*Other Reviews - - Other Review*

# Endoscopic sinus surgery in patients with cystic fibrosis: a systematic review and meta-analysis of pulmonary function

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### Study design (if review, criteria of inclusion for studies)

Systematic review of RCTs and observational studies

### Participants

CF patients

### Interventions

Endoscopic sinus surgery (ESS)

### Outcome measures

Safety, subjective symptoms, objective endoscopy scores, days spent in hospital, courses of antibiotics, and pulmonary function tests (PFTs).

### Main results

Nineteen studies involving 586 patients were included in the review. There were four prospective cohort trials, and three were rated as good quality. There were no major complications attributable to ESS. There was consistent evidence in four cohort studies of improved sinonasal symptoms, including nasal obstruction, facial pain, headaches, rhinorrhea and olfaction. Three studies reported conflicting results in post-operative endoscopy scores. Three studies showed a decrease in days spent in hospital, and two showed a significant decrease in courses of intravenous antibiotics. A recent study, however, did not show a difference in either days spent in hospital or courses of antibiotics. Pulmonary function tests were not improved by ESS in six cohort trials, and one small study found significant improvement. A meta-analysis of FEV1 scores confirmed no significant difference.

### Authors' conclusions

The most consistent findings of this review were that ESS in patients with CF is safe, produces symptomatic benefit, and does not consistently improve PFTs. There were more conflicting results with regards to endoscopy scores, days spent in hospital, and courses of intravenous antibiotics. Future prospective studies, utilizing validated quality of life, symptom and endoscopy scales, are needed to further elucidate the role of ESS in the management of chronic rhinosinusitis in CF patients.

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### See also

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### Keywords

Sinusitis; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; Adult; non pharmacological intervention - surg;