

## REHABILITATION GUIDELINES FOR ACL REPAIR

PHASE I (0-2 WEEKS)

DATES:

Appointments	<ul style="list-style-type: none"> <li>Physical therapy 2-3x/week, beginning 2-5 days post-op</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>Full extension symmetrical to contralateral knee before the first post-op visit at 2 weeks</li> <li>Flexion to 120°</li> <li>20° SLR without quad lag</li> <li>Off of crutches</li> </ul>
Precautions	<p><b>WB:</b></p> <ul style="list-style-type: none"> <li>WBAT with crutches</li> </ul> <p><b>Brace:</b></p> <ul style="list-style-type: none"> <li>Brace locked in extension until first PT visit, then unlocked at all times.</li> <li>May remove brace for sleep and exercises after 1 week</li> </ul>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>Prolonged extension- prone hang, supine with roll under ankle</li> <li>Heel slides, wall slides, prone knee flexion</li> <li>Isometric quad set, then SLR</li> <li>Hamstring isometrics</li> <li>4-way hip and ankle exercises including calf pumps</li> <li>Initiate proprioceptive/balance exercises to include single leg stance, weight shifts forward, retro, lateral</li> <li>Patellar mobilizations (especially cranially)</li> <li>Ice 5x/day, 20 min each time, especially after exercises</li> </ul>
Cardiovascular Exercises	<ul style="list-style-type: none"> <li>Stationary bike- no resistance</li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li>DC crutches when quad control returns, full extension achieved, stable with low fall risk.; wean to 1 crutch if steady in gait</li> </ul>

## REHABILITATION GUIDELINES FOR ACL REPAIR

PHASE II (2-4 WEEKS)

DATES:

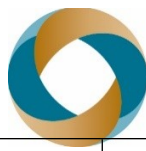
Appointments	<ul style="list-style-type: none"> <li>Continue physical therapy 2-3x/week</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>Full ROM</li> <li>Advanced strengthening</li> <li>Consider early neuromuscular retraining</li> </ul>
PHASE III (4-8 WEEKS)	DATES:
Precautions	<ul style="list-style-type: none"> <li>Wear brace unlocked until good quad control except for sleeping, exercises</li> </ul>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>AVOID OPEN CHAIN RESISTIVE ESPECIALLY WITH WEIGHTS (resistance bands OK for hamstring/quad)</li> <li>Quad: <ul style="list-style-type: none"> <li>Mini squats/wall squats</li> <li>Step ups</li> </ul> </li> <li>Hamstring: <ul style="list-style-type: none"> <li>Bridge</li> <li>Standing hamstring eccentrics</li> </ul> </li> <li>Calf: <ul style="list-style-type: none"> <li>Heel raises</li> <li>Calf press</li> </ul> </li> <li>Hip extension, ABD, ADD</li> <li>Consider balance board/wobble board for early NM retraining</li> </ul>
Cardiovascular Exercises	<ul style="list-style-type: none"> <li>Stationary bike: as soon as motion (0-115 degrees) allows</li> <li>Elliptical</li> <li>Stairmaster</li> <li>Pool: <ul style="list-style-type: none"> <li>Walking</li> <li>Deep water aqua-jogging</li> <li>NO KICKING (begin at 4-6 weeks)</li> </ul> </li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li>Full ROM</li> <li>Minimal Effusion</li> <li>Functional Control for ADLs achieved</li> <li>DC brace: with adequate quad control for gait on level surfaces, inside. 6 weeks post op</li> </ul>

Appointments	<ul style="list-style-type: none"> <li>Continue physical therapy 1-2x/week</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>Maintain full ROM ( should be full extension and to 135° flexion)</li> <li>Progress neuromuscular retraining program</li> <li>Core integration</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>No downhill walking/running, downhill skiing, downhill biking until 4.5 months</li> </ul>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>HEP 5x per week</li> <li>Progress neuromuscular proprioceptive/balance exercises including single leg balance progression- varying surfaces</li> <li>Pool: <ul style="list-style-type: none"> <li>4 way hip</li> <li>Lateral movement</li> <li>Deep water jogging in place (no freestyle or frog/breaststroke kick)</li> </ul> </li> <li>Strengthening: <ul style="list-style-type: none"> <li>Lunges, sport cord, wall squats, step up/down</li> </ul> </li> </ul>
Cardiovascular Exercises	<ul style="list-style-type: none"> <li>May begin road biking outdoor on flat roads only</li> <li>May begin treadmill walking</li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li>Neuromuscular exercises without difficulty</li> </ul>

PHASE IV (8 WEEKS TO 3 MONTHS)

DATES:

Appointments	<ul style="list-style-type: none"> <li>Continue physical therapy 1-2x/week</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>12 weeks: light running/hopping without pain or swelling, progress to running patterns at 75% speed</li> <li>Good jumping mechanics- NO DYNAMIC VALGUS</li> <li>Hop drills without difficulty</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>No downhill walking/running, downhill skiing, downhill biking until 4.5 months</li> </ul>
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>HEP 5x per week</li> <li>Agility drills: shuffling, hopping, running patters</li> <li>Sport specific closed chain exercises: <ul style="list-style-type: none"> <li>Leg Press (0-60°)</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>- Step ups</li> <li>- Mini squats (0-60°)</li> <li>- Short arc quad (30-90°)</li> <li>- Hamstring curls with light weight/high repetition</li> </ul>
Cardiovascular Exercises	<ul style="list-style-type: none"> <li>• Begin endurance closed-chain exercises 3-4x/week               <ul style="list-style-type: none"> <li>- Stairmaster, stationary bike, elliptical, NordicTrack (short stride)</li> <li>- Focus on increasing endurance</li> </ul> </li> <li>• Progress jogging on treadmill or even ground to running patterns at 75%</li> <li>• Pool: may start freestyle swimming (avoid frog/breaststroke kick), progress to shallow water jogging</li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li>• Running without knee effusion</li> <li>• Hopping/agility drills without knee pain or effusion</li> </ul>

Appointments	<ul style="list-style-type: none"> <li>• Continue physical therapy 2 visits per month to review HEP</li> </ul>
Rehabilitation Goals	<ul style="list-style-type: none"> <li>• Able to complete a running program</li> <li>• May begin plyometric program: jump rope exercise</li> <li>• Hamstring and quadriceps strength 90% of normal leg</li> <li>• Return to sport testing at 9 months post-op prior to MD visit</li> </ul>
Precautions	<ul style="list-style-type: none"> <li>• Earliest return to full sports = 9 months</li> </ul>
(Phase IV continued) Suggested Therapeutic Exercises	<ul style="list-style-type: none"> <li>• HEP 4-5x per week</li> <li>• Sport Specific               <ul style="list-style-type: none"> <li>- Plyometric program</li> <li>- Fast straight running</li> <li>- Backward running</li> <li>- Cutting, cross-overs, carioca, etc. in a controlled environment</li> </ul> </li> <li>• Agility drills: shuffling, hopping, running patterns</li> </ul>
Cardiovascular Exercises	<ul style="list-style-type: none"> <li>• Pool available: may advance swimming (avoid frog/breaststroke kick)</li> </ul>
Progression Criteria	<ul style="list-style-type: none"> <li>• Quadriceps and hamstring strength at least 90% of opposite leg</li> <li>• Single leg hop test and vertical jump at least 90% of opposite leg</li> <li>• Jog, full speed run, shuttle run, and figure 8 running without a limp</li> <li>• Full controlled acceleration and deceleration</li> <li>• Squat and rise from a full squat</li> <li>• No effusion or quadriceps atrophy</li> </ul>



**THE ORTHOPEDIC INSTITUTE AT SOUTHWEST HEALTH**

1400 EAST SIDE ROAD, PLATTEVILLE WI 53818

Dr. Alex Strassman