

## GARRETT COUNTY ORTHOPAEDICS

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### Ulnar Nerve Anterior Transmuscular Transposition

#### Phase I: Post-operative day (POD) 1 – 5

##### Goals:

- Protect incision and allow soft tissue healing
- Reduce elbow swelling

##### Activities:

- Stay in splint
- Wear sling for support
- **Finger Range of Motion:** Begin active finger flexion and extension in the recovery room and continue thereafter. Repeat 5-6 times per day.
- **Shoulder Range of Motion:** Begin active shoulder range of motion in all planes on first post-op day and continue thereafter. Repeat 5-6 times per day.

#### Phase II: Gentle Motion Phase (5 days – 4 weeks post-op)

##### Goals:

- Reduce elbow swelling
- Prevent upper extremity joint stiffness

##### Ancillary Measures:

- Use pain medication as needed.
- Compressive ACE bandage applied to control post-op swelling.

##### Exercises:

- **Finger Range of Motion:** Continue active finger flexion and extension, repeat 5-6 times per day.
- **Shoulder Range of Motion:** Continue active shoulder range of motion in all planes, repeat 5-6 times per day.
- **Elbow Range of Motion:** After plaster splint and dressing is removed on post-op day 5, apply compressive ACE bandage on elbow to control post-op swelling. Begin gentle progressive active elbow range of motion emphasizing flexion and extension. Forearm should be pronated (palm downward) and should be slightly palmar flexed. Add forearm rotation (pronation and supination) at 2 weeks post-op. Expect full active elbow motion by 3 weeks post-op.
- **Gentle Passive Elbow Extension:** If full elbow extension is not achieved by 3 weeks post-op, then gentle passive elbow extension may be initiated. Grasp a one pound dumbbell weight on the operated side. With operated extremity out in front, support the extended elbow with the opposite hand, allowing the weight to pull the elbow into full extension. Hold for 30-60 seconds, repeat 4-6 times per day.
- **Gentle Passive Elbow Flexion:** If full elbow flexion is not achieved by 3 weeks post-op, then gentle passive elbow flexion may be initiated. Flex the operated elbow by tightening the

biceps. With the opposite hand, gently pull the operated hand toward the operated shoulder. Hold for 30-60 seconds, repeat 4-6 times per day.

Precautions:

- Avoid elbow injury.
- Do not lift or push off with the operated extremity.

**Phase III: Early Stengthening Phase (4 – 8 weeks post-op)**

Goals:

- Maintain full elbow ROM.
- Improve upper extremity strength

Ancillary Measures:

- Gentle scar massage if needed.
- Limit lifting with operated extremity, no heavier than 5 pounds until 8 weeks post-op

Exercises:

- **Continue all Phase II exercises.**
- **Wrist flexion stretch:** Bring operated arm straight out in front with elbow extended, palm downward. With the opposite hand, flex the wrist downward and gently stretch the muscles on the back of the forearm. Hold for 10 seconds. Repeat 3-4 times per day.
- **Wrist extension stretch:** Bring operated arm straight out in front with elbow extended, palm downward. With the opposite hand, extend the wrist upward and stretch the muscles on the palm side of the forearm. Hold for 10 seconds. Repeat 3-4 times per day.
- **Wrist flexion curl:** Sit with operated forearm resting on a table, hand extended over the edge of the table. Grasp a one pound dumbbell weight. With palm up, flex your wrist, curling the weight inward. Hold for 5 seconds, 10 repetitions.
- **Wrist extension curl:** Sit with operated forearm resting on a table, hand extended over the edge of the table. Grasp a one pound dumbbell weight. With palm downward, extend your wrist backward. Hold for 5 seconds, 10 repetitions.
- **Biceps curl:** Grasp a 1-3 pound dumbbell weight. With arm held in front of body, elbow supported and palm upward, flex your operated elbow to tighten the biceps muscle. Hold for 5 seconds, then relax. Complete 10 repetitions.
- **Triceps curl:** Grasp a 1-3 pound dumbbell weight. Raise the operated arm up overhead with the elbow supported by the opposite hand and flexed 90 degrees. Then extend the elbow, raising the weight fully overhead by tightening the triceps. Hold for 5 seconds, then relax. Complete 10 repetitions.

Precautions:

- Avoid elbow injury. Exercises should be pain free.
- Avoid sports activity and lifting heavier than 5 pounds.

**Phase IV: Progressive Stengthening Phase (8 – 12 weeks post-op)**

Goals:

- Maintain full elbow ROM.
- Progressively improve upper extremity strength

Ancillary Measures:

- Gentle scar massage if needed.
- Slowly progress towards full weight lifting by 12 weeks post-op

Exercises:

- **Continue all Phase II and III exercises.**
- Slowly and progressively increase weight lifting exercises with goal of full weight lifting exercises by 12 weeks post-op

Precautions:

- Avoid elbow injury. Exercises should be pain free.
- Avoid sports activity and heavy lifting until 12 weeks postop.

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