

Ankle Chondral/Osteochondral Defect Repair Protocol

Mark Ayzenberg, MD

Postoperative Week 0-2

Goals:

1. *Protect the surgical Ankle*

Treatment:

- NWB. Stay in splint/brace

Postoperative Week 2 – 4

Goals:

1. *Protect surgical ankle*
2. *Manage pain*
3. *Begin Range of Motion*
4. *Control post-operative pain/swelling*

Treatment:

- Patient to be progressed to PWB (up to 30% body weight) if a small lesion (per MD's recommendations). Patient to remain NWB for 6 weeks if larger lesion
- PROM, Active Assist ROM and Active ROM Plantar and Dorsiflexion
- Initiate isometrics:
 - o Plantar and Dorsiflexors
 - o Quadriceps and hamstrings
 - o Glutes
- Initiate Pool exercises (week 3-4 once incisions well-healed)
- Open chain therapeutic exercises for the knee and hip all planes
- Modalities as need for pain. Can include cold packs, ES, indirect soft tissue work.

Postoperative Week 5 – 6

Goals:

1. *Progress ROM and Exercises*
2. *Control any post-operative pain/swelling*

Treatment:

- Progress to full WB for smaller lesions. Patient will continue NWB for larger lesions.
- Add cycling with 0 to minimal resistance
- Progress pool exercises
- Add toe flexor and extensors into workout
 - o Towel crunching
 - o Marble pick ups
- Continue ROM program PROM, AAROM, and AROM
- Modalities as need for pain. Can include cold packs, ES, indirect soft tissue work.

Postoperative Week 7 – 8

Goals:

1. *Full ROM Plantar and Dorsiflexion*
2. *Initiate Inversion and Eversion*
3. *Able to ambulate FWB with assistive device for normalized gait pattern*
4. *Control post-operative pain/swelling*

Treatment:

- Continue Passive, Active Assist and Active ROM
- Add inversion and eversion passive/active assist and active ROM
- Ambulation to FWB with assistive device
- Increase time and resistance on exercise bike
- Progress resistance exercises for the knee and hip
- Modalities as need for pain. Can include cold packs, ES, indirect soft tissue work, light mobilizations

Postoperative Week 8-10

Goals:

1. *Full ROM*
2. *Ambulating full WB with decreased use of assistive device to discharge of assistive device*
3. *Begin Eccentric training and stretching programs*
4. *Control post-operative pain/swelling*
5. *Incorporate trunk and UE training*

Treatment:

- Progress ROM therapeutic exercises
- Training to ambulate with decreased assistive devices
 - o Walker to crutch to cane to no assistive device
- Increase resistances on exercise bike
- Stairs, Stairmaster. Start with smaller heights and build up from there
- Leg press/total gym. Progress from minimal weight to moderate weight as tolerated.
- Slow treadmill (**no running or jogging**)
- Modalities as need for pain. Can include cold packs, ES, indirect soft tissue work.
- Trunk and UE resistance and endurance training

Postoperative Week 11-12

Goals:

1. *Able to ambulate at normal functional speeds with good pattern*
2. *Fair proprioception*
3. *control post-operative pain/swelling*
4. *Progress trunk and UE training*

Treatment:

- Progress closed chain exercises
- Proprioceptive exercises
 - o Single leg stance (SLS) on flat ground

- SLS on balance pad
- SLS using rebounder
- Increase speeds on treadmill **NO RUNNING OR JOGGING!!**
 - Okay to add 1-3% incline as tolerated
- Progress stretching program
- Incorporate Elliptical
- Concentric and eccentric training of the Dorsiflexors/Plantarflexors/Evertors/Invertors
- Modalities as need for pain. Can include cold packs, ES, indirect soft tissue work.
- Trunk and UE resistance and endurance training

Postoperative Week 13-20

Goal:

1. *Restoration of non-impacting function*
2. *Progression of resistive gym workouts*
3. *Progress trunk and UE training*

Treatments:

- Increase resistances and times to all exercises
- **Avoid any repetitive impact exercise**
- Continue proprioceptive training
- Cross training
 - Outdoor bicycling
 - Skating
 - Rollerblading
 - Cross-country skiing
 - Swimming
- Trunk and UE resistance and endurance training

Postoperative Week 21 – 1 Year

Goal:

1. *Full return to unhindered sports/activities*
2. *Progress trunk and UE training*

Treatments:

- Initiate impact training
 - Light jog on treadmill
 - Progress jogging to outdoors
- Progress resistance training with emphasis on single limb loading.
- Jumping, landing, running in circles, carioca, cutting
- Sport specific drills in a controlled setting
- Progress speeds and intensities until full speed
- Trunk and UE resistance and endurance training

Return to sports requires clearance from surgeon and the ability to perform all duties of the sport being returned to at the necessary speed, strength, intensity and level of difficulty.