

**Anterior Cruciate Ligament Reconstruction
Hamstring and Patella Tendon Grafts
Dr. Thomas Rivers**

The goals of this rehab protocol are as follows:

- Control and reduce joint pain and swelling.
- Return knee to normal range of motion.
- Return patient to normal gait pattern.
- Return patient to normal lower extremity muscular strength and endurance.
- Return patient to normal level of proprioception, balance, and coordination.
- Return patient to normal level of function.

Patient Name: _____ **ID #** _____

Date of Surgery: _____

Weeks 0-2:	Weeks 2-4:
<p>Dates: _____</p> <p><u>PRECAUTIONS:</u> TDWB / NWB x 2-3 weeks per MD orders</p> <p><u>GOALS</u></p> <ul style="list-style-type: none"> • Achieve 0-90° ROM • Control Pain, inflammation, and effusion • Adequate quadriceps contraction <p><u>EXERCISES</u></p> <p>ROM:</p> <ul style="list-style-type: none"> • Heel slides • Knee Wall slides • Gastroc / Soleus stretches • Patellar mobs • Ankle Pumps <p>Strength:</p> <ul style="list-style-type: none"> • Quad sets • SLR (flexion, abduction, adduction) • Ankle Pumps with t-band <p>Modalities:</p> <ul style="list-style-type: none"> • E-stim • Ice 15-20 minutes 	<p>Dates: _____</p> <p><u>PRECAUTIONS:</u> TDWB / NWB x 2-3 weeks per MD orders</p> <p><u>GOALS</u></p> <ul style="list-style-type: none"> • ROM to 110° of flexion and 0° of extension • Diminish pain, swelling, and effusion • Quad control • Initiate FWB as per Dr. River's instructions <p><u>EXERCISES</u></p> <p>ROM:</p> <ul style="list-style-type: none"> • Heel slides for ROM • Knee wall slides • Patellar mobs • Ankle Pumps • Prone knee hang (for knee ext) • Gastroc / Soleus stretching • Hamstring stretching <p>Strength:</p> <ul style="list-style-type: none"> • Quad sets with Biofeedback / NMES • SLR (Flex, ABD, ADD) • Wall squats • Heel/toe raises <p>Balance:</p> <ul style="list-style-type: none"> • Weight shifts(side to side, fwd-back) • Single leg balance <p>Modalities:</p> <ul style="list-style-type: none"> • E-stim / biofeedback as needed • Ice 15-20 minutes

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Weeks 4-6:	Weeks 6-9:
<p>Dates: _____</p> <p><u>GOALS</u></p> <ul style="list-style-type: none"> ROM 0-125° Minimize pain, swelling, and effusion Increase lower body strength and endurance Increase weight bearing from PWB to FWB <p><u>Exercises</u></p> <p>ROM:</p> <ul style="list-style-type: none"> Gastroc / Soleus / Hamstring stretch Heel and wall slides <p>Strength:</p> <ul style="list-style-type: none"> Progressive isometric program SLR in all four planes (add ankle weights) Heel raises Mini squats or wall squats Initiate isolated hamstring curls Multi hip machine in four planes Leg press squats and heel raises Retro treadmill for knee ext Lateral / forward step ups Lateral step downs Lunges- forward <p>Balance:</p> <ul style="list-style-type: none"> Single leg stance Balance board (two legged) Cup walking for proper heel/toe gait <p>Modalities:</p> <ul style="list-style-type: none"> Ice 15-20 minutes 	<p>Dates: _____</p> <p><u>GOALS</u></p> <ul style="list-style-type: none"> FWB / normal gait Restore full knee ROM (0-135°) Enhance proprioception, balance, and neuromuscular control Increase strength and endurance <p><u>Exercises</u></p> <p>ROM:</p> <ul style="list-style-type: none"> Passive stretching 0-135° Gastroc / Soleus / Hamstring stretch <p>Strength:</p> <ul style="list-style-type: none"> Continue exercises from week four Leg press-single leg Lateral lunges Smith machine squats <p>Agility / Endurance:</p> <ul style="list-style-type: none"> Stairmaster Bike for endurance Initiate controlled movements <ul style="list-style-type: none"> Control feet with cones Control feet with step <p>Balance:</p> <ul style="list-style-type: none"> Two-legged balance board Single leg with plyo toss Cup walking Trampoline / foam work. <p>Modalities:</p> <ul style="list-style-type: none"> Ice 15-20 minutes

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Weeks 9-12:	Weeks 12-16:
<p>Dates: _____</p> <p><u>GOALS</u></p> <ul style="list-style-type: none"> • FWB / normal gait • Restore full knee ROM (0-135°) • Enhance proprioception, balance, and neuromuscular control • Increase strength and endurance <p><u>Exercises</u></p> <p>ROM:</p> <ul style="list-style-type: none"> • Passive stretching 0-135° • Gastroc / Soleus / Hamstring stretch <p>Strength:</p> <ul style="list-style-type: none"> • Continue ex from week 9 • Progress with proprioception training <ul style="list-style-type: none"> • Lateral box jumps • Slide board • Dot drills • Bicycle for endurance <p>Modalities:</p> <ul style="list-style-type: none"> • Ice 15-20 minutes 	<p>Dates: _____</p> <p><u>GOALS</u></p> <ul style="list-style-type: none"> • Restore full knee ROM (0-135°) • Restore functional capability and confidence • Enhance lower extremity strength and endurance <p><u>Exercises</u></p> <p>ROM:</p> <ul style="list-style-type: none"> • Continue all stretching activities <p>Strength:</p> <ul style="list-style-type: none"> • Continue ex from week 11 • Initiate plyometric training drills • Ladder drills for agility • Sports cord lateral shuffle. • Progress jogging program • Initiate isokinetic training <p>Modalities:</p> <ul style="list-style-type: none"> • Ice 15-20 minutes

Bone & Joint Clinic, P.A.

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Weeks 16-20	Weeks 20-36:
<p>Dates: _____</p> <p><u>GOALS:</u></p> <ul style="list-style-type: none"> Progress skill training Enhance neuromuscular control Perform sport specific activity Maintain muscular strength and endurance <p><u>Exercises</u></p> <p>ROM:</p> <ul style="list-style-type: none"> Continue all stretching activities <p>Strength:</p> <ul style="list-style-type: none"> Continue all ex from week 15 Progress plyometric program Increase jogging program Backward running <p>Functional Program:</p> <ul style="list-style-type: none"> Sport specific drills Lateral movements Figure 8 drills <p>Modalities</p> <ul style="list-style-type: none"> Ice 15-20 minutes 	<p>Dates: _____</p> <p><u>GOALS:</u></p> <ul style="list-style-type: none"> Return to unrestricted sporting activity (per Dr. River's orders) Achieve maximal strength and endurance Progress independent skill training <p><u>Exercises</u></p> <p>ROM:</p> <ul style="list-style-type: none"> Continue all stretching activities <p>Strength:</p> <ul style="list-style-type: none"> Continue advanced strengthening program Functional Program: Progress running program Progress sport training program Progress neuromuscular program <p>Modalities:</p> <ul style="list-style-type: none"> Ice 15-20 minutes

