

Surgical fixation compared with cast immobilisation for adults with a bicortical fracture of the scaphoid waist: the SWIFFT RCT

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Plain English summary

The SWIFFT RCT

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Plain English summary

Fracture of the scaphoid bone (one of eight small bones in the wrist) is common in young active people. It is caused by a fall on the hand or the hand being suddenly forced backwards. The usual treatment is to rest the wrist in a plaster cast for 6–10 weeks and allow the broken bone to heal. In 1 in 10 cases in which the fracture is treated in a plaster cast, the bone does not heal and an operation is needed. In the operation, the broken bone is held still with a screw. In the last few years, it has become more common to fix the broken bone with a screw in the first few days after injury, instead of resting the wrist in a plaster cast. It is not clear if fixing the bone early with a screw, compared with resting the wrist in a cast, gives better outcomes for patients and if one treatment is better value for money for the NHS.

In this study, 439 adult patients agreed either to have surgery to hold the broken scaphoid with a special screw or to have the wrist held still in a plaster cast (with surgery offered after 6 weeks to those who were still not healed). The decision about which treatment to use was made using randomisation, which is similar to tossing a coin. Patients reported their own wrist pain and function at 6, 12, 26 and 52 weeks. Information was also collected on general health, bone healing, grip strength and range of movement, complications from treatment and costs.

No important differences were found in patients' wrist pain and function at 52 weeks. The bone did not heal properly in four patients in the surgery group or in nine patients in the plaster cast group at 52 weeks. For one of these patients in the surgery group and four of these patients in the plaster cast group, the bone did not join at all. Eight patients in the surgery group had further surgery following their initial operation to fix their wrist, and one patient in the cast group required repeated surgery because the bone did not join at all. The overall cost of treating with a plaster cast was lower than that of early surgery. Therefore, the findings of the study suggest that a plaster cast should be used initially and that the bone should be immediately fixed with a screw if it does not heal.

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This report

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