

# Patella Instability Nonoperative Protocol

	<b>Phase I: 1-2 weeks</b>	<b>Phase II: 3-6 weeks</b>
Weight-Bearing and Immobilization	<ul style="list-style-type: none"> <li>• WBAT</li> <li>• Hinged knee brace 0-90° and may progress to full ROM when excellent quadriceps control/strength</li> </ul>	<ul style="list-style-type: none"> <li>• WBAT</li> <li>• Discontinue brace when excellent quadriceps control/strength, stable normalized gait, and resolution or significant improvement in knee effusion</li> </ul>
Aerobic	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• Stationary bike for ROM (minimal resistance, elevated seat height)</li> </ul>
Range of Motion (ROM) and Strengthening	<ul style="list-style-type: none"> <li>• Emphasis on regaining full extension</li> <li>• Heel slides 0-90°</li> <li>• Ankle pumps</li> <li>• Isometric quadriceps sets</li> <li>• May progress to full ROM in hinged knee brace when excellent quadriceps control/strength</li> </ul>	<ul style="list-style-type: none"> <li>• Continue exercises from Phase I</li> <li>• Gentle patellar mobilization exercises</li> <li>• Progress to full and symmetric ROM</li> <li>• Begin progressive strengthening when full or near-full ROM, excellent quadriceps control, stable normalized gait, and resolution of knee pain and effusion <ul style="list-style-type: none"> <li>▸ Mini squats</li> <li>▸ Hip external rotators and abductors</li> <li>▸ Core</li> <li>▸ Leg press</li> <li>▸ Leg extensions</li> <li>▸ Straight leg raise</li> </ul> </li> <li>• Begin two-leg balance and proprioception exercises</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Modalities as needed to reduce swelling and improve muscle recruitment</li> <li>• Home Exercise Program (HEP) per discretion of Physical Therapist</li> </ul>	
Goals	<ul style="list-style-type: none"> <li>• Pain control</li> <li>• Reduce effusion</li> <li>• Protection of tissue healing</li> <li>• Minimize joint stiffness</li> </ul>	<ul style="list-style-type: none"> <li>• Progress to full and symmetric ROM</li> <li>• Begin strengthening program</li> <li>• Begin balance and proprioception exercises</li> </ul>

	<b>Phase III: 6-10 weeks</b>	<b>Phase IV: 10-12+ weeks</b>
Weight-Bearing and Immobilization	<ul style="list-style-type: none"> <li>• WBAT</li> <li>• No immobilization necessary</li> <li>• May use a patella stabilization brace during activity according to patient preference</li> </ul>	
Aerobic	<ul style="list-style-type: none"> <li>• Advance through following progression as tolerated <ul style="list-style-type: none"> <li>▸ Continue stationary bike (may increase resistance and lower seat to regular height when 115° of knee flexion)</li> <li>▸ Initiate retro treadmill with 3% incline for quadriceps control and advance incline as tolerated</li> <li>▸ Stair climber</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Begin walk-jog-run progression and sport-specific drills as tolerated when: <ul style="list-style-type: none"> <li>▸ Quadriceps strength &gt;80% of contralateral side</li> <li>▸ Active ROM 0-125°</li> <li>▸ Functional hop test &gt;70% contralateral side</li> <li>▸ No pain or swelling</li> <li>▸ Good lower extremity control and landing mechanics on jump-downs</li> <li>▸ Gradual progression to include zigzags, lateral shuffles, hops, jumps, cuts, and sport-specific drills</li> </ul> </li> <li>• Return to sports when: <ul style="list-style-type: none"> <li>▸ Full active ROM</li> <li>▸ Quadriceps and hip external rotator strength &gt;90% of contralateral side</li> <li>▸ Functional hop test &gt;90% contralateral side</li> <li>▸ Completion of running program</li> <li>▸ No pain or swelling</li> </ul> </li> </ul>
Range of Motion (ROM) and Strengthening	<ul style="list-style-type: none"> <li>• Continue exercises from Phase II</li> <li>• Advance strengthening exercises with additional exercises and/or increased resistance/weight <ul style="list-style-type: none"> <li>▸ Wall or ball squats</li> <li>▸ Step-up and step-down progression</li> </ul> </li> <li>• Begin step-up and step-down progression with gradually increasing heights (4-, 6-, 8-, 12-inches)</li> <li>• Progress to one-leg balance and proprioception exercises</li> <li>• Lateral step-out with bands</li> <li>• Sportcord/bungee walking</li> <li>• At week 9, may begin slide board</li> <li>• At week 9, may begin plyometric program</li> </ul>	<ul style="list-style-type: none"> <li>• Continue exercises from Phase III</li> <li>• Begin resistance open-chain knee extension exercises</li> <li>• Begin jump-downs with double-stance landing</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Modalities as needed to reduce swelling and improve muscle recruitment</li> <li>• Home Exercise Program (HEP) per discretion of Physical Therapist</li> </ul>	
Goals	<ul style="list-style-type: none"> <li>• Advance strengthening exercises</li> <li>• Advance balance and proprioception</li> <li>• Begin plyometric program</li> </ul>	<ul style="list-style-type: none"> <li>• Gradual return to running, sport-specific drills, and full sports when aforementioned criteria met</li> <li>• Begin to wean from supervised PT</li> </ul>