Retired American football players who are overweight may have greater cognitive deficits than their healthy weight counterparts, suggests a study published online this week in *Translational Psychiatry*. The results imply that the combination of weight gain and a history of brain trauma in American football players has an additive negative effect on brain function.

Obesity adversely affects cognitive function and is a growing problem in football players, a group that is already at risk for cognitive impairment and dementia due to repetitive concussions. Daniel Amen and colleagues investigated regional cerebral blood flow in both normal weight and overweight retired National Football League (NFL) players. The overweight subjects displayed decreased blood flow in the
prefrontal cortex and temporal pole areas of the brain associated with attention, reasoning and executive function, with correlated cognitive impairments such as significant decreases in attention, general cognitive proficiency, and memory.

This study suggests that as body mass increases in some former professional athletes, the blood flow to key areas of the brain decreases, affecting cognitive function. Proper weight education and management may be critical to the health of active and retired athletes who have been exposed to mild brain trauma during their careers.

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