

## Can You Drive Before You Walk?

### Driving Tests for Patients with Surgically Treated Ankle Fractures

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**Purpose:** There is no clear consensus on when patients with surgically treated right ankle fractures can return to driving, or how best to assess their fitness to drive. Through a rigorous battery of off-road and on-road tests, we aim to determine if these patients are able to drive a car safely, even before weight bearing has been initiated.

**Methods:** A prospective grant-funded clinical trial was conducted. Patients aged 25 to 65 years who underwent surgery for right ankle fractures and held a valid Class III driving license were recruited. The surgeon and an occupational therapist assessed the patients at 2, 6, and 12 weeks pos surgery. A Short Musculoskeletal Function Assessment (SFMA) questionnaire was administered and parameters like braking time were measured using a driving simulator. Patients who met the minimal criteria were then subjected to a full on-road driving test with a driving instructor.

**Results:** A total of 22 patients (8 females, 14 males) were recruited (Table 1). The mean age was 43.2 ( $\pm 13.0$ ) years. There was a significant improvement ( $P < 0.05$ ) in the SFMA and braking time at 6 and 12 weeks postsurgery (Figs. 1 and 2). Nearly all (91%) patients passed the on-road driving test at 6 weeks, before their fractures had healed or weight bearing was initiated.

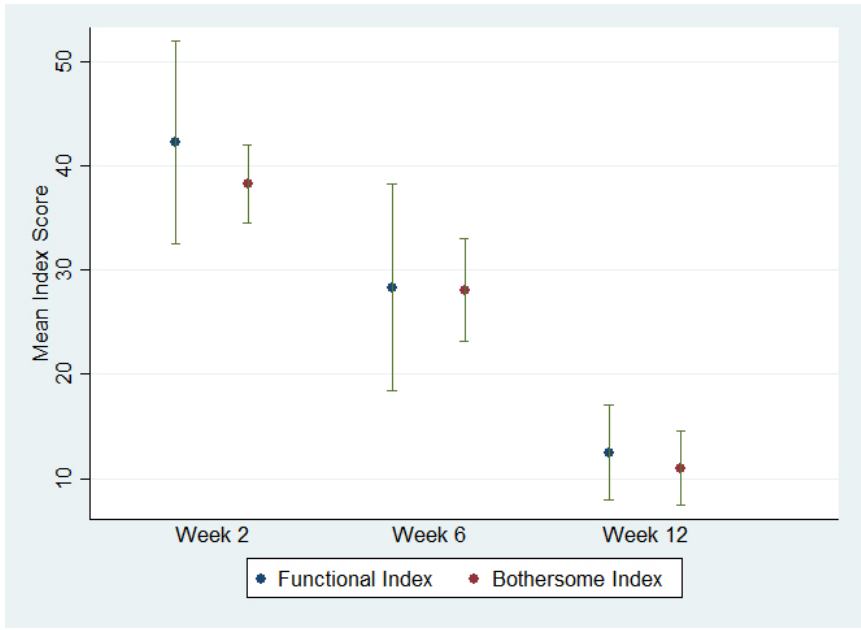
**Conclusion:** This novel study shows that patients with surgically stabilized ankle fractures are able to safely drive cars at 6 weeks postsurgery, even before they have recovered from their injuries. We also showed that the ability to drive correlates with improvements in the SFMA scores and braking times.

**Table 1. Demographics**

<b>Gender, n (%)</b>	Male	14 (63.6)
	Female	8 (36.4)
<b>Age</b>	41.5 (31 – 57)	
<b>Height (m)</b>	1.69 (1.61 – 1.71)	
<b>Weight (kg)</b>	71 (62 – 75)	
<b>BMI</b>	25.30 (21.83 – 27.34)	
<b>Driving Experience (Years)</b>	16.72 (5 – 41)	
<b>Mechanism of Injury, n (%)</b>		
<b>Sports</b>	7 (31.8)	
<b>Fall</b>	11 (50.0)	
<b>Road Traffic Accident</b>	3 (13.6)	
<b>Others</b>	1 (4.5)	

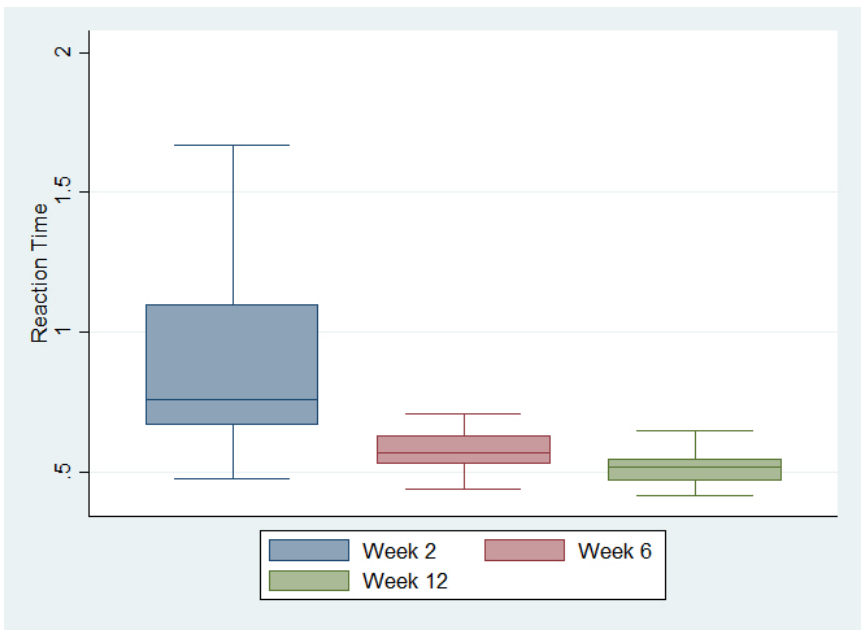
The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice.

Figure 1.



Statistical difference between functional and bothersome index at week 2 and week 6 as well as between week 6 and week 12 ( $p < 0.05$ )

Figure 2.



Statistical difference between reaction time at week 2 and week 6 as well as between week 6 and week 12 ( $p < 0.05$ )