

# The Safety and Efficacy of Outpatient Anterior Cervical Discectomy and Fusion

Michael Weiss MD; Zoltan Berezcki DO; Stefan Prada MD; jed paul weber; Michael Perry Perry MD; chip Wade PhD;  
Reginald J. Davis MD, FAANS, FACS

[Institution]

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## Introduction

Anterior cervical discectomy and fusion (ACDF) remains the standard of care for patients with cervical radiculopathy who are unresponsive to conservative medical care. ACDF has been shown to be a safe and effective treatment for a number of spinal disorders [1–2]. Performing an ACDF in an outpatient setting provides an opportunity to reduce the total cost of surgery. Research is widespread on the substantial benefits to outpatient surgeries besides overall reduced costs. However there are few studies that examine the safety and efficacy of performing an outpatient ACDF. The purpose of our study was to evaluate the safety and efficacy of performing an ACDF with instrumentation on an outpatient basis.

## Methods

Over a 1-year period from December 2013 to January 2015, 80 patients were retrospectively evaluated for the efficacy and safety of performing ACDF with instrumentation procedures on an outpatient basis. The safety and efficacy of performing ACDF as an outpatient procedure were assessed comparing intraoperative and perioperative complications, which were reported for a 1-year follow-up time period. Clinical parameters,

## Results

Overall, 100% of patients were discharged less than 6 hours after their surgeries. There were 0 reported intra-operative and post-operative complications in the patient population. The average length of surgery was 136 minutes with an average effective blood loss of 59.84ml. Results show a 62% improvement in the VAS and a 68% improvement in the NDI.

## Conclusions

The findings of the current study indicate that an ACDF performed in an outpatient setting may prove to be beneficial in decreasing the complications and morbidity of standard treatments for with cervical radiculopathy.

## Learning Objectives

ACDF performed in an outpatient setting result in:

- 1) reduces levels of pain and disability
- 2) reduced surgical time
- 3) reduced blood loss

## References

- [1] Hwang SL, Lin CL, Lieu AS, et al. Three-level and four-level anterior cervical discectomies and titanium cage-augmented fusion with and without plate fixation. J Neurosurg Spine 2004;1:160–7.
- [2] Gore DR, Sepic SB. Anterior cervical fusion for degenerated or protruded discs: a review of one hundred forty-six patients. Spine 1984;9:667–71.

Table 1-2

Table 1. Summary Statistics				
	Mean	Std. Dev.	Min.	Max.
Pre-Op VAS	5.25	1.33	0	10
Post-Op VAS	1.94	1.84	0	10
Pre-Op NDI	28.3	7.35	1	43
Post-Op NDI	41.88	11.28	0	46
Length of Surgery	136.75	43.35	55	309
Estimated Blood Loss	59.84	41.14	0	460

  

Table 2. Outpatient Results				
	Mean	Std. Dev.	Min.	Max.
Pre-Op VAS	5.25	1.33	0	10
Post-Op VAS	1.94	1.84	0	10
Difference	3.31	1.84	0	10

\*\*\*p<0.05, \*\*\*\*p<0.001