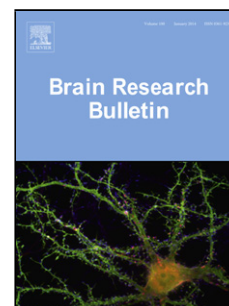


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# **The protective effect of hydrogen sulfide (H<sub>2</sub>S) on traumatic brain injury (TBI) induced memory deficits in rats**

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## **Highlights**

- Hydrogen sulfide is an important neuromodulator agent in the CNS.
- Traumatic brain injury (TBI) induced memory deficit in a rat model of CCI injury.
- NaHS improved spatial memory impairment of injured rats.

## **Abstract**

Traumatic brain injury (TBI), as an expanding public health epidemic, is a common cause of death among youth. TBI is associated with cognitive deficits and memory impairment. Hydrogen sulfide (H<sub>2</sub>S), a novel gaseous mediator, has been recognized as an important neuromodulator and neuroprotective agent in the central nervous system. In the present study the potential neuroprotective role of sodium hydrosulfide (NaHS), an H<sub>2</sub>S donor on TBI induced memory deficit in a rat model of controlled cortical impact (CCI) injury was investigated. CCI model was used to induce TBI. Male rats were randomly assigned into the following groups: control,

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