

Study of retired NFL players finds evidence of brain damage

June 29 2012, By Maureen Salamon, HealthDay Reporter



In tests, they had higher rates of depression, memory deficits and 'white matter' damage.

(HealthDay) -- Tests performed on a group of retired NFL players revealed that more than 40 percent suffered from problems such as depression and dementia, adding to a growing pile of evidence that repeated sports-related head traumas can lead to lasting neurological issues.

Analyzing 34 ex-professional football players (average age 62) on benchmarks such as memory, reasoning, problem-solving and behavior, researchers from the Center for [Brain Health](#) at the University of Texas at Dallas found that 20 tested normal while the rest suffered from depression, various deficits in memory/thinking or a combination of these issues. Twenty-six of the players also underwent [MRI scans](#).

"We picked up that many guys were depressed but didn't know it," added study author Dr. John Hart, medical science director at the center. "The cognitive impairments . . . were more than what's expected for their ages. A lot had damage to their brain's [white matter](#), so for us it's a real clue or marker to look for."

Hart is scheduled to present the findings Friday at the National Athletic Trainers' Association (NATA) annual meeting in St. Louis. Research presented at scientific meetings should be considered preliminary until it is published in a peer-reviewed medical journal.

An estimated 300,000 sports-related concussions occur in the United States each year, and mounting attention is being paid to the neurological toll of those injuries on former professional athletes. In June, a massive bundle of lawsuits representing more than 2,100 [National Football League](#) players was filed against the league, claiming that the NFL hid information linking football-related head injuries to permanent [brain damage](#).

Hart's study involved ex-NFL athletes hailing from the North Texas region. For comparison purposes, the researchers also looked at the brains of 26 people with no signs of mental deficits, selected from the general population and matched for age, education and IQ.

Of the eight former players who were found to have depression -- the finding that most surprised Hart -- most didn't exhibit the mood issues such as sadness that are typically associated with the condition, he said.

Instead, "there was a lack of energy, initiative or sex drive and disrupted sleep, with weight gain or loss," Hart said. "They would ruminate or get anxious about stuff, but they weren't crying. They were shocked or surprised [at the finding], because they didn't think they had symptoms at all."

The results highlight the need to actively inquire about depressive symptoms among those who have suffered concussions, Hart said. Additionally, it's important to "let the brain rest and heal" following concussions instead of charging back onto the field -- which opens players to a phenomenon known as "second-impact syndrome." The brain can swell catastrophically when a second concussion occurs before symptoms of the first have abated.

Promoting a healthier approach to concussion recovery will take the cooperation of players, coaches, parents and even teachers at the high school or college level, who need to understand that even the mental exertion required in the classroom can be detrimental to getting better, added Paul J. Krawietz, director of the athletic training education program in the department of kinesiology at the University of Texas at Arlington.

"The testing and note-taking can exacerbate symptoms or make them worse if a student comes back too soon," Krawietz said. "People know symptoms can be made worse by physical exertion, but often they don't think about the cognitive component, that thinking can make things worse."

More information: Find out more about sports-related concussions at the [University of Pittsburgh](#).

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Citation: Study of retired NFL players finds evidence of brain damage (2012, June 29) retrieved 2 May 2024 from <https://medicalxpress.com/news/2012-06-nfl-players-evidence-brain.html>

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