

# Long arm cast best for immobilizing forearm

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(HealthDay) -- Use of a long arm cast provides the best restriction of forearm rotation, according to a study published in the March 7 issue of *The Journal of Bone & Joint Surgery*.

Using a goniometer developed for the study, Jae Kwang Kim, M.D., Ph.D., of the Ewha Womans Mokdong Hospital in Seoul, South Korea, and associates measured active forearm pronation and supination of 40 healthy, right-handed volunteers (20 men and 20 women), with a mean age of 35 years, following application of a short arm splint, short arm cast, sugar tong splint, long arm splint, and long arm cast.

The researchers found that the long arm cast decreased active forearm rotation to less than 10 percent of baseline measurement, compared with

decreased rotation of less than 40 percent of baseline for the other methods. In the overall cohort and in men, there were no significant differences in forearm supination or pronation with the short arm cast, sugar tong splint, or long arm splint. For women, there was a significant difference for forearm supination and pronation between the short arm cast and both the sugar tong splint and the long arm splint.

"The long arm cast provided the greatest restriction of forearm rotation. Overall, no significant difference in active forearm supination or pronation was observed among the short arm cast, sugar tong splint, and long arm splint," the authors write.

**More information:** [Abstract](#)  
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