





# DELAYED BAR REMOVAL AFTER MODIFIED NUSS PROCEDURE FOR PECTUS EXCAVATUM REPAIR: COMPARISON OF OUTCOMES

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### Introduction:

The optimal timing for elective Nuss bar removal in adults is unclear. The objective of this study is to compare outcomes of adult patients who underwent early removal of the Nuss bar in comparison to a group who underwent later bar removal.

## Methods:

We retrospectively reviewed all patients who underwent Nuss bar removal from February 2017 to February 2019. Consecutive patients were identified from the database of a single thoracic surgeon at St Joseph's Health Centre, Toronto. We compared outcomes of patients who underwent Nuss bar removal within 3.5 years following placement to patients who had their bars removed more than 5 years after placement. The main outcomes were duration of operation, postoperative complications, and length of stay.

### Results:

A total of 19 patients were evaluated. The outcomes of 13 patients from the "early group" were compared to 6 patients from the "late group". Median duration of bar placement was 35 months for the early group and 77 months in the late group. Median OR time was 63 minutes in the early group and 79 minutes in the late group (p-value=0.2). No postoperative complications were identified in either group.

## Conclusion:

Although there was a trend toward longer operative duration for delayed surgery, our data suggest that late removal of Nuss bars is as safe as earlier bar removal. This study raises the question about the optimal duration of Nuss bar placement in the management of pectus excavatum in adults.