Researchers in Wales have published findings that over the course of a season cognition in professional rugby players decreases. The research also shows that they show a decline in brain blood flow and an increase in markers for oxidative stress. The scientific journal, Experimental Physiology, published the results.

From traffic accidents to collision sports, millions of people around the world experience head injuries every year. Head injury is an event where someone receives a blow to the head, which either causes physical damage or troublesome symptoms. If there are symptoms related to the hit, for example short-lived memory problems, a person might be described as having a "concussion."

However, many of the symptoms that people call a concussion, such as dizziness or headache can take place without any physical damage to the brain. If doctors suspect that there is physical brain damage, they might diagnose "traumatic brain injury."

Scores on the memory and thinking tests decreased in both forwards and backs across the season but there was no difference between forwards and backs.

Dr. Susan Kohlhaas, Director of Research at Alzheimer's Research UK, said: "We know traumatic head injury is linked with an increased risk of dementia, but we don't fully understand how these events set dementia-causing processes in motion.

"Collisions in sport is an area of increasing scrutiny for public health. The findings from this small study in rugby union players help add to our incomplete understanding of the risks involved with professional sports and the aspects of biology that may underly cognitive changes over the short term.

"We know exercise is good for our brain health, but longer-term and larger studies with suitable control
groups are needed to add weight to these exploratory findings into concussion, and short-term brain health. One positive of the study is that researchers did look at a possible biological pathway for these events, however a link, if any, between concussion, blood flow, oxidative stress and long-term cognitive changes including dementia requires further research.

"To better understand the specific factors of a rugby professional's career that might affect their brain health, future studies should also consider collisions in training. Comparing rugby players with players of non-contact sports could also help to determine whether factors other than collisions could be playing a role in these findings.

"Funding for dementia research lags behind funding for other conditions. We need to see this change. Only with increased funding into dementia will we be able to help reduce the number of dementia cases, which are set to triple by 2050 and help bring about life-changing treatments."


Provided by Alzheimer's Research UK

*This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.*