI over 35 may require further investigation to ensure absence of any underlying medical condition.

## THYROID DISEASE

Drivers should have acceptable and stable thyroid function test results when treated for hypothyroidism after treatment for hyperthyroidism. Equally, post thyroidectomy there should be evidence of adequate thyroid hormone replacement.

# MENTAL HEALTH

## ADHD AND ASD

Where there is a diagnosis of attention deficit disorder, attention deficit hyperactivity disorder or autistic spectrum disorder, medical certification depends on the level of functioning, ability to follow rules and obey commands and impulse control. The candidate for medical certification may need to present a neuropsychological assessment report to the examining doctor. Medication for ADHD is prohibited unless a therapeutic use exemption has been obtained.

## DEPRESSION AND ANXIETY

Acute or severe untreated depression and anxiety may not be compatible with holding medical certification to compete. Once recovered, or fully treated, fitness can be considered with a medical report from the treating doctor. At all times, the driver should be without significant memory or concentration problems, agitation, behavioural disturbance or suicidal thoughts.

Drivers should be aware of the WADA rules on anti-doping if taking medication and should not compete if taking medication that would affect alertness or concentration.

## PSYCHOSIS

Psychosis or a history of a psychotic event is not compatible with medical certification to compete.



# MUSCLOSKELETAL NEUROLOGY OBSTETRICS & GYNAECOLOGY ONCOLOGY





# MUSCULOSKELETAL

## ACUTE INJURY AND RECOVERY

Drivers should demonstrate satisfactory range and strength of neck and limb movement, stability of joints likely to be subjected to prolonged or sudden stress and the absence of pain likely to lead to subtle incapacity. Attention is drawn to Appendix L of the FIA Sporting Code where the procedure following an accident or physical problem is detailed.

## PHYSICAL DISABILITY MECHANICAL OR NEUROLOGICAL

Any person with an acquired or congenital disability who does not fulfil the conditions for obtaining a driver's licence may apply to obtain a licence if the following conditions are met:

The applicant must be examined by a member of the national medical commission or a doctor appointed by the ASN.

The applicant must undergo a driving test in the competition vehicle on a circuit or rally stage in the presence of an official from the ASN.

The ability of the applicants to extract themselves from the competition vehicle, from a racing position with the seat belt attached, alone, in accordance with the time requirements for the championship in which they intend to participate must be assessed. Should the disability significantly affect the egress time from the competition vehicle, the Clerk of the Course or Race Director of the competition should be notified.

Candidates for medical fitness to compete are directed to the FIA ISC Appendix L section 18. Licences for participants with disabilities

# NEUROLOGY

## DEMENTIA OR COGNITIVE IMPAIRMENT

Dementia (cognitive and behavioural problems severe enough to impair normal function) is incompatible with any form of motorsport medical certification. Mild cognitive impairment may not interfere with normal daily activities but may represent a significant safety risk. It is increasingly common with advancing age and may not be recognised by the driver. A neurology report may be indicated where there is doubt over fitness to compete.

## EPILEPSY

Epileptiform seizures occurring within 24 hours of a head injury may be acceptable within the context of the injury timeline once the driver with a head injury has been fully evaluated for fitness to compete from that aspect on recovery.

Neonatal and febrile convulsions under the age of five years are not disqualifying.

A single unprovoked seizure does not constitute epilepsy. Two or more unprovoked seizures more than 24 hours apart fulfil the criteria for epilepsy.

A diagnosis of epilepsy is not compatible with medical fitness to compete. Consideration can be given to fitness once a period of 10 years has passed with no recurrence of seizures on no preventative medication.

## HEAD INJURY

Assessment should include the date of the event, post-traumatic amnesia, duration of unconsciousness, presence or absence of skull fracture, results of any imaging performed, report on any surgical procedure performed.

Fitness depends on the category of head injury and the following can be used as a guide. Where a driver does not fit into a clear category, the higher category is generally selected.

Minimal head injury is defined as any concussive symptoms lasting less than 48 hours, initial Glasgow Coma Score (GCS) of 15, no loss of consciousness (LOC), no post-traumatic amnesia (PTA), focal neurological deficit or seizure. Minimal head injury is compatible with medical fitness to compete once recovery has taken place.

Mild head injury is defined as any concussion lasting >48 hrs, initial GCS 12-15, LOC <30 mins, PTA <30

mins. A period of up to 6 weeks off competing may be required. Drivers may not be considered fit until fully assessed on recovery without symptoms with appropriate reports.

Moderate head injury is defined as initial GCS 9-12, LOC 30 mins-24 hrs, PTA 30 mins-24 hrs, linear skull fracture. A period of up to 3 months off competing may be required. Drivers may not be considered fit until fully assessed on recovery without symptoms with appropriate reports.

Severe head injury is defined as initial GCS <9. LOC >24 hrs, PTA >24 hrs. Brain contusion or intracranial haemorrhage on CT or MRI. Complex skull fracture. Any operative intervention. A period of up to 6 months off competing may be required. Drivers may not be considered fit until fully assessed on recovery without symptoms with appropriate reports.

Very severe head injury may not be compatible with medical certification. It is defined as penetrating brain injury, significant parenchymal damage on CT or MRI, enduring focal neurological deficit. Assessment is on a case-by-case basis with the ASN medical dept. A period of up to 1 year off competing may be required. Drivers may not be considered fit until fully assessed on recovery without symptoms or with stable symptoms with appropriate reports.

## MULTIPLE SCLEROSIS

Drivers with acute symptoms of primary multiple sclerosis (MS) may be unfit until full remission. Drivers should be aware of the WADA anti-doping rules if prescribed treatment.

Drivers with secondary progressive MS may not be fit to compete. Assessment is on a case-by-case basis with the ASN medical dept.

## PARKINSON'S DISEASE

A diagnosis of Parkinson's disease may not be compatible with medical fitness to compete. Even in the early stages, there may be anxiety and depression, bradykinesia and intention tremor. The disease is progressive. Assessment is on a case-by-case basis with the ASN medical dept and will require a neurologist report.

## STROKE/TIA

As a general rule, a driver who has had a stroke, transient ischaemic attack or reversible ischaemic neurological deficit may not be considered fit. Medical fitness to compete may be possible where any residual deficit has been assessed and risk factors considered. Risk of a further event will always exceed 1% per annum and may exceed 2%. Assessment is on a case-by-case

basis with the ASN medical dept and will require a neurologist report and a cardiologist report which would normally include the results of investigations such as exercise ECG, 24 hr ECG, carotid artery imaging, a thrombophilia screen and visual field mapping.

# OBSTETRICS & GYNAECOLOGY

## GYNAECOLOGICAL SURGERY

Any period of unfitness will vary according to the type of surgery undertaken. Fitness may be considered after full recovery. Where there is doubt, the driver should provide medical reports. In most cases, a self-declaration of full recovery is acceptable.

## PREGNANCY

Physiological changes due to pregnancy which normally cause only inconvenience may have significant safety implications for competing. These include, but are not limited to, faintness or dizziness, nausea or vomiting, anaemia, vaginal bleeding (spotting), high or low blood pressure, change to mental wellbeing. These may render the pregnant driver not fit.

Medical certification to compete could be possible if agreed by the ASN where obstetric evaluation indicates a normal pregnancy without the above symptoms and the uterus is not palpable outside of the pelvis – generally taken to be up to 12 weeks duration – beyond which significant risk may occur and the driver may be considered unfit to compete.

The ASN may choose to render the pregnant driver unfit per se once confirmed.

At all times, the driver should be made aware of the risk, and choose to compete at their own risk. The CMO of the event should be informed where the driver consents to do so.

# ONCOLOGY

Drivers may not be considered fit to compete on diagnosis of malignancy. Fitness may be considered once treatment is completed and full recovery has taken place. There should be no symptom or complication that may affect the ability to compete safely. Detailed oncology reports should be provided to the doctor examining the driver for fitness to compete.

## CHEMOTHERAPY

The side effects of chemotherapy may cause subtle incapacity and fitness may be considered after a minimum of 4 weeks after the last dose of chemotherapy if other aspects of the disease do not preclude fitness.

## RADIOTHERAPY

Complications of radiotherapy such as pulmonary fibrosis may require specialist evaluation. Fitness can be considered after a minimum of 4 weeks after the last dose of radiotherapy.

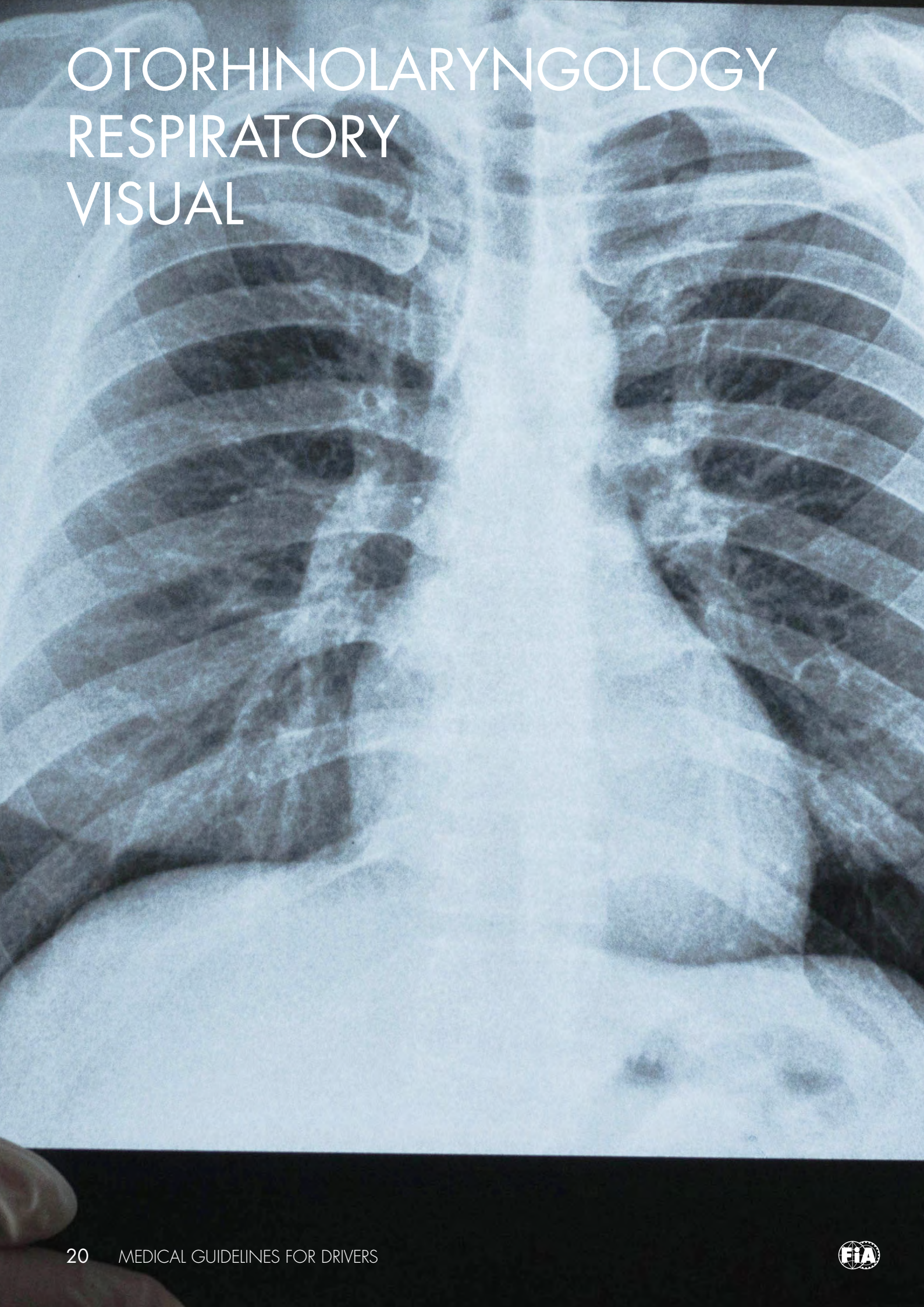
## SURGERY

Fitness can be considered after full recovery from any surgical procedure related to a diagnosis of malignancy if other aspects of the disease do not preclude fitness.

## METASTATIC DISEASE

Because of the risk of incapacity due to metastatic spread (for example in the brain, lungs or bones) metastatic disease is not compatible with fitness to compete.





# OTORHINOLARYNGOLOGY RESPIRATORY VISUAL



# OTORHINOLARYNGOLOGY (ENT)

## HEARING

Drivers with some degree of hearing loss may be able to operate normally and should be considered fit if their condition does not affect normal operations. Where there is profound or total deafness, this is not disqualifying but may have implications for safety, in particular where radio communication is required. Hearing aid devices, in particular external devices used with cochlear implants may present difficulty with helmet fitting and function. Assessment is on a case-by-case basis and is a matter for ASN medical departments. A deaf driver should inform the CMO for the event so that consideration can be made in the event of a medical rescue situation where verbal commands may be used and difficulty communicating anticipated.

## VESTIBULAR DISTURBANCE

Benign positional vertigo or labyrinthitis carries a significant risk of recurrence and the symptoms can cause sudden incapacitation. Drivers should be symptom free and off medication for a period of 4 weeks before resuming competition.

# RESPIRATORY

## ASTHMA

Drivers with a new or established diagnosis of asthma should provide evidence of stability to the doctor examining for motorsport medical fitness. Drivers using inhaled steroid or beta-agonist medication should be aware of WADA anti-doping rules and request a therapeutic use exemption if required. Where the condition is severe and oral steroid medication is required, the driver should not be considered fit due to the severity of the condition and possible side effects of the medication.

## PNEUMOTHORAX

Where a spontaneous pneumothorax has been diagnosed, the driver may not be fit until full recovery has taken place. Where surgical intervention is undergone such as partial pleurectomy or video assisted thoracic surgery, the driver can be considered fit after full recovery – typically at 4 weeks post procedure.

## SARCOIDOSIS

Drivers with this condition require assessment on a case-by-case basis by the ASN medical department. Particular attention should be made to the potential for cardiac, eye, central nervous system and respiratory system involvement. Full medical reports should be provided to give evidence of stability, ideally inactivity of the condition. These reports should be accompanied by the results of any investigations required such as 24 hr ECG, CT or MRI at the discretion of the treating doctor.

Regular updated reports may be required in order to fully assess fitness over time.

## SLEEP APNOEA

A driver with sleep apnoea should provide evidence of self-assessment in the form of an Epworth Sleepiness Scale result. Less than or equal to 10 is acceptable.

# VISUAL

Drivers are directed to the regulations on the medical examination of drivers in Appendix L of the FIA Sporting Code and Appendices.

## COLOUR VISION

Colour deficiency affects up to 8% of biological males and about 0.5% of biological females.

Drivers should be able to distinguish colours correctly in order to compete safely. The standard test is the Ishihara test where the first 15 plates are presented out of 24, allowing 3 seconds per plate for a response. Where the driver fails to identify one or more plates there may be a deficiency in colour vision.

Where further testing is required, the gold standard is the Colour Assessment and Diagnosis test (CAD test), where the normal candidate scores around 1. The test assesses the red-green axis and the yellow-blue axis with red-green being the most commonly affected axis by far.

A deutan deficiency is a green receptor deficiency and candidates can score up to 6 and be considered safe.

A protan deficiency is a red receptor deficiency and candidates can score up to 12 and be considered safe.

In some countries, other tests are used to further define if a candidate can distinguish colours safely in order to compete. Fitness is at the discretion of the ASN medical panel.

## CORRECTING LENSES AND VISUAL ACUITY

A driver should be able to demonstrate visual acuity, with or without correction, of at least 6/9 (20/30) in each eye individually and 6/6 (20/20) with both eyes together in order to compete in international competition. For further information see Appendix L of the FIA International Sporting Code.

## EYE SURGERY

Drivers who have undergone LASEK, LASIK or other refractive surgery should attend the medical examination for motorsport with evidence of post-operative visual acuity and confirmation there is no glare, haze or sensitivity.

Where cataract surgery has taken place, a full post-operative report should be provided confirming visual standards are met.

## SUB-STANDARD VISION AND VISUAL FIELDS

Where a driver has a visual field defect, individual and binocular visual field results should be provided to the medical examiner along with a report from an ophthalmologist or specialist optometrist. A bilateral field of vision of at least 120 degrees is required, with the central 20 degrees being unaffected by any defect. Monocularity is not considered compatible with competition.





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