SKYLINE ORTHOPEDICS
Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists

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REHABILITATION PROTOCOL- Proximal tibia osteotomy

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but 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. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

INDIVIDUAL CONSIDERATIONS: S/p

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PHASE 1- Surgery to 4 weeks

REHAB GOALS	1. Protection of the post-surgical repair 2. Restore knee range of motion – full knee extension and Knee flexion to: 120 degrees 3. Restore leg control – no lag with straight-leg-raise 4. Eliminate effusion
PRECAUTIONS	1. Crutches and non-weight bearing for 4 weeks. Brace locked in extension for weight bearing for 6 weeks 2. Brace on for sleep for 4 weeks, afterwards can remove for sleep. 3. 50% weight bearing at 4 weeks, progress to full weight bearing at 6 weeks. 4. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session 5. Ok to remove brace for exercises except straight leg raises
RANGE OF MOTION EXERCISES	○ Calf and hamstring stretches ○ Supine wall slides and heel slides to 90 degrees ○ Patellar mobilization
SUGGESTED THERAPEUTIC	○ Quad sets ○ SLRs ○ Calf pumps, ankle strengthening exercises

EXERCISES	
CARDIOVASCULAR EXERCISE	Upper body circuit training or UBE
PROGRESSION CRITERIA	○ Straight leg raise without extension lag ○ No effusion ○ Knee flexion to 90 degrees and full extension

PHASE 2- 4-8 weeks postop

REHAB GOALS	○ Normalize gait ○ Increase range of motion and quad strength
PRECAUTIONS	○ 50% wt bearing at 4 weeks, progress to full at 6 weeks ○ Avoid post activity swelling ○ No impact activities ○ Can discontinue brace with good quad control and normal gait
RANGE OF MOTION EXERCISES	○ Continue exercises from phase 1.
SUGGESTED THERAPEUTIC EXERCISES	○ Non-impact balance and proprioceptive drills ○ Gait drills ○ Hip and core strengthening ○ Proprioception-mini tramp standing, standing ball throwing and catching ○ Quad strengthening – d/c brace when no extension lag
CARDIOVASCULAR EXERCISE	Non-impact endurance training: stationary bike (high seat low tension), pool walking
PROGRESSION CRITERIA	○ Normal gait on all surfaces ○ Ability to carry out functional movements without unloading affect leg or pain while demonstrating good control ○ Full range of motion

PHASE 3- 8-12 weeks postop

REHAB GOALS	Progress with strength, proprioception
PRECAUTIONS	Post-activity soreness should resolve within 24 hours Avoid post activity swelling
RANGE OF MOTION	Continue with flexibility exercises

EXERCISES	
SUGGESTED THERAPEUTIC EXERCISES	○ Hip and core strengthening ○ Mini squats and leg pres <60 deg ○ Mini tramp bouncing ○ Lateral slide board ○ Ball throwing and catching on unstable surface
CARDIOVASCULAR EXERCISE	Elliptical, Nordic track, stairmaster, pool running and swimming, stationary bike. Treadmill walking
PROGRESSION CRITERIA	○ Normal gait ○ Sufficient strength to initiate recreational activities, without pain or swelling

PHASE 4- 12+ weeks

REHAB GOALS	Return to unrestricted activity (~5-6 months)
PRECAUTIONS	Post-activity soreness should resolve within 24 hours Avoid post activity swelling
RANGE OF MOTION EXERCISES	Continue with flexibility exercises
SUGGESTED THERAPEUTIC EXERCISES	○ Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to other and then 1 foot to same foot ○ Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities. Incorporate cutting drills ○ Strength and control drills related to sport specific movements (start at 25% speed and advance as tolerated) ○ Sport/work specific balance and proprioceptive drills ○ Hip and core strengthening
CARDIOVASCULAR EXERCISE	○ Continue to progress from phase 3. Start walk/jog progression
RETURN TO SPORT/WORK CRITERIA	○ Dynamic neuromuscular control with multi-plane activities, without pain or swelling ○ Full range of motion ○ Hamstring and quadriceps strength 90% of contralateral side