



<p><b>Phase 2</b></p> <p>Strength focus into range</p> <p>“Slowly up, then slowly down”</p> <p>Strength 4 x 6-8 (6RM) Heavy</p> <p>Always include strength endurance as well</p> <p>4 x max to fatigue at night</p> <p>Isolated strength challenge OK, worry about function later</p> <p>Monitor 24/24 symptom response</p> <p>Speed should not be provocative but range can be</p>	<p>Single leg OK where possible but OK to start with double</p> <p>Good technique – middle of ankle joint over middle of 2<sup>nd</sup> toe joint</p> <p>Gym use leg press 4 x 6 1.5xBW SL every 2<sup>nd</sup> day or 3xwk with isometrics on off days.</p> <p>Slow repeat pushes with sled or on prowler in PF</p> <p>Graduate amount of DF</p> <p>Going up stairs – push up slow and progress DF</p> <p>Seated calf raise machine</p> <p>Kinetic chain bulk – hammy, glut.</p> <p>Hold soleus position on decline board and repeat step through with DBs.</p>	<p>Conc/ecc strength with 3 good ex's targeting area</p> <p>Spanish squat progressions</p> <p>DL decline squat progressions</p> <p>SL decline squat progressions</p> <p>Sled progressions</p> <p>Strength endurance</p> <p>Increase range</p> <p>Walking stairs then add weight</p>	<p>SL bridge</p> <p>Prone hip extension</p> <p>Prone leg curl</p> <p>Nordic hamstring exercise</p> <p>Bridging progressions</p> <p>Supine leg curl</p> <p>Continue to perform Phase 1 exercise on off days</p> <p>Progress to Phase 3 if full pain free arabesque.</p>	<p>Move from supine position to sitting &amp; standing positions</p> <p>Total Hip machine</p> <p>Seated ABD machine</p> <p>Cable progressions</p> <p>Theraband can be tolerated here with banded knee +/- ankle progressions</p> <p>Train both as moving limb and stance limb, keeping pelvis aligned over leg.</p>
<p><b>Phase 3</b></p> <p>Speed/power focus</p> <p>Add increase in propulsion</p> <p>Up to 15 reps Progress to Phase 2-3 when there is symmetry of function, able to do 25-30 SL calf raises for jumping athletes, 1-1.5 x BW on leg press and have good kinetic chain function on hop test.</p> <p>Choose only 1 element of elastic function, either absorption or propulsion. If you add speed then take away load.</p> <p>Jump up first then along after</p>	<p>Prowler and sled work</p> <p>Scooter up a small incline or across a grass field</p> <p>Skipping progressions:</p> <p>DL non consecutive</p> <p>DL consecutive</p> <p>Alternate</p> <p>SL non consecutive</p> <p>SL consecutive</p> <p>Stair progressions</p> <p>Split squats progressions:</p> <p>Energy storage</p> <p>Energy storage and release</p> <p>Increase speed, increase depth</p>	<p>Can progress this in partial range</p> <p>Push/pull energy storage</p> <p>Jump up onto box</p> <p>Jump into pool</p> <p>Skipping program progressions</p> <p>Stairs – up stairs then down lift or come down very slowly</p> <p>Modified bounding up stairs then walk down</p>	<p>Gradually increase degree of hip flexion (70-90deg)</p> <p>Dosage and frequency of loading exercises are the same as Phase 2, ie, every 2<sup>nd</sup> day.</p> <p>Romanian deadlift</p> <p>Step-ups</p> <p>Walking lunges</p> <p>Hip thrusts (weights can be added to increase resistance)</p> <p>SL deadlift</p>	<p>Gradually increase degree of hip flexion (70-90deg)</p> <p>Dosage and frequency of loading exercises are the same as Phase 2, ie, every 2<sup>nd</sup> day.</p> <p>Step-ups</p> <p>Walking lunges</p> <p>Hip thrusts (weights can be added to increase resistance)</p> <p>SL deadlift</p>
<p><b>Phase 4</b></p> <p>Elasticity focus</p> <p>Energy storage and return</p> <p>Running itself is a high tendon load activity s as you increase running you can decrease other phase 4 drills</p> <p>Hold back from combining plyometrics and sport activity</p>			<p>Required for those returning to sports involving lower-limb energy storage and impact loading</p> <p>Sprinter leg curl</p> <p>A-skips</p> <p>Fast sled push or pull</p> <p>Alternate leg split squats</p> <p>Hill bounding</p>	

together, especially in first season back.			Kettle bell swings Gradual introduction of sports specific squat and lunge activities. For multi-directional sports progression should include lateral, rotational, or cutting movements	
<b>Comments</b>	Lifting shoes Range issues	Often can't quite fully extend the knee Consider the possibility of a direct blow May not be able to kneel on affected knee Can use tape to Ddx PFJ component. Tape to bunch tissue up from above and below	Be aware of errors in progressing speed and load at same time	

Tendons are springs that like fixed not springy loads. Avoid theraband.  
 Fluoroquinolones (anti-biotics) have been associated with changes in tendon structure  
 Deleterious effects of the rest – reload – rest – reload cycle  
 HCl can buy you some P free rehab time which can help but needs to be followed by a longer lead in time back to training  
 Remember the potential for L leg issue in track runners. Inside lane vs outside lane. Grass vs track. Flats vs spikes  
 A sheath issue can be treated with ½ voltaren: ½ hirudoid cream lathered on a wrapped in glad wrap overnight for up to 1 week.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Transition Step</b>		H	Strength/Gym	X-Training	Strength/Gym	H	
<b>Phase 4</b>	(H) Run	(L) Isometrics	(M) Gym/Strength	(H) Run	(L) Isometrics	(M) Gym	Rest

High tendon load is about energy storage and release (spring) not Heavy/Slow loads  
 Allow 48hrs recovery for mm but 72hrs for tendons  
 Decline board is more targets the tendon more, flat ground targets PFJ more  
 Measures for progression according to pain symptoms. Zero pain for reactive disorders and low/stable for older more grumbly disorders.  
 High tendon load every 3 days  
 Be aware of volume effects vs exercise selection effects.  
 In season go hard with Phase 1 & 2 and use run as only high load activity.