Thoracic Outlet Syndrome

Community Research Report

What 100 Reddit Posts from r/ThoracicOutletSupport Reveal About Treatment, Recovery, and Relief

With Specific Focus on Pec Minor and Scalene Interventions

March 2026

Executive Summary

This report synthesizes findings from the top 100 posts on **r/ThoracicOutletSupport**, a Reddit community of people living with thoracic outlet syndrome (TOS). The goal is to identify what treatments, exercises, and interventions people report as helpful—with particular focus on **pec minor** and **scalene**-related compression, which are your two primary sites of involvement.

Across these 100 posts and their top comments, a clear picture emerges: there is no single silver bullet, but a consistent set of approaches surfaces repeatedly in success stories. The most successful recoveries tend to involve a **whole-body biomechanical approach** rather than isolated stretching, targeted **muscular retraining** (especially serratus anterior, scalenes, and lower trapezius), and for refractory cases, **surgical decompression** (first rib resection, scalenectomy, and/or pec minor release).

Your Specific Profile

Based on what you've shared, here's what the community data suggests is most relevant to you:

Your Factor	Community Relevance
Ulnar nerve involvement	Very common pattern in nTOS. Multiple users report ring/pinky finger numbness, hand weakness, and medial arm pain as primary symptoms.
Interscalene triangle compression	One of the three TOS compression sites. Scalene strengthening (not just stretching) is repeatedly cited as key. Kjetil Larsen's protocol is the most-referenced conservative approach for this.
Pec minor compression	Second compression site. Tight pec minor inhibits serratus anterior, creating a cascade of dysfunction. Release + retraining of serratus is the most-cited conservative fix.
15-month duration	Many success stories come from people 12–24 months in. The community consensus is this is still early enough for conservative treatment to work, especially if the right approach hasn't been tried yet.

Conservative Treatments That People Report Helped

The following treatments are ranked roughly by how frequently and emphatically they appear in success stories across the dataset.

1. Serratus Anterior Strengthening

This is the single most frequently cited exercise-based intervention in successful conservative recoveries. Multiple posts identify the serratus anterior as the **linchpin muscle** in the TOS puzzle.

Why it matters for you: When the pec minor is tight, it inhibits the serratus anterior from firing. When the serratus doesn't fire, the neck muscles (including scalenes) compensate. This creates a vicious cycle hitting both of your compression sites.

Key community insight (Post #4): *"I found that the pec minor being tight makes the serratus not fire. Which makes your neck do its job which I think starts the issue."*

Several users credit serratus work as the breakthrough that resolved their TOS after months of failed PT.

2. Scalene Strengthening (Not Just Stretching)

The **Kjetil Larsen / MSK Neurology** approach is the most-referenced specific protocol in the dataset. The core principle is counterintuitive: rather than stretching tight scalenes, you **strengthen** them through controlled isometric and eccentric loading.

- **Referenced in Posts:** #5, #25, #44, #57, #79
- **Website:** mskneurology.com
- **Caution:** One user (Post #25) overdid the scalene exercises and inflamed the muscles further. Start conservatively and progress slowly.

Dosing guidance from the community: One user reports starting at 8 reps, twice per week, using a book (2.5cm) to support the head and limit range of motion. Gradual progression over months.

3. Postural Correction: Shoulders UP (Not Back and Down)

This is a somewhat controversial but repeatedly successful finding. Multiple users report that the common PT cue of "shoulders back and down" **worsens** TOS by depressing the clavicle into the costoclavicular space. Instead, keeping the shoulders slightly **elevated** opens the thoracic outlet.

Critical caveat for your case: One user (Post #5 comment) notes that the shoulders-up approach helps costoclavicular compression but may **worsen interscalene triangle compression**. Since you have interscalene involvement, you may need a more nuanced approach—elevating the shoulder girdle while also addressing scalene tone.

4. Whole-Body Mechanics Approach

Several of the most detailed success stories emphasize that TOS cannot be solved by treating only the neck/shoulder area. The recurring theme is a full kinetic chain approach:

- **Anterior pelvic tilt correction** (Post #16)—shifts ribcage positioning, which directly affects the thoracic outlet
- **Hip flexor work** (Post #4)—psoas/hip tightness contributes to postural cascade
- **Core strengthening** —weak core allows compensatory patterns that close down the outlet
- **Ribcage expansion** (Post #11)—PRI (Postural Restoration Institute) approach to expand the affected side's ribcage
- **Leg length discrepancy** (Post #37)—one user's shoulders aligned after addressing this

Practitioners referenced: Zac Cupples and Bill Hartman on YouTube for the PRI/full-body approach.

5. Pec Minor Stretching and Manual Release

Multiple users report relief from pec minor-targeted work:

- **Cork massage ball technique** (Post #7): User placed a large (12cm) cork massage ball under the armpit area to apply sustained pressure to the pec minor. Reports near-complete resolution of symptoms.
- **Bench stretch** (Post #7 comment): Laying flat on a bench, arms hanging outward straight left and right with 5–10 lb dumbbells to force the pec minor to stretch open.
- **Deep breathing** (Post #82): Expanding the ribcage with deep breaths helps counteract pec minor tightness, especially during anxiety/panic flares which tighten the pec minor further.

Important warning (Post #20): If you have shoulder instability, be cautious with pec minor release. The pec minor is a major shoulder stabilizer, and one user reports worsened shoulder issues after surgical pec minor release.

Deep Dive: Pec Minor Compression

Since pec minor compression is one of your two primary sites, here's everything the community data reveals about this specific structure.

The Pec Minor–Serratus Anterior Connection

The most actionable finding in this entire dataset for pec minor involvement is the **reciprocal relationship between pec minor and serratus anterior**. When the pec minor is chronically tight, it prevents the serratus anterior from engaging properly. When the serratus doesn't fire, the scapula doesn't protract and upwardly rotate correctly, and the neck muscles (scalenes, levator scapulae, upper traps) compensate. This overloads both the costoclavicular and interscalene spaces.

The implication: simply stretching or releasing the pec minor without retraining the serratus anterior will only provide temporary relief. The pec minor will tighten back up because the serratus isn't doing its job.

Pec Minor and the Pain-Anxiety Cycle

One user (Post #82) describes how anxiety and panic directly tighten the pec minor, creating a **feedback loop**: pain causes anxiety, anxiety tightens the pec minor, tighter pec minor causes more compression, more compression causes more pain. Breathing exercises that expand the ribcage are cited as a way to interrupt this cycle.

Manual Techniques for Pec Minor

- **Self-myofascial release:** Cork massage ball (12cm diameter) positioned under the armpit/chest wall. Apply body weight. Multiple sessions per day if needed.
- **Passive stretch:** Flat bench, arms hanging laterally with light dumbbells (5–10 lbs). Let gravity do the work. Hold 1–2 minutes.
- **Active release:** Doorway stretches with arm at 90 degrees, combined with deep breathing to expand the ribcage into the stretch.
- **Rolfing/deep tissue:** One user (Post #26) reports that Rolfing massage therapy specifically targeting the pec minor was helpful.

Surgical Pec Minor Interventions

For cases that don't respond to conservative treatment:

- **Pec minor release/resection** is sometimes performed alongside first rib resection and scalenectomy as part of a full decompression (Post #31, #39, #42).
- **Dr. Donahue at MGH** is specifically named (Post #42) as performing pec minor resection in addition to FRR.

- **Dr. Apple in Austin** performed a combined first rib resection, scalenectomy, and pec release (Post #39). The patient drove a manual car back to work the following Monday.

Deep Dive: Interscalene Triangle Compression

Since you have confirmed compression at the interscalene triangle, here's the community's collective experience with this specific site.

Scalene Strengthening vs. Stretching

The overwhelming community consensus, driven largely by the MSK Neurology/Kjetil Larsen approach, is that **strengthening the scalenes is more effective than stretching them**. The rationale: weak, deconditioned scalenes go into protective spasm, which compresses the brachial plexus. Strengthening them allows them to relax at rest.

Protocol referenced most often: Lateral neck flexion against resistance (isometrics), progressing to isotonic exercises. Start with very light resistance and low volume. One user reports starting with only 8 reps, twice per week.

Scalene Botox/Lidocaine Injections

Temporary chemical relaxation of the scalenes is frequently discussed:

- **Scalene block with lidocaine** (Post #38): Multiple users report profound temporary relief—to the point of tears. This is both therapeutic and diagnostic—if a scalene block relieves your symptoms, it confirms scalene involvement.
- **Botox injections** (Posts #38, #90, #93): Mixed results. Some users report days of relief, others weeks, others minimal effect. One user had Botox five times before opting for surgery. Insurance sometimes covers it under cervical dystonia codes.
- **Diagnostic value:** If you haven't had a diagnostic scalene block, multiple users and surgeons use this as a key decision point for whether surgery will help.

Scalene-Related Symptoms

Community members with interscalene compression specifically report:

- Visible neck asymmetry—enlarged scalenes on the affected side (Post #45)
- Scalenes that don't respond to massage (Post #45)
- Scalene tightness as the dominant symptom, worse than the nerve symptoms themselves (Post #79)
- Shoulders-up posture potentially worsening interscalene compression (Post #5)

Surgical Scalene Interventions

- **Anterior scalenectomy** is the most commonly performed scalene surgery, often combined with first rib resection (Posts #31, #33, #34)
- **Complete scalene resection** (both anterior and middle) is performed in more severe cases (Post #34)

- **Scalenectomy without rib resection** (Post #18): Some surgeons operate on scalenes and pec minor only, sparing the first rib if vascular compression isn't the primary issue
- **Post-surgical note:** One surgeon (Post #58) noted the muscles were extremely tense and clamping down on nerves during surgery—the chronic spasm is confirmed surgically in many cases

Medical and Pharmacological Interventions

Medications That Help Manage Symptoms

Medication	Type	Community Notes
Pregabalin (Lyrica)	Nerve pain	Described as a “lifesaver” for sleep and pain management. Multiple users cite this.
Amitriptyline	Nerve pain / sleep	Paired with pregabalin by several users. Helps with sleep disruption specifically.
Gabapentin	Nerve pain	Common prescription. Some users on very high doses.
Duloxetine (Cymbalta)	Antidepressant / pain	One user with 12+ years of dorsal scapular nerve pain found relief only with duloxetine.
Muscle relaxers	Muscle spasm	Recommended post-surgery and for acute flares. Multiple users say narcotics alone are insufficient.
Ibuprofen + Acetaminophen	Anti-inflammatory	OTC combo cited as helpful for mild/moderate pain.

Injections and Procedures

- **Trigger point injections** (lidocaine/bupivacaine into scalenes and pec minor)—temporary but dramatic relief for some
- **Botox injections** into scalenes and/or pec minor—longer lasting than lidocaine, but mixed results; insurance coverage variable
- **PRP injections** (Post #69)—mentioned in one recovery story alongside other treatments
- **Dry needling / acupuncture** (Posts #53, #66)—multiple users report meaningful pain relief

Surgical Treatment Overview

Surgery is discussed extensively in the dataset. Here is a consolidated view for context, though your focus is currently conservative treatment.

Common Surgical Procedures

Procedure	Details
First Rib Resection (FRR)	The most common TOS surgery. Removes the first rib to permanently open the costoclavicular space. Approaches include transaxillary, supraclavicular, and robotic.
Anterior Scalenectomy	Removal or release of the anterior scalene muscle. Usually

	combined with FRR. Directly addresses interscalene triangle compression.
Pec Minor Release	Release or resection of the pec minor tendon. Sometimes done alongside FRR, sometimes standalone. Addresses subcoracoid/pec minor space compression.
Brachial Plexus Neurolysis	Freeing the brachial plexus from scar tissue and adhesions. Combined with other procedures in full decompression.

Surgeons Named Positively in the Community

- Dr. Donahue – MGH (Massachusetts General Hospital)
- Dr. Thompson – Washington University, St. Louis
- Dr. Freischlag – multiple institutions
- Dr. Apple – Austin, TX
- Dr. Lum – Johns Hopkins
- Dr. Kay Johansen – Seattle
- Dr. Humphries – UC Davis
- Dr. Agrusa – New York Presbyterian

Note: Surgical outcomes vary significantly. The community repeatedly emphasizes choosing a surgeon who specializes in TOS specifically, not a general vascular surgeon.

Other Interventions Worth Noting

Physical Therapy Approaches

- **Counterstrain PT** (Post #53, #97)—a gentle, indirect technique. Multiple users describe it as uniquely effective compared to standard PT.
- **PRI (Postural Restoration Institute)** (Post #11)—focuses on ribcage expansion, diaphragm, and full-body asymmetry. Practitioners: Bill Hartman, Zac Cupples.
- **Nerve glides** (Post #43)—when done consistently, reduce the severity of bad days. Ulnar nerve glides would be particularly relevant for you.
- **Finding a TOS-specialized PT** (Post #73)—multiple users warn that general PTs and chain PT clinics are not equipped for TOS. Seek out a PT who explicitly understands TOS biomechanics.

Lifestyle and Ergonomic Adjustments

- **Sleep positioning:** MedCline pillow (body pillow + wedge with arm cutout) cited by multiple users. Sleep on the non-affected side with arm supported.
- **Workstation setup:** For computer work, users recommend arm rests, split keyboards, vertical mice, and monitor positioning to avoid forward head posture (Post #61).
- **Voice dictation:** Multiple users switch to voice-to-text to reduce arm usage (Post #65).
- **Arm rests everywhere:** Using chairs with armrests to keep shoulders elevated/supported at all times (Post #57).

Other Modalities

- **Hot baths and heat therapy** —heat helps nerve pain specifically
- **Ice packs at night** —some users sleep with them
- **THC/CBD** —mentioned occasionally for pain management
- **Sauna sessions** (Post #69)—part of one user's multi-modal recovery
- **Rolfing massage therapy** (Post #26)—deep fascia work

Suggested Action Plan for Your Case

Based on the community data and your specific profile (ulnar nerve, interscalene + pec minor compression, 15 months in), here is a prioritized approach:

Immediate (Weeks 1–4)

1. **Diagnostic scalene block:** If you haven't had one, this is both therapeutic and diagnostic. It will confirm whether scalene decompression helps and give you temporary relief.
2. **Start self-myofascial release on pec minor:** Cork massage ball (12cm) under the armpit. Daily, 2–5 minutes. This is low-risk and the community data strongly supports it.
3. **Find a TOS-specialized PT:** Not a chain clinic. Ideally someone familiar with MSK Neurology/Kjetil Larsen's work, or PRI-trained. This single factor (quality of PT) appears across almost every success story.

Short-Term (Weeks 4–12)

1. **Begin serratus anterior retraining:** Wall slides, serratus punches, protraction exercises. This addresses your pec minor compensation directly.
2. **Begin scalene strengthening:** Start with isometric lateral neck flexion, very low volume (8 reps, 2x/week). Follow Kjetil Larsen's protocol closely. Do NOT overdo it.
3. **Address lower kinetic chain:** Have your PT assess for anterior pelvic tilt, hip flexor tightness, and any leg length discrepancy. Multiple success stories trace TOS back to these root causes.
4. **Consider Botox injection:** If the diagnostic lidocaine block helps, Botox provides longer-lasting relief (weeks to months) while you do the retraining work.

Medium-Term (Months 3–6)

- Gradually progress scalene and serratus strengthening
- Integrate ribcage expansion and breathing work (PRI concepts)
- Monitor whether the scalene strengthening is reducing baseline tightness
- If conservative treatment plateaus, consider consultation with a TOS-specialized surgeon for evaluation—not necessarily for surgery, but to understand your surgical options

Bottom line: The community data strongly suggests that your two compression sites (pec minor and interscalene) are biomechanically linked through the serratus anterior. Addressing the serratus, strengthening (not just stretching) the scalenes, and releasing the pec minor as a coordinated strategy is the pattern that shows up most consistently in recovery stories. At 15

months, you're still well within the window where conservative treatment works—especially if the *right* conservative treatment hasn't been fully explored yet.

Key Community Resources

- **MSK Neurology (Kjetil Larsen):** mskneurology.com – The most-referenced conservative TOS treatment resource in the community
- **TOS Outreach:** tosoutreach.com – Surgeon finder and symptom reference
- **TOS Exercise Discord:** Community exercise group (Post #19) – request invite via the subreddit
- **Zac Cupples / Bill Hartman:** YouTube – PRI and full-body mechanics approach

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This report was compiled from 100 Reddit posts and their top comments from r/ThoracicOutletSupport. This is community-reported data, not medical advice. Always consult with a qualified healthcare provider before making treatment decisions.