

# DTI Brain Scanning in International Rugby Players

Submitted by: Alina Wallace Communications

Wednesday, 9 December 2020

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Re:Cognition Health provides objective diagnosis of brain injury in International Rugby Players

Re:Cognition Health (<https://recognitionhealth.com/>) are experts in brain injury, working with the latest developments in brain health, including the diagnosis and treatment of degenerative brain diseases. Over the past 4 years, Re:Cognition Health has been developing sophisticated approaches to diagnosing mild traumatic brain injury, including the most sophisticated functional imaging techniques. Over the past year these have been deployed to detect, successfully, objective evidence of chronic and progressive brain injury in international rugby players. By using the most detailed DTI imaging technique with MRI scanning, to support the clinical assessment of potential brain damage, it has been possible to improve the probability of identifying rugby players with mild, chronic, traumatic encephalopathy CTE.

CTE is a type of progressive brain disease caused by repeated blows to the head and concussions. This type of brain injury formally acknowledged, first, by the NFL in American football players, but it is being increasingly associated with professional rugby and football players. CTE leads to a progressive neurodegenerative disease, resulting in dementia with related physical and cognitive symptoms, such as memory problems, a decline in thinking ability, confusion, aggression, depression and changes in personality; all of which can be debilitating and life-changing for those affected.

Using DTI (diffusion tensor imaging) scans of the brain, Re:Cognition Health has been able to identify objective evidence of specific structural damage in the brain, suspected from clinical assessment, but not visible on conventional state-of-the-art MRI scans.

Dr Emer MacSweeney, Consultant Neuroradiologist and CEO at Re:Cognition Health comments, "Through the highly advanced DTI scanning we are able to identify structural changes in the brain and confirm a diagnosis of brain damage, previously missed, as this is not visible on high field, state of the art, conventional MRI scans. Whilst MRI is a very powerful imaging tool, it doesn't have the sophistication to identify CTE. Obtaining an early and accurate diagnosis in any brain condition is paramount to the subsequent management and treatment pathway. Annual brain checks should become mandatory for professional players, to help safeguard against brain disease caused by contact sports."

It has been recognised for many decades that contact sports such as boxing, rugby and football can lead to chronic progressive brain damage, neurological symptoms and eventually dementia. Re:Cognition Health supports the notion that drastic action needs to be taken by governing bodies to change the way the contact sports are played and how players are monitored in order to reduce the risk of developing chronic brain disease.

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For further information and for interviews with Dr Emer MacSweeney please contact:

Alina Wallace: 07946 189672 / [alina@alinawallace.com](mailto:alina@alinawallace.com)

#### About Re:Cognition Health:

Re:Cognition Health is a pioneering brain and mind clinic specialising in the diagnosis, treatment and care of people showing symptoms of cognitive impairment or mental health concerns. Clinical services include traumatic brain injury, neurology, children's neurological conditions, Alzheimer's and dementia and mental health. The Re:Cognition Health Clinics in London, Essex, Surrey, Birmingham, Plymouth and Washington DC are also major centres for international trials of disease-modifying and new symptomatic drugs for Alzheimer's disease and other neurological conditions. The multi-disciplinary team work collaboratively to provide a full service, patient-centred approach using the latest progressive medical research and evidence-based treatments.