

NFL players may be at higher risk of death from Alzheimer's and ALS

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New research shows that professional football players may be at a higher risk of death from diseases that damage the cells in the brain, such as Alzheimer's disease and ALS (also known as Lou Gehrig's disease), compared to the general U.S. population. The study is published in the September 5, 2012, online issue of *Neurology*.

The study included 3,439 [players](#) with an average age of 57 from the [National Football League](#) with at least five playing seasons from 1959-1988. Researchers reviewed [death certificates](#) for causes of death from Alzheimer's [disease](#), Parkinson's disease and ALS. At the time of the analysis, only 10 percent of the participants had passed away.

The research found that [professional football players](#) in this study were three times more likely to die as a result of diseases that damage brain cells compared to the general population. A player's risk of death from Alzheimer's disease or ALS was almost four times higher than the general population. Of the 334 who died, seven had Alzheimer's disease and seven had ALS. The risk of dying from Parkinson's disease was not significantly different than that of the general population.

To determine if these risks differed by position played, researchers divided the players into two groups: those who played non-line ("speed") positions which included quarterbacks, running backs, halfbacks, fullbacks, wide receivers, tight ends, defensive backs, safeties and linebackers, and those who played line ("non-speed") positions, which included defensive and offensive linemen. Speed position players were more than three times more likely to die from a neurodegenerative cause than non-speed position players. A total of 62 percent of the players were in speed positions.

"These results are consistent with recent studies that suggest an increased risk of neurodegenerative disease among [football players](#)

," said study author Everett J. Lehman, MS, with the National Institute for [Occupational Safety and Health](#) in Cincinnati. "Although our study looked at causes of death from Alzheimer's disease and ALS as shown on death certificates, research now suggests that chronic traumatic encephalopathy (CTE) may have been the true primary or secondary factor in some of these deaths. A brain autopsy is necessary to diagnose CTE and distinguish it from Alzheimer's or ALS. While CTE is a separate diagnosis, the symptoms are often similar to those found in Alzheimer's, Parkinson's and ALS, and can occur as the result of multiple concussions."

Lehman said the study was limited by the small number of deaths in the analysis.

Provided by American Academy of Neurology

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