Acute Proximal Hamstring Repair Rehabilitation Protocol

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This protocol provides general guidelines for rehabilitation following acute proximal hamstring repair. Progression should be individualized based on the procedure, healing, and patient response, with modifications as directed by the surgeon.

Phase	Goals	Precautions / Restrictions	Treatment

Weeks 0-3	● Decrease pain and inflammation
	● Minimize muscle atrophy
	● **Protect healing repair**
		● Gait: **Non weight bearing**
		● Brace locked in **90°** knee flexion, 24/7, except for hygiene
		● **No hamstring stretching or tension on graft, comfortable range only**
		● **No position of maximum tension: hip flexion + knee extension**
			General guidelines
			● PRICE principles
			● Isometrics: quadriceps, hip abduction, hip adduction, abdominals
			● Passive range of motion:
			  ● Hip
			  ● Knee (full flexion to **90 deg**)
			● Active range of motion: hip abduction, hip flexion, hip adduction, ankle
			● Upper extremity exercise as long as **no stress to repair**

Weeks 3-6	● **Protect healing repair** ● **Normalize gait mechanics** ● Return to **normal movements of daily living**	● Gait: Progressive weight bearing as tolerated ● Discontinue brace ● **No hamstring stretching** ● **No isolated hamstring strengthening**	**General guidelines** ● Progress to independent ambulation with **normal gait mechanics** ● Begin unresisted active knee flexion ● Begin straight leg raise (comfortable range) ● Initiate closed kinetic chain exercises with squatting pattern ● Initiate single leg proprioception ● Initiate stationary bike (as ROM allows, may need high seat), aquatics as indicated
Weeks 6-12	● Symmetric ROM ● Progress muscle strength, endurance, power ● Return to vocational activities	● **No hamstring stretching**	**General guidelines** ● Progress lower extremity and core strengthening ● Initiate bridging progression ● Initiate isolated hamstring strengthening* **Week 8** ● Initiate elliptical at 8 weeks

Phase	Goals	Precautions / Restrictions	Treatment
Weeks 12+	● Return to jog ● **>90%** hamstring and hip extension strength symmetry; prefer concentric and eccentric isokinetic testing ● Single leg hop testing **>90%** limb symmetry (if returning to level I sport) ● Progressive return to sport	● Anticipated return to sport between 16-24 weeks	**General guidelines** ● Initiate hamstring stretching, if needed ● Initiate walk/jog progression ● Progress plyometrics and agility as appropriate ● Isokinetic hamstring strength testing

Hamstring strengthening guidance

*Hamstring strengthening should progress from shortened to lengthened positions; from positions that do not compress the tendon (hip extension) to those that do (hip flexion and/or seated); from slow and controlled movements to faster movements to energy storage (landing from a jump) to energy storage with release (drop vertical jump).