

Association between Traumatic Brain Injury and Dementia

It is unclear whether traumatic brain injury (TBI) increases the risk of dementia

TBI and dementia share common risk factors, and previous studies have not been able to adjust for these

Prospective longitudinal cohort study in 31,909 individuals aged 25–64 years

Number of individuals hospitalized for TBI

Major TBI (n = 288)

Minor TBI (n = 406)

Controls (n = 31,215)

Partially adjusted

Fully adjusted

Strength of association between TBI and dementia after adjusting for



Age

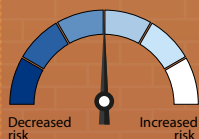


Sex

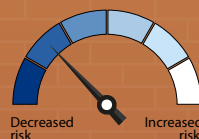
Control

Minor

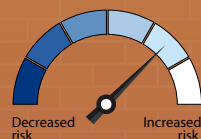
Major



Hazard ratio (HR) = 1.0



HR = 0.67
95% CI = 0.35-1.29



HR = 1.51
95% CI = 1.03-2.22

Strength of association after additional adjustments for



Educational status



Smoking status



Alcohol consumption



Physical activity

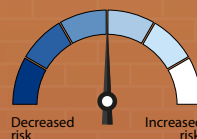


Hypertension

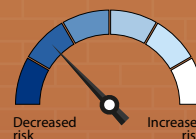
Control

Minor

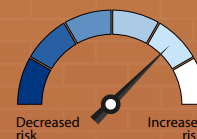
Major



Hazard ratio (HR) = 1.0



HR = 0.64
95% CI = 0.33-1.23



HR = 1.30
95% CI = 0.86-1.97

Risk factors that diminish the association between major TBI and dementia



Excess alcohol consumption



Physical inactivity

Hospitalization due to major TBI, but not minor TBI is associated with an increased risk for dementia