



# THE LINK BETWEEN TRAUMATIC BRAIN INJURY AND SUICIDALITY? IT'S NOT ALWAYS IN THE HEAD

Carolinas Rehabilitation



Carolinas HealthCare System

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Patients with traumatic brain injury (TBI) suffer through many challenges, including a greater risk of suicidal ideation – thinking about taking their own lives in the aftermath of the injury. But new research suggests that in cases of polytrauma where there is not only TBI but also other extracranial injuries (ECIs), a portion of that risk can be linked to having these ECIs.

Severe ECIs – trauma not associated with the head – carry a nearly threefold increase in the odds of suicidal ideation after TBI. In contrast, the severity of head injury is not associated with a greater risk of attempting suicide.

These findings, recently published in the *Archives of Physical Medicine and Rehabilitation*, were the result of a collaboration between Carolinas Rehabilitation, the University of Pittsburgh and 13 other centers nationwide that use the Traumatic Brain Injury Model Systems database. With more than 3,500 participants, this study represents the type of multi-center data analysis that will mark the future of TBI research.

“We need to use complex research methods to find out all we can about a very complex condition that has many risk factors and potentially fatal consequences,” says Janet P. Niemeier, PhD, senior director of research at Carolinas Rehabilitation and one of the paper’s authors.

## RESEARCH HIGHLIGHT

Acute Trauma Factor Associations With Suicidality Across the First 5 Years After Traumatic Brain Injury  
*Archives of Physical Medicine and Rehabilitation*, August 2016

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While severe ECIs were implicated in increased risk of suicidal *thoughts*, these injuries were not linked to a greater risk of suicidal *attempts*. But thoughts can lead to attempts, especially when the increased impulsivity and cognitive impairments common after TBI are also present. In general, individuals reporting



suicidal ideation are more than five times more likely to make an eventual attempt on their lives.

With self-injury representing the eighth leading cause of death in the United States, “it’s critical to identify at-risk populations and intervene a lot earlier, especially when other risk factors like substance abuse are involved,” says Dr. Niemeier.

Now, acute trauma physicians and orthopedic surgeons treating TBI patients who also have severe injuries, such as a fractured femur or lacerations, should be aware that their patients’ thoughts may turn to suicide. According to Dr. Niemeier, these providers can then line up appropriate inpatient consultations and follow-up care – from psychology, psychiatry, pain management, and other consultative services – to ensure those thoughts don’t turn into self-harming behavior.

To learn more about this study, contact Dr. Niemeier:

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## Serving Our Nation’s Veterans

Based on her expertise in the field of rehabilitation, Janet P. Niemeier, PhD, senior director of research at Carolinas Rehabilitation, has been congressionally appointed to the Advisory Committee on Prosthetics and Special Disabilities Programs in the Department of Veterans Affairs. This 12-member committee advises the Secretary of Veterans Affairs on state-of-the-art prosthetics and associated rehabilitation research, as well as special disability programs serving veterans.

