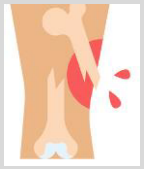
# Orthoplastic Care Improves Open Fracture Outcomes and Modifies Flap/Fixation Choice: A Systematic Review and Meta-analysis

## Introduction:

100,000 open fractures in the US annually



- Infection Risk — Up to 63%
- Hospital Stay — Up to 62 Days
- Flap Failure Risk — Up to 33%

"Orthoplastic" collaborative care (OPS) seems to improve outcomes in cohort studies

## Hypothesis:

- In a meta-analysis, OPS would improve open fracture outcomes, increase use of free flaps, and decrease use of internal fixation.

## Methods:

- Reviewed Pubmed, OVID Medline, and Google Scholar in October 2023
- Data analysis: "Meta" package in R Studio

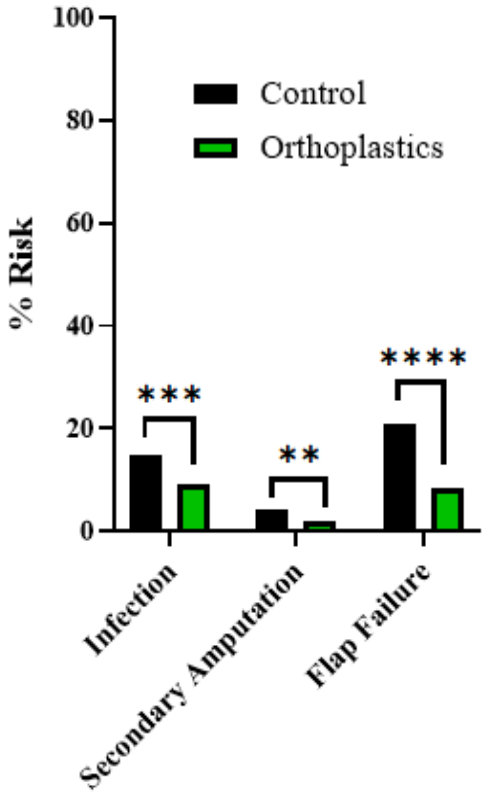
| Inclusion Criteria | Exclusion Criteria |
|---|---|
| Patients with acute open extremity fractures | Letters/Editorials |
| Formal Orthoplastics vs no formal collaboration | Uncontrolled studies |

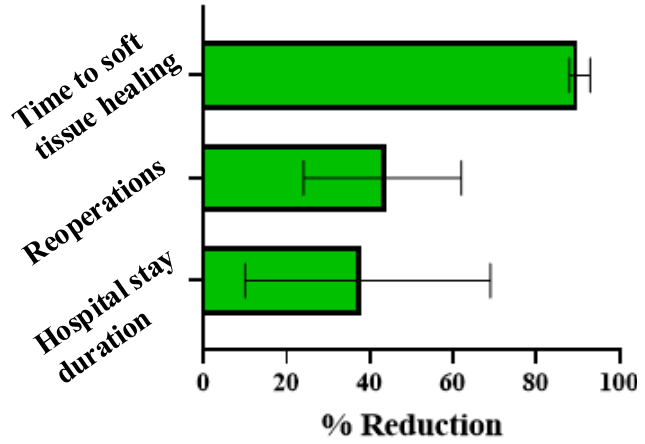
## Results:

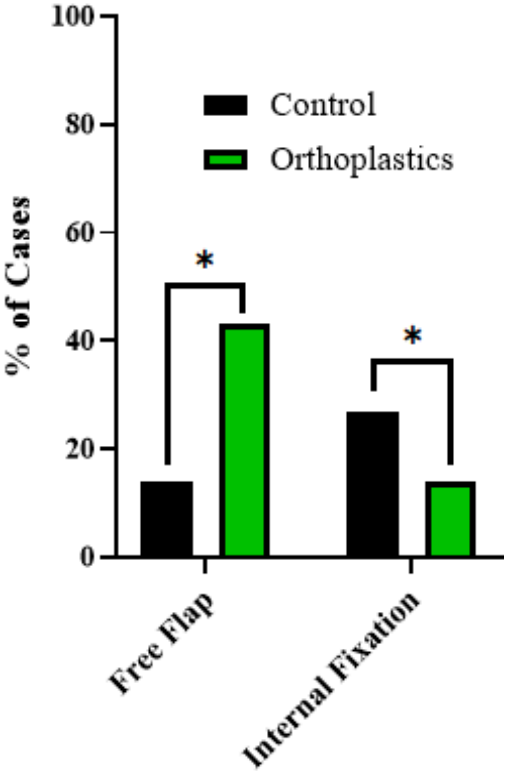
**4067** Studies Screened

**523** Full-text Studies Assessed

**15** Studies Included in Analysis (n=17,268)



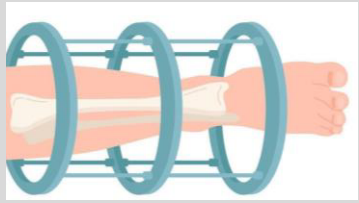




## Conclusions:

In a meta-analysis of 15 controlled studies, formalized Orthoplastic Care:

- Reduced secondary infection, secondary amputation, and flap failure
- Reduced length of stay, number of reoperations, and time to soft tissue healing
- Increased free flaps, decreased internal fixation

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