



# Cartilage Repair Center

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## Autologous Chondrocyte Transplantation PT Protocol Stage 3- Remodeling Phase (13+ weeks)

### Patellar and/or Trochlear Defect

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#### PRIMARY GOALS

DO NOT OVERLOAD GRAFT  
INCREASE TIBIOFEMORAL AND PATELLOFEMORAL MOBILITY  
RESTORE QUADRICEPS CONTROL

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<b>BRACE</b>	<ul style="list-style-type: none"><li>◆ None</li></ul>
<b>GAIT</b>	<ul style="list-style-type: none"><li>◆ Full weightbearing as tolerated</li></ul>
<b>ROM</b>	<ul style="list-style-type: none"><li>◆ Progress towards full ROM equal to contralateral side</li></ul>
<b>THEREX</b>	<ul style="list-style-type: none"><li>◆ Stationary bicycling with very low resistance as tolerated</li><li>◆ Treadmill forward/retro-walking, Nordic track and elliptical machine</li><li>◆ Pool exercise- flutter/straight leg scissor kick and running in water permitted</li><li>◆ Continue gentle closed-chain LE strengthening through functional range - terminal knee extension 0-40 degrees and 120-70 degrees extension from flexed position</li><li>◆ Full active flexion with resistance permitted</li><li>◆ Open-chain terminal extension with resistance <u>not</u> permitted</li></ul>
<b>THERAPY</b>	<ul style="list-style-type: none"><li>◆ Multi-directional patella mobilization as needed</li><li>◆ Cryotherapy and compression stockings/TEDS as needed</li><li>◆ E-stim for VMO/quadriceps muscle re-education/biofeedback as needed</li></ul>
<b>COMMENTS</b>	<ul style="list-style-type: none"><li>◆ Activity level should be modified if increased pain, catching, or swelling occurs</li><li>◆ Avoid activity/exercises with excessive patellofemoral compressive forces</li><li>◆ Swelling is common in patella transplants up to 9 months after transplantation</li><li>◆ No running or jumping permitted until 9-12 months after surgery</li><li>◆ Continued improvement in comfort occurs for 2-3 years before maximal outcome is achieved</li></ul>



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