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[Cochrane Database Syst Rev.](#) 2014 Nov 19;11:CD001802. doi: 10.1002/14651858.CD001802.pub3.**Tonsillectomy or adenotonsillectomy versus non-surgical treatment for chronic/recurrent acute tonsillitis.**Burton MJ¹, Glasziou PP, Chong LY, Venekamp RP.**+** Author information**Abstract**

BACKGROUND: Surgical removal of the tonsils, with or without adenoidectomy (adeno-/tonsillectomy), is a common ENT operation, but the indications for surgery are controversial. This is an update of a Cochrane review first published in The Cochrane Library in Issue 3, 1999 and previously updated in 2009.

OBJECTIVES: To assess the effectiveness of tonsillectomy (with and without adenoidectomy) in children and adults with chronic/recurrent acute tonsillitis in reducing the number and severity of episodes of tonsillitis or sore throat.

SEARCH METHODS: We searched the Cochrane Ear, Nose and Throat Disorders Group Trials Register; the Cochrane Central Register of Controlled Trials (CENTRAL); PubMed; EMBASE; CINAHL; Web of Science; Cambridge Scientific Abstracts; ISRCTN and additional sources for published and unpublished trials. The date of the most recent search was 30 June 2014.

SELECTION CRITERIA: Randomised controlled trials comparing tonsillectomy (with or without adenoidectomy) with non-surgical treatment in adults and children with chronic/recurrent acute tonsillitis.

DATA COLLECTION AND ANALYSIS: We used the standard methodological procedures expected by The Cochrane Collaboration.

MAIN RESULTS: This review includes seven trials with low to moderate risk of bias: five undertaken in children (987 participants) and two in adults (156 participants). An eighth trial in adults (40 participants) was at high risk of bias and did not provide any data for analysis. Good information about the effectiveness of adeno-/tonsillectomy is only available for the first year following surgery in children and for a shorter period (five to six months) in adults. We combined data from five trials in children; these trials included children who were 'severely affected' (based on the specific 'Paradise' criteria) and less severely affected. Children who had an adeno-/tonsillectomy had an average of three episodes of sore throats (of any severity) in the first postoperative year, compared to 3.6 episodes in the control group; a difference of 0.6 episodes (95% confidence interval (CI) -1 to -0.1; moderate quality evidence). One of the three episodes in the surgical group was the 'predictable' one that occurred in the immediate postoperative period. When we analysed only episodes of moderate/severe sore throat, children who had been more severely affected and had adeno-/tonsillectomy had on average 1.1 episodes of sore throat in the first postoperative year, compared with 1.2 episodes in the control group (low quality evidence). This is not a significant difference but one episode in the surgical group was that occurring immediately after surgery. Less severely affected children had more episodes of moderate/severe sore throat after surgery (1.2 episodes) than in the control group (0.4 episodes: difference 0.8, 95% CI 0.7 to 0.9), but again one episode was the predictable postoperative episode (moderate quality evidence). Data on the number of sore throat days is only available for moderately affected children and is consistent with the data on episodes. In the first year after surgery children undergoing surgery had an average of 18 days of sore throat (of which some - between five and seven on average - will be in the immediate postoperative period), compared with 23 days in the control group (difference 5.1 days, 95% CI 2.2 to 8.1; moderate quality evidence). When we pooled the data from two studies in adults (156 participants), there were 3.6 fewer episodes (95% CI 7.9 fewer to 0.70 more; low quality evidence) in the group receiving surgery within six months post-surgery. However, statistical heterogeneity was significant. The pooled mean difference for number of days with sore throat in a follow-up period of about six

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months was 10.6 days fewer in favour of the group receiving surgery (95% CI 5.8 fewer to 15.8 fewer; low quality evidence). However, there was also significant statistical heterogeneity in this analysis and the number of days with postoperative pain (which appeared to be on average 13 to 17 days in the two trials) was not included. Given the short duration of follow-up and the differences between studies, we considered the evidence for adults to be of low quality. Two studies in children reported that there was "no statistically significant difference" in quality of life outcomes, but the data could not be pooled. One study reported no difference in analgesics consumption. We found no evidence for prescription of antibiotics. Limited data are available from the included studies to quantify the important risks of primary and secondary haemorrhage.

AUTHORS' CONCLUSIONS: Adeno-/tonsillectomy leads to a reduction in the number of episodes of sore throat and days with sore throat in children in the first year after surgery compared to (initial) non-surgical treatment. Children who were more severely affected were more likely to benefit as they had a small reduction in moderate/severe sore throat episodes. The size of the effect is very modest, but there may be a benefit to knowing the precise timing of one episode of pain lasting several days - it occurs immediately after surgery as a direct consequence of the procedure. It is clear that some children get better without any surgery, and that whilst removing the tonsils will always prevent 'tonsillitis', the impact of the procedure on 'sore throats' due to pharyngitis is much less predictable. Insufficient information is available on the effectiveness of adeno-/tonsillectomy versus non-surgical treatment in adults to draw a firm conclusion. The impact of surgery, as demonstrated in the included studies, is modest. Many participants in the non-surgical group improve spontaneously (although some people randomised to this group do in fact undergo surgery). The potential 'benefit' of surgery must be weighed against the risks of the procedure as adeno-/tonsillectomy is associated with a small but significant degree of morbidity in the form of primary and secondary haemorrhage and, even with good analgesia, is particularly uncomfortable for adults.

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