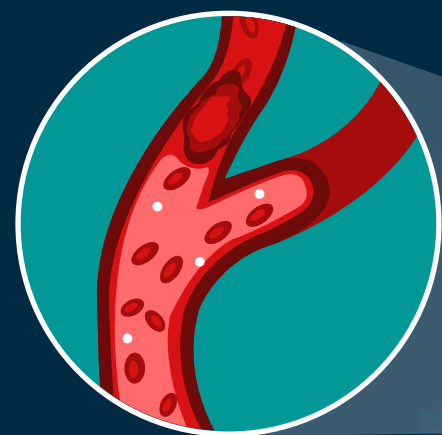


Use of Tourniquet in Open Lower-Extremity Fracture Surgeries and Associated Complications

Tourniquets are used in surgeries to improve visualization, shorten operative time, and decrease blood loss and swelling



Use of tourniquets in surgeries can also result in

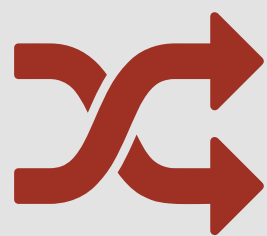
- Ischemia
- Reperfusion



Evaluation of association of tourniquet use to complications is necessary

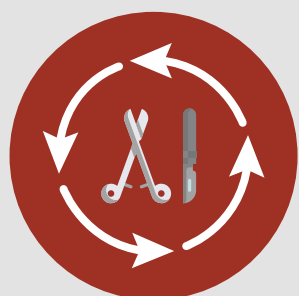


1351 patients with open lower extremity fracture



With tourniquet
No tourniquet

Outcomes:



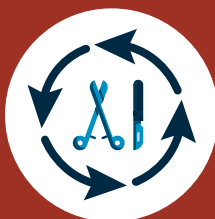
Reoperation within 1 year



Nonoperative wound complications

Outcomes were roughly similar between tourniquet and no-tourniquet groups for all grades of open fracture

	✓ With tourniquet	✗ No-tourniquet
Unplanned reoperations	17.8%	18.7%
Nonoperative wound complications	20.8%	19.1%



Tourniquet use increased chances of unplanned reoperation for severe open fractures

	Odds ratio
Gustilo Type-III A fracture	3.60
Gustilo Type- III B fracture	16.61



Tourniquet use in open lower extremity fracture surgery does not appear to increase risk of complication except in severe fractures

Effect of Tourniquet Use During Surgical Treatment of Open Fractures

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