## REHABILITATION GUIDELINES FOR QUADRICEPS TENDON REPAIR

### PHASE I (0-2 WEEKS)

#### Appointments

- Begin physical therapy 3-5 days post surgery
- 2-3 x/week

#### Rehabilitation Goals

- Protect surgical repair

#### Precautions

**WB:**
- WBAT with crutches and brace locked at 0° at all times

**Brace:**
- Brace must be worn at all times except during therapy or HEP
- Keep wound clean and dry
- PROM 0°-30°; DO NOT EXCEED
- No active knee extension

#### Suggested Therapeutic Exercises

- Straight leg quad sets (no active knee extension)
- Hamstring and glut sets
- Patellar mobilizations

#### Cardiovascular Exercises

- Upper Body Ergometer

#### Progression Criteria

- 2 weeks post operatively
- ROM 0-30 degrees

### PHASE II (2-6 WEEKS)

#### Appointments

- Continue physical therapy 1-2x per week
## Rehabilitation Goals

- Normalize WB with crutches with brace still locked in extension at all times
- Protect repair

## Precautions

**WB / Brace:**
- WBAT in brace locked at 0° at all times
- Progress to 90 degrees knee flexion between 3-6 weeks
- Avoid active quadriceps extension
- Avoid hyperextension

## Suggested Therapeutic Exercises

- Heel slides
- 4 way leg raises with brace locked at 0°
- Patellar mobilizations

## Cardiovascular Exercises

- Upper Body Ergometer

## Progression Criteria

- 6 weeks post operatively
- Must have 0° - 90°

<table>
<thead>
<tr>
<th>Appointments</th>
<th>Continue physical therapy 1-2x per week</th>
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</thead>
</table>
| Rehabilitation Goals | Normalize gait on even surfaces
- Initiate active quadriceps contraction in standing |

## Precautions

**WB:**
- WBAT, no crutches
- Gradual progression of WB flexion
  - weeks 7-8: flexion to 115° (NO active quadriceps extension)
  - weeks 9-10: ROM 0° - 130° (May now begin active quadriceps extension)

**Brace:**
- weeks 6-7: open to 40° without crutches
- weeks 8-10: open brace to 90°
- weeks 10-12: wean out of brace

## Suggested Therapeutic Exercises

- Open chain knee flexion and extension
- Closed chain squats: 0° - 40°; may use leg press
- May begin stationary bike
- Prone knee flexion
- Patellar mobilizations

(Phase III continued)
## Rehabilitation Guidelines for Quadriceps Tendon Repair

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Exercises/Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Open Chain Hip Strengthening</strong></td>
<td>• Core strengthening</td>
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<tr>
<td><strong>Core Strengthening</strong></td>
<td>• May begin aquatic therapy</td>
</tr>
<tr>
<td><strong>Cardiovascular Exercises</strong></td>
<td>• Upper body ergometer</td>
</tr>
<tr>
<td><strong>Progression Criteria</strong></td>
<td>• Normal gait mechanics without crutches</td>
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<td></td>
<td>• AROM of at least 0° - 110°</td>
</tr>
</tbody>
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### Phase IV (12-16 Weeks)

**Appointments**
- Continue physical therapy 1x per week

**Rehabilitation Goals**
- Normalize gait on all surfaces
- Single leg stance with good control for at least 10 seconds
- Full knee ROM
- Good control with squat to 70°

**Precautions**
- Avoid any forceful eccentric contractions
- Avoid impact activities
- Avoid any activity that causes compensatory movements

**Suggested Therapeutic Exercises**
- Non impact balance and proprioceptive activities
- Stationary bike
- Gait drills
- Hip and core strengthening
- **After 16 weeks:**
  - May begin jogging, elliptical, and plyometrics
  - Gradually progress to full WB ROM

**Cardiovascular Exercises**
- Stationary bike
- Stairmaster
- Swimming

**Progression Criteria**
- Return to sport testing

References: University of Wisconsin,
PT name and date: Rachel Georgeson, MSPT  April 2016
MD name and date: Approved by MD  April 2016