Plaster cast versus functional bracing for Achilles tendon rupture: the UKSTAR RCT

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Plain English summary

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Plain English summary

Achilles tendon rupture affects >11,000 people each year in the UK, leading to prolonged periods away from work, sports and social activities. Traditionally, after a ruptured tendon, the foot and ankle are held still in a plaster cast for ≥8 weeks. Functional bracing is an alternative treatment that allows patients to mobilise earlier, but there is little evidence about how it affects later recovery.

This study aimed to compare traditional plaster casting with functional bracing for adult patients with Achilles tendon rupture. The participants reported their own recovery using the Achilles Tendon Rupture Score, which consists of 10 questions about symptoms and physical activity (in which a score of 100 is the best possible outcome). We also recorded quality of life, complications, including re-rupture of the tendon, and costs from both the NHS and the patients’ perspective.

A total of 540 patients, treated at 39 hospitals, agreed to take part and were assigned by chance to either plaster cast or functional brace. Patients reported their recovery at 8 weeks and at 3, 6 and 9 months.

What did the trial find?

Patients recovered steadily after their injury but were still not back to normal at 9 months. The average Achilles Tendon Rupture Score rose from 38 out of 100 at 8 weeks to 73 out of 100 at 9 months.

Patients who had the functional brace reported that their recovery was a little better at 8 weeks than did the patients having the plaster cast, but there was no evidence of a difference after that. There were 17 cases of re-rupture of the Achilles tendon in the plaster cast group and 13 cases in the functional brace group. There was no evidence of a difference in costs.

In conclusion, this study provides strong evidence that early weight-bearing in a functional brace provides similar outcomes to traditional plaster casting and is safe for patients having treatment for Achilles tendon rupture.
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This report

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