

# PATELLAR TENDON REALIGNMENT/DISTAL TUBERCLES SHIFT REHAB PROTOCOL

01/01/2009

## Post-op

ROM	0-90 degrees, brace adjusted
Hamstring Strengthening	Isometric heel digs
Quadriceps Strengthening	Isometric Quad sets, no active extension
Gait	WBAT with crutches and ROM braces
Activities	Elevate knee, above heart, ice and perform ankle pumps, ½ hr. QID
Modalities	Interferential with ice for swelling if needed
Stretching	Seated hamstring and gastroc stretch/seated and supported knee flexion

## 2 Weeks

ROM	0 to 110 degrees, brace adjusted
Hamstring Strengthening	Short arc ham curls 0-30 degrees, no weights
Quadriceps Strengthening	Bent knee leg raises with brace. Cont Ios's
Gait	FWB and no crutch if stable, min. brace. PWB and 1 crutch if mod. c/o of discomfort and instability, cont brace. PWB and 2 crutches if significant c/o's
Activities	Stationary bike- depending on ROM cont elevation PRN
Modalities	EMS to quad to stimulates VMO if appropriate
Stretching	Con't same, add prone stretch for quad when 110 degrees reached

## 1 Month

ROM	0-130 degrees
Hamstring Strengthening	SAH increases wt to 5% BW
Quadriceps Strengthening	open chain activities: SLR with brace and 90 to 45 Degrees knee extension no wt. Closed chain activities: wall press against resistance, 0-30 degrees. Lateral step-ups, Wall squats at 50% WB
Gait	0-30 degrees Full weight bearing, no crutches and no brace if no Limping and stable. Crutch and brace PRN otherwise
Activities	Stationary bike for 20 mins. With minimal tension
Modalities	Cont EMS if needed and ice

Stretching

Same for hamstring, with prone for quad and begin standing gastroc an soleus stretches

## **2 Months**

ROM

full ROM

Hamstring Strengthening  
Quadriceps Strengthening

Increase wt up to 10% BW  
Open chain: FAQ 90-45 degrees with wt., 5% of BW. SLR work up to 5% of BW SAQ with no wt. If no patella pain sx's. Closed chain: same as above, wall squats 0-45 degrees. Add leg press, Bilat 100% BW, single 50% BW, and 0-45 degrees. FWB without assist.

Gait

FWB without assist

Activities

Increase bike to 30 min mod

Modalities

Ice PRN

Stretching

Con't same as above

## **3 Months**

ROM

Full

Hamstring Strengthening  
Quadriceps Strengthening

Con't same  
Con's same as above, increase FAQ to 100% if BW through, 90 to 45 degrees range. Leg press increase to 150% BW. Bilat and 75, single, 0-60 degree FWB without assist.

Gait

Begin incremental walking, up to 1 mile

Activities

QOD. Bike or stair master, 30 min, on off days

## **4 Months**

ROM

Full

Hamstring Strengthening  
Quadriceps Strengthening

Same  
Open chain: same, with progression of FAQ through 90-0 degrees range without wt. Then pre as tolerated up to 10% BW if no patellar pain  
Closed chain; same, with leg press increased to 200% BW bilat and 100% single 0-60 degrees, if no patellar pain

Gait

FWB without assist

Activities

begin running program. Con't bike QOD

Stretching

Con't program