

Pre-Op ACL Injury Protocol

Dr. Mark Adickes

Introduction:

- This rehabilitation protocol is designed for patients with ACL injuries who anticipate returning early to a high level of activity following ligament reconstruction.

Goals of rehabilitation are to:

- Control joint pain, swelling, hemarthrosis
- Regain normal knee range of motion
- Regain a normal gait pattern
- Regain normal lower extremity strength
- Regain normal proprioception, balance, and coordination

The physical therapy is to begin immediately upon injury. It is extremely important for the supervised rehabilitation to be supplemented by a home fitness program.

Important post-op signs to monitor:

- Swelling of the knee or surrounding soft tissue
- Abnormal pain response, hypersensitive
- Abnormal gait pattern, with or without assistive device
- Limited range of motion
- Weakness in the lower extremity musculature

Readiness for surgery:

- Prior to surgery it is crucial for the injured knee to be free of swelling and pain.
- Full extension must be present. Full flexion is preferred but at least 120 degrees of flexion must be present.
- A normal gait should be present prior to surgery.
- Any overlying skin injuries must be healed.

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Range of Motion:

- Passive ROM, No limits
- Aggressive Patella mobility
- Ankle pumps
- Gastroc-soleus stretches
- Wall slides
- Heel slides with towel

Strength:

- Quad sets x 10 minutes
- SLR (flex, abd, add)
- Multi-hip machine (flex, abd, add)
- Leg Press (90-20 °)-bilateral
- Mini squats (0-45 °)
- Multi-angle isometrics (90-60 °)
- Calf Raises

Balance Training:

- Weight shifts (side/side, fwd/bkwd)
- Single leg balance
- Plyotoss

Weight Bearing:

- Wt bearing as tolerated with crutches
- Crutches until quad control is gained, then discontinued

Bicycle:

- May begin when 110 ° flex is reached

Modalities:

- E-stim/biofeedback as needed
- Ice 15-20 minutes with knee at 0 ° ext

Brace:

Brace should be worn until quad control regained.