

1900 Lafayette Road
Portsmouth, NH
(603) 431-1121



16 Hospital Drive
York, ME
(207) 363-3490

Tyler P. Welch, M.D., FAAOS

ACL Repair with BEAR Implant- PHYSICAL THERAPY PROTOCOL

Weight Bearing Instructions:

- **Weeks 0-1:** 50% weight bearing
- **After week 1:** weight bear as tolerated

Brace Instructions:

Sleeping:

- **Weeks 0-2:** locked in extension for sleeping
- **After week 2:** discontinue brace

Ambulating:

- **Weeks 0-4:** locked in extension for ambulation
- **Weeks 4-6:** brace open with full range of motion for ambulation
- **After week 6:** discontinue brace

Sitting/Physical Therapy Sessions:

- **Weeks 0-1:** locked in extension
- **Weeks 1-2:** brace 0-45°
- **Weeks 3-4:** brace 0-90°
- **After week 4:** discontinue brace

Range of Motion Instructions:

- **Week 0-1:** brace locked straight all times
- **Weeks 1-2:** passive range of motion and heel slides 0-45°
- **Weeks 3-4:** passive range of motion and heel slides 0-90°
- **After week 4:** full passive range of motion as tolerated

Days 0 to 7

- Crutch-assisted partial weight bearing with knee brace locked in full extension
- Cryotherapy (20 minutes each hour)
- Hourly ankle pumps

Range of motion exercises - 4 times daily

- Focus on knee extension with heel elevated during quad sets

Strengthening Exercises – twice daily (1 set of 10 repetitions on day 1; progress to 3-5 sets of 10 repetitions on day 2)

- Four-way straight leg raises
- Quad sets (10 repetitions per hour)

Week 2

- Increase activity if pain and swelling controlled
- Elevate leg as much as possible
- Continue exercises as outlined above
- Four-way straight leg raises with additional weight as needed (weight placed above knee for supine leg raises)

Week 3

- Continue exercises as outlined above
- Calf raises and lateral step-ups

Weeks 4 and 5

- Continue exercises as outlined above
- Start double leg squats 0-30°
- Forward walking on treadmill
- Stationary bike with seat raised
- Calf raises with weight (progress to unilateral raises)
- Simple balance activities, such as stork stands

Weeks 6 to 8

- Continue exercises as outlined above
- Side-lying hip adduction, abduction exercises
- Stationary bike with full range of motion
- Advance squats with weight or sport cord
- Lunges and single-leg squats
- Leg press
- Backward walking on treadmill
- Balance program, including balance beam, kicks, etc.
- Advance aerobic conditioning; stair climber, stationary bicycle, aquatic therapy, elliptical trainer, arc trainer

Weeks 9 to 11

- Continue exercises as outlined above
- Increased strengthening with slide board

Weeks 12 to 15

- Continue exercises as outlined above
- Hamstring curls
- Open chain knee extensions
- Jogging program
- Neuromuscular training (wobble board, rocker board, single leg stance)

Months 4 to 6

- Continue strength training and cardio training as above – advance reps and resistance as tolerated
- Start basic plyometrics and agility drills

After Month 6

- Sport specific activity, including jumping, hopping, shuffling, running patterns (e.g. figure 8 drills)
- Continue strength training and cardio program as outlined above
- Return to sport testing (please see the “ACL return to sport testing protocol” for details)