

## 2-Year Retrospective Single Practice Ankle Fracture Study

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### ABSTRACT

**Introduction:** The charts of all ankle fractures surgically treated with ORIF by surgeons at Windward Orthopaedic Group, Inc. (Kailua, HI) over the past two years were pulled and evaluated. Of the ankle fractures treated with standard Synthes fixation, about one in five was treated with a locking semitubular plate, which was higher than expected.

**Methods:** Over 2 years, all patients with internal fixation of malleolar fractures without syndesmosis tear at a single group practice were reviewed. 48 patients fit this criterion. 29 patients required only lateral malleolar fixation; 15 were treated with standard fixation and 14 with a Sidewinder or Hook plate. 19 patients had bimalleolar fixation; 11 were treated with a lateral plate and screws medially, and 8 were treated with a Sidewinder plate and Medial Malleolar Sled. Tourniquet time, time of immobilization, and time to return to full activity were recorded.

**Results (Table 1):** Comparing standard fixation to TriMed fixation for isolated lateral malleolar fixation, the average tourniquet time was 50 minutes / 43 minutes, average immobilization was 10 weeks / 5 weeks, and average time to return to full activity was 16 weeks / 10 weeks respectively; for fractures treated with bimalleolar fixation, the average tourniquet times were 91 minutes / 74 minutes, average immobilization was 12 weeks / 7 weeks, and average time to return to activity was 18 weeks / 10 weeks respectively.

**Conclusion:** The TriMed Ankle Fixation System reduces operative time, decreases the immobilization period and allows patients with unimalleolar fractures an earlier return to activity.

Table 1: Single Practice: 48 Ankle Fractures

	Avg. Age	Tourniquet	Immobilization	RTA
Std Unimalleolar	47	50 min	6 wks	16 wks
TriMed Unimalleolar	48	43 min	2 wks	10 wks
Std. Bimalleolar	49	91 min	8 wks	18 wks
TriMed Bimalleolar	43	74 min	4 wks	18 wks