The efficacy of a specific forearm brace (Go-Strap) compared to a standard counterforce brace in participants with tennis elbow

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Physiotherapy management of tennis elbow typically includes the application of a forearm brace but the comparative efficacy of different braces is unclear. The most common brace used and researched is a standard counterforce elbow brace, however a new brace recently released onto the commercial market (Go-strap, Thermoskin™) claims to provide superior effectiveness compared to a standard counterforce brace. A repeated measures, crossover, double-blinded randomised control design was used to investigate if a novel forearm brace (Go-Strap) improves pain-free grip,
pressure pain threshold and wrist angle during a gripping task compared with a standard counterforce brace. Thirty-five participants with a clinical diagnosis of tennis elbow (mean age 47.8 (SD 8.5) years) were measured before and after the application of a Go-Strap brace, a counterforce brace and no-brace with a minimum of 48 hours between sessions. Within treatments, both braces improved grip (Go-Strap 22 N, 95% CI 8 – 36; counterforce 22 N, 95% CI 9 - 35) and pressure pain threshold (Go-Strap 48 kPa, 95% CI 2 – 93; counterforce 59 kPa, 95% CI 16 - 102), but not wrist angle. There was no significant difference between braces for any outcome. Thus, while the application of a forearm brace has an immediate positive effect on grip and pressure pain in participants with tennis elbow, the type of brace makes no difference to outcomes. While the use of a brace is justified in managing immediate symptoms, the choice of brace should not be based on the type but rather on other factors such as cost and patient preference. This is the first study to identify differences between sides in wrist angle during gripping, the implications of which require further investigation.