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# Prevalence Maxillofacial Injuries and Traumatic Dental Injuries in Malaysian Children and Adolescents: A Systematic Review and Meta-Analysis

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## Abstract

**Aim:** This systematic review was undertaken to determine the prevalence of maxillofacial injuries (MFIs) and traumatic dental injuries (TDIs) among children and adolescents in Malaysia. **Materials and Methods:** The protocol was registered in the International Prospective Register of Systematic Reviews. A comprehensive electronic search across several databases was performed up to June 30, 2025, limited to articles published in English. The methodological quality of the included studies was evaluated using the Joanna Briggs Institute critical appraisal checklist. Data were synthesized through a binary random-effects meta-analysis, and meta-regression was applied to investigate potential sources of heterogeneity. **Results:** Thirteen cross-sectional studies satisfied the inclusion criteria, encompassing 1182 individuals with MFIs and 9379 with TDIs. All studies contributed to the qualitative synthesis. Risk of bias was rated as “moderate” in eight studies and “low” in five. The pooled prevalence estimates were 23.7% for MFIs and 5.1% for dental trauma. Substantial heterogeneity was detected ( $I^2 = 92.84\%–98.46\%$ ). Meta-regression analysis indicated that sample size did not significantly account for the variability in prevalence for either outcome ( $P = 0.207$  for MFIs and  $P = 0.290$  for TDIs). **Conclusion:** The prevalence of MFIs and TDIs among the Malaysian population, as observed in cross-sectional studies, was determined to be 23.7% and 5.1%, respectively, with the quality of evidence considered to be low to moderate. © 2025 Journal of International Oral Health.

## Author keywords

Children; Dental Trauma; Maxillofacial Injuries; Meta-Analysis; Systematic Review

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**Abstract**

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