



Official Health Care Provider of the Louisville Cardinals

Procedure: Femoral Condyle Osteochondral Allograft Transplantation (PLUG)

Description of Procedure: Transplantation of cylindrical allograft bone and cartilage to an osteochondral defect in press fit fashion.

PT Frequency: 3-4x wkly 0-3 mo, physician/therapist discretion afterwards. Home exercises daily.

	Weight Bearing	Brace	ROM	Therapeutic Exercises
Phase I: 0-4 wks	<p>0-2 wks: Toe touch weight bearing (TTWB) with use of two crutches</p> <p>2-4 wks: Weight bearing as tolerated (WBAT) with use of two crutches. Once a straight leg raise can be performed without extension lag, quickly progress to one crutch in opposite arm then full weight bearing with normalized gait pattern; no limping.</p>	<p>Brace is worn when ambulating until independent straight leg raise can be performed without extension lag.</p> <p>Dressing: PT may perform dressing change as needed. Leave steri-strips in place. Ok to shower with or without dressing. No tub bathing/soaking until wound fully healed.</p>	<p>Goal: To achieve active range of motion as soon as tolerated.</p> <p>**Emphasize importance of full extension wks 0-2 and 120° flexion by week 4, otherwise MUA may be indicated.</p>	<p>1-4 days: Patellar mobilization, Prone hangs, heel props, heel slides, quad sets, SLR, hamstring isometrics - complete exercises in brace if quad control is inadequate; core proximal program; normalize gait; FES biofeedback as needed.</p> <p>5 days-2 wks: Begin mini dips to 30°, heel raises, step-ups (3" to 6").</p> <p>2-4 wks: Incorporate use of stationary bike (high seat, low resistance) and patellar mobilization exercises: Continue core proximal program, advance low impact closed chain program. (NO squats, wall slides, lunges or knee extension exercises).</p>
Phase II: 4-12 wks	WBAT	None	Full	<p>4-6 wks: Initiate BFR. Continue stationary bike.</p> <p>6-12 wks: Begin retro ambulation on treadmill; continue cardiovascular program. (NO squats, wall slides, lunges or knee extension exercises).</p>

	Weight Bearing	Brace	ROM	Therapeutic Exercises
Phase III: 12 wks onward	WBAT	None	Full	<p>12 wks onward: Advance bilateral and unilateral closed chain exercises with emphasis on concentric/ eccentric control, continue with biking, and walking on treadmill, progress balance activities</p> <p>6 to 12 mo: Advance strength training, incorporate elliptical trainer. Stairs if adequate quad control.</p> <p>12 mo onward: Continue strength training, initiate light jogging - start with 2 minute walk/2 minute jog, emphasize sport specific training; emphasize single leg loading, plyometrics, begin agility program</p> <p>**High impact activities (basketball, tennis, etc.) may begin at 9-12 months post operatively AND after passing a pain free functional progression test.</p>

Typical follow up frequency is 2 wks with mid-level then with Dr. Richards at 4-6 wks, 3 mo, 6 mo, 9 mo,, 1 yr, 2 yr, and 5 yr. Long term follow up is kindly requested for data collection. Frequency is subject to change pending patient progress. Progression back to sport is dependent on case-by-case basis and determined by Dr. Richards. If significant pain or swelling occurs, patient is expected to stop causative activity and follow up with our office. On call providers are always available.