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# Racing Victoria
# Medical Standards for Fitness to Ride

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# 1. INTRODUCTION

Race riding is a sport that requires jockeys to employ highly developed physical skills in collaboration with careful judgment. The failure of jockeys to successfully implement these requirements can have serious consequences. Riders may not only put their own lives in danger, but also other riders resulting in a risk of a serious injury, permanent disability or in the worst case scenario, death. In order to understand why it is necessary to establish and implement protocols that deal with medical standards for fitness to ride, it is important to be familiar with the types of injuries riders sustain. Recent studies suggest that horse racing has the highest rate of concussion present in existing sports and also the highest fatality rate of riders (per minute of participation) of any sport in the world.[1] Unfortunately, there is limited information available in relation to horse racing and injury epidemiology. Research has identified that there is a significant risk of soft tissue injuries, fractures, dislocation and concussion. Whilst these injuries appear to occur uniformly between countries, injury rates vary significantly. These variations can be attributed to a number of factors.[2]

Like most sports, a range of different standards exist internationally, and whilst many countries adopt similar principles, there is no uniformity in compliance protocol. The International Federation of Horseracing Authorities (IFHA) has devised an International Agreement on Breeding Racing and Wagering.[4] Article 27 of the Agreement Appendix 10A (August 2017) outlines Advice to Horse Racing Authorities on the Principles of Health Protection for Riders (Professional and Amateur). The protocols for Medical Standards for Fitness to Ride Victoria outlined in this report have incorporated many of these standards but have given specific consideration to regulation in particular areas. In conjunction with this protocol a Confidential Jockey Medical Report has also been devised. Outlined in this report are Victorian Standards for Medical Fitness to Ride; this includes a comprehensive list of contra-indications adapted from the IFHA agreement. These standards should provide applicants and general practitioners who are conducting such assessments with very concise information on the medical requirements for fitness to ride.

[1] Turner, M., McCrory, P., & Halley, W. (2002). Injuries in professional horse racing in Great Britain and the Republic of Ireland 1992 – 2000, *British Journal of Sports Medicine*, 36, p. 408.

[2] McCrory, P., Turner, M., LeMasso, B., Bodere, C.,& Allemandou., A. (2006) An analysis of injuries resulting from professional horse racing in France during 1991 – 2001: a comparison with injuries resulting from professional horse racing in Great Britain during 1992 – 2001, *British Journal of Sports Medicine*, 40, p.614 – 618.

[3] International Federation of Horse Racing Authorities. (August 2017) *International Agreement on Breeding, Racing and Wagering – February 2006*, p. 61 – 63. Retrieved from http://www.horseracingintfed.com/resources/2007_choose_eng.pdf

[4] Turner, M., McCrory, P., & Halley, W. (2002). Injuries in professional horse racing in Great Britain and the Republic of Ireland 1992 – 2000, *British Journal of Sports Medicine*, 36, p. 403 – 409.

## 2. ASSESSMENT OF MEDICAL FITNESS TO RIDE

All Victorian licensed jockeys must be confirmed medically fit to ride prior to commencing the skills assessment element of the jockey licence application process (jump outs and official trials) and prior to renewal of their licence each year.

Satisfactory medical fitness to ride is achieved once the applicant has fulfilled the requirements outlined within the Jockey Medical Report (**Medical**) and the Chief Medical Officer (CMO) has approved the completed Medical. Further, the CMO may request completion of a Medical at any time.

Subject to contrary terms in these Standards, the **Medical** should be completed through the applicant's treating general practitioner (GP). If, during the evaluation, it becomes evident that further investigation or treatment is necessary this should be completed in conjunction with a recommended specialist practitioner and/or the Racing Victoria CMO. On completing the **Medical,** the GP must sign that they 'found nothing unfavourable in the applicant's history or examination'. The GP also has the opportunity to make notes for consideration by the RV CMO.

All Medical Reports for new applicants and renewing jockeys each year must be reviewed by the CMO. The CMO will then make the final 'Fit to ride' decision following consideration of all relevant factors and may recommend referral for complex medical cases.

## 3. AGE

There is no upper age limit for race riding in Victoria. However:

- When assessing a licence application, Racing Victoria is entitled to consider an applicant's maturity level and any potential decline in mental or physical skills.
- All jockeys over the age of 45 are required to have a baseline blood test work up, ECG and Calcium score completed as part of their **Medical** every five years. The RV CMO may complete or request additional investigations including (but not limited to) blood tests, ECG, Calcium score, exercise stress testing, and cognitive neuropsychological testing as required.

## 4. NOTIFICATION OF SIGNIFICANT INJURY/ILLNESS

Existing Licence holders, who, during the period of holding a Licence suffer a significant injury (eg. concussion, fracture) or a significant illness (eg. cancer, hepatitis), that could in any way affect their fitness to ride, must inform the CMO, at their earliest opportunity. For the sake of clarity, this applies to any significant illness or injury – regardless of whether or not it resulted from a racing incident (eg. road traffic accident, sporting accident, etc.).

## 5. RECENT SURGICAL PROCEDURES

Following any form of surgery an applicant must obtain medical clearance from their treating specialist in writing before returning to ride. With open abdominal surgery, a minimum wait of 12 from date of surgery is required.

## 6. IMPAIRMENT

Applicants must disclose any Workcover impairment payouts on the Medical. Any applicant with a previous Workcover permanent impairment payout must satisfy RV of their recovery through CMO assessment and any CMO requested additional medical assessments and information.

## 7. MEDICATION

If an applicant requires, or in the past 10 years has required, regular medication to maintain his/her physical or mental wellbeing, a Licence may be refused.

If any of the following statements apply, the Licence will be declined or deferred (until they no longer apply):

- The therapeutic effect of the medication puts a rider at risk when he / she rides or falls. (eg. Warfarin);
- The side effects, actual or potential, of the medication are such that they could interfere with the rider's physical capability, judgement, coordination or alertness;
- A voluntary or involuntary adjustment of the dosage, administration or absorption of the medication may interfere with the rider's physical capability, judgement, coordination or alertness.

Jockeys seeking a permit under the Rules of Racing AR 142 to receive a specified banned substance under specified conditions must submit a letter from their medical practitioner at point of application or licence renewal (or other time, as relevant) for review by the CMO.

# 8. CONCUSSION

Jockeys are exposed to a high rate of concussion and traumatic brain injury.
At the recent 5th Concussion in Sport Conference in Berlin in October 2016 (McCrory, P. et al. Br J Sports med. 2017; 51:838 – 847) the consensus statement defines sport related concussion (SRC). Sport related concussion is a traumatic brain injury induced by biomechanical forces. Several common features that may be utilized in clinically defining the nature of a concussive head injury include:

- SRC may be caused either by a direct blow to the head, face, neck or elsewhere on the body with an impulsive force transmitted to the head.
- SRC typically results in the rapid onset of short-lived impairment of neurological function that resolves spontaneously. However, in some cases, signs and symptoms evolve over a number of minutes to hours.
- SRC may result in neuropathological changes, but the acute clinical signs and symptoms largely reflect a functional disturbance rather than a structural injury and, as such, no abnormality is seen on standard structural neuro-imaging studies.
- SRC results in a range of clinical signs and symptoms that may or may not involve loss of consciousness. Resolution of the clinical and cognitive features typically follows a sequential course. However, in some cases symptoms may be prolonged.

The clinical signs and symptoms cannot be explained by drug, alcohol, or medication use, other injuries (such as cervical injuries, peripheral vestibular dysfunction, etc.) or other comorbidities (eg. psychological factors or coexisting medical conditions).

The suspected diagnosis of SRC can include one or more of the following clinical domains:

(a) Symptoms: somatic (eg. headache), cognitive (eg. feeling like in a fog) and/or emotional symptoms (eg. liability)
(b) Physical signs (eg. loss of consciousness, amnesia, neurological deficit)
(c) Balance impairment (eg. gait unsteadiness)
(d) Behavioral changes (eg. irritability)
(e) Cognitive impairment (eg. slowed reaction times)
(f) Sleep/wake disturbance (eg. somnolence, drowsiness).

If symptoms or signs in any one or more of the clinical domains are present, an SRC should be suspected and the jockey stood down until satisfactory medical follow up completed. It is important to note, however, that these symptoms and signs also happen to be non-specific to concussion, so their presence simply prompts the inclusion of concussion in a differential diagnosis for further evaluation, but the symptom is not itself diagnostic of concussion.

In the case of a race fall, any jockey with clinical symptoms or signs should be treated as concussion, stabilized and appropriately monitored. They will not return to race riding that day.

The jockey will then undergo appropriate re-evaluation, rest and rehabilitation and once they have fully recovered, undergo Cogstate Neuropsychological testing which is then compared to their annual baseline. Cogstate is a computerised neuropsychological test which measures the baseline cognitive status of the jockey and it is a requirement for this to be conducted annually to supplement the **Medical**.

## 9. CONTENT OF MEDICAL REPORT FOR JOCKEY LICENCE

This confidential document[1] will include:

- A comprehensive signed declaration by the applicant to include details of his/her medical history.
- A full record of physical examination to cover all aspects required for racing including any information regarding contra-indications as outlined in this document.
- A signed declaration by the examining medical practitioner that they 'found nothing unfavourable in the applicant's history or examination'.

In all cases there are 3 possible outcomes of the fitness to ride medical examination:

1. Jockey declared to be FIT (**A – Acceptable condition**).
2. Jockey declared to have a medical condition for which further medical information or testing is required (**D - Deferred**). A specialist opinion may be required.
3. Jockey found to have a medical condition which is NOT compatible with safe riding (**R – Refused**) for one or more of the following reasons:
    a. Due to risk of deterioration of the condition with race riding;
    b. The condition requires medication/treatment that may impact on the jockey's ability to ride safely;
    c. The medical condition could cause a sudden incapacity of the jockey during riding; and/or
    d. The medical condition cannot be safely accommodated during riding thus placing the health and safety of the jockey/fellow jockeys, horses and race course staff at risk.

[1] Racing Victoria's Privacy Policy (as amended from time to time) is available at: https://www.racingvictoria.com.au/privacy-policy

# MEDICAL STANDARDS OF FITNESS TO RIDE - GUIDELINE

R = Refused

A = Acceptable

D = Deferred - A specialist opinion will be required.

*Updated 1 June 2018

## CARDIOVASCULAR DISORDERS

| | |
|---|---|
| Ischaemic heart disease/angina | R |
| Heart failure | R |
| Myocardial infarction | D |
| By-pass grafting | D * |
| Angioplasty | D |
| Cardiac transplant | R |
| | |
| Dysrhythmias | D |
| Pacemakers | D * |
| Cardiac valvular disease | D |
| Hypertension | D |
| Cardiomyopathies | D |
| Congenital heart disease | D |
| | |
| Marfan's syndrome | R |
| Treatment with anticoagulants | R |
| Peripheral vascular disease | D |
| Chronic pericarditis | R |
| Aneurysm | R |

## ENDOCRINE AND METABOLIC DISORDERS

| | |
|---|---|
| Diabetes | |
| • Insulin dependent | D* |
| • Requiring oral medication | D |
| • Controlled by diet | D |
| Thyroid disease | D |
| Diabetes insipidus | R |
| Adrenal disorders | D |

## GASTRO-INTESTINAL AND ABDOMINAL DISORDERS

| | |
|---|---|
| Acute gastric erosion | D* |
| Chronic gastritis | D |
| Active peptic ulcer | D* |
| Hiatus hernia | A |
| Inguinal hernia | D |
| Haemorrhoids, anal fissure, fistulae | D |
| Colostomy, ileostomy | D |
| Colitis (ulcerative or Crohn's | D |
| Cirrhosis | D |
| Cirrhosis decompensated | R |
| Chronic pancreatitis | R |
| Chronic active hepatitis | R |

## GENITO-URINARY AND RENAL DISORDERS

| | |
|---|---|
| Chronic renal failure | R |
| Renal transplant | R |
| Nephritis | D |
| Kidney stones | D |
| Prostatitis | A |
| Single kidney or horseshoe kidney | D |

## GYNAECOLOGICAL CONDITIONS

| | |
|---|---|
| Pregnancy | |
| • normally | D |
| • last three months | R |
| • caesarean section (minimum 16 weeks) | D |
| Hysterectomy (minimum 16 weeks) | D |

## HAEMATOLOGY:

| | |
|---|---|
| Haemorrhagic Disorders | R |

HEARING:

Hearing should be adequate for the rider to hear all instructions and to ensure that the safety of other riders is not put at risk.

| | |
|---|---|
| Any loss greater than 35dBA (in either ear over oral vocal range 500-2000c/sec) is pathological in a jockey: | |
| • New applicants | R |
| • Existing licence holders | D |
| • Bilateral total deafness, surdimutism | R |
| • One side total deafness with controlateral air and bone conduction loss greater than 20 Db | R |
| • Any disorder in the eardrum and medium cavum leading to a binaural hearing loss greater than 20Db | R |
| • Acute otorrhea | D |
| • Unilateral uncompensated vestibular areflexia | R |
| • Bilateral hyporeflexia with directional preponderance | R |
| • Vertigo syndrome, resolvent after treatment of cause, in the absence of ideonystagmographic disorder | D |
| Perforated eardrum | D |
| Chronic suppurating otitis media | D |
| Otosclerosis | D |
| Prothesis | R* |

INFECTIOUS DISORDERS:

| | |
|---|---|
| Tuberculosis | R |
| Hepatitis | D |
| HIV positive | D |
| AIDS syndrome | R |

## 9. MUSCULOSKELETAL DISORDERS:

| | |
|---|---|
| Artificial Limbs | R |
| Amputation of a limb or part of a limb, Loss of digit (s) – To be reviewed on an individual basis | D |
| Fracture(s):<br>• Before applying to return to race riding after fracture or dislocation, the jockey should have an appropriate range of pain free movement, radiological evidence of a sound bony union, clearance from an orthopaedic surgeon and be able to show that his/her ability to ride is unaffected. No jockey may race wearing a plaster cast, back slab, fibre-glass support, prosthesis or similar appliance unless authorised by the RV Medical Officer. | D |
| Fracture of the Skull and Spine :<br>• Medical clearance by the treating specialist in conjunction with RV Medical Officer is required in every case. | D |
| Dislocated Acromio-Clavicular (A/C) joint:<br>• Before applying to return to race riding, the jockey should have an appropriate range of pain free movement and be able to show that his/her ability to ride is unaffected. | D |
| Dislocated or subluxed shoulder – FIRST OCCASION:<br>• Before applying to return to race riding, the jockey should have an appropriate range of pain free movement and be able to show that his/her ability to ride is unaffected. | D |
| Dislocated or subluxed shoulder – RECURRENT<br>• Before returning to race riding, the jockey should have an appropriate range of pain free movement and be able to show that his/her ability to ride is unaffected. | D |
| Rheumatoid arthritis. | D |
| Spondylolisthesis | D |
| Disc injury | D |
| Joint replacement | D |
| Internal metal fixation | D |

## 10. NEOPLASIA / CANCER:

| | |
|---|---|
| Neoplasia / Cancer | D |

## 11. NEUROLOGICAL DISORDERS:

| | |
|---|---|
| Chronic migraine | D |
| Chronic neurological disorders (e.g. Parkinson's disease, multiple sclerosis, etc.) | R |
| Chronic Menieres, vertigo or labyrinthitis | R |
| Cerebrovascular disease | R |
| Meningitis or encephalitis | D |
| Intracranial tumour requiring craniotomy | D |
| A-V malformation after a bleed | R |
| Intracranial aneurysm | R |
| Pituitary tumour – no visual field defect | D |
| Pituitary tumour – with visual field defect | R |
| Narcolepsy | R |
| Unexplained loss of consciousness | D |
| Sub-arachnoid haemorrhage - (see Epilepsy/single seizure) | D |
| Intracranial haematoma - (see Epilepsy/single seizure) | D |
| Serious head injury - (see Epilepsy/single seizure) | D |
| Craniotomy/burr hole surgery:<br>• Following any cranial fracture or surgery, the integrity and / or strength of the skull must not be significantly compromised. | D |
| Epilepsy single seizure:<br>• Following acute head injury or intracranial surgery. An applicant may be reviewed after a minimum of 12 months provided he/she has been without all anti-epileptic medication and has been free of fits during that period.<br>Note: Independent specialist opinion required in every case. | D |
| Epilepsy – Refused unless the applicant can meet all of the following criteria;<br>• Applicant has been free of epileptic attack for at least 10 years<br>• Applicant has not taken any anti-epileptic medications during this 10-year period.<br>• Applicant does not have a continuing liability to epileptic seizures[1] | R |

[1] The Medical Standards for epilepsy are broadly in line with the National Transport Commission Austroads: Assessing Fitness to Drive 2016 (amended August 2017) 6.2 page 83-9

## 12. PSYCHIATRIC DISORDERS

PLEASE NOTE: following any cranial fracture or surgery, the integrity and/or strength of the skull must not be significantly compromised.

Most mental illness affects the ability of the person to exercise sound judgement (due to the illness), or affects their ability to co-ordinate and remain alert (due to the side effects of the medication, which are frequently of a sedative nature). Either feature may endanger the wellbeing of both the individual and other jockeys.

| | |
|---|---|
| Organic – disorders (including: all forms of dementia, delirium, organic brain disorders as a result of brain damage, neurological, metabolic or endocrine dysfunction) | R |
| Any diagnosis under psychoactive substance use – (Including: states of acute intoxication; dependence, withdrawal; side effects – for alcohol, recreational drugs or solvent use) | R |
| Residual damage from substance use or abuse | D |
| Schizophrenia and Delusional disorders (including: all types of schizophrenia, schizoeffective disorders and acute and transient psychotic disorders) | R |
| Mood disorders<br>Depression (specialist opinion will be required with particular attention to the method of treatment. A significant number of the drugs used to treat depression will have sedative side-effects and affect co-ordination and/or physical capabilities).<br>Mania<br>Bipolar disorder | D<br><br><br><br>R<br>D |
| Anxiety disorders<br>Generalised anxiety – (specialist opinion required to review the severity and mode of treatment)<br>Panic Disorder | D<br><br>R |
| Personality disorders – (specialist opinion required in every case) | D |
| Anti social personality disorder also known as Dissocial or psychopathic | R |
| Behavioural, Emotional and Developmental disorders<br>ADHD (adult form) (specialist opinion required)<br>Autistic spectrum and Asperger's Syndrome – (specialist opinion required) | D<br><br>D |

## 13. RESPIRATORY DISORDERS:

| | |
|---|---|
| Asthma (well controlled) | A |
| Asthma (Acute or not well controlled) | D |
| Chronic obstructive airways disease (COAD) | D |
| Spontaneous pneumothorax: - SINGLE EPISODE | A |
| Spontaneous pneumothorax - RECURRENT<br>• Until surgical treatment has occurred. | R |
| Emphysema | D |
| Respiratory insufficiency affecting performance | R |
| Hay fever | A |

## 14. VISUAL ACUITY:

Correction lenses are acceptable provided that they are in the form of “soft contact lenses”.

| | |
|---|---|
| MINIMUM requirements with or without corrective lenses:<br>• good eye 6/9 or better<br>• worse eye 6/18 or better | A |
| Monocular vision | D* |
| Visual field defect - (homonymous hemianopia, bilateral glaucoma, bilateral cataract, bilateral retinopathy, etc.) | R |
| Diplopia | D* |
| Less than 6/9 in the better eye and 6/18 in the weaker eye | R |
| Colour blindness | A |
| Retinal detachment | D |