

ANKLE SPRAIN/STRAIN REHABILITATION

Initial care consists of Rest, Ice, Compression, and Elevation. The ankle is a complicated major weight bearing joint complex, consisting of many joints that function together.

GOALS:

1. Reduce edema, and disperse blood from the injury. Remember that blood and fluid are gravity dependent and since the ankle is the bottom of the body, blood will tend to pool there. (Keep it elevated above the heart)
2. Reduction of fibrosis, and scar tissue, which can lead to lack of mobility and chronic pain.
3. Improve mobility. Normal ranges of motion are necessary to facilitate walking through normal biomechanical and proprioceptive function.
4. Restoration of strength. Normal strength is necessary for normal gait, as well as prevention of future injury due to ligamentous instability.

INITIAL PHASE

WARM-UP

1. Toe pointing, writing in the air with the ankle to stimulate motor units (muscles). Warm bath or whirlpool for a brief period. 5 minutes max.

RESISTIVE EXERCISE

1. Muscle setting technique in all four quadrants (holding the ankle joint immobile while gently contracting the muscles around the ankle in all ranges of motion). Isometric muscle contraction in ranges of motion that are less painful. 5 reps in each motion, 3 sets each motion.
2. Light tubing exercises in the ranges that can take them. These exercises should be performed twice per day. 10 reps in each motion, 2 sets.
3. Towel/bottle rolling with toes. Strengthens intrinsic foot muscles. 10 reps, or 3 minutes.

AEROBIC EXERCISE

1. Swimming, if tolerated.
2. Ice after all activity to prevent swelling.

INTERMEDIATE PHASE

WARM-UP

1. Towel rolling exercises.
2. Active range of motion exercises.

RESISTIVE EXERCISES

1. Tubing exercises - heavier now except in ranges of motion that are painful. 10 reps, 2 sets twice per day.
2. Cable weights if available and if tolerated, in eversion, inversion, dorsiflexion, and plantarflexion. 5-10 reps, 3 sets
3. Toe raises on leg press or similar machine. Start with 20% of body weight and increase to tolerance. A good rule of thumb is to increase weight once per week, even if it gets easy. 10 reps, 3 sets.

AGILITY DRILLS

1. Balance board or wobble board, non-weight bearing. Sitting on table or chair and moving ankle through all ranges of motion on board.

AEROBIC EXERCISE

1. Stationary bike, low resistance, 60 RPM. 20 min.
2. Swimming, 30 min.

ADVANCED PHASE

WARM-UP

1. Stationary bike. 20 min.

RESISTIVE EXERCISES

1. Cable weights - inversion, eversion, dorsiflexion. 10 reps, 3 sets, increase resistance per week.
2. Calf raises - start with body weight and continue up. 10 reps, 3 sets, increase resistance by holding barbells, increase per week.
3. Other lower extremity muscles. Leg extensions, Leg curls, Abductors, Adductors. 10 reps, 3 sets, increase resistance per week.

AGILITY DRILLS

1. Balance/wobble board, weight bearing. 5 min.
2. Sports - soccer, basketball, racquetball. 15-30 min.

AEROBIC EXERCISES

1. Stairmaster or similar machine. 20 min.
2. Light jogging. 20 min.
3. Stationary bike. 20 min.
4. Swimming. 30 min.

Should follow with ice if any edema or swelling is present after exercise.