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## ACL HEALING RESPONSE POST-OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
PHASE I	0 to 2	<b>BRACE:</b> 0°-90° x 6 weeks <b>CRUTCHES:</b> WBAT 7-10 days; discontinue when patient can ambulate without a limp  <b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Gait training</li> <li>• Extension - heel props for full extension</li> <li>• Flexion - off table or wall slides</li> <li>• Quadriceps setting using NMES as needed</li> <li>• Multi-plane straight leg raises</li> <li>• Mini-squat and step-up progression after week 1</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce inflammation</li> <li>• Normalize patella mobility with manual mobilizations</li> <li>• Full extension both passive and active (No hyperextension x 4-6 weeks)</li> <li>• Good quadriceps activation</li> <li>• No extension lag with straight leg raise</li> <li>• Knee flexion full as tolerated</li> </ul>
	2 to 4	<b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Bilateral closed kinetic chain squatting</li> <li>• Multi-plane open/closed kinetic chain hip strengthening</li> <li>• Step-up progression</li> <li>• Proprioception drills</li> </ul> <b>CARDIOVASCULAR EXERCISE</b> <ul style="list-style-type: none"> <li>• Stationary biking</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce inflammation</li> <li>• Normalize</li> <li>• Full knee extension</li> <li>• No extension lag</li> <li>• Full knee flexion</li> </ul>
PHASE II	4 to 6	<b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Double leg and single squats</li> <li>• Lunges progression as tolerated</li> </ul> <b>CARDIOVASCULAR EXERCISE</b> <ul style="list-style-type: none"> <li>• Stationary biking</li> <li>• Treadmill/outdoor walking, focus on proper gait mechanics</li> <li>• Elliptical</li> </ul>	<ul style="list-style-type: none"> <li>• Full knee extension/hyperextension</li> <li>• Knee flexion to full as tolerated</li> <li>• Normalize gait mechanics</li> <li>• Normalize patellofemoral joint and scar mobility</li> </ul>
	6 to 10	<b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Advance intensity of cardiovascular program; no running</li> <li>• Increase intensity of closed kinetic chain exercises</li> <li>• Advance proprioception drills</li> <li>• Gym program – no extensions</li> <li>• Pool program: deep water cycling and straight leg flutter kicks, shallow water walking</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce inflammation</li> <li>• Full ROM and hyperextension with terminal stretch; active and passive</li> <li>• Normal gait</li> </ul>
PHASE III	10 to 16	<b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Implement full gym strengthening; Including leg extension</li> <li>• Basic ladder series</li> <li>• Linear running</li> <li>• Plyometric exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Implement a full gym strengthening program</li> <li>• Fit functional brace</li> </ul>
	16 to 20	<ul style="list-style-type: none"> <li>• Functional brace use for sports specific drills</li> <li>• Sprinting</li> <li>• Field drills– lateral and rotational</li> <li>• Follow up examination with physician</li> <li>• Sports test for return to sport</li> </ul>	<ul style="list-style-type: none"> <li>• Establish RTA</li> </ul>