# **Rehab** Protocol

Total knee arthroplasty



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## Total Knee Joint Replacement

Post-op recovery	/ First 2 weeks	Date
Goals	<ul> <li>Protect the knee and surgical incision</li> </ul>	
	<ul> <li>Recover from swelling and inflammation</li> </ul>	
	Control of post-surgical pain	
Precautions	Walk short distances only	
	Use crutches for support	
Recommendations	<ul> <li>Weight bear as tolerated using crutches for support</li> </ul>	
	<ul> <li>Rest and elevate as required</li> </ul>	
	<ul> <li>Ice the knee as desired – particularly in the first week</li> </ul>	
	<ul> <li>Range of motion exercises of ankle</li> </ul>	
	<ul> <li>Range of motion exercises of hip</li> </ul>	
	Gentle movement of the knee from full extension to	
	maximum flexion as pain and swelling allows	
Suggested	Static quads contraction	
exercises	Supine straight leg raise	
	Ankle pumps	
	<ul> <li>Supine bed supported knee bend</li> </ul>	
	<ul> <li>Sitting supported knee bend</li> </ul>	
	<ul> <li>Sitting knee extension stretch – foot on floor</li> </ul>	
	<ul> <li>Supine knee extension – foot elevated/supported</li> </ul>	
	Standing knee extension	

Phase 1	Week 2 to week 6
Goals	<ul> <li>Begin training to walk normally</li> <li>Fully weight bear with crutches for support as required</li> <li>Increase range of motion</li> <li>Begin strengthening</li> </ul>
Precautions	<ul> <li>Avoid long walks, cycles or exercise sessions that inflame the knee – shorter sessions – three times a day – is better. Allow the knee to settle and rest between sessions.</li> </ul>
Recommendation	<ul> <li>When standing with your weight on the leg, push the both knees back into full extension – hold for 20 seconds (do this often)</li> <li>When flexing your knee as far as you can – hold for 20 seconds</li> <li>If able to – begin using an exercycle – short and gentle to begin with</li> <li>Hip and gluteal muscle strengthening</li> <li>Ankle range of motion and strengthening</li> <li>When stable and safe – use one crutch (opposite to operated knee)</li> <li>When stable and safe and gait improving, discard the use of crutches (better to walk well with crutches than</li> </ul>



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	lurch and limp without)
Suggested exercises	<ul> <li>Supine straight leg raise</li> <li>Sitting supported knee bend</li> <li>Supine knee extension – foot elevated/supported</li> <li>Standing knee extension</li> <li>Sitting knee extension stretch – foot on floor</li> <li>Wall slide mini squat</li> <li>Single leg stance – knee straight, knee flexed</li> <li>Step ups</li> <li>Double calf raises</li> <li>Side leg raise – knee straight, knee flexed</li> </ul>

Phase 2	Week 7 to week 12
Goals	<ul> <li>Walk as normally as possible</li> <li>Continue to increase range of motion</li> <li>Strengthen knee, hip and ankle</li> </ul>
Precautions	<ul> <li>Avoid long walks, cycles or exercise sessions that inflame the knee – shorter sessions – three times a day – is better. Allow the knee to settle and rest between sessions</li> </ul>
Recommendations	<ul> <li>Use an exercycle. Increase session length slowly</li> <li>When standing with your weight on the leg, push the knee back into full extension – hold for 20 seconds (do this often)</li> <li>When flexing your knee as far as you can – hold for 20 seconds</li> <li>Passive stretching to achieve full extension and flexion</li> <li>Hip and gluteal muscle strengthening</li> <li>Ankle range of motion and strengthening</li> </ul>
Suggested exercises	<ul> <li>Wall slide mini squat</li> <li>Double leg squats (0-60)</li> <li>Sitting unsupported knee extension and flexion</li> <li>Single leg stance – knee straight, knee flexed</li> <li>Straight leg raise</li> <li>Step ups</li> <li>Double calf raises</li> <li>Side leg raise – knee straight, knee flexed</li> <li>Gluteal band exercises</li> <li>Bridging with gluteal contraction</li> <li>Exercycle – increasing resistance and training time</li> </ul>

Phase 3	3 Months – 6 months	
Goals	Gain full function and strength	
Precautions	None	

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Recommendations	<ul> <li>Passive stretching to achieve full extension and flexion</li> <li>Squats</li> <li>Concentrated full rehab program that includes strengthening of core, hip flexors, gluteal muscles, external rotators of the hip, quadriceps, hamstrings and calves. Neuromuscular control and co-ordination</li> </ul>
	of leg