

# Regaining independence after hip fracture—age is the most important predictor

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Most middle-aged and older adults recover their ability to live independently within a year after surgery for hip fracture, reports a study in the *Journal of Orthopaedic Trauma*.

Even patients older than 80 are usually able to resume living independently—although they're less likely to regain independent walking ability, according to the new research, led by Emil H. Schemitsch, MD, of University of Western Ontario. Dr. Schemitsch and colleagues write, "Identifying factors associated with living and walking independently following [hip fracture](#) may help surgeons better identify which patients are at risk and optimize care of patients with this injury."

## What Factors Predict Recovery of Function After Hip Fracture Surgery?

The study included over 600 patients aged 50 or older who underwent [surgery](#) for a common type of hip fracture—fracture of the femoral neck. Patients were drawn from the recently completed FAITH (Fixation using Alternative Implants for the Treatment of Hip [fractures](#)) randomized controlled trial. That study compared two types of bone screws (cancellous screws versus a sliding hip screw) for fracture repair in 1,079 patients from 81 clinical sites in the United States, Canada, Australia, the Netherlands, Norway, Germany, the United Kingdom, and India. The new analysis included only patients who were living and/or

walking independently before they fractured their hip.

To be included in the new analysis, patients also had to have one-year follow-up data on whether they had returned to independent, non-institutionalized living and independent walking, without any type of walking aid. The goals of the study were to descriptively quantify patients' changes in living status and use of walking aids over the one year after hip fracture and identify factors predicting a greater chance of returning to independent living and independent mobility.

One year after hip fracture, three percent of patients aged 50 to 80 years at the time of surgery were living in some type of institution, as compared to 20 percent of patients older than 80. Of those who were walking independently before hip fracture, about 34 percent of 50- to 80-year-old patients required some type of walking aid, as did 69 percent of those in the over-80 group.

Age 50 to 80 was a strong predictor of returning to independent living and independent walking one year after hip fracture surgery. Patients with good fitness before surgery (ASA physical status class I) and current nonsmokers were also more likely to regain independent living and independent walking ability within one year after hip fracture.

Patients who were not using a walking aid before their hip fracture and those having "acceptable" hip implant placement were also more likely to return to independent living. Predictors of independent walking included living independently before fracture, having a non-displaced fracture, and not needing revision surgery.

Hip fractures are a common type of "fragility fracture," affecting an estimated 1.6 million people globally each year. For many older adults, hip fracture leads to decreased mobility, reduced ability to perform activities of daily living, and loss of independence.

The study helps the orthopaedic care team to better understand what factors affect the chances of recovering independence and mobility after surgery for a femoral neck fracture. The results suggest that most patients aged 50 to 80 will be able to live and walk independently in one year after hip fracture. Patients over 80 also have a good chance of returning to independently living, although they are likely to need some kind of walking aid. In addition to age, previous physical fitness, smoking, certain fracture characteristics, and undergoing revision surgery to the hip also affect the chances of regaining independence. Dr. Schemitsch and colleagues conclude: "Identifying factors associated with living and walking independently following a hip fracture may help the orthopaedic community better identify which patients are at risk for loss of independence and mobility following a hip fracture, and ultimately help to optimize the care of [patients](#) with this type of injury."

**More information:** *Journal of Orthopaedic Trauma*, DOI: [10.1097/BOT.0000000000001444](https://doi.org/10.1097/BOT.0000000000001444)

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