



*Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists*

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### **REHABILITATION PROTOCOL- Nonoperative patellar instability**

The rehabilitation guidelines are presented in a criterion based progression program. Individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. The therapist should consult the referring physician with any questions or concerns.

### **INDIVIDUAL CONSIDERATIONS**

#### **PHASE 1 (~0-2 weeks)**

REHAB GOALS	<ol style="list-style-type: none"> <li>1. Minimize swelling &amp; pain</li> <li>2. Normalize gait</li> </ol>
PRECAUTIONS	<ol style="list-style-type: none"> <li>1. Crutches as needed if painful weight bearing</li> <li>2. Weight bearing as tolerated in hinged knee brace, lock in extension for ambulation initially. When appropriate quad strength &amp; control unlock.</li> <li>3. Avoid active terminal knee extension</li> <li>4. Ice as needed for pain</li> </ol>
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Soft tissue techniques/mobilizations/modalities as needed</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ As above</li> <li>○ UE strengthening as pain tolerates</li> <li>○ Contralateral LE strengthening as tolerated</li> <li>○ Hib abductor/external rotator &amp; extensor strengthening</li> <li>○ Balance/proprioception- begin wobble board, BOSU ball, etc. start with double leg, progress to single leg.</li> </ul>
CARDIOVASCULAR EXERCISE	UBE
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ No pain at rest</li> <li>○ Minimal swelling</li> <li>○ Normal gait without pain</li> </ul>

#### **PHASE 2 (~3-6 weeks)**

REHAB GOALS	<ol style="list-style-type: none"> <li>1. Progress strengthening, balance</li> </ol>
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	2. Minimize pain and swelling
PRECAUTIONS	1. Can discontinue knee brace if no extensor lag and normal gait without brace or assistive device 2. Ice as needed after activity
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Soft tissue mobilizations/techniques as needed</li> <li>○ Hamstring/hip stretches as needed</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Continue phase 1 exercises</li> <li>○ Balance/proprioception- progress to single leg, unstable surface</li> <li>○ LE strengthening- progress to closed chain/wt bearing strengthening activities when tolerating hip strengthening. When tolerating progressive loads with double leg progress to single leg</li> <li>○ Postural alignment &amp; gait training</li> <li>○ Patellar taping as needed</li> <li>○ Partial squats incorporate BOSU ball, etc</li> </ul>
CARDIOVASCULAR EXERCISE	Continue phase 1 Elliptical, stationary bike
PROGRESSION CRITERIA	<ul style="list-style-type: none"> <li>○ 5/5 quadriceps strength</li> <li>○ Normal gait without assistive device or brace</li> <li>○ Able to perform 15 second single leg stance without knee valgus/pelvic drop</li> </ul>

**PHASE 3 (~7+ weeks)**

REHAB GOALS	<ul style="list-style-type: none"> <li>○ Progress strengthening &amp; LE drills</li> <li>○ Minimize pain, inflammation</li> <li>○ Return to sport/work</li> </ul>
PRECAUTIONS	
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> <li>○ Continue exercises from phase 2.</li> <li>○ Sport specific stretches as needed</li> </ul>
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> <li>○ Continue exercises from phase 2</li> <li>○ Progress weight/ resistance from phase 2 activities</li> <li>○ Progress single leg balance to unstable surface, perturbations, etc, incorporate dynamic activities</li> <li>○ Plyometrics- begin with double leg activities, jumps, progress to single leg</li> <li>○ Agility/sport specific training- may begin after initiation of running and plyometrics without symptoms</li> </ul>

CARDIOVASCULAR EXERCISE	Continue phase 2, walk/run progression
PROGRESSION CRITERIA- RETURN TO SPORT	<ul style="list-style-type: none"><li>○ Full pain free active &amp; passive ROM</li><li>○ No pain/swelling/apprehension</li><li>○ Quadriceps strength 90% of contralateral</li><li>○ Normal single leg balance</li><li>○ Pass sport specific program</li><li>○ Physician clearance</li></ul>