

WEBINAR

5 Ways Ultrasound Adds Value to Your MSK Practice

November 18, 2020



Introducing



Dr. Oron Frenkel, MD, MS

Emergency Physician & POCUS Educator

Chairman, Clarius Medical Advisory Board

Pain Management Best Practices

“A **multimodal approach** that includes medications, nerve blocks, **physical therapy**, and other modalities should be considered for pain conditions.”



Challenges with MSK Management

Challenges with MSK Management



Image: Freepik.com



Poll - Challenges

Broad differential

Mistaken diagnosis

Ineffective treatments

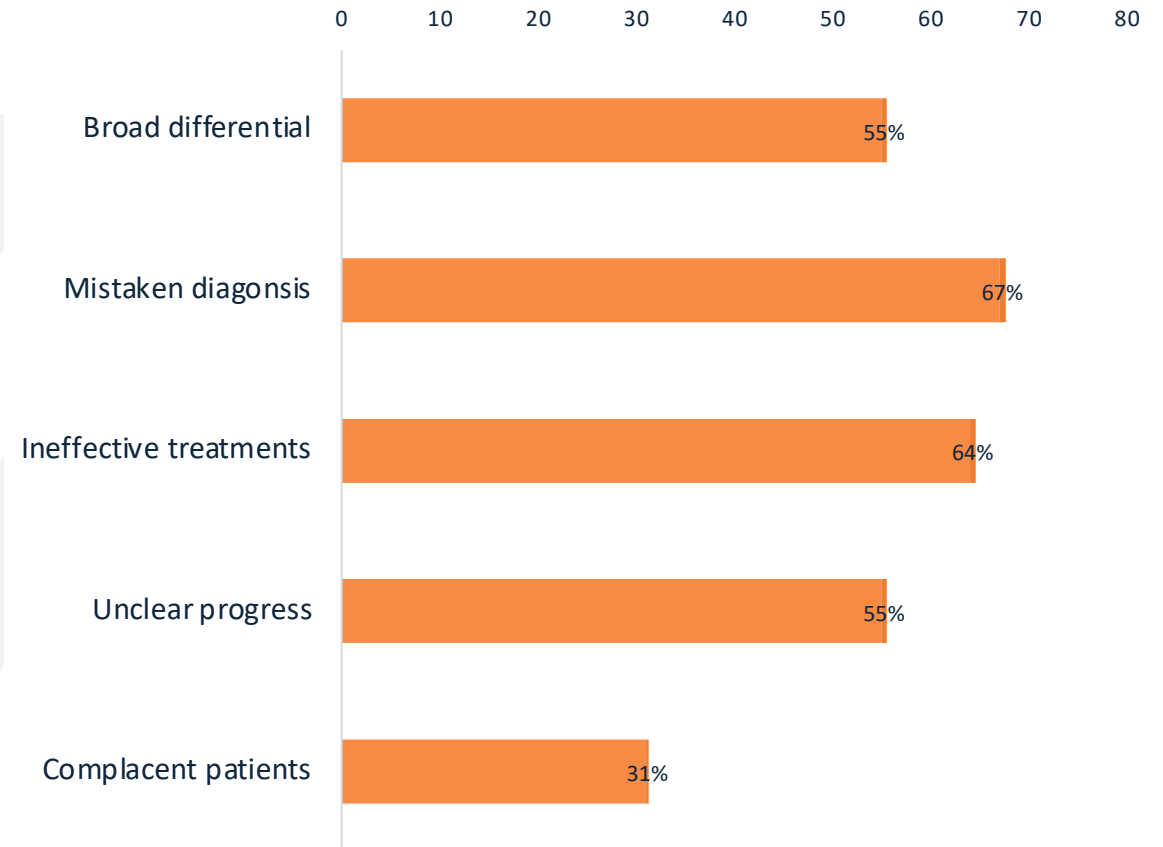
Unclear progress

Complacent patients



Poll – Challenges

In treating musculoskeletal concerns, we've all encounter common challenges. How many of these have you encountered in your experience?



Your Expert Speaker



Greg Fritz, PT, DPT, RMSK

Founder
EchoHealth MSK Imaging

MY ULTRASOUND JOURNEY

- Asked myself; "Why aren't we watching this tissue move?" (1996)
- Barrowed a scanner and Invested time with my kids
- Read and Watched everything MSK that was available
- Began correlating patient findings with PACS data
- Sat for the RMSK Credentialing Certification exam (2012)
- Developed a word-of-mouth referral network as well as my own Doctors
- Daily amazement of what we can **KNOW, RIGHT NOW, RIGHT HERE!**

ACHILLES TENDON CASE

"Wendy"

(Medical Professional and mother-of-Two)

I received a text from Wendy. 2 hours ago she was doing a home exercise video for aerobic exercises. She was doing some jumping lunges when she felt a burning pain and what she described as "a rubber band snapping the back of my ankle. Now it feels tight and weak."

Symptoms: No discoloration. Minimal swelling. Weakness to push off with her toes and continued burning with use.

Medical consultations: None. Friend who just texted to see if I'd look at her ankle.



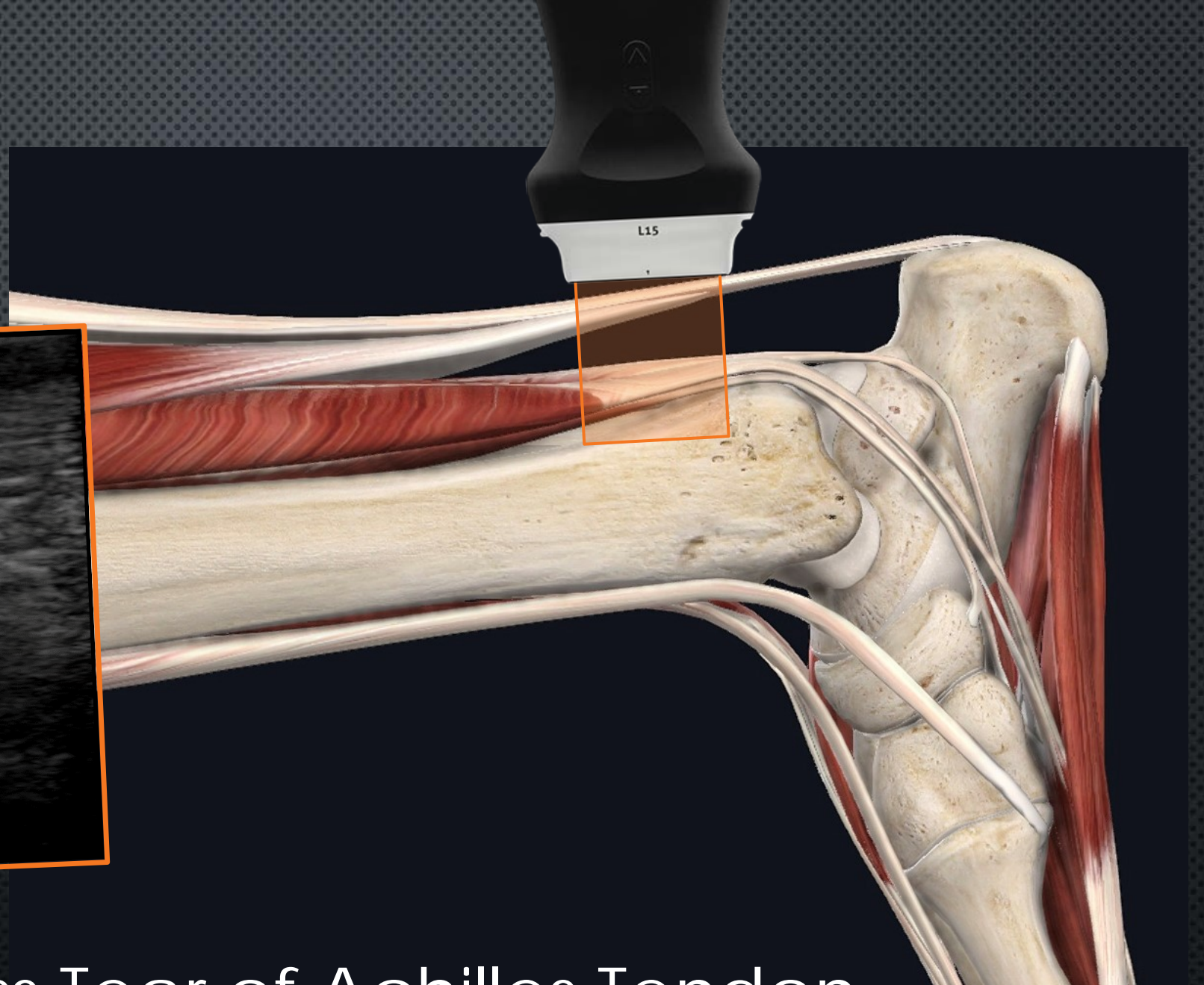
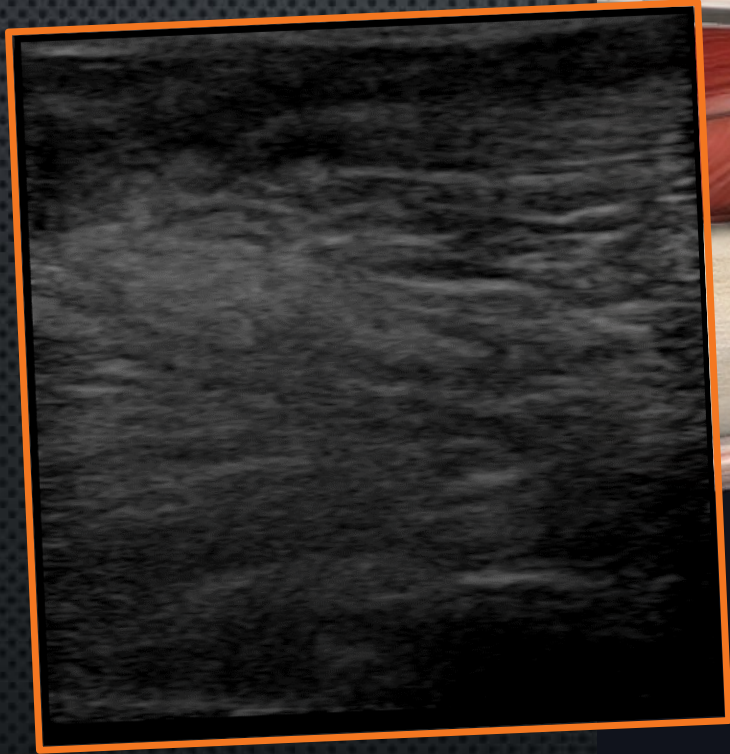
Used with permission – Full Video
- <https://youtu.be/rsvcqS6tCLs>

Achilles Scan Demo

- 
1. LAX Achilles Tendon
 2. Calcaneus Bone
 3. Kager's Fat Pad
 4. Posterior Tibia
 5. Toe/Foot Flexors
 6. Gast/Sol MT Junction
 7. SAX AT Elevator Sweep

LIVE DEMO HOW TO SCAN THE ACHILLES TENDON

WENDY

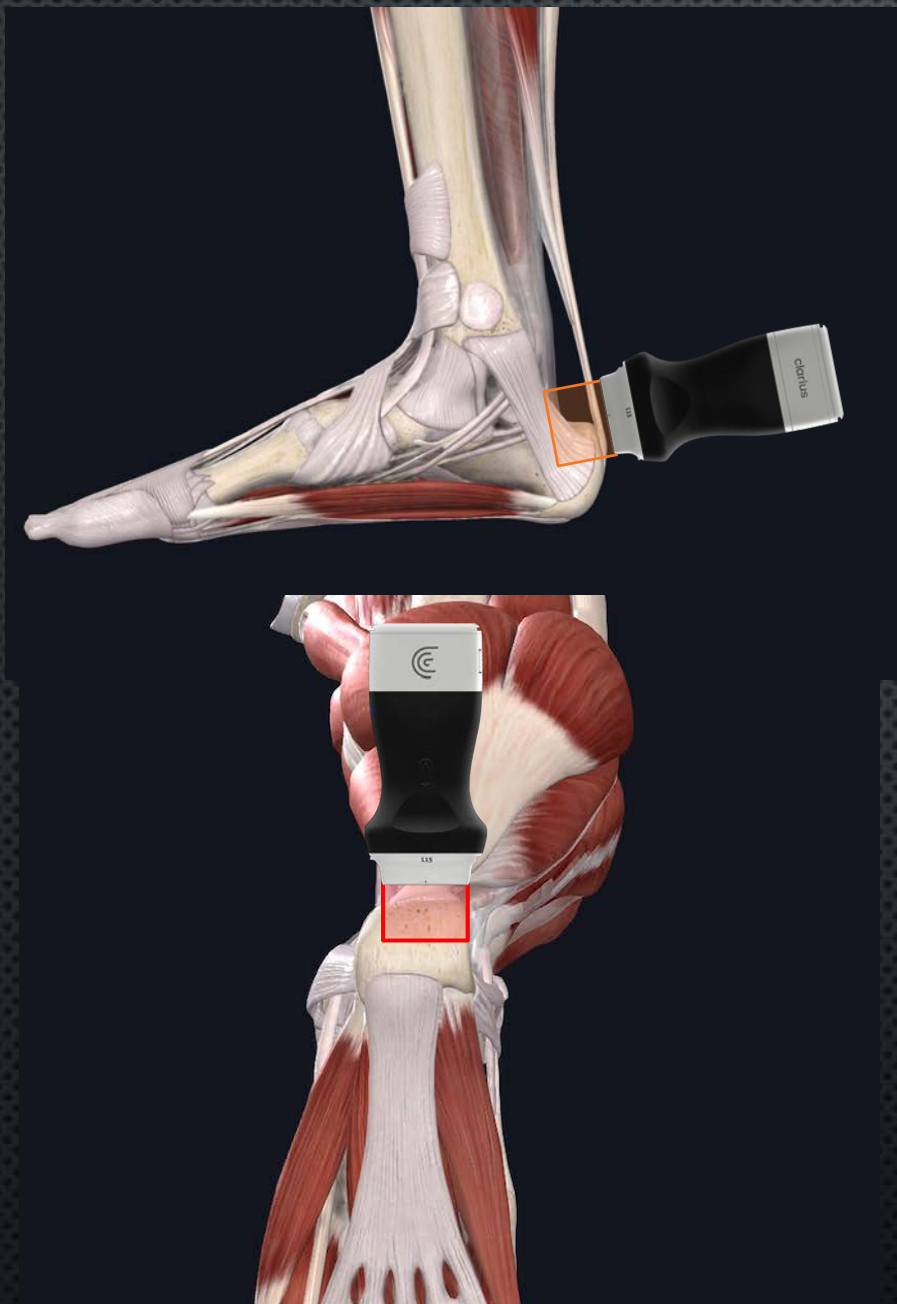


DX: Full-thickness Tear of Achilles Tendon

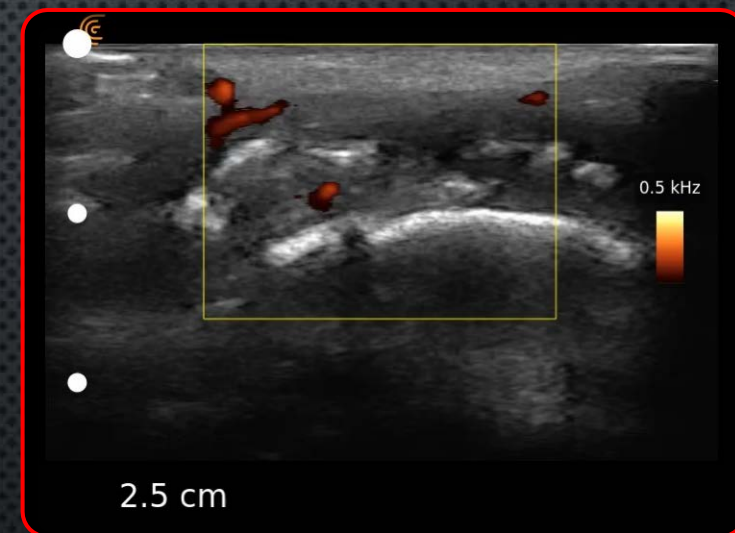
DIFFERENTIALS ARE COMPLEX

- PARTIAL TEAR – MUSCLE SPECIFIC MAPPING
- CALCIFICATIONS
- MUSCLE FRICTION SYNDROMES
- RETROCALCANEAL BURSITIS
- TENDINOPATHY
 - LOCATION IS RELEVANT TO THERAPEUTIC MANAGEMENT
 - PHASE OF REACTIVITY

INSERTIONAL INFLAMMATION

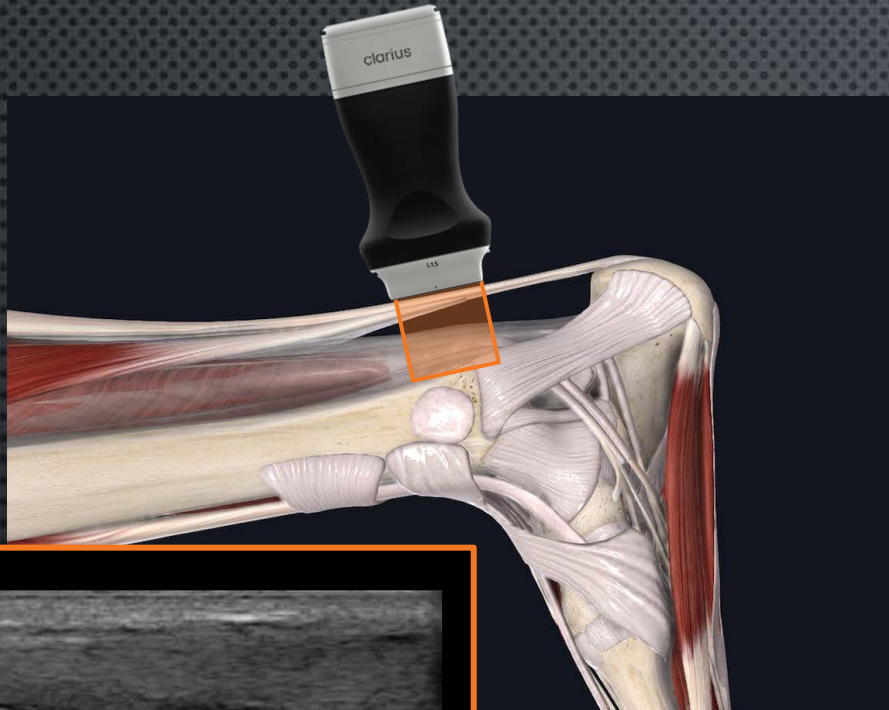


LAX Achilles Insertion

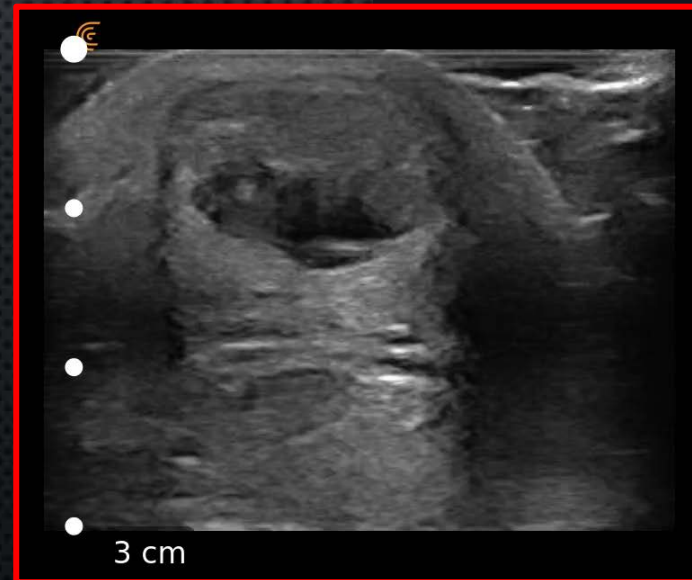


SAX Achilles Insertion

MID-SPAN ACHILLES TENDINOPATHY



LAX



SAX

ROTATOR CUFF CASE

Edwin:

(Family Practice Physician)

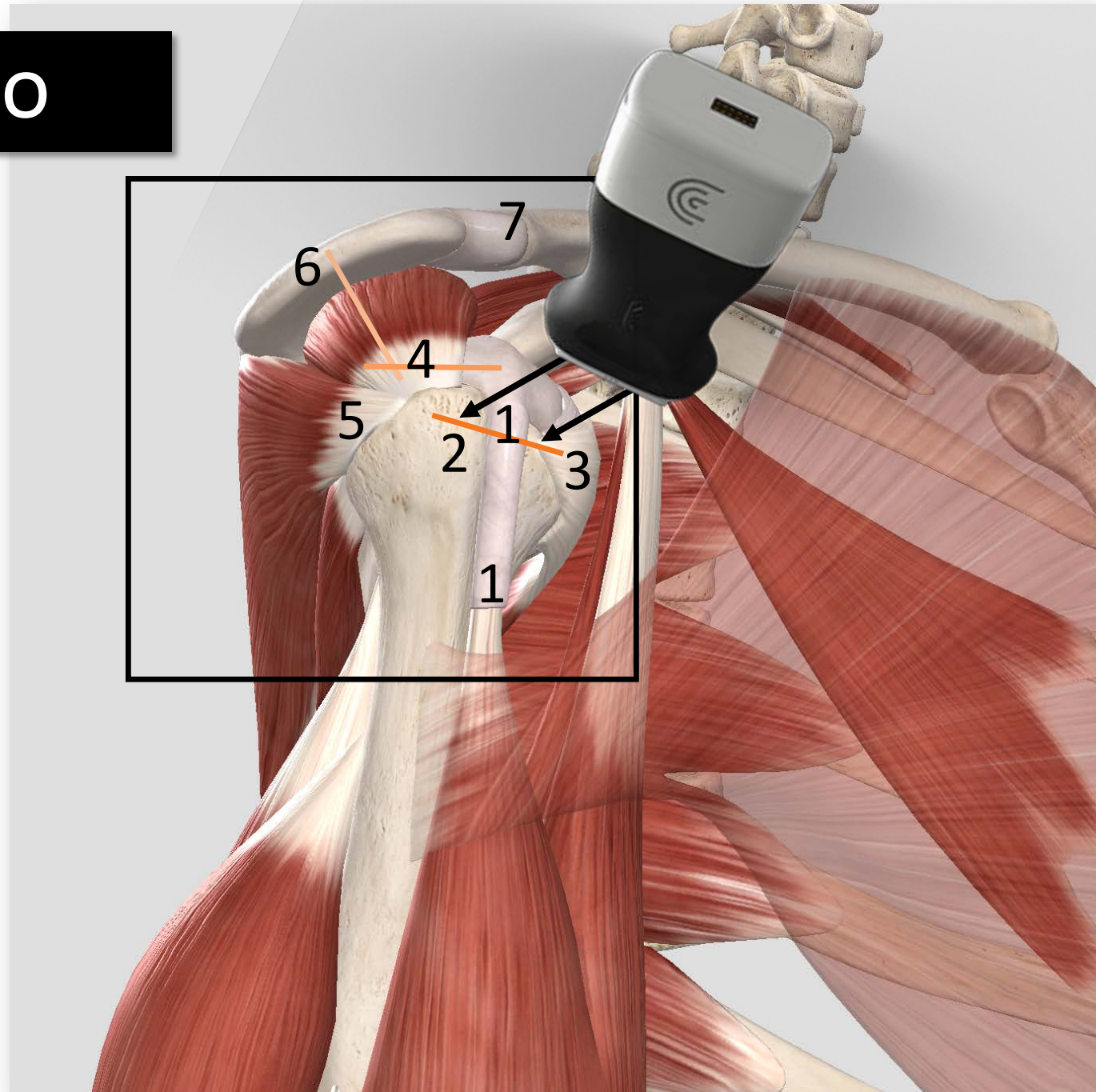
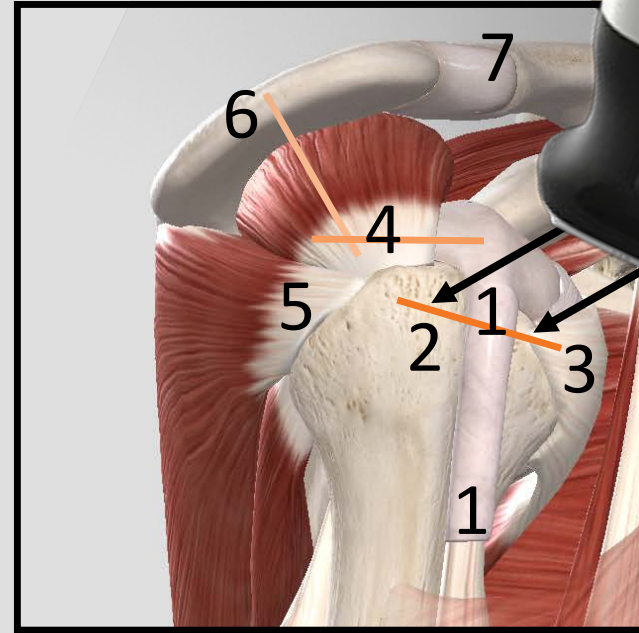
He feels he injured his shoulder 8 weeks ago while moving boxes and furniture into their new home. He recalls trying to balance a heavy box on his shoulder when he hit a corner in the hallway and shifted the box. He felt a snap in his shoulder, and it became progressively weak over the next few days.

Symptoms: Pain when lifting his arm. Weakness in shoulder function. Intermittent lateral shoulder and forearm numbness.

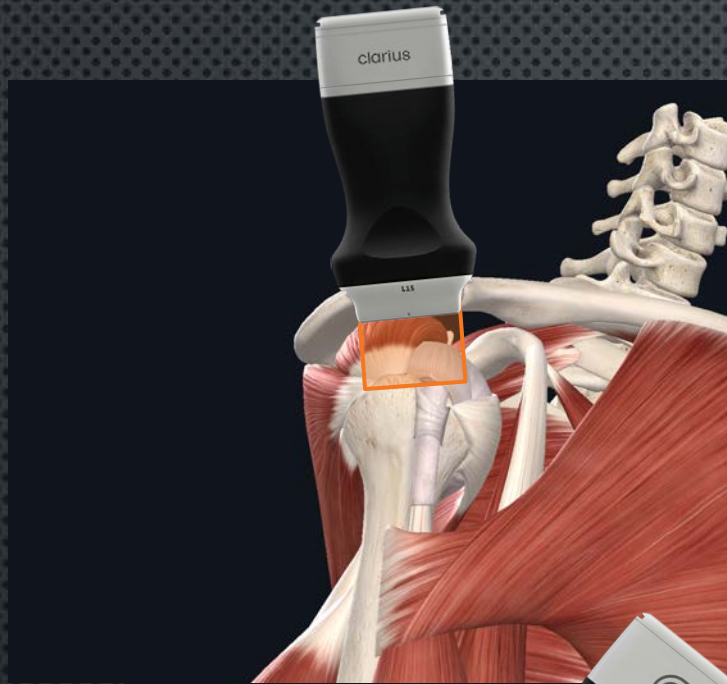
Medical consultations: Wants to see how badly he tore his RC before he decides to see a surgeon.

Shoulder Scan Demo

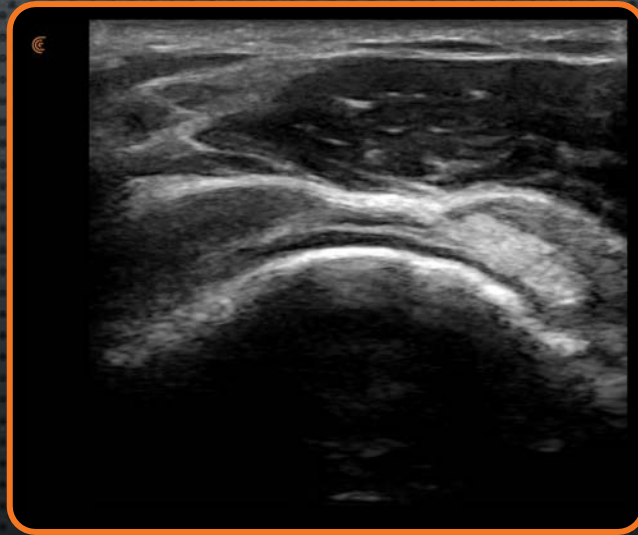
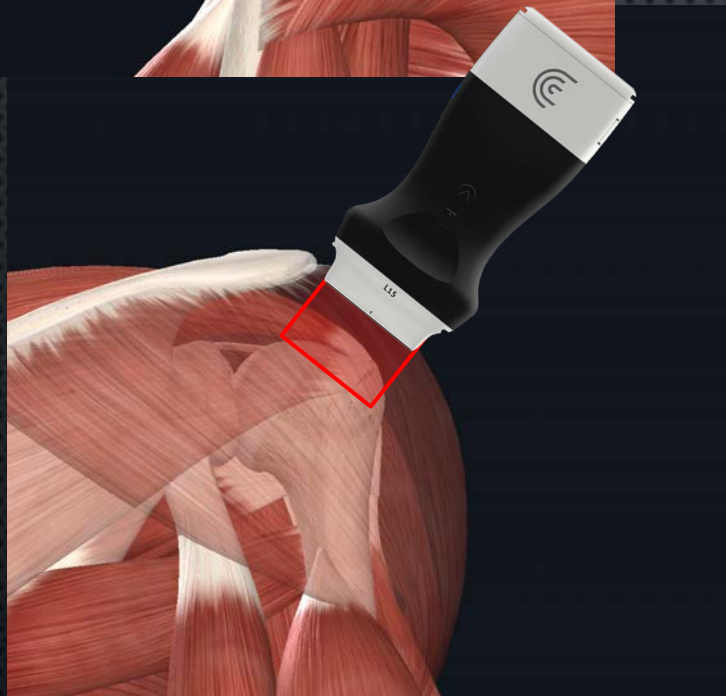
1. Long Head of Bicep Tendon
2. Greater Tuberosity
3. Subscapularis Tendon
4. Supraspinatus Tendon
5. Infraspinatus Tendon
6. Acromion
7. Acromioclavicular Joint



LIVE DEMO HOW TO SCAN THE SHOULDER



FULL THICKNESS SUPRASPINATUS TEAR



Short Axis
SSP

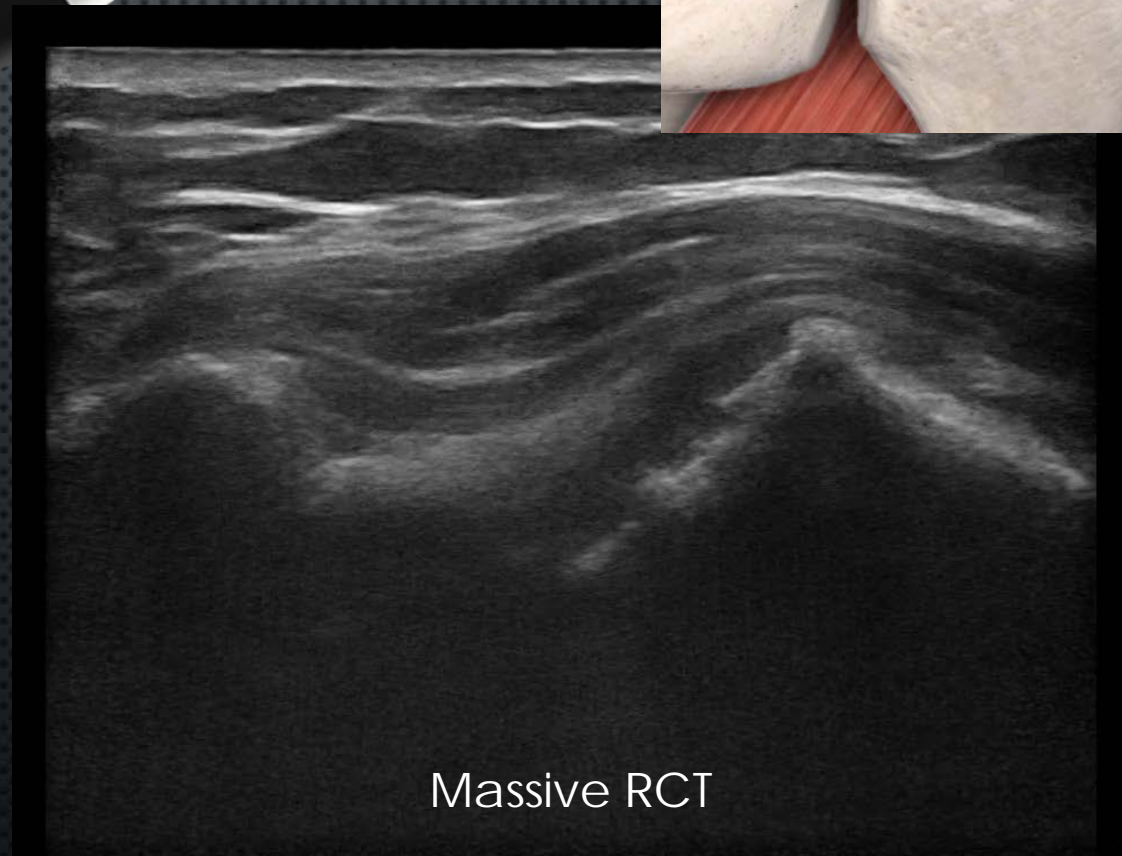
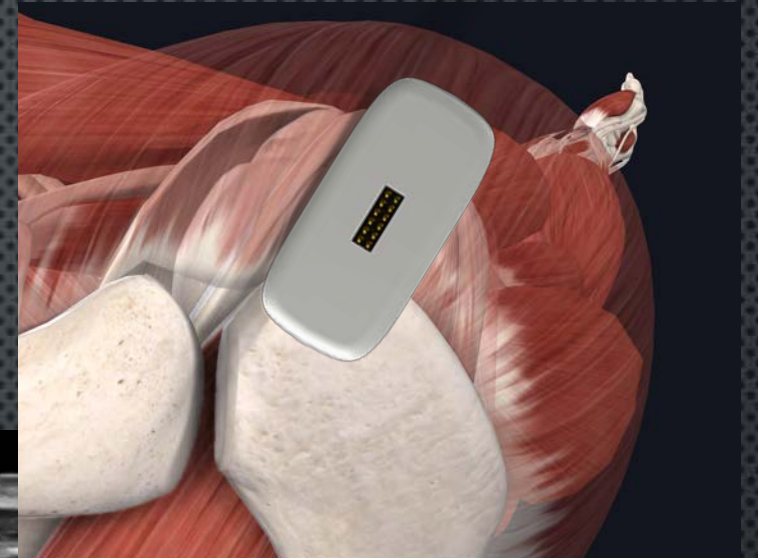


Long Axis
SSP

DYNAMIC TESTING FOR IMPINGEMENT

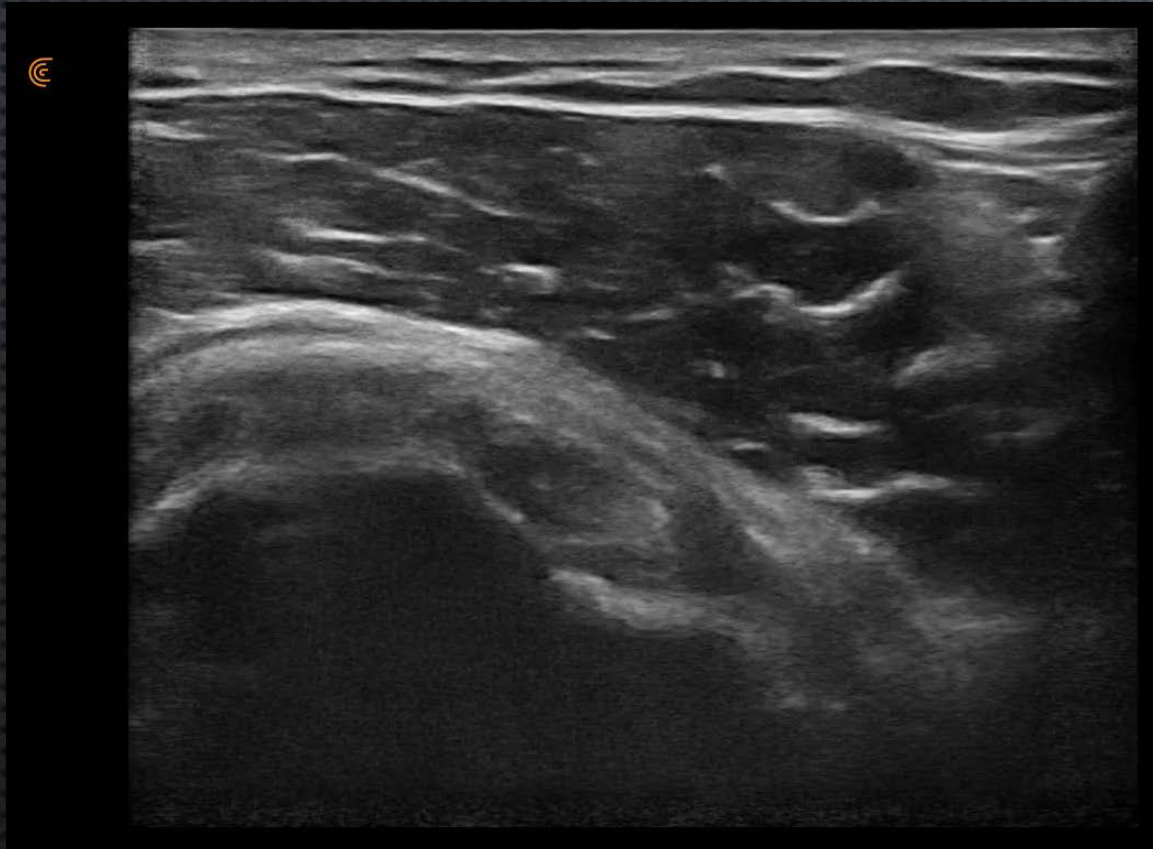


ABDUCT
ARM

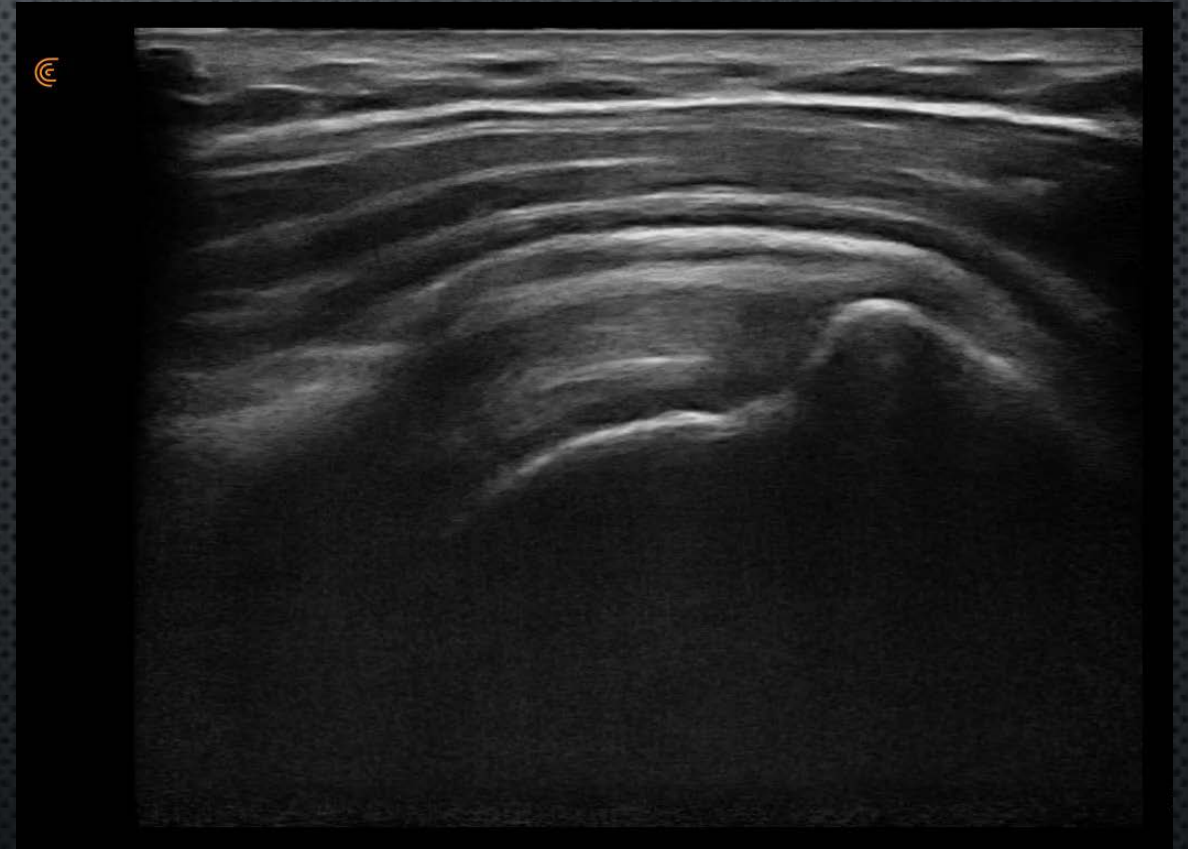


Massive RCT

EDWIN



SAX Interval VIEW



LAX RC

ROTATOR CUFF CASE

Normal RC

SASD Fluid from motor control deficits

Weakness from Cervical Myelopathy?

DIFFERENTIALS

- * CS LESION
- CALCIFICATIONS
- FROZEN SHOULDER
- * IMPINGEMENT
- TENDINOPATHY VS PARTIAL TEAR
- LABRAL TEAR

HEEL PAIN CASE

"Quinn"

(Homemaker and Avid Runner)

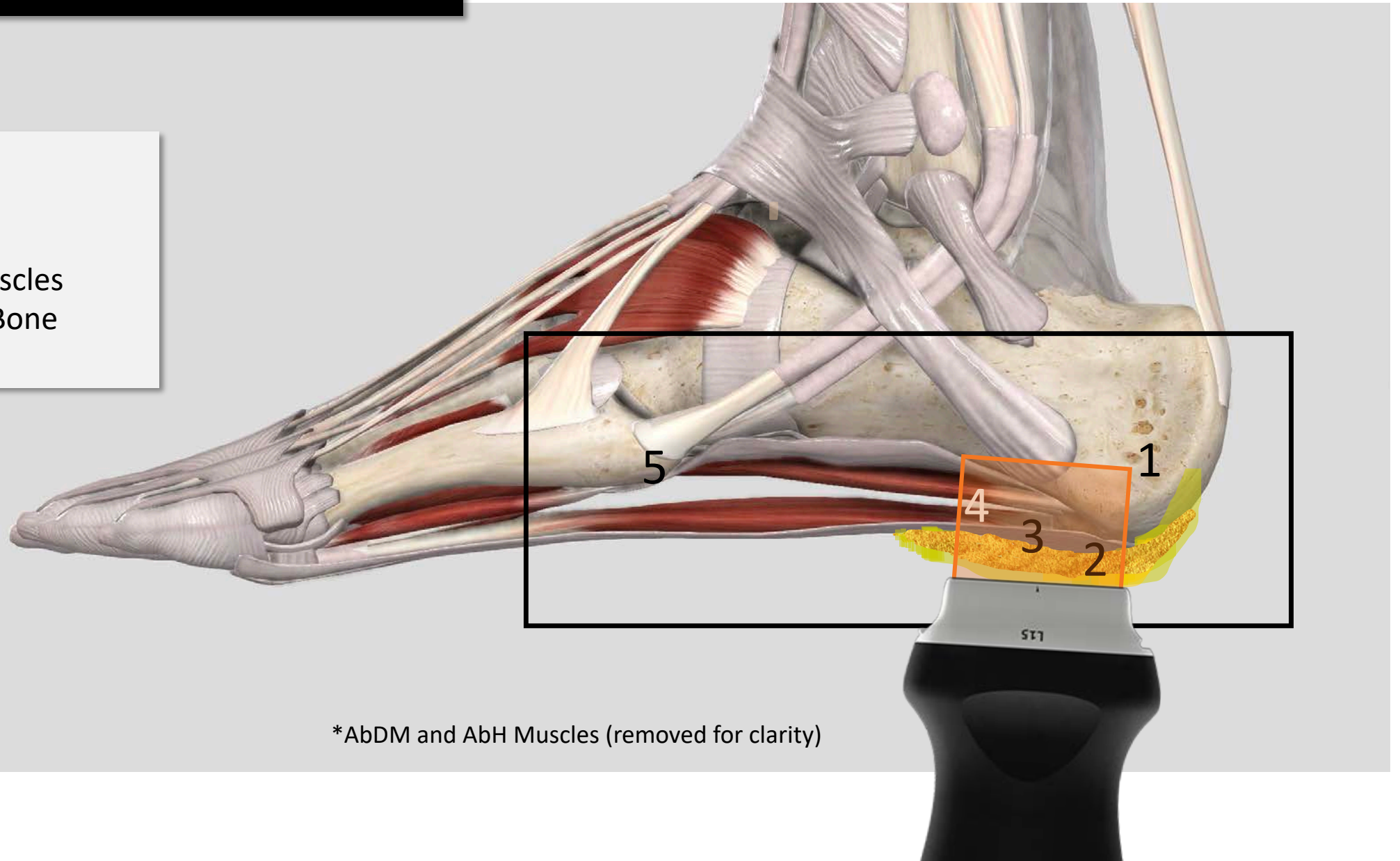
Emotionally distraught with the fact that she is not able to muscle through the pain anymore. She breaks down as she claims that "running is my only effective antidepressant."

Symptoms: Severe Pain with initial WB in the AM and then subsides "quite a bit" after 15 min of being up. During the day it can build to 5-6/10 with just standing and by the evening the pain is a steady 7/10 in standing.

Medical consultations: Family Doctor directed her to PT as the NSAIDS and off-the-shelf orthotics stopped being effective in pain management. Unwilling to consider CSI "unless last resort."

Plantar Fascia Demo

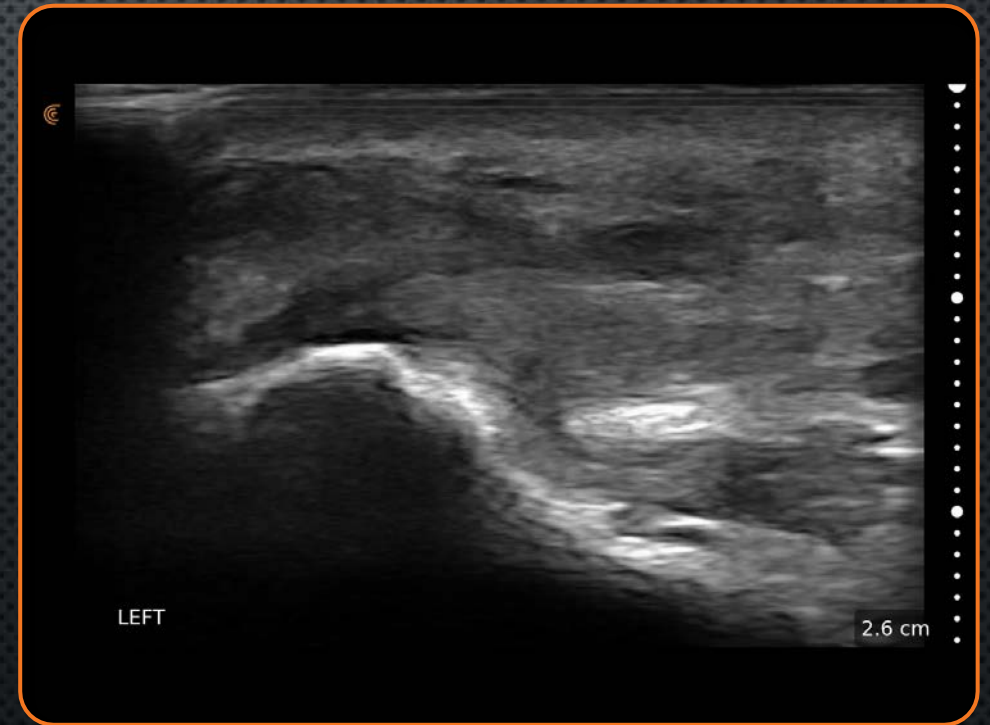
1. Calcaneus Bone
2. Plantar Fat Pad
3. LAX PF
4. QP and FDB Muscles
5. Base of 5th MT Bone
(lateral PF slip)



*AbDM and AbH Muscles (removed for clarity)

LIVE DEMO HOW TO SCAN THE PLANTAR FASCIA

PLANTAR FASCIA ENLARGEMENT



•OCTOBER 2019

FIRST SCAN OF QUINN:

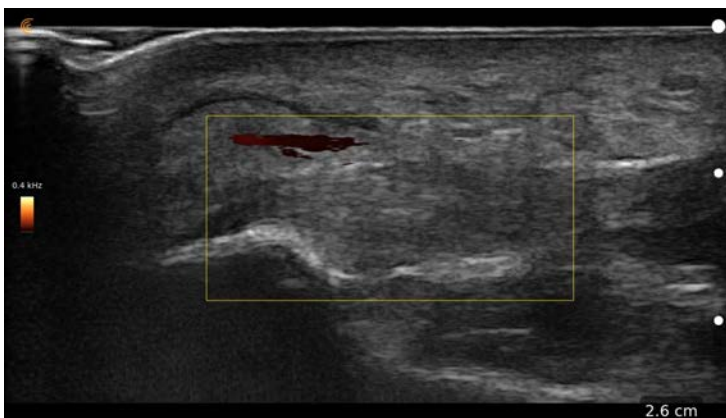
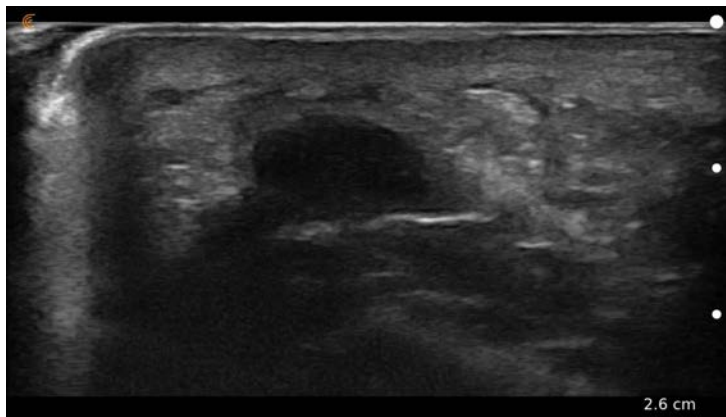
"I will do anything"

"I will even stop trying to run at all...if I can be back to running in 6 weeks"

Now: THE BEAUTY OF POCUS!!!

I told Quinn, *"well let's check this out together and see what your feet are asking for, before we tell them what your heart desires. If we don't follow nature, we will never get you back"*

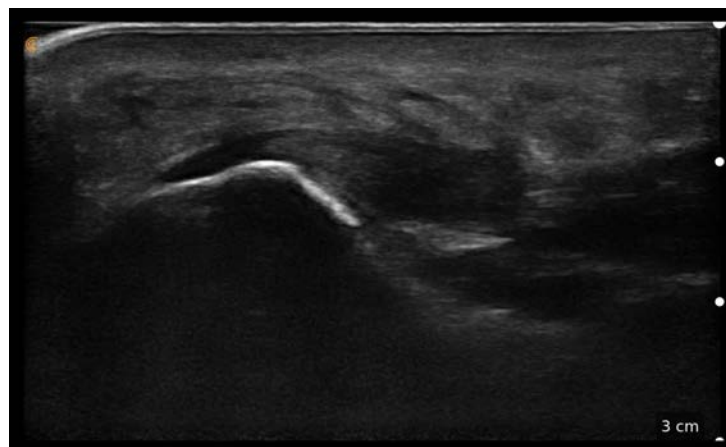
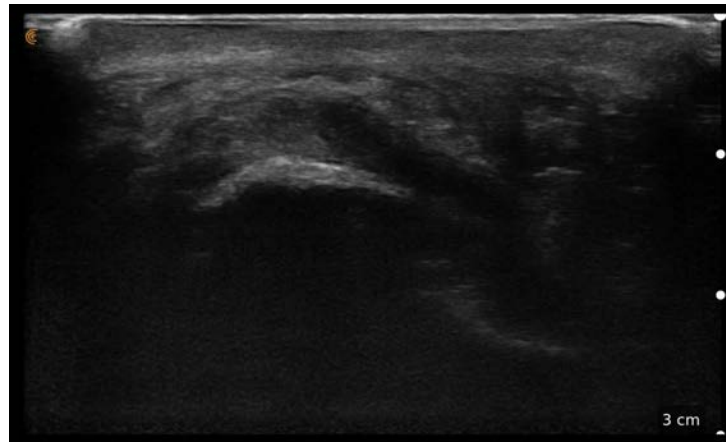
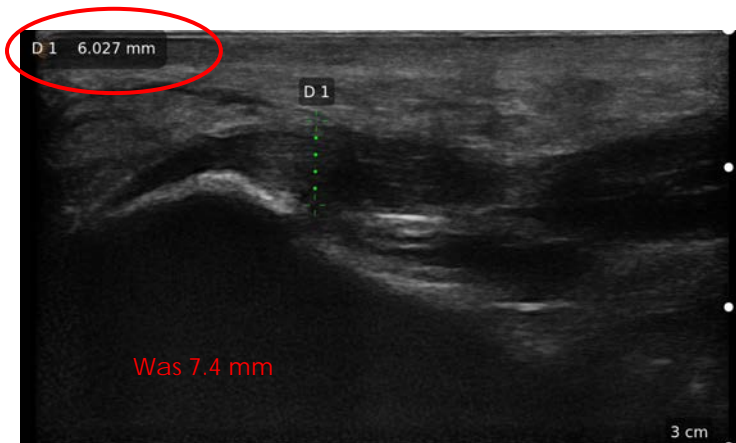
She was ALL IN with that!!



HEEL PAIN CASE

Plantar Fasciitis and Fat Pad Degradation

- Life Joy stealing limitations
- Fear of the unknown
- Desperate for HOPE



2 Months

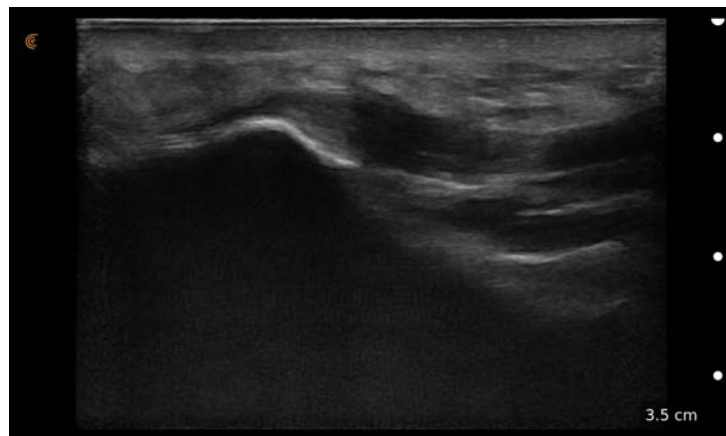
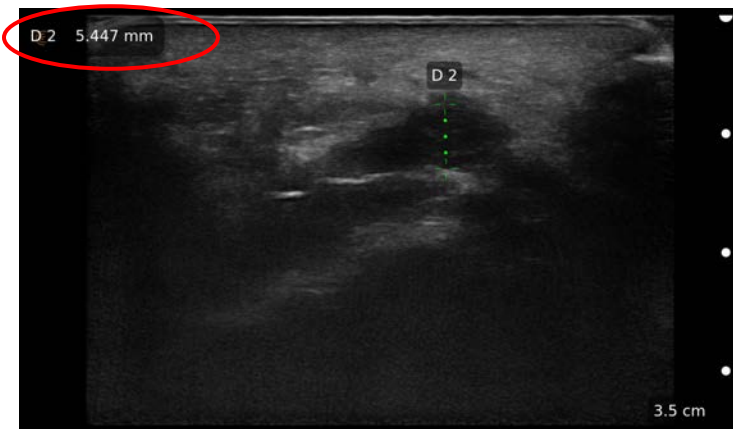
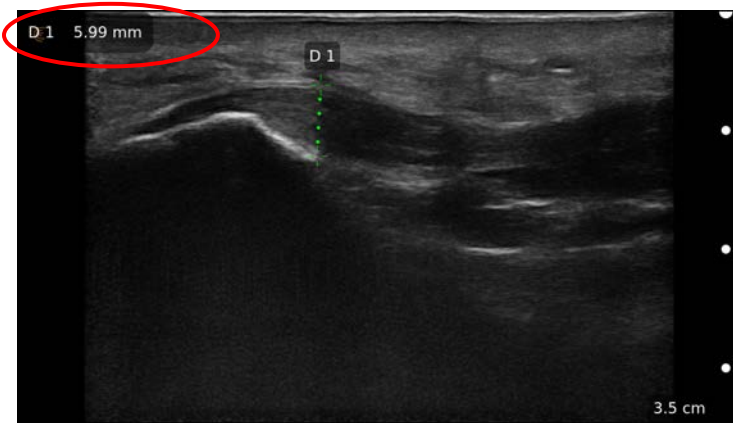
• JANUARY 2020

SECOND SCAN OF QUINN:

- Walking 5 miles with quality shoes and a self applied "fat-pad" taped heel.
- Attending PT for cross training and support.
- Morning pain remained (5-6/10) but less PM limits

I told Quinn, *"Hey Track-Star, we can see you have been compliant with the home program and we are seeing the needed changes to give you HOPE!!"*

Quinn was excited and willing to stay focused and compliant.



8 Months

• JUNE 2020

FINAL SCAN OF QUINN:

- At 4 Months - pain was down 75% and we skipped the formal scan...as she was attending a satellite clinic.
- At 6 months - Built up to 5 mile runs at a moderate pace
- No Morning pain

I told Quinn, *"I'm proud of you for your patience and your devotion to fitness!!"*

Quinn expressed gratitude for: "the straight talk, the shared information and the proof of progress when there was still joy-robbing pain."

DIFFERENTIALS

- TARSAL TUNNEL LESION
- MEDIAL PLANTAR NERVE
- PT TENDON
- PLANTAR AND DELTOID LIGAMENTS
- KNOT OF HENRY
- LS/SCIATIC LESION
- DJD

BETTER PATIENT OUTCOMES WITH ULTRASOUND

- **REAL-TIME DIAGNOSIS** — SAVING TIME/PAIN BY ELIMINATING *MULTI-SPECIALIST APPOINTMENTS*
- **INCREASED CONFIDENCE** — *ULTRASOUND IMAGING CONFIRMS DIAGNOSIS*
- **EVIDENCE OF IMPROVEMENT**
 - JUSTIFICATION FOR EFFORT AND A *VISUAL REWARD FOR EXERCISE/RESTRICTION COMPLIANCE*
- **ACCOUNTABILITY TO HOME PROGRAM**
 - MUSCLE ECHOTEXTURE/SIZE, FLUID REDUCTION, INFLAMMATORY CHANGES
- **SHORTER RECOVERY** — WITH THE RIGHT COURSE OF TREATMENT AND PATIENT COMMITMENT
- **FEWER VISITS** — LESS OUT OF POCKET \$, GREATER PATIENT SATISFACTION...REFERRALS OF FRIENDS

HOW TO BILL FOR ULTRASOUND?

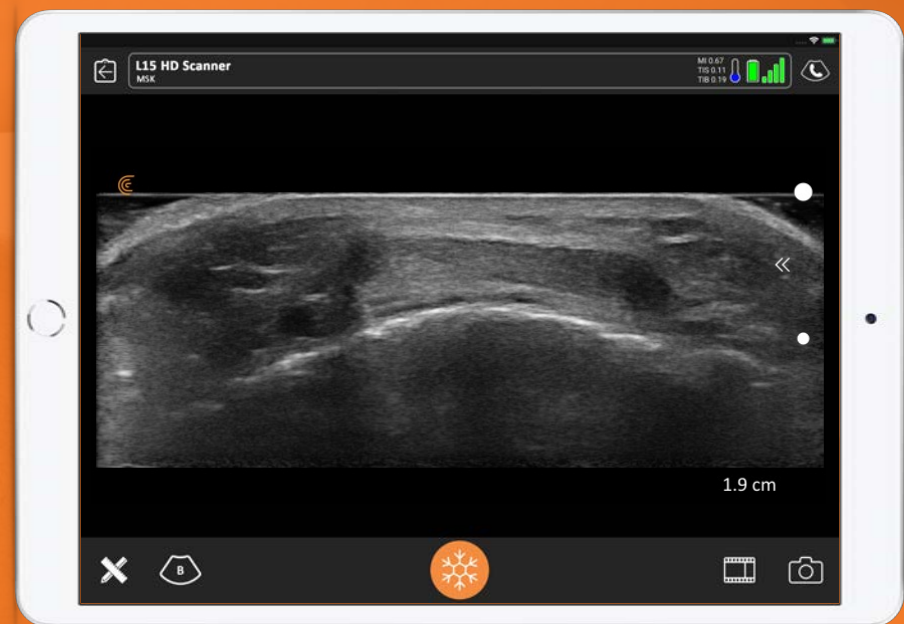
- BILLABLE POC MSK DIAGNOSTICS
- **CPT CODE: 76881 “COMPLETE” ULTRASOUND EXAMINATION OF AN EXTREMITY**
 - \$250-\$1200 - *PUBLISHED BILLED AMOUNT*
 - \$45 TO \$160 – *NET COLLECTION*
- **CPT CODE: 76882 “LIMITED” - ULTRASOUND, EXTREMITY. (NON-VASCULAR)**
 - *SINGLE STRUCTURE ASSESSMENT*
 - *FOCAL LESION RECHECK*
- BILLABLE INTERVENTIONAL UPCHARGE
 - **CPT CODE: 20611 ARTHROCENTESIS, ASPIRATION AND/OR INJECTION, MAJOR JOINT OR BURSA**
 - **CPT CODE: 20550 INJECTION(S), SINGLE TENDON SHEATH**
 - **CPT CODE: 76942 ULTRASOUND-GUIDED NEEDLE PLACEMENT**

WWW.CLARIUS.COM/CPT

5 Ways Ultrasound Adds Value to Your MSK Practice

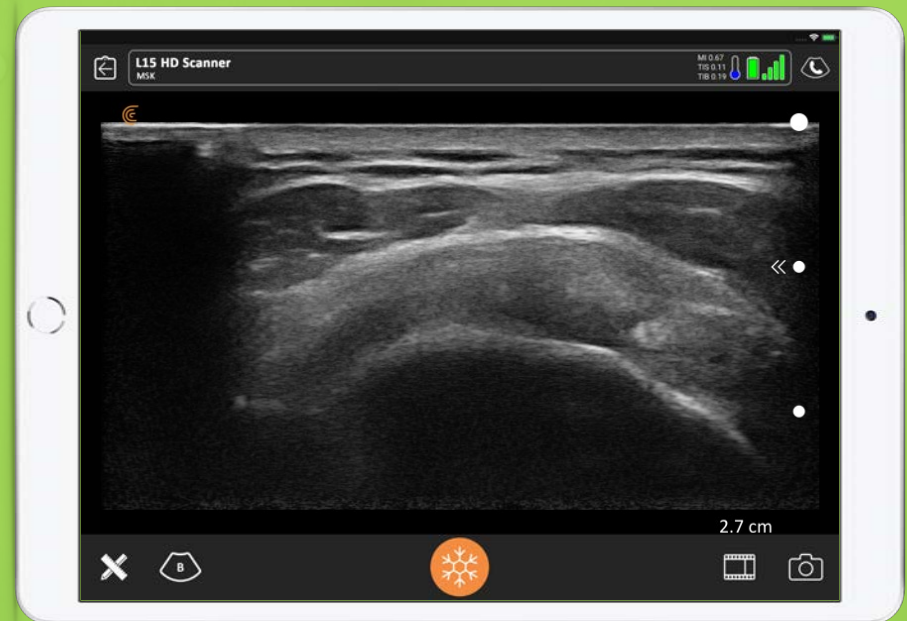


1 Narrow the Differential





2 Diagnose Confidently



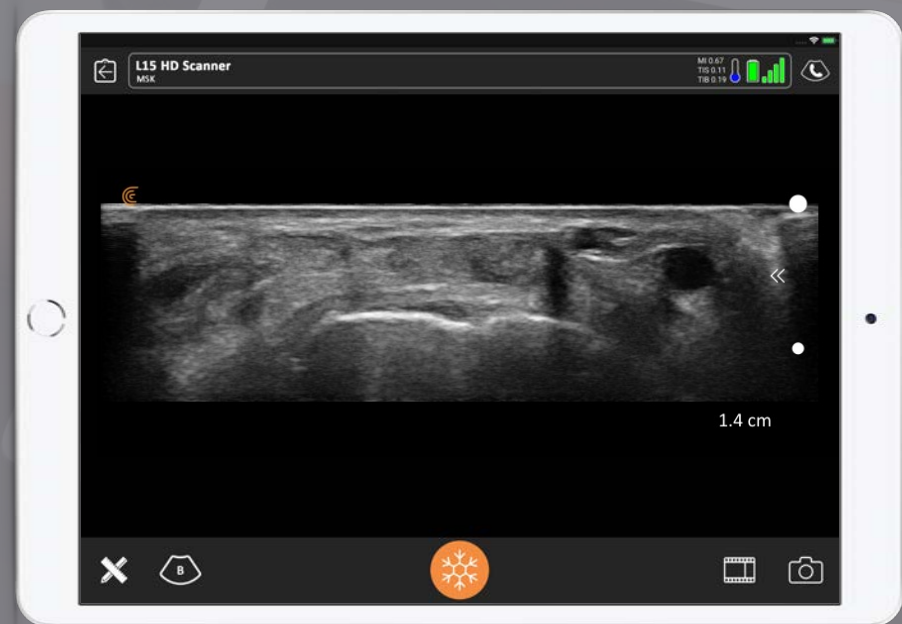


3 Target Treatment



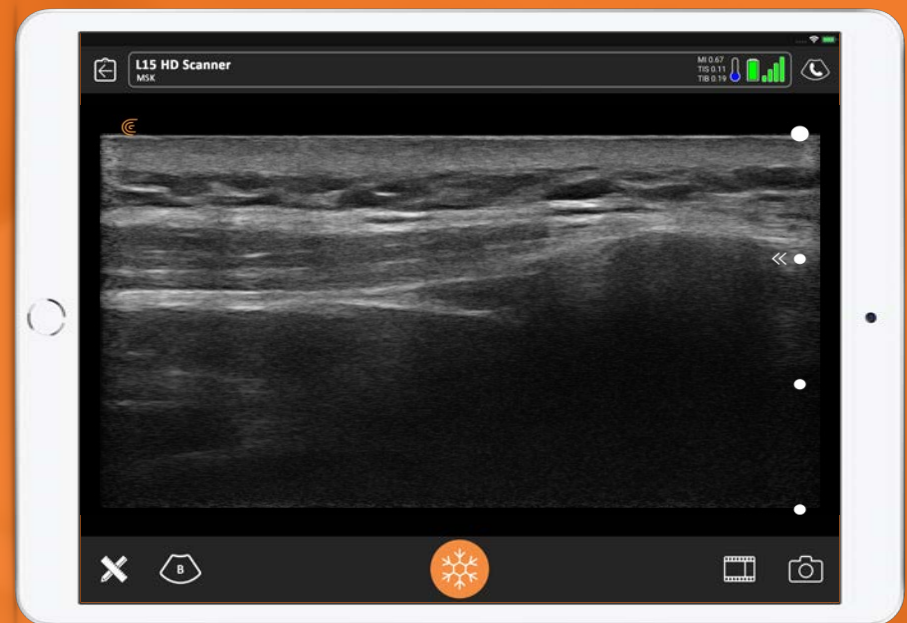


4 Capture Progress





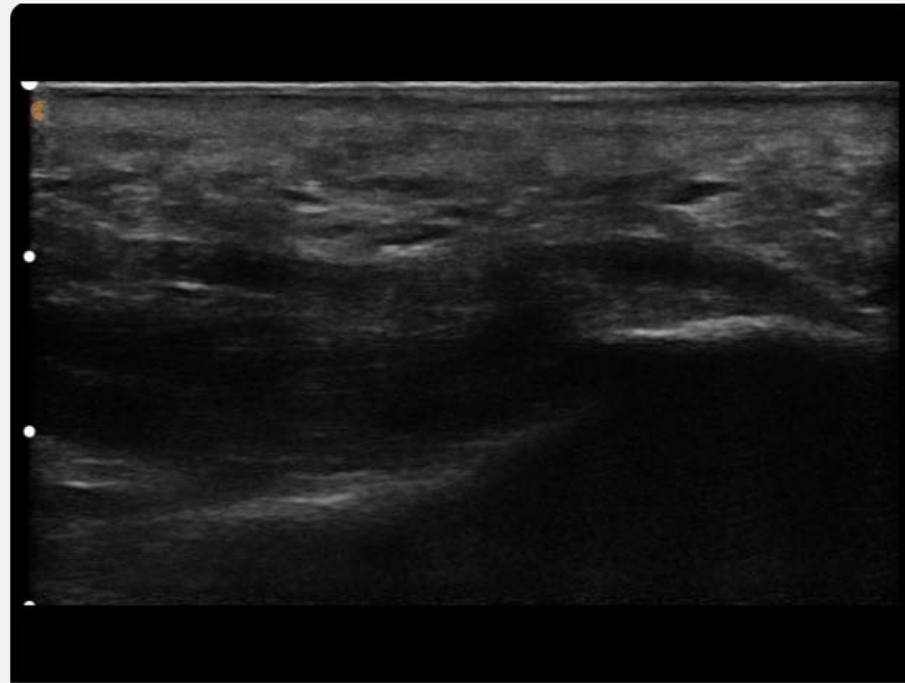
5 Motivate Patients



Professional benefits in a growing field

“... will **distinguish** you as an expert in musculoskeletal ultrasound and demonstrate that you have the skills necessary to **provide exceptional care** to your patients.”





Michael Czurylo, DPM

Northwest Foot & Ankle Institute Podiatry Clinic

“ I learned to use Clarius quickly and really liked its portability. It's lightweight and easy to hold in your hand and doesn't take up floor space. Image quality is as good or better than the cart-based systems I've used. It's also much faster to power up and down compared to bigger units. I find the cost affordable, when compared to other imaging modalities. This is especially important when you are starting a business. I can show patients in real-time what I'm seeing and I find they're more confident in my diagnosis. ”



Clarius HD

Wireless Handheld
High Definition Image
Easy & Affordable
No Subscription
Free Clarius Cloud
Unlimited Users



Poll

What additional
information would
you like?

Questions?



Dr. Oron Frenkel



Greg Fritz, RMSK



Thank you!