

**Fulkerson Anteromedialization Osteotomy  
(AMZ Procedure)  
Rehab Protocol  
Dr. Jon Henry**

**Phase I – Maximum Protection (Weeks 0 to 6):**

**Goals**

- Emphasis on full knee extension
- ROM to 60 degree knee flexion (4 weeks), 90 degree of knee flexion (6 weeks)
- Control postoperative pain and swelling
- Regain quadriceps control

**Precautions**

- Avoid knee flexion greater than 90 degrees
- Avoid ambulation without brace locked at 0 degrees for first 4 weeks

**Weeks 0 to 2:**

- Use crutches for 7 to 10 days to reduce swelling, the patient may discontinue with crutches when they can ambulate without a limp
- Brace locked in full extension for 4 weeks per physician orders
- Patella mobility
- Begin passive/active knee range of motion to 90° of knee flexion and strong emphasis on full knee extension
- Quadriceps setting focusing on VMO contraction
- Multi-plane open kinetic chain straight leg raising
- Gait training

**Weeks 2 to 4:**

- Open and closed kinetic chain resisted cord multi-plane hip strengthening
- Proprioception training
- Pool program when incision sites healed; maintain 90° flexion limitation

**Phase II – Progressive Stretching and Early Strengthening (Week 4 to 6):**

**Weeks 4 to 6:**

- Gradually restore full range of motion with emphasis on extension/hyperextension
- Normalize gait
- Open brace to 0° to 90° per physician's orders
- Initiate lower extremity stretching program
- Stationary bike, treadmill, and/or elliptical trainer
- Closed kinetic chain strengthening progressing from bilateral to unilateral as tolerated



### **Phase III – Advanced Strengthening and Proprioception Phase (Weeks 6 to 12):**

#### **Weeks 6 to 10:**

- Wean out of brace weeks 6 to 8

#### **Weeks 10 to 12:**

- Gym-strengthening program – Progressing from bilateral to unilateral  
Leg press, squats, lunges, hamstring curls, ab/adduction, calf raises, and leg extensions (0° to 30°)

### **Phase IV – Strengthening and Plyometric Phase (Weeks 12 to 20):**

#### **Weeks 12 to 20:**

- Implement a full gym-strengthening program
- Pool running progressing to dry land at 16 weeks as tolerated
- Advance proprioception drills
- Low impact plyometric drills at 16-20 weeks
- Fit functional brace

### **Phase V – Return to Sport Functional Program (Week 20 to 24):**

#### Weeks 20-24:

- Sprinting
- Field and agility drills with brace on

#### Week 24 - 32

- Follow-up examination with physician
- Sports test for return to play