

# AUTOLOGOUS CHONDROCYTE IMPLANTATION (TROCHLEA/PATELLA)\* REHABILITATION PROTOCOL

	<b>WEIGHT BEARING</b>	<b>BRACE</b>	<b>ROM</b>	<b>THERAPEUTIC EXERCISE</b>
<b>PHASE I 0 - 12 weeks</b>	<p><b>0-2 weeks:</b> non-weight bearing</p> <p><b>2-4 weeks:</b> partial weight bearing - (30 - 40 lbs)</p> <p><b>4-8 weeks:</b> continue with partial weight bear status - progress to use of one crutch</p> <p><b>8-12 weeks:</b> progress to full weight bearing and discard crutches</p>	<p><b>0-2 weeks:</b> locked in full extension (removed for CPM and exercise)</p> <p><b>2-4 weeks:</b> Locked at 0° with weight bearing</p> <p><b>4-6 weeks:</b> Begin to open 20 to 30 °with ambulation - discontinue use after 6 weeks</p>	<p><b>0-4 weeks:</b> CPM: use in 2 hour increments for 6 - 8 hours per day - begin at 0-30 ° - 1 cycle/minute - after week 3, increase flexion by 5 - 10° daily</p> <p><b>6-8 weeks:</b> gain 0-90 °</p> <p><b>8 weeks:</b> gain 0-120 °</p>	<p><b>1-4 weeks:</b> Quad sets, SLR, hamstring isometrics - complete exercises in brace if quad control is inadequate</p> <p><b>4-10 weeks:</b> begin <i>isometric</i> closed chain exercises - at 6-10 weeks, may begin weight shifting activities with involved leg extended if full weight bearing - at 8 weeks begin balance activities and stationary bike with light resistance</p> <p><b>10-12 weeks:</b> hamstring strengthening, theraband 0-30 ° resistance, light open chain knee isometrics</p>
<b>PHASE II 12 weeks - 6 months</b>	Full with a normalized gait pattern	None	Full range of motion	Begin treadmill walking at a slow to moderate pace, progress balance/proprioceptive activities, initiate sport cord lateral drills
<b>PHASE III 6 - 9 months</b>	Full with a normalized gait pattern	None	Full and pain-free	Advance closed chain strengthening, initiate unilateral closed chain exercises, progress to fast walking and backward walking on treadmill (initiate incline at 8-10 months), initiate light plyometric activity
<b>PHASE IV 9 - 18 months</b>	Full with a normalized gait pattern	None	Full and pain-free	Continue strength training - emphasize single leg loading, begin a progressive running and agility program - high impact activities may begin at 16 months if pain-free

\*Most trochlear/patellar defect repairs are performed in combination with a distal realignment procedure, and thus weight bearing is restricted for the first 4-6 weeks to protect the bony portion of the distal realignment during healing

\*\*May consider patellofemoral taping or stabilizing brace if improper patella tracking stresses implantation

\*\*\*If pain or swelling occurs with any activities, they must be modified to decrease symptoms

**NOTE: Post-operative stiffness in flexion following trochlear/patellar implantation is not uncommon and patients are encouraged to achieve 90 ° of flexion at least 3x/day out of the brace after their first post-op visit (day 7-10)**