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Delay Driving After Foot or Ankle Surgery, Experts Urge

Patients recovering from a right foot injury or surgery should think twice about how soon they want to begin driving again. According to a new study from the Journal of Bone and Joint Surgery (JBJS), it takes much longer to brake, when the driver is wearing an immobilization device -- like a splint or brace, than it does when wearing normal footwear.

Driving is important to many people's social and professional lives, so when a person's right ankle or foot must be immobilized after an injury or surgery, one of the first questions an orthopaedic surgeon hears is, "When can I start driving again?"

To answer this question, researchers measured emergency braking time in people using a brake adapted for use by the left foot, or wearing a short leg cast, a controlled ankle-motion boot, or normal footwear. The results showed that all of the devices, except for normal footwear, impaired the drivers' ability to brake quickly.

"We did not find a device that was as safe as normal footwear," says CPT Thomas Dowd, MD, an Orthopaedic Surgeon in the Department of Orthopedics and Rehabilitation at Brooke Army Medical Center in Fort Sam Houston, Texas. "We only tested emergency braking situations, but it's reasonable to assume that if a person cannot stop quickly in an emergency, it may not be safe for that person to be driving."

Study details and findings:

- * Compared with an individual wearing normal footwear, an individual traveling at a highway speed of 60 miles per hour (mph) (96.6 km/hr) would travel an additional 9.2 feet (2.8 m) during emergency braking when wearing a right lower-extremity controlled-ankle-motion boot.
- * A driver wearing a right lower-extremity short leg cast would travel an additional 6.1 feet (1.9 m) before coming to an emergency stop.
- * A driver using a left-foot braking adapter would travel an additional 6.0 feet (1.8 m).
- * At a community-driving speed of 35 mph (56.3 km/hr), these same individuals would travel an additional 5.4 feet (1.6 m), 3.6 ft (1.1 m), and 3.5 feet (1.1 m), respectively.

These changes in distance traveled might represent the difference between being involved in or avoiding a collision in an emergency setting.

- * The effect of immobilization devices on fine braking scenarios such as navigating a curve or driving in stop-and-go traffic is unknown, but according to study authors, it is likely to be greater.

- * The test subjects were healthy adults who had not recently undergone surgery or sustained an injury, so their braking response times are likely to be somewhat better than individuals having discomfort or other symptoms due to their medical condition.

"Based on our findings," Dr. Dowd said, "we cannot recommend that any patient return to driving using a brake adapter or wearing an immobilization device on the right foot. Orthopaedic surgeons need to educate their patients about these safety concerns when discussing the best time to begin driving again."

Other relevant facts and statistics noted in the study:

- * The ability to perform an emergency stop is essential for safe driving and can be represented by total brake-response time, reaction time, and braking time.
- * Survey studies indicated that more than 90 percent of orthopaedic surgeons would generally not recommend that a patient drive while immobilized in a right lower-extremity short leg cast.
- * Under the terms of most insurance policies, the insurer is not obligated to cover accidents in which the driver was still recovering from an earlier injury or operation.

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