

## Prevalence of Metabolic Syndrome in Retired National Football League Players

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The National Institute of Occupational Safety and Health mortality study of National Football League (NFL) players concluded that retired NFL linemen have an increased risk of cardiovascular death compared with both nonlinemen and the general population. Though elevated body mass index contributed to the increased cardiac risk of linemen, it could not fully account for the mortality observed, suggesting that other unmeasured cardiovascular risk factors were involved. We performed a cross-sectional prevalence study of metabolic syndrome (MS), and its individual component criteria, in 510 retired NFL players who were recruited to multicity health screenings from February 2004 through June 2006. The International Diabetes Federation criteria were used to define MS. The MS component criteria of body mass index  $>30$  kg/m<sup>2</sup>, reduced high-density lipoprotein, and raised fasting glucose were more prevalent in linemen compared with nonlinemen (85.4% vs 50.3%,  $p < 0.001$ ; 42.1% vs 32.7%,  $p = 0.04$ ; 60.4% vs 37.6%,  $p < 0.001$ , respectively). Metabolic syndrome was more prevalent in linemen compared with nonlinemen (59.8% vs 30.1%,  $p < 0.001$ ). In conclusion, linemen exhibited a high prevalence of MS, almost double the prevalence of their nonlinemen counterparts. These findings may partially explain the increased risk for cardiovascular death observed in retired linemen and could have significant public health implications for preprofessional training regimens and postprofessional health maintenance.