

## REHABILITATION GUIDELINES FOR KNEE: OATS TRANSPLANT OF FEMORAL CONDYLE (ALLOGRAFT)

### PHASE I (0-6 WEEKS POST-OP)

### DATES:

|                                 |  |
|---------------------------------|--|
| Appointments                    | <ul style="list-style-type: none"> <li>Follow-up visit with MD 7-10 days after surgery</li> <li>Start physical therapy within first 7 days after surgery 2x week</li> </ul>  |
| Rehabilitation Goals            | <ul style="list-style-type: none"> <li>Protect surgical graft site in knee</li> <li>Decrease inflammation</li> <li>Gain full knee ROM and patellar mobility</li> <li>Regain quadriceps control</li> </ul>  |
| Precautions                     | <ul style="list-style-type: none"> <li>TTWB x 6 weeks</li> <li>If knee brace ordered ambulate locked at 0 degrees x 6 weeks</li> <li>Gain full knee extension immediately</li> <li>Gain Knee Flexion gradually: 0-90 degrees 1-2 weeks, 0-110 degrees 3-4 weeks, 0-130 5-6 weeks</li> <li>Avoid Open Chain ex's x 6 weeks</li> </ul> |
| Suggested Therapeutic Exercises | <ul style="list-style-type: none"> <li>Quadriceps, Glut, and Hamstring sets</li> <li>4-way straight leg raises</li> <li>Prone knee extension hangs</li> <li>Wall slides and heel slides for PROM knee flexion</li> <li>Pool at 3-4 weeks s/p if incisions fully closed and cleared for PWB by MD</li> </ul>                          |
| Cardiovascular Exercises        | <ul style="list-style-type: none"> <li>Bike with no resistance starting week 3-4</li> <li>Upper body ergometer</li> </ul>  |
| Progression Criteria            | <ul style="list-style-type: none"> <li>Full knee extension</li> <li>Able to do straight leg raise with good quad control</li> </ul>  |

**PHASE II (6-12 WEEKS POST-OP)**

**DATES:**

|                                 |   |
|---------------------------------|---|
| Appointments                    | <ul style="list-style-type: none"> <li>• Follow-up visit with MD at 6 weeks</li> <li>• Continue with physical therapy 2x week</li> </ul>  |
| Rehabilitation Goals            | <ul style="list-style-type: none"> <li>• Gradual progression of weight bearing to full</li> <li>• Normalize gait</li> <li>• Full knee AROM</li> <li>• Progression of quad and hip strength now in closed kinetic chain</li> </ul>   |
| Precautions                     | <ul style="list-style-type: none"> <li>• Progress weight bearing 25% per week till full weight bearing</li> <li>• Gait with crutches weaning off by 8-10 weeks</li> <li>• Avoid loading knee in deep flexion to protect implant site</li> <li>• No impact activities until 12 weeks post op</li> </ul>                |
| Suggested Therapeutic Exercises | <ul style="list-style-type: none"> <li>• Pool walking to normalize gait</li> <li>• Closed kinetic chain hip strength (bridges, step-up/downs)</li> <li>• Double leg balance and proprioception drills progressing to single leg</li> <li>• Partial Squats and Lunges to 60 degrees or less of knee flexion</li> </ul> |
| Cardiovascular Exercises        | <ul style="list-style-type: none"> <li>• Stationary bike</li> <li>• Pool progressing to land treadmill for gait</li> </ul>  |
| Progression Criteria            | <ul style="list-style-type: none"> <li>• Normal gait pattern</li> <li>• Full knee ROM</li> <li>• Functional movement on affected leg with steps, gait, and weight shift</li> <li>• Able to hold single leg stance for 15 seconds</li> </ul>   |

**PHASE III (12 TO 18 WEEKS POST-OP)**

**DATES:**

|                                 |  |
|---------------------------------|--|
| Appointments                    | <ul style="list-style-type: none"> <li>• Continue with physical therapy 1-2x week</li> </ul>   |
| Rehabilitation Goals            | <ul style="list-style-type: none"> <li>• Quality movement with control and no pain with functional activities</li> <li>• Increase muscular strength to within 90% of contralateral leg</li> <li>• Gradual return to recreational activities</li> </ul>   |
| Precautions                     | <ul style="list-style-type: none"> <li>• Avoid post-activity swelling and pain</li> <li>• Pain free strengthening program</li> </ul>   |
| Suggested Therapeutic Exercises | <ul style="list-style-type: none"> <li>• CKC exercises such as deep squats, lunges, single leg press</li> <li>• Single leg balance exercises such as step-up/downs, single leg squat, y-balance test</li> <li>• Hip and core strength continue</li> <li>• Slow return to impact loading near end of phase such as double leg jump</li> </ul> |
| Cardiovascular Exercises        | <ul style="list-style-type: none"> <li>• Stationary Bike</li> <li>• Treadmill walking, slow progression to run/walk program</li> <li>• Swimming</li> </ul>   |
| Progression Criteria            | <ul style="list-style-type: none"> <li>• Return to sport cleared before fully returning to high impact sports</li> <li>• Dynamic neuromuscular control in multiple planes</li> </ul>   |

References: Baer, Geoffery MD, Sherry, Marc PT at University of Wisconsin rehabilitation guidelines

PT name and date: Julie Perumal PT, DPT



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