

# Independent systematic literature review (SLR) with meta-analysis of COBLATION<sup>®</sup> Intracapsular Tonsillectomy (CIT) shows low rate of post-tonsillectomy haemorrhage (PTH)

Lin H, Hajarizadeh B, Wood AJ, Selvarajah K, Ahmadi O. Postoperative outcomes of intracapsular tonsillectomy with coblation: a systematic review and meta-analysis. *Otolaryngol Head Neck Surg.* 2023;170(2):347–358.

Available at: [Otolaryngology–Head and Neck Surgery](#)  

## Key points

SLR and meta-analysis of patients undergoing CIT found:



**99%** did not experience PTH



**Significant improvement** in OSA and SDB symptoms



Patients were estimated to be **pain-free at 5.0–6.5 days** (on average)

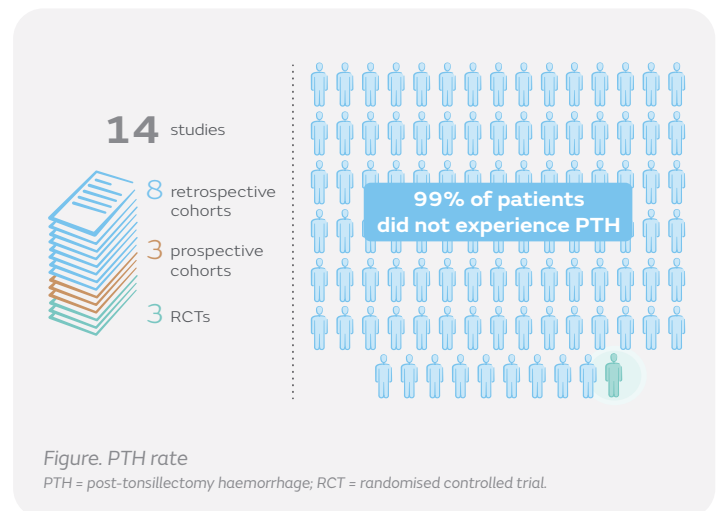
## Overview

- Independent SLR with meta-analysis to assess short-term morbidity and long-term outcomes of CIT
- Studies identified through searches on Medline, Embase and the Cochrane Library covering publications from December 2002 to July 2022
- This review included 14 studies and 9,821 patients
  - 8 retrospective cohort studies, 3 prospective studies and 3 randomised controlled trials (RCTs)
- Primary outcome was PTH rates
- Secondary outcomes were post-operative pain, revision rate, severity of sleep-disordered breathing (SDB) and obstructive sleep apnoea (OSA), measured using the Apnoea–Hypopnoea Index (AHI) and oxygen nadir levels

## Results

SLR and meta-analysis of patients undergoing CIT found:

- PTH rate of 1.0% (95% confidence interval [CI]: 0.5–1.6%; 13 studies; n=9,821; Figure)
  - Primary PTH was 0.1% (95% CI: 0.0–0.1%; 7 studies; n=8,065)
  - Secondary PTH was 0.8% (95% CI: 0.2–1.4%; 7 studies; n=7,878)
  - Return to theatre for PTH was 0.1% (95% CI: 0.0–0.2%; 10 studies; n=8,490)
- Patients estimated to be pain-free at 5.0–6.5 days post-tonsillectomy (on average; 3 studies)
- Return to normal diet on average 4.4–6.0 days post-surgery (4 studies)
- Activities resumed on average 4.1–7.0 days post-surgery (3 studies)
- Significant improvement in OSA and SDB symptoms, compared to pre-surgery (7 studies; n=2,629)
  - Significant reduction in AHI per hour of sleep (16 events; 95% CI: -23.26 to -8.83; 3 studies; n=150; p<0.001)
  - Significant increase in mean oxygen saturation (5.85%; 95% CI: 2.59–9.11; 3 studies; n=149; p<0.001)



## Conclusions

Independent systematic literature review of 14 studies found that COBLATION Intracapsular Tonsillectomy demonstrated low post-tonsillectomy haemorrhage and favourable post-operative outcomes.

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Post Tonsillectomy Haemorrhage (PTH) is a potentially serious complication that has been reported in literature for both adult and pediatric patients, follow specific product instructions for use (IFU) to reduce the risk of PTH.