



# ADVANCED BRAIN HEALTH CLINIC

A SPECIALIST BIOMARKER, ADVANCED  
IMAGING AND NEUROCOGNITIVE ASSESSMENT  
CLINIC FOR RETIRED ELITE RUGBY PLAYERS

# SPECIALIST NEUROLOGICAL MANAGEMENT

The Advanced BRAIN Health Clinic is a specialist Biomarker, Advanced Imaging and Neurocognitive assessment clinic for retired elite rugby players who played in England.

The Rugby Football Union (RFU) and Premiership Rugby are collaborating on a partnership with the Institute of Sport, Exercise and Health (ISEH) and Imperial College London to provide a specialist clinical service for the neurological assessment and management of retired elite rugby players. The service is available to all male and female retired elite rugby players between the ages of 30-55 who have concerns about their brain health.

## WHY THE NEED FOR AN ADVANCED BRAIN HEALTH CLINIC?

Maintaining brain health is key to a long and active life. Declining brain function is associated with cognitive problems, such as memory impairment, and mental health conditions, such as depression and anxiety. It is possible that some rugby players may be at an increased risk of neurological and psychiatric problems, including post-traumatic dementias, such as chronic traumatic encephalopathy (CTE), for a range of reasons including their exposure to multiple head impacts through their career. CTE has been reported in rugby players but its prevalence remains very unclear, so it is crucial to understand this further.

The early signs of problems developing can easily be missed and it is often difficult to identify the potential causes of symptoms. Comprehensive assessment, accurate diagnosis and early intervention are key to improving long-term health and wellbeing.



## WHAT DOES THE ADVANCED BRAIN HEALTH CLINIC OFFER?

The clinic offers a unique, specialist, neurological service, supported by advanced imaging, neurocognitive assessment and blood measurements. This will provide retired elite players with a comprehensive assessment of medical and psychological factors relevant to their brain health. The clinic is led by internationally recognised experts Professor David Sharp and Dr Richard Sylvester.

Retired players will undergo a comprehensive set of same-day assessments at ISEH, including:

- Neuropsychological assessment by a clinical neuropsychologist, including gold-standard tests of cognitive function
- Magnetic resonance imaging (MRI) scanning to detect brain pathologies
- Blood tests to identify easily treatable cause of neurological or psychiatric problems
- Ultrasensitive blood biomarker assessment to determine the presence/signs of neurodegeneration or inflammation within the brain
- Genetic analysis to examine an individual's risk of developing long-term brain problems

Once these test results are acquired, all players will return to ISEH between four to eight weeks later for a neurological assessment with an expert in the management of post-traumatic and neurodegenerative problems and their test results fed back. Any treatment needs or brain health actions will be shared with both the player and their General Practitioner. This process will be repeated at years two and four to see if changes in the brain have occurred.



## WHAT DOES THE CLINIC HOPE TO ANSWER THROUGH ITS RESEARCH?

Currently, there is great uncertainty about the correct medical diagnoses for players who develop neurological and psychiatric symptoms after retirement. There is an important societal debate about the risks and benefits of sports participation, but, in the context of head injury, this is often uninformed by medical science.

## QUESTIONS THE CLINIC HOPES TO ANSWER ARE:

1. What are the effects of elite rugby participation on brain health?
2. How common are different causes of cognitive and psychiatric problems in retired elite rugby players?
3. What are the most effective ways to treat these problems?
4. What diagnostic tests are most useful for predicting the development of significant long-term brain problems?
5. How do we best promote brain health among elite rugby players?

Participation is entirely optional. The research programme would be run in a way to maximise the use of data collected during routine clinical practice, while minimising any inconvenience for players in the clinic.



## OUR SPECIALIST CONSULTANTS

Neurological assessments at the Advanced BRAIN health clinic are overseen by two of the UK's leading consultant neurologists, Dr Richard Sylvester and Professor David Sharp. They both work as Independent Concussion Consultants for the Rugby Football Union, and together they are the principal investigators in the Advanced BRAIN health research programme.

Dr Richard Sylvester is an honorary lecturer at University College London (UCL) and is the founder and an executive member of the UCL Partners Centre for Neurorehabilitation.

Professor David Sharp is Director of the UK Dementia Research Institute Care Research and Technology Centre at Imperial College London. He leads a research programme investigating traumatic brain injuries and dementia. He is Chair of the Traumatic Brain Injury Advisory Group for the Association of British Neurologists.

## HOW MUCH DOES THE CLINIC COST AND AM I ELIGIBLE?

The Advanced BRAIN Health Clinic is accessible and free of charge to retired elite rugby players between the ages of 30 and 55. To be eligible for RFU and Premiership Rugby funding, rugby players must meet at least one of the following criteria:

- Retired England Senior Men's or Women's International player
- Retired England Sevens Men's or Women's player
- Retired Premiership player\*
- Retired Premier 15s player\*
- Retired Championship player\*

\*Must have been contracted for a minimum of one full season.

**ACCESS TO THIS SERVICE WILL BE PRIORITISED FOR THOSE ELIGIBLE BASED ON CLINICAL NEED, PROVIDED THERE IS AVAILABLE CAPACITY WITHIN THE CLINIC.**

To make an appointment, please contact:

Tel: +44 (0)20 3447 2800

Email: [AdvancedBrainHealthClinic@iseh.co.uk](mailto:AdvancedBrainHealthClinic@iseh.co.uk)

# THE INSTITUTE OF SPORT, EXERCISE AND HEALTH



The ISEH was formed in 2013 as a partnership between UCLH (University College London Hospitals, NHS Foundation Trust), HCA Healthcare UK, UCL, the English Institute of Sport and the British Olympic Association, combining the leading minds of the healthcare, research and education sectors.

Our mission is to provide excellence in the diagnosis, prognosis and treatment of sports injuries and illnesses, whilst bridging the gap between elite sport and recreational physical activity to support the improvement in the health of the nation.

## WORLD-RENNED SPECIALISTS IN SPORT AND EXERCISE MEDICINE AT THE FOREFRONT OF OUTSTANDING CARE

The ISEH is internationally recognised for its concussion expertise. We provide care to the world's best athletes in a wide range of sports, including professional rugby, premiership football, Olympians, motorsport and world champion boxers, and we have successfully supported them in returning to competition following a concussion.

The ISEH is also recognised for its care of adolescent athletes (12-18 years of age) who have suffered a concussion that is negatively impacting their quality of life, schoolwork and extra-curricular activities.

The ISEH Concussion Clinic is a world-leading, one-stop multidisciplinary clinic for professional and amateur athletes with concussion-related issues. Led by our resident consultant neurologist, Dr Richard Sylvester, our expert team includes a sports neurologist, a neuropsychologist, a sports physiotherapist and an expert vestibular rehabilitation specialist.



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