

Fitness to Ride – Horse Racing in Great Britain



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Horse racing is an immensely popular global sport with television audiences of over 100 million for major event – Melbourne Cup, Kentucky Derby. Racing takes place on 60 racecourses in England, Scotland and Wales and there are approximately 1475 race meetings annually with total attendance figures of over 5 million spectators.

Racing is broadly divided into flat and jump racing and involves both amateur and professional riders. All riders are over 16 and all types of racing take place over a full 12 month season, apart from Point to Point (PtoP) racing. PtoP is jump racing that is restricted to amateurs and has a limited season (November to June).

There are approximately 110,000 rides a year (60,000 flat, 35,000 jump and 12,000 Point to Point) and 1800 jockeys are licensed annually by the BHA (250 flat, 200 jump, 450 amateurs and 900 PtoP amateurs).

Over the period 1993-2007, there have been over 20,000 fixtures, 1.3 million rides, 53,000 falls, 10,250 injuries and 1,275 concussions in Great Britain, details of which are already in the published literature.^{1,2,3}

Horses travel at 20-40mph, the jockey is seated in a saddle perched two metres above the ground and a ride may last anything from 40 seconds (flat) to 6 minutes (jump).

Incidence and type of injury

Amateur jockeys fall every 7.9 rides, Jump jockeys fall every 15.8 rides and Flat jockeys fall every 211 rides on turf (every 258 rides on All-Weather tracks). It is therefore not surprising that horse racing has some of the highest rates of injury seen in any sport, including the highest rates of concussion and fatal accidents in the published literature. Concussion rates are in fact six times greater than in Australian Rules Football – the sport with the closest incidence of concussion.

Soft tissue injuries account for 75-80% of all injuries, fractures 10-18%, dislocations 1-4% and concussion 8% (professional racing) - 18% (amateur racing).

Regulations

Horse racing has detailed regulations covering all aspects of a jockeys' fitness to hold a license, clearance to return to race riding following an accident, and the minimum medical provisions required on every racecourse on every raceday. These are published on the BHA website -

Standards of Medical Fitness to Ride

http://www.britishhorseracing.com/inside_horseracing/about/whatwedo/medical/medical.asp

Provision of medical services on racecourses – BHA

General Instruction 11

http://www.britishhorseracing.com/inside_horseracing/pdf/hragi_11.pdf

Prohibited substances and testing of jockeys

http://www.britishhorseracing.com/inside_horseracing/about/whatwedo/medical/testing-banned-bkt.pdf

Fitness to Ride regulations

When applying for an initial licence, every rider must reach the minimum medical standard of fitness to ride. The same standard applies to all amateur and professional jockeys and some specified conditions warrant exclusion – epilepsy, anti-coagulant therapy, deafness, monocular vision, insulin-dependent diabetes etc.

Jockeys are required to notify the BHA Medical Department immediately if they suffer any illness or injury during the 12 months that the licence is valid. All jockeys are required to renew their licences annually and are required to complete a Health Declaration with details of all injuries and illnesses suffered since the last application. In addition, all jockeys are required to have a full medical examination carried out by their own GP every five years.

When riders reach a designated age threshold (over 37 jump, over 45 flat, over 55 amateur), they are also required to have an annual medical examination by the BHA CMA (to include blood profile, ECG and Exercise Stress Test if warranted).

Protection equipment

The Rules of Racing require all riders to wear helmets and body protectors when race riding and all protective equipment must meet the current European Standard – EN 1384.1996 (helmets) and EN 13158.2000 (body protectors). Helmets cost around £120 each and are designed as ‘single impact protectors’ – so should be discarded after every head injury or concussion. Body protectors are only designed to mitigate rib fracture (not injuries to the spine) and cost around £150.

Injury monitoring and recording

On every raceday, a minimum of two trauma trained doctors are required to be on duty (Racecourse Medical Officers – RMOs). When a jockey falls, a doctor or paramedic must attend the faller rider within 60 seconds. Before riding again, the jockey must be examined by an RMO and a decision made as to his/her fitness to continue riding that day. All injuries must be recorded on a standardised form (MRB3) and reported to the BHA Medical Department at the end of racing. These are referred to as “Red Entries” and these data are currently stored on a central computer database within racing (Weatherbys). This system will shortly be replaced by a customised injury management system (Presagia Sports – Injury Zone). In addition, amateur riders carry a “Medical Record Book” (MRB) with details of all injuries incurred during racing – a medical passport. For amateurs, the RMO will record the Red Entry in the MRB as well as recording it on the MRB3 Form.

All jockeys who are unable to ride, for whatever reason, are recorded on a “Red Entry List”. This list is updated each evening and is available on every racecourse before racing starts. Any jockey whose name appears on the Red Entry List must be medically cleared by the BHA CMA and examined by a RMO before they are allowed to return to race riding.

For example, a jockey who suffers a fracture-dislocation of the shoulder will be sent directly to hospital in an ambulance and his name entered on the Red Entry List. When he has completed treatment, his specialist will be required to send a detailed report to the BHA CMA confirming that the condition is resolved and that the jockey can return to race riding. The BHA CMA may request additional information or examine the jockey himself but, more usually, the BHA CMA will accept the specialist recommendation and allow the jockey to return to a racecourse for examination by an RMO. Before racing starts, the RMO is required to examine the injured jockey and decide if the rider is in fact fit to race ride. At that stage, the RMO will either clear the Red Entry (allowing the jockey to ride) or, refer the jockey back to the BHA CMA for further evaluation.

Jockeys who are subject to a medical suspension (Red Entry) are uninsured and cannot ride in GB or any other country until cleared by the BHA CMA. Medical standards of fitness to ride apply across all racing authorities (Article 27 of the International Agreement) and some injuries are inevitably career ending.^{4,5,6,7}

Concussion management

Prior to 2004, the Jockey Club operated a fixed period of suspension (related to loss of consciousness – LOC) for any jockey who suffered concussion:

Mild –	no LOC – jockey suspended for 2 clear days
Moderate –	LOC of less than 60 seconds – jockey suspended for 6 clear days
Severe –	LOC of over 60 seconds – jockey suspended for 20 clear days

In 2004, the Jockey Club/BHA introduced a standardised concussion management system and analysis of some 350 concussions that occurred in the 4.5 year period, 1st Jan 2004 – 30th June 2008, will be published shortly. The total budget for the BHA Concussion program is approximately £80,000 pa.

The current BHA Concussion protocol has three elements -

1. Neuro-Psychological (NP) testing

This takes place at one of 12 regional centres established by the BHA. These centres are located in private (independent) hospitals or GP surgeries and a trained nurse at each location will carry out the NP testing on behalf of the BHA. The jockey is required to complete a computerised test (CogSport) and a series of pen and paper tests (Colour trails, STROOP, Symbol-digit, SCOLP, digit span) – the whole process takes about 60 minutes to complete. The various tests are then evaluated by one of 4 Clinical Neuro-Psychologists retained by the BHA.

2. Standard Assessment of Concussion (BHA AC)

Whenever a jockey suffers a concussion, the doctor in attendance at the racecourse will carry out a standardised concussion assessment as mandated by the BHA. This involves a set of screening questions and a more detailed neurological evaluation for those riders who fail to answer the screening questions correctly. In every case, the doctor will be required to make a definitive diagnosis in regard to concussion. Is this rider suffering from concussion – YES/NO?

3. Post-concussion evaluation (fitness to return to race riding)

Any rider who is diagnosed as having concussion (as per 2/ above) will be required to undergo a two part evaluation before being allowed to return to race riding. This evaluation will normally take place no earlier than six clear days after the concussive incident:

- Repeat NP testing (as for 1/ above) with report from Neuro-Psychologist.
- Examination by a Consultant Neurologist (or Neurosurgeon). This consultation takes place at the same Regional Centre as the NP testing.

The reports from both these examinations are sent to the BHA CMA who is then responsible for deciding if the rider can safely be allowed back to race riding, or if a further period of rest is required. If the NP tests have not returned to baseline levels, the rider will normally be suspended for a further 14 days after which repeat post-concussion evaluation will take place (NP testing +/- consultant review). This process will be repeated until it is deemed safe for the rider to return to race riding.

The arrangements for baseline screening vary for the different types of jockey but the BHA AC and post-concussion review are identical for all jockeys (see Stages 1 and 2 above).

Professional jockeys

Neuro-Psychological testing - annual baseline

Amateur jockeys

Neuro-Psychological testing - baseline before first license is issued and repeat baseline every 5 years (or at the start of the season after any concussion)

Point-to Point Riders (who do not hold an Amateur Licence – see above)

Neuro-Psychological testing – no baseline required but NP testing is available to riders on a voluntary basis (cost to be paid by the rider)

Head height for a jockey is approximately three metres above the ground and a fall from over two metres warrants specific medical management under the NICE Guidelines on Head injuries (June 2007).⁸

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