

# The Use of NSAIDs within 90 days of Posterior Lumbar Fusion is Associated with Worse Postoperative Outcomes

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## INTRODUCTION

The use of non-steroidal anti-inflammatory drugs (NSAIDs) after spine surgery remains controversial due to potential effects on healing processes like bone remodeling and wound healing. However, these are based on mixed findings in studies regarding NSAIDs' impact on postoperative outcomes, with methodological differences that may contribute to inconsistencies.

## OBJECTIVE

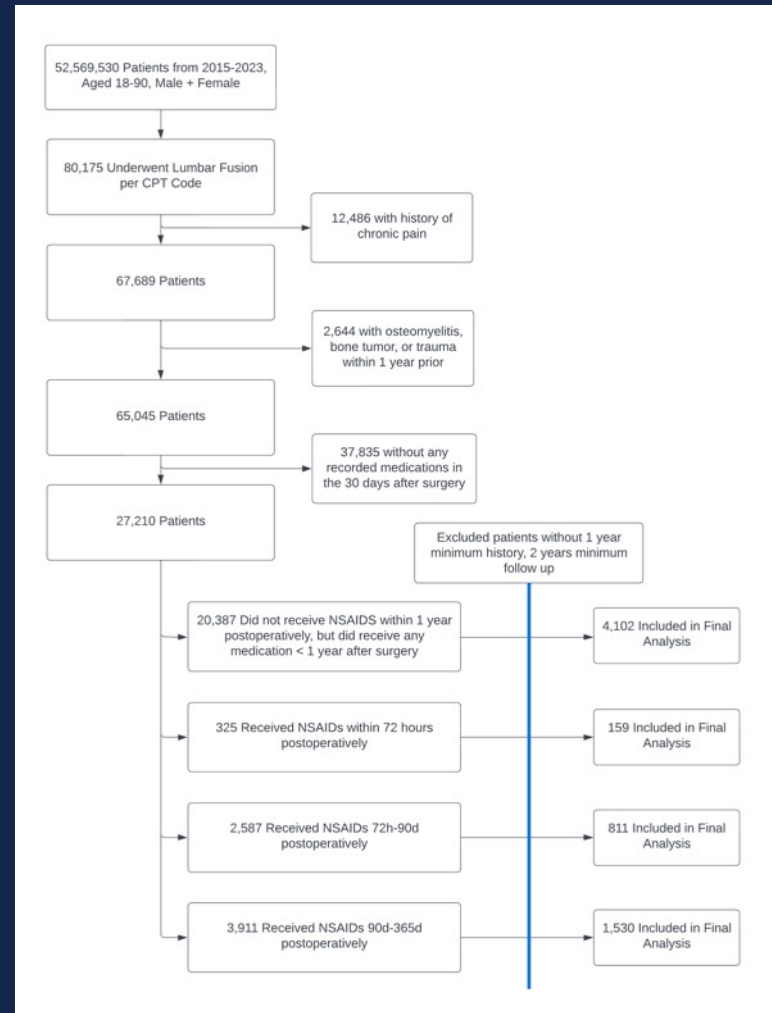
This cohort study uses a national database to compare the effects of NSAID use administered at different time windows on patient's postoperative outcomes following posterior lumbar fusion (PLF) surgery.

## METHODS

Propensity-score matched cohorts of patients who received NSAIDs within 72 hours of surgery or between 72 hours and 90 days of surgery, compared to no NSAIDs.

Outcomes assessed: all-cause 30-day readmissions, length of stay, chronic pain diagnosis, pseudoarthrosis, hardware failure, and wound complications.

## COHORT SELECTION



## RESULTS

	OR	95% CI	P-VALUE
<b>NO NSAIDS VS. NSAIDS (≤72 HOURS)</b>			
LENGTH OF STAY	2.02	1.37, 2.99	0.88
30-DAY READMISSIONS	3.02	1.89, 4.81	<b>0.000004*</b>
WOUND COMPLICATIONS	1.67	0.908, 3.08	0.1
PSEUDOARTHROSIS	1.78	1.23, 2.59	0.002
ARTHRODESIS	0.646	0.264, 1.58	0.34
HARDWARE FAILURE	1.69	0.895, 3.2	0.11
CHRONIC PAIN	2.48	1.23, 5.01	0.01
<b>NO NSAIDS VS. NSAIDS (72 HRS-90 DAYS)</b>			
LENGTH OF STAY	1.04	0.887, 1.21	<b>&lt;0.0001*</b>
30-DAY READMISSIONS	1.93	1.48, 2.51	<b>0.000001*</b>
WOUND COMPLICATIONS	1.88	1.42, 2.49	<b>0.000009*</b>
PSEUDOARTHROSIS	0.918	0.787, 1.07	0.28
ARTHRODESIS	1.35	0.997, 1.84	0.05
HARDWARE FAILURE	1.66	1.23, 2.24	<b>0.0009*</b>
CHRONIC PAIN	1.94	1.33, 2.81	<b>0.0005*</b>