

INPLASY202610081  
doi: 10.37766/inplasy2026.1.0081  
Received: 24 January 2026  
Published: 24 January 2026

Zhang, W; Lei, Y; Lin, Q; Yan, XP; Zheng, WH; Huang, HB.

**Corresponding author:**  
Hui-Bin Huang

psyc6789@163.com

**Author Affiliation:**  
Guang'anmen Hospital, China  
Academy of Chinese Medical  
Sciences.

**ADMINISTRATIVE INFORMATION**

**Support** - Funded by the Natural Science Foundation of Fujian Province (2023J01820).

**Review Stage at time of this submission** - Completed but not published.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202610081

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 24 January 2026 and was last updated on 24 January 2026.

**INTRODUCTION**

**Review question / Objective** To address this evidence gap, we aimed to conduct a meta-analysis focused on patients with TBI, comparing clinical outcomes between early (defined as initiation within 48 hours) and late EN.

**Condition being studied** Condition being studied The research team comes from the Department of Critical Care Medicine of a tertiary hospital in China, and all the team members have perfect clinical experience in critical care and resuscitation. Moreover, our team members have published more than 40 meta-analyses, which can guarantee the successful completion of the current research.

**METHODS**

**Participant or population** Patients with traumatic brain injury.

**Intervention** Initiation of EN within 48 hours of injury, regardless of combined PN therapy, nutrition route, and EN formula.

**Comparator** Initiation of EN at least 48 hours after injury, regardless of PN combination, nutrition route, and formula.

**Study designs to be included** Not limited.

**Eligibility criteria** We systematically searched the PubMed, Embase, Web of Science, and Cochrane Library databases through December 25, 2025, for studies comparing EEN with delayed enteral nutrition (DEN) in adults with TBI.

**Information sources** PubMed, Embase, Web of Science, and the Cochrane Library.

**Main outcome(s)** Outcomes included clinical outcomes, nutrition status, and complications.

---

**Quality assessment / Risk of bias analysis** Study quality was assessed using the Newcastle-Ottawa Scale tool and the Cochrane risk of bias tool.

**Strategy of data synthesis** Meta-analysis.

**Subgroup analysis** RCT or observational studies.

**Sensitivity analysis** pooled the studies limited to (1) RCTs; (2) EEN is not combined with PN; (3) published after 2000; (4) sample size > 100 to test the robustness of the outcomes.

**Country(ies) involved** China.

**Keywords** traumatic brain injury, early enteral nutrition, mortality, complication, meta-analysis.sivelestat; cardiac surgery; partial pressure of oxygen/fraction of inspiration oxygen; mortality; meta-analysis.

**Contributions of each author**

Author 1 - Wei Zhang.

Email: psyc6789@163.com

Author 2 - Yan Lei.

Email: psyc6789@163.com

Author 3 - Qiu Lin.

Email: psyc6789@163.com

Author 4 - Xiao-Pin Yan.

Email: psyc6789@163.com

Author 5 - Wen-He Zheng.

Author 6 - Hui-bin Huang.

Email: psyc6789@163.com