

## Anterior Cruciate Ligament Reconstruction Rehab Protocol

**Description of Procedure:** Reconstruction of the anterior cruciate ligament within the knee using either autograft (patient's patellar tendon, quadriceps tendon or semitendinosus hamstring) or allograft (semitendinosus hamstring from a cadaver) tissue.

**Safety Warning:** Caution for eight weeks post-operatively with twisting or pivoting during normal daily activities. Re-establishment of full extension is of extreme importance so patient may progress to normalize gait.

|                                      | <b>Weight Bearing</b>  | <b>Brace</b>  | <b>ROM</b>   | <b>Therapeutic Exercise</b>  |
|--------------------------------------|--|---|--|--|
| <b>Phase I:<br/>0 to 6<br/>Weeks</b> | Weight bearing as tolerated with use of two crutches. Once a straight leg raise can be performed without extension lag, progress to one crutch as tolerated and then full weight bearing with normalized gait pattern; no limping. | Brace is worn when ambulating until independent straight leg raise can be performed without extension lag | <b>Goal:</b> To achieve active range of motion as soon as tolerated<br><br><i>**Emphasize importance of full extension</i> | <b>1 to 4 Days:</b> Prone hangs, heel props, heel slides, quad sets, SLR, hamstring isometrics - complete exercises in brace if quad control is inadequate; core proximal program; normalize gait; FES biofeedback as needed<br><br><b>5 Days to 2 Weeks:</b> Begin mini dips to 30°, heel raises, leg press 90° to 40° arc (begin with eccentrics and lightweight), step-ups (3" to 6")<br><br><i>** Incorporate use of stationary bike (high seat, low resistance) and patellar mobilization exercises after surgical dressing is removed</i><br><br><b>2 to 6 Weeks:</b> Continue core proximal program, advance low impact closed chain program, leg press 120° to 30° arc; initiate proprioceptive training; continue stationary bike |

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|---|--|--------------|--------------------------------|--|
| <b>Phase II:<br/>6 to 12<br/>Weeks</b>            | <b>6 to 8 Weeks:</b><br>Full weight bearing<br>with normal gait<br><br><b>8 Weeks and<br/>Beyond:</b> Full | None         | Full active range<br>of motion | <b>6 to 8 Weeks:</b> Begin walk to jog<br>program, increase endurance<br>and strength, begin retro<br>ambulation on treadmill;<br>continue cardiovascular<br>program   |
| <b>Phase III:<br/>12 Weeks<br/>and<br/>Beyond</b> | Full   | None         | Full active range<br>of motion | <b>12 Weeks and Beyond:</b> Begin<br>sport/activity specific functional<br>progression; <u>return to full partici-<br/>pation in sport once strength is<br/>95% strength on single leg hop<br/>test or high velocity isometric<br/>test is accomplished AND<br/>patient is at least 9 months<br/>post-op AND functional<br/>progression back to sport have<br/>been accomplished without pain<br/>or increased swelling;</u> provide<br>home exercise program and<br>instruction on functional training<br>to decrease risk of re-tear |

*Progression back to sport is dependent on case per case basis and determined by Dr. Farr. If pain or swelling occurs patient is expected to stop causative activity and follow-up with our office.*

*Leg extension exercises with resistance are not allowed indefinitely.*