



Cartilage Repair Center

Tom Minas, MD, MS
Andreas Gomoll, MD

www.cartilagerepaircenter.org

850 Boylston Street, Suite 112
Chestnut Hill, MA 02467

P: 617-732-9967

F: 617-732-9272 (Minas) / -9730 (Gomoll)

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

Femoral Condyle + Patellofemoral

PRIMARY GOALS

DO NOT OVERLOAD GRAFT

INCREASE TIBIOFEMORAL AND PATELLOFEMORAL MOBILITY

RESTORE QUADRICEPS CONTROL

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



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