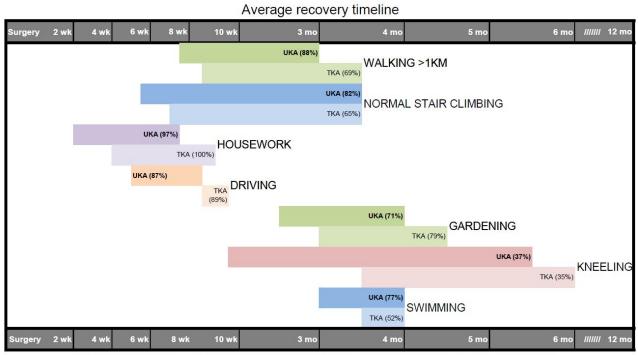


How do people's expectations compare to the reality of their recovery after a knee replacement surgery?

The decision to undergo a knee replacement is not one taken lightly by the patient or medical team. For many people with arthritis, medication and exercise therapies can help their symptoms, but when problems persist, a knee replacement surgery can provide effective pain relief and help maintain or improve their daily activities and quality of life. While more than 80% of people who undergo a knee replacement have good outcomes and are satisfied with their surgery, patients' and clinicians' expectations of recovery in the months and years after surgery are inconsistent and there is no evidence-based timeline to provide guidance when returning to important functional and leisure activities. We conducted a study aimed to answer two main questions: How do people's expectations about recovery and the return to activities following surgery compare to their actual recovery? How long before they can return to the tasks and activities they want to do and at what point are they satisfied and comfortable with how they do them?



Length of bars represent the average time that people started an activity until the average time they reported to be satisfied with the activity (%) = (# of people who report they are satisfied with the activity / # of people who expected to return to the activity) * 100

Fig. 1. Average recovery timeline.

Before undergoing their knee replacement surgery, participants in our study were asked which functional activities (i.e. walking, stairs, driving, sport) they wanted to get back to after surgery and when they expected they would return to them. After surgery, participants were asked to record in a

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diary when they started and when they were satisfied performing each of the activities they had previously listed. In addition, researchers followed up each participant with phone calls over the year after surgery to record their recovery progress.

From 99 people who underwent either a total knee replacement or a unicompartmental knee replacement (a surgery that replaces either the inner or outer half of the knee), the average age was 69.6 years old and 59 were female. A majority of people (57%) reported the most important activity to return to was some form of walking, from hill walking to walking longer distances to walking without pain to walking socially. The most frequently listed activities to return to were: walking more than 1 km, going up and down stairs normally, housework, driving, gardening and kneeling. At 1 year, 96% had returned to housework, and they had returned to it more quickly than they expected to before surgery. The minority of people who wanted to return to swimming also returned to it more quickly than they had expected. On the contrary, participants returned to walking over 1 km more slowly than they had expected. Another large discrepancy between expectation and actual recovery occurred with return to kneeling; while 78% wanted to return to kneeling, only 36% were satisfied or comfortable kneeling at 1 year after their surgery. Higher level activities listed included cycling and sporting activities; not only were these were the least popular activities, they had the highest rate of dissatisfaction and discomfort.

In most of the activities recorded, the participants who had undergone a unicompartmental knee replacement returned to the activities more quickly on average, but were satisfied or comfortable with the activity closer to the same time as people with total knee replacements (Fig. 1).

While a definitive gap in between expected time and actual time to return to specific activities was difficult to define due to the large variability in people's responses, we were able to identify average trends in the recovery timeline when comparing unicompartmental and total knee replacements. By 1 year post-surgery, most people had returned to the activities that they valued and, with the exception of kneeling, most were satisfied and comfortable doing these activities.

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