

Physiotherapists play an important role in the perioperative management of total knee arthroplasty (TKA) and total hip arthroplasty (THA) patients, from pre-operative triaging for surgical candidacy, to pre-operative education for patients scheduled for surgery and post-operative rehabilitation in the hospital and the community.

### Role of Physiotherapy in Joint Arthroplasty

Pre-operatively, physiotherapists triage patients referred for TKA and THA to ensure appropriateness for surgical intervention and educate patients wait-listed for surgery to ensure best possible outcomes.

Physiotherapy following TKA and THA results in improved health outcomes and shorter length of stay (LOS) in hospital.<sup>1</sup> Physiotherapy treatment focus is on management of pain, functional impairments and activity limitations, and to prepare patients for discharge to the community. Physiotherapy intervention initiated 24 hours post-surgery reduces pain, increases joint range of motion (ROM), strength and balance and contributes to reducing LOS.<sup>2</sup>

Following hospital discharge, community physiotherapy services focus on improving and maintaining function gains. Physiotherapy is provided in publically funded facilities, private outpatient clinics, or home care depending on the availability of services.

### Impact on Patient Experience

Physiotherapy following TKA and THA improves overall function and quality of life (QOL).<sup>3</sup>

- Physiotherapy management following joint arthroplasty procedures is effective and significantly improves patient satisfaction.<sup>4</sup>
- TKA patients achieve functional milestones, such as greater ROM, improved muscle strength and higher scores for gait and balance, in a shorter time.<sup>2</sup>
- Physiotherapy triage of patients referred for surgery provides a greater number of care options and improves patient satisfaction.<sup>5</sup>

### Impact on Population Health

Physiotherapy interventions improve health outcomes, functional status and reduce LOS.

- Prevention of post-operative complications, such as muscle weakness and deconditioning, and improves function and QOL.<sup>2,4,6</sup>
- Early post-operative physiotherapy contributes to reduced LOS in both THA and TKA.<sup>7</sup>
- Physiotherapy is effective in patients whose recovery is delayed due to co-morbidities or obesity.<sup>8</sup>

## Impact on Health Care Costs

Physiotherapy in the management of post-operative joint arthroplasty procedures is a cost-effective service.<sup>3</sup>

- Accelerated perioperative rehabilitation protocols including initiation of physiotherapy 24 hours post TKA reduces treatment costs by \$4,000.<sup>7</sup>
- Physiotherapy screening and triage of patients referred for surgery reduces costs by decreasing the number of inappropriate specialist referrals; with 34% of patients not requiring surgery.<sup>5</sup>
- Perioperative physiotherapy, including targeted rehabilitation at home, reduces hospital LOS with no increase in complication rates.<sup>9</sup>

## Summary

Strong evidence exists to support physiotherapy in joint arthroplasty, from pre-operative education to inpatient rehabilitation and community-based services. Perioperative physiotherapy services contribute to earlier functional gains reduced LOS and reduced health care costs.

Overall, effectiveness studies indicate that patients who underwent joint arthroplasty and participated in physiotherapy programs experienced improved outcomes with the greatest health gains achieved from early intervention, starting rehabilitation 24 hours post-surgery. Inclusion of physiotherapy in the continuum of care significantly reduces treatment costs.

### Key References:

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The value of a health care service is more than its proven cost-effectiveness. Quality of life, access, and continuity of care and integration of services are equally important criteria when looking at the broader concept of value.