



7858 Shrader Rd

Richmond, Virginia 23294

Anterior Cruciate Ligament (ACL) Pre-Operative Guidelines

The following guidelines are intended primarily for pre-operative optimization prior to Anterior Cruciate Ligament (ACL) Reconstruction. The goal is to restore knee range-of-motion prior to surgery, minimize knee effusion/inflammation and encourage return to normal gait patterns. These guidelines may also be used as an initial step for patient undergoing non-operative ACL rehabilitation.



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PRE-OPERATIVE ACL GUIDELINES

OVERVIEW	<ul style="list-style-type: none">▪ Optimize Knee Range of Motion▪ Eliminate Poor Gait Habits▪ Reduce Effusion and Inflammation of the Knee prior to Surgery
PRECAUTIONS	<ul style="list-style-type: none">▪ Avoid pain with ROM and strengthening exercises▪ Modify or minimize activities that increase pain and/or swelling▪ Use appropriate assistive device as needed
TREATMENT RECOMMENDATIONS	<ul style="list-style-type: none">▪ Patient education<ul style="list-style-type: none">○ Post-operative plan of care○ Edema control○ Activity modification○ Gait training with expected post-operative assistive device○ Basic home exercise program (HEP)▪ Ankle pumps, quadriceps sets, gluteal sets



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TREATMENT
RECOMMENDATIONS
(CONT.)

- Knee flexion and extension AAROM
- Straight leg raises in multiple planes
- LE flexibility exercises e.g. supine calf and hamstring stretches
- Passive knee extension with towel roll under heel
- Plantar flexion with elastic band or calf raises
- Gait training with appropriate pre-operative assistive device if needed
- Additional recommendations for patients attending multiple sessions pre-operatively
 - Edema management
 - ROM exercises e.g. knee flexion AAROM, supine knee extension PROM
 - LE flexibility exercises
 - LE progressive resistive exercises
 - Balance/proprioceptive training



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	<ul style="list-style-type: none">○ Stationary bike
EMPHASIZE	<ul style="list-style-type: none">▪ Familiarization with post-operative plan of care▪ Quadriceps contraction▪ Control swelling▪ Knee ROM with focus on extension unless mechanically blocked
GOAL CRITERIA FOR PROGRAM	<ul style="list-style-type: none">▪ Knee PROM: full extension to 120° degrees flexion▪ Minimal to no swelling▪ Active quadriceps contraction with superior patella glide▪ Demonstrates normal gait▪ Able to ascend stairs▪ Able to verbalize/demonstrate post-operative plan of care