

TOTAL KNEE JOINT REPLACEMENT REHAB PROTOCOL

Please note this is a week-by-week protocol to provide a general framework for post-operative goals. Specific progression through the protocol may vary slightly, faster or slower. Please correlate with operation note for patient specific post-operative plan base on intra-operative findings.

Mr Francis Ting performs a subvastus approach and uses navigation for gap balancing during his total knee joint replacement, so rehab and strengthening is usually quicker.

- Day 0-3 (inpatient)
 - Pain pump (remove on discharge)
 - Cryocuff / ice pack therapy for first 2 days and then between exercises
 - Ensure no pillow behind knee to allow knee to fall into full extension when resting in bed from day 0
 - Isometric quad exercises to start from day 0
 - Push back of knee flat into bed
 - Straight leg raises (persist with attempts if unable to physically perform)
 - Initially can aid this with rolled up towel behind knee and aim to lift heel off bed
 - Passive, gravity assisted and active knee flexion: aim for 90 degrees knee bend on discharge (perform these exercises on a chair)
 - Start mobilising with walking aids from day 0
 - At least stand beside bed and attempt to mobilise to toilet on day of surgery
 - Debulk dressing morning after surgery
 - A hospital physiotherapist will visit you during your hospital stay
 - Main goal is functional mobility and pain management: move in bed, get out of bed, walk and manage stairs prior to discharge
- Week 0-2
 - Continue with above but increase intensity of exercises
 - Cryocuff / ice pack between exercises to help swelling
 - Goal is full extension, flexion to 90 degrees, maintain quadricep/hamstring strength, pain management and wound healing
 - Ensure able to obtain full knee extension
 - Continue to ensure no pillow behind knee when resting in bed
 - Encourage full extension with small rolled up towel behind heel and passively pushing knee back into bed
 - Can do same with heel on chair/stool when sitting
 - Aim to have at least 90 degrees of knee bend by the end of week 2
 - May limit this to 90 degrees in the first weeks to allow wound to heal
 - Call our office with any concerns with wound: redness / ooze
 - Straight leg raise as above
 - Should be able to easily actively lift up weight of leg

- After week 2
 - Wean down to one crutch and then none in safe environment
 - Aim to be crutch free by week 3, especially around the house
 - Continue to increase intensity of exercise with same goal of knee extension, flexion and strengthening
 - Ensure maintaining full extension as above
 - Increase passive and active knee flexion range: aim to get over 100 degrees
 - Lying in bed, slide foot towards buttock as far as possible, aid this by pulling on towel around ankle
 - Sitting in chair, using other heel in front of operated leg's ankle to force knee bend as far as possible
 - Sitting on chair and have operated leg on skateboard sliding as far back as possible
 - Straight leg raise: increasing difficulty
 - Initially just weight of leg
 - Add cuff weight around thigh, then knee, lower leg and finally ankle
 - Stationary bicycle if available (home or gym)
 - At first, peddle backwards and when easily able to, go forward
 - Lower seat down over time to increase knee flexion
 - Preferably use pedals with straps to work both quads and hamstrings
 - Massage and desensitise surgical scar after 3 weeks
- After 6 weeks
 - Continue with above
 - Increase mobility / walking distance
 - Increase strengthening: use cuff weights and increase exercycle resistance
 - Increase knee flexion with goal of 120 -130 degrees by 12 weeks
 - Continue with above flexion exercises including lowering seat on stationary bicycle
 - Stand on non-operated leg beside chair with operated knee bent and resting on chair, slowly in controlled fashion, lower own body weight to sit on operate leg's heel, forcing as much knee bend as possible
 - Balance board to improve balance and proprioception
 - Discuss with physio: plan for continuing exercise program independently
 - Gain access to fitness facility with stationary bicycles and weight training equipment
- After 10 weeks
 - Work and sport specific strengthening
- Follow-up appointment:
 - 2-3 night in hospital
 - 2 weeks clinic for wound check and x-ray
 - 6 weeks clinic with Mr Francis Ting
 - 6 – 12 months clinic with Mr Francis Ting with repeat x-ray