

# ELBOW ULTRASOUND GUIDED PERCUTANEOUS TENOTOMY (Tenex) CLINICAL PRACTICE GUIDELINE

## Background

The ultrasound guided percutaneous tenotomy (Tenex) allows what was once major surgery to be performed quickly through a small incision.

Although post-procedure care will be tailored to fit your individual needs, the following guidelines are designed to help you and your physical therapist after the procedure. Your physician may also amend or adjust these treatments as they deem necessary.

## Disclaimer

Progression is time and criterion-based, dependent on soft tissue healing, patient demographics and clinician evaluation. Contact Ohio State Sports Medicine at 614-293-2385 if questions arise.

## Things to Avoid Before and After Your Procedure

<b>Over-the-counter pain medicine</b>	<ul style="list-style-type: none"><li>• Ibuprofen (Advil™, Motrin™) and naproxen (Aleve™, Naprosyn™) can impair your ability to heal and may increase risk of bleeding. Make every effort to avoid these medications for two weeks before and one week after your procedure.</li><li>• Acetaminophen (Tylenol™) is ok to take for pre and post procedural pain.</li><li>• If you are taking aspirin (ASA) for cardiovascular benefit, please continue with the same dosage.</li><li>• There should be no need for narcotic pain medication.</li></ul>
<b>Tobacco &amp; nicotine</b>	<ul style="list-style-type: none"><li>• Consider talking to your physician or health care provider about stopping. These products impair your ability to heal and might reduce the beneficial effects of the procedure.</li></ul>
<b>Diet</b>	<ul style="list-style-type: none"><li>• You will need to fast overnight before the Tenex procedure.</li><li>• You may resume your regular diet when you feel able after the procedure</li></ul>

## Make sure your medical team provides you with the following before or at your procedure:

1. A sling
2. Therapy appointment times
3. Follow-up visit times



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## Post-Operative Information

<b>Sling</b>	<ul style="list-style-type: none"><li>• It is typically recommended to wear the sling for comfort while awake for the next 2 – 3 days.</li><li>• You do not need to sleep in the sling.</li><li>• Do not drive while wearing the sling.</li></ul>
<b>Discomfort</b>	<ul style="list-style-type: none"><li>• Some pain after your procedure is expected for the first few weeks. Local anesthetic was used and this will begin to wear off about 8 hours after the procedure. Anticipate an increase in pain at this time and consider taking Acetaminophen (Tylenol) about 6 hours after the procedure to stay ahead of your pain.</li><li>• Use an ice pack on the painful area for 15 minutes as needed; in the first 2-3 days consider icing 3 times daily.</li><li>• If you are concerned about your pain, please contact your care team.</li></ul>
<b>Bandage</b>	<ul style="list-style-type: none"><li>• If a bandage / dressing was applied, remove dressing after 24-48 hours. Replace with simple bandage.</li><li>• Sterile strip bandages can be removed when they begin peeling off or after 7 days. Keep procedure area clean and dry for 1 week after the procedure until your doctor has seen you for your wound check.</li></ul>
<b>Bathing</b>	<ul style="list-style-type: none"><li>• Do not soak/submerge the treatment area in water for 1 week. Showering is OK, but keep incision site covered for the first week.</li></ul>
<b>Follow-Up Appointment</b>	<ul style="list-style-type: none"><li>• You will be scheduled for follow-up appointments approximately 1 week, 1 month and 3 months after your procedure.</li></ul>
<b>When to call your Provider</b>	<ul style="list-style-type: none"><li>• If you notice increasing redness, warmth, pain, fever, drainage from the wound or other problems that concern you, call Ohio State Sports Medicine (614-293-3600) during normal clinic hours. Otherwise seek care at your local emergency room.</li></ul>



## Post-Operative Elbow Care Timeline

Your Rehabilitation will follow these basic principles:

**Phase 1: Inflammation:** 3 - 5 days after procedure, sometimes lasting up to 2 weeks.

Purpose: localize and eliminate damaged tissue so that the body can heal.

Response: Increase in blood flow, permeability of blood vessels, migration of fluid proteins and white blood cells.

**Phase 2: Proliferation:** 1-4 weeks after procedure, sometimes lasting up to 8 weeks.

Purpose: PDGF recruit fibroblasts, synthesize collagen to begin to repair tissue.

Response: Davis Law: soft tissue heals according to the manner in which they are being stressed. Rest is contraindicated in this phase.

**Phase 3: Remodeling:** 1 -3 months after procedure.

Purpose: Remodeling, strengthening, improve cellular organization

Response: increased organization of collagen. Tissue and scar maturation.

Please understand that these treatments are not “quick fixes” like cortisone injections but rather we are trying to cause long term healing of the tendon. Anticipate that it may take up to 3 months to experience the improvements in your symptoms.

<b>Day of your procedure</b>	<ul style="list-style-type: none"><li>• Plan to have a family member or friend drive you home after your procedure</li><li>• A sling will be given to you at your appointment</li><li>• Activity restrictions: Rest today</li><li>• Protect your elbow by resting and keeping it elevated to reduce swelling</li></ul>
<b>Days 2-3</b>	<ul style="list-style-type: none"><li>• Keep arm in sling</li><li>• Keep compression wrap on. It should be snug, but not tight</li><li>• Come out of sling three times per day for gentle range of motion exercises</li><li>• You should not sleep in the sling</li><li>• Passive range of motion elbow and wrist flexion and extension</li></ul>
<b>Days 4-7</b>	<ul style="list-style-type: none"><li>• Discontinue sling</li><li>• Activity restrictions: You may lift up to 5 lbs. Begin use of elbow and hand for activities of daily living (like using it to groom, dress, eat and drive short distances). No sustained gripping like opening a jar.</li><li>• Rehab: Continue elbow and wrist range of motion exercises and perform 3-5 times/day</li><li>• AROM elbow and wrist flexion and extension</li></ul>



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<b>Progression 1: (weeks 1-2)</b>	<ul style="list-style-type: none"> <li>• Activity Restrictions: You may lift up to 10 pounds</li> <li>• Continue range of motion exercises</li> <li>• Perform isometric wrist and elbow strengthening 1-2 times per day</li> <li>• Avoid sustained gripping</li> </ul>
<b>Progression 2: (weeks 2 - 4)</b>	<ul style="list-style-type: none"> <li>• Activity Restrictions: progress as tolerated</li> <li>• Continue range of motion exercises</li> <li>• Continue wrist and elbow isometric strengthening 1-2 times per day</li> <li>• Isotonic Shoulder strengthening activities</li> <li>• Add forearm pronation and supination AROM</li> <li>• Maintain wrist in neutral position</li> </ul>
<b>Criteria to Progress to Progression 3</b>	<ul style="list-style-type: none"> <li>• Full AROM</li> <li>• No reactive pain &gt;24 hours</li> </ul>
<b>Progression 3: (weeks 4 – 6)</b>	<ul style="list-style-type: none"> <li>• Increase intensity of strengthening under the supervision of your care team</li> <li>• Begin concentric/eccentric wrist and elbow extension</li> <li>• Begin to incorporate joint integrated strengthening like chest press, rows and hammer curls</li> <li>• Maintain a neutral wrist position during strength activities</li> </ul>
<b>Criteria to Progress to Progression 4</b>	No reactive pain > 24 hours
<b>Progression 4: (weeks 6 – 8)</b>	<ul style="list-style-type: none"> <li>• Continue to increase intensity of strengthening exercise</li> <li>• Progress joint integrated movements</li> <li>• Begin sport/activity specific activity under the supervision of your care team</li> </ul>
<b>Criteria to Progress to Progression 5</b>	No reactive pain >24 hours
<b>Progression 5: (weeks 8 – 10)</b>	<ul style="list-style-type: none"> <li>• You may resume high impact sports like golf and tennis under the supervision of your care team</li> </ul>
<b>Criteria to Progress to Unrestricted Activity</b>	<ul style="list-style-type: none"> <li>• Pain free ROM</li> <li>• 5/5 MMT</li> <li>• No reactive pain</li> <li>• Good dynamic control in multi-plane activities</li> <li>• Physician approval</li> </ul>



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## References

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