

Joint *Tissue* **Activity and Damage Exam**

J.A.D.E.

Practical Application

Part 1

By Lena Volland PT, DPT

J.A.D.E Protocol

Joint *Tissue* **A**ctivity and **D**amage **E**xam

A concise, reproducible musculoskeletal ultrasound (MSKUS) protocol, which evaluates:

- 1. Joint **A**ctivity = Soft Tissue filling joint space**
(hypertrophy, displacement, expansion and other)
- 2. Joint **D**amage = Osteochondral Alterations**
 - Cartilage thickness
 - Osteochondral interface

J.A.D.E. Protocol

General Overview

- Elbow: 3 views
- Knee: 6 views
- Ankle: 4 views
- Assessment of:
 - osteochondral interface irregularities
 - cartilage thickness
 - soft tissue expansion
- Evaluation of Power Doppler (PD) signals
- Effusion detection via sonopalpation

Power Doppler Scoring

Doppler signal at tissue of interest **NOT** sample area

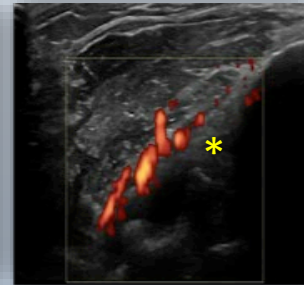
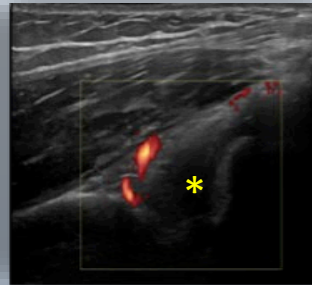
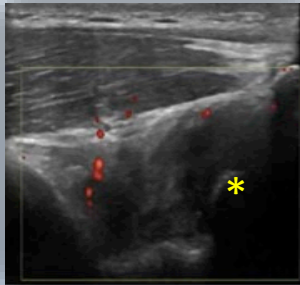
Power Doppler Score

1

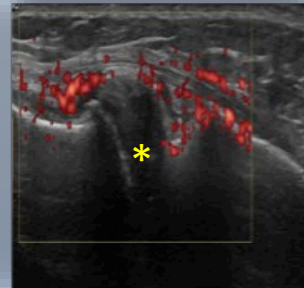
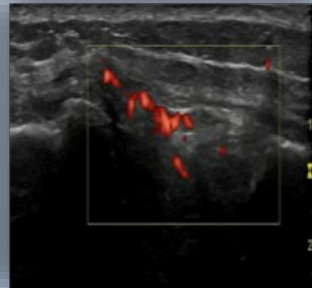
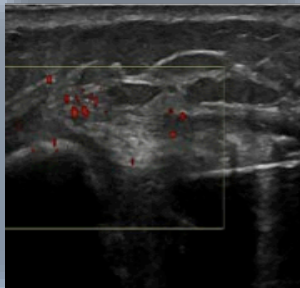
2

3

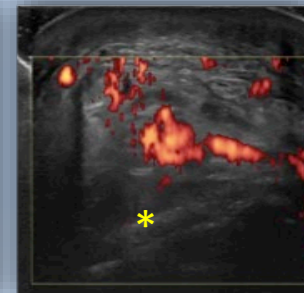
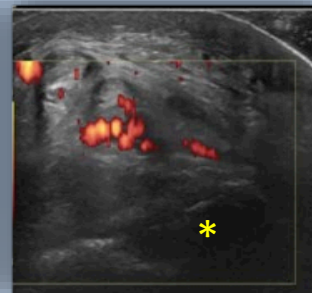
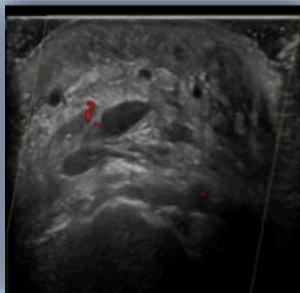
Elbow
Olecranon
Fossa



Knee
Medial
Meniscus



Ankle
Tibio-Talar



0: No signal

1: Small spots

2: Confluent vessels in
< 50% *tissue of interest*

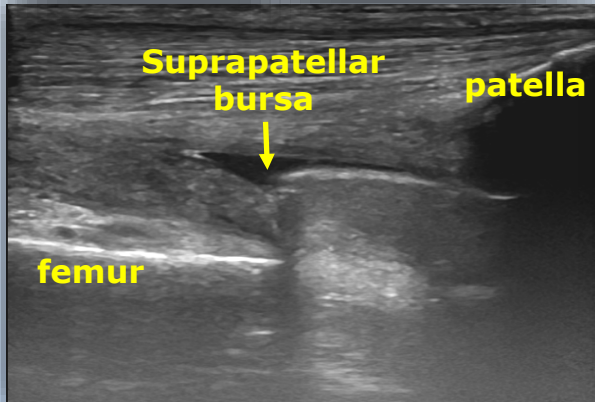
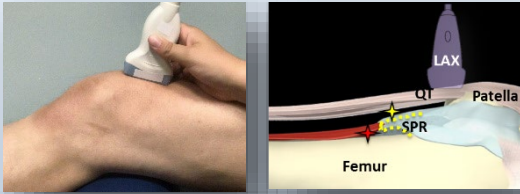
3: Confluent vessels in
> 50% *tissue of interest*

(*) indicates effusion

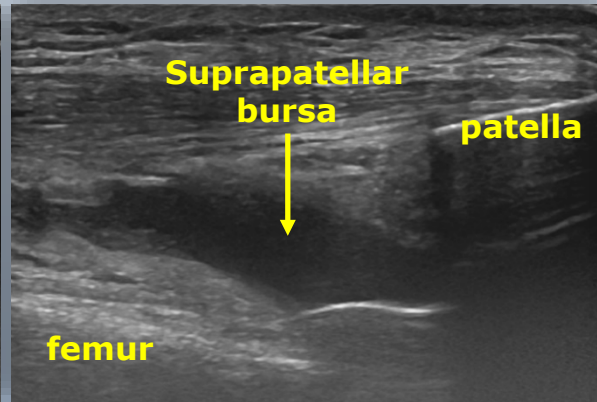
J.A.D.E. Protocol

Detection of Effusions

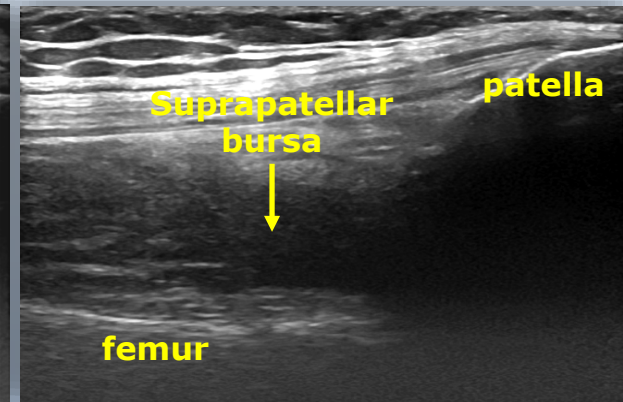
Sonopalpation differentiates between compressible fluid and non-compressible soft tissue



Anechoic simple effusion (non bloody) in the suprapatellar bursa showing a black appearance and being fully compressible



Hypoechoic complex effusion (bloody) within the suprapatellar bursa displaying speckles and being compressible



Soft tissue expansion into the suprapatellar bursa appearing echogenic, but being non compressible

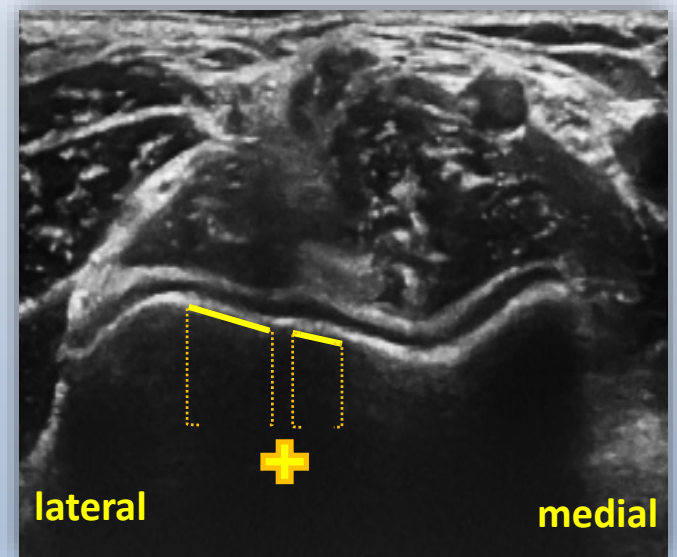
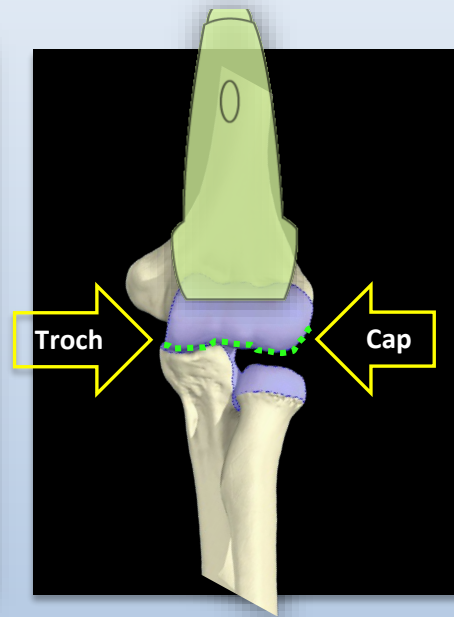
J.A.D.E. Protocol

ELBOW

J.A.D.E. Protocol: Elbow

Anterior Elbow SAX

Osteochondral Interface

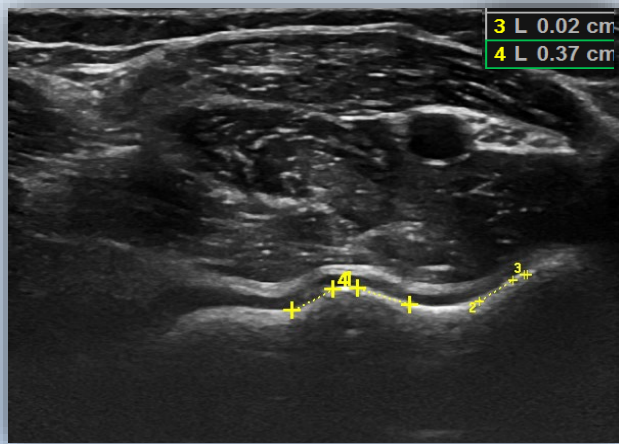


Measure any variation from hyperechoic, smooth, intact bony interface.

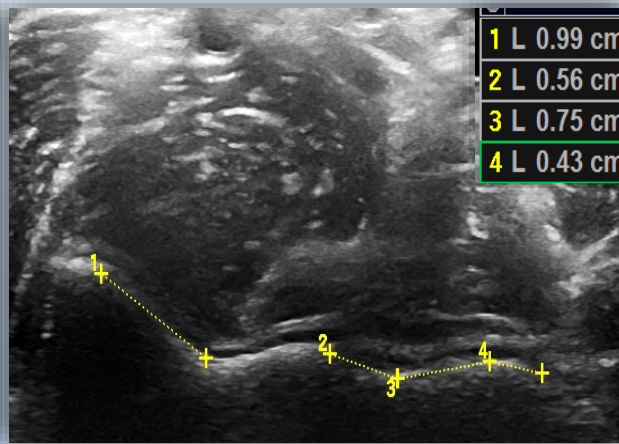
J.A.D.E. Protocol: Elbow

Examples: Anterior Elbow SAX

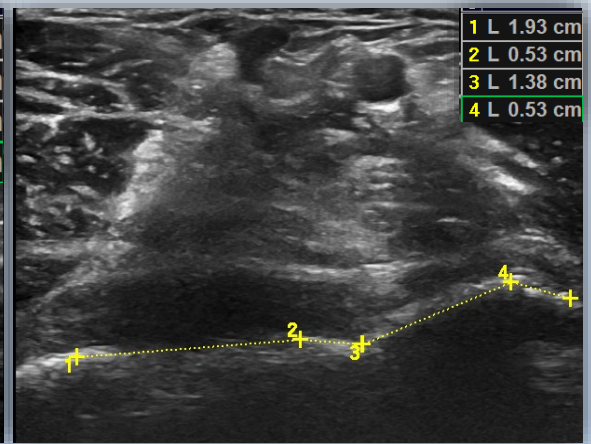
Osteochondral Interface



Total length: 0.39cm

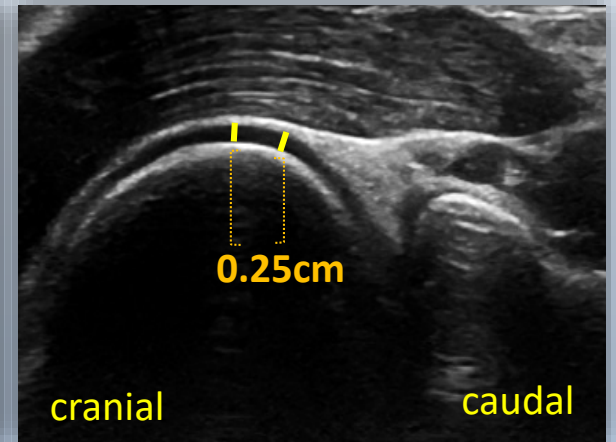
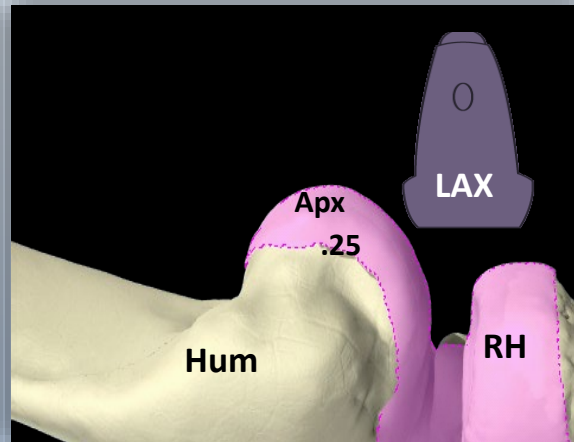


Total length: 2.73cm



Total length: 4.37cm

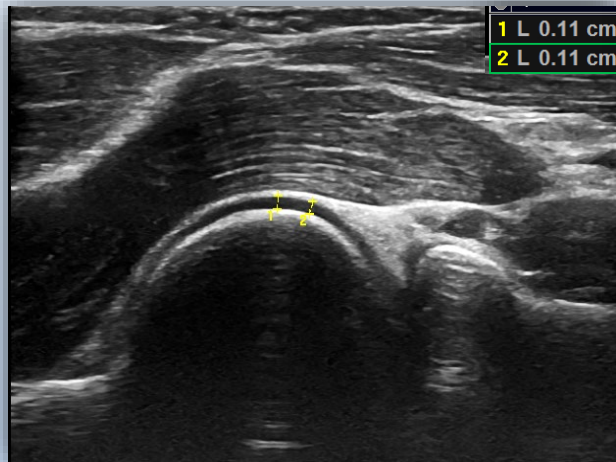
J.A.D.E. Protocol: Elbow Anterior Elbow LAX Cartilage Thickness



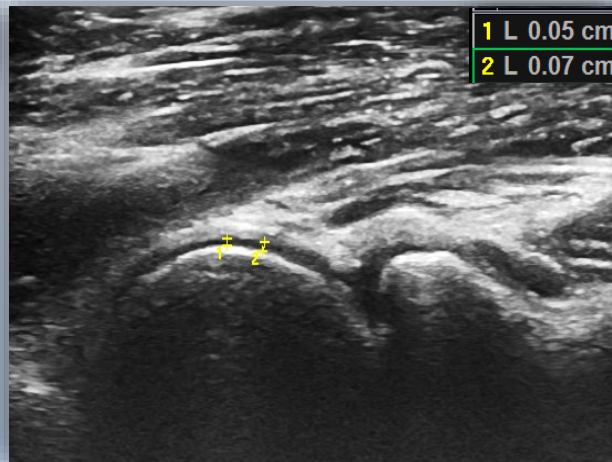
Assess cartilage thickness at the apex and 0.25cm caudally.
Measurement is perpendicular to the bony margin.

J.A.D.E. Protocol: Elbow

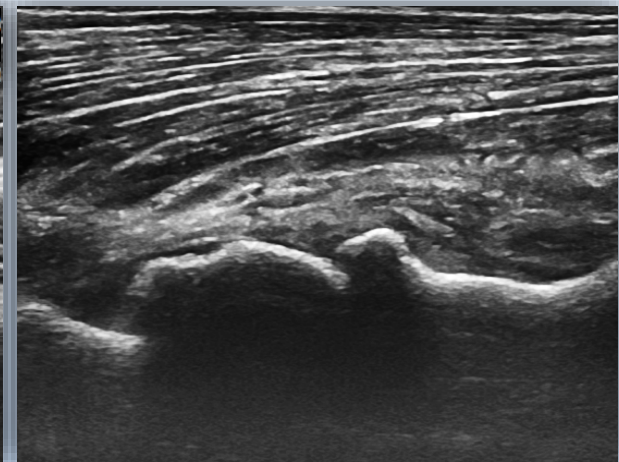
Examples: Anterior Elbow LAX Cartilage Thickness



Apex: 0.11cm
0.25cm caudal: 0.11cm

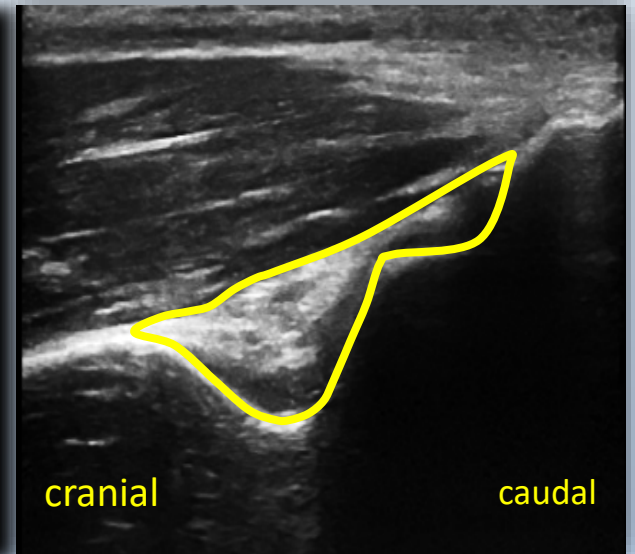
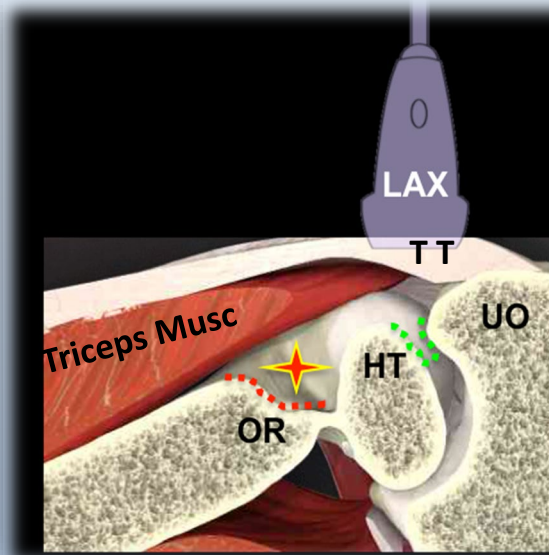


Apex: 0.05cm
0.25cm caudal: 0.07cm



Apex: 0.00cm
0.25cm caudal: 0.00cm

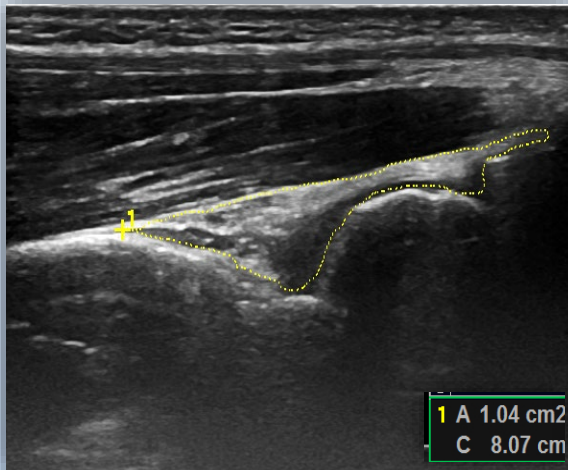
J.A.D.E. Protocol: Elbow Posterior Elbow LAX Fat Pad Area



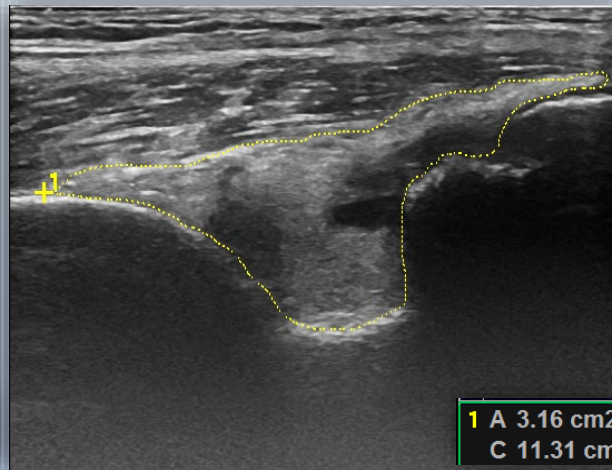
Evaluation of Fat Pad Displacement and
Fat Pad Cross Sectional Area.

J.A.D.E. Protocol: Elbow

Examples: Posterior Elbow LAX Fat Pad Area



Area: 1.04cm²



Area: 3.16cm²

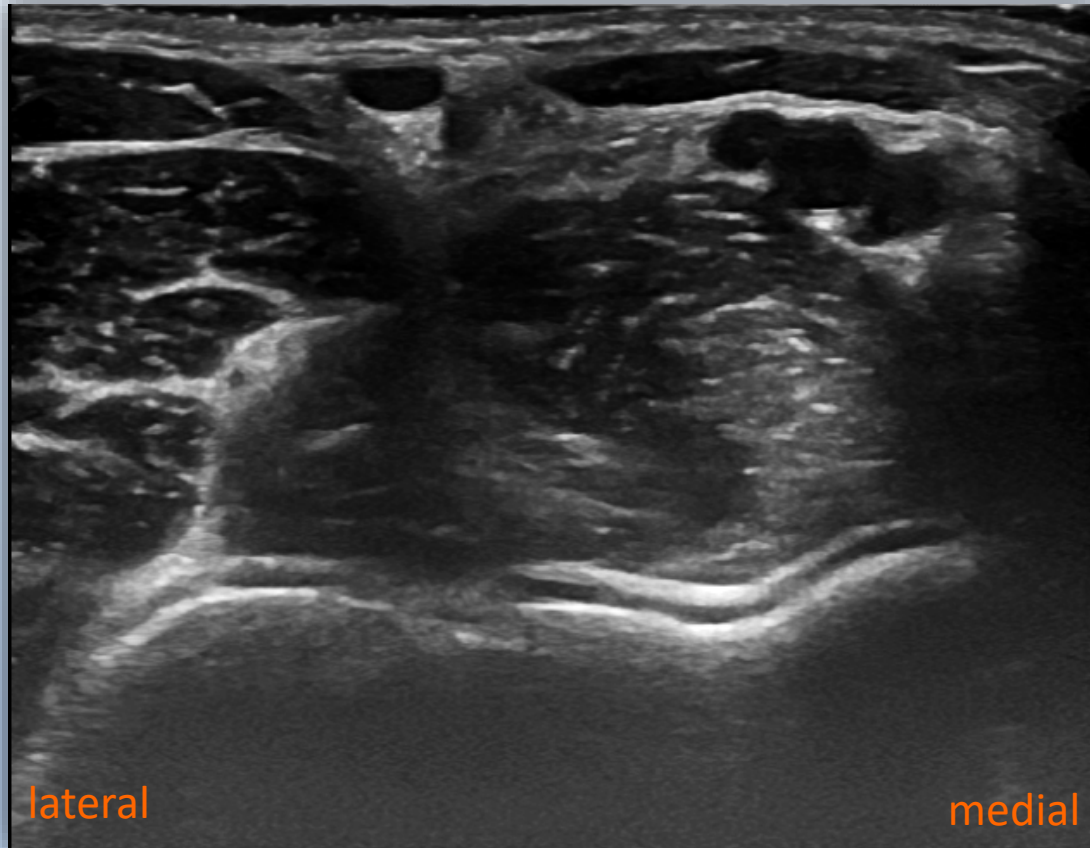


Area: 6.63cm²

Case Study


ELBOW

J.A.D.E. Protocol: Elbow
Anterior Elbow SAX
Osteochondral Interface Irregularities



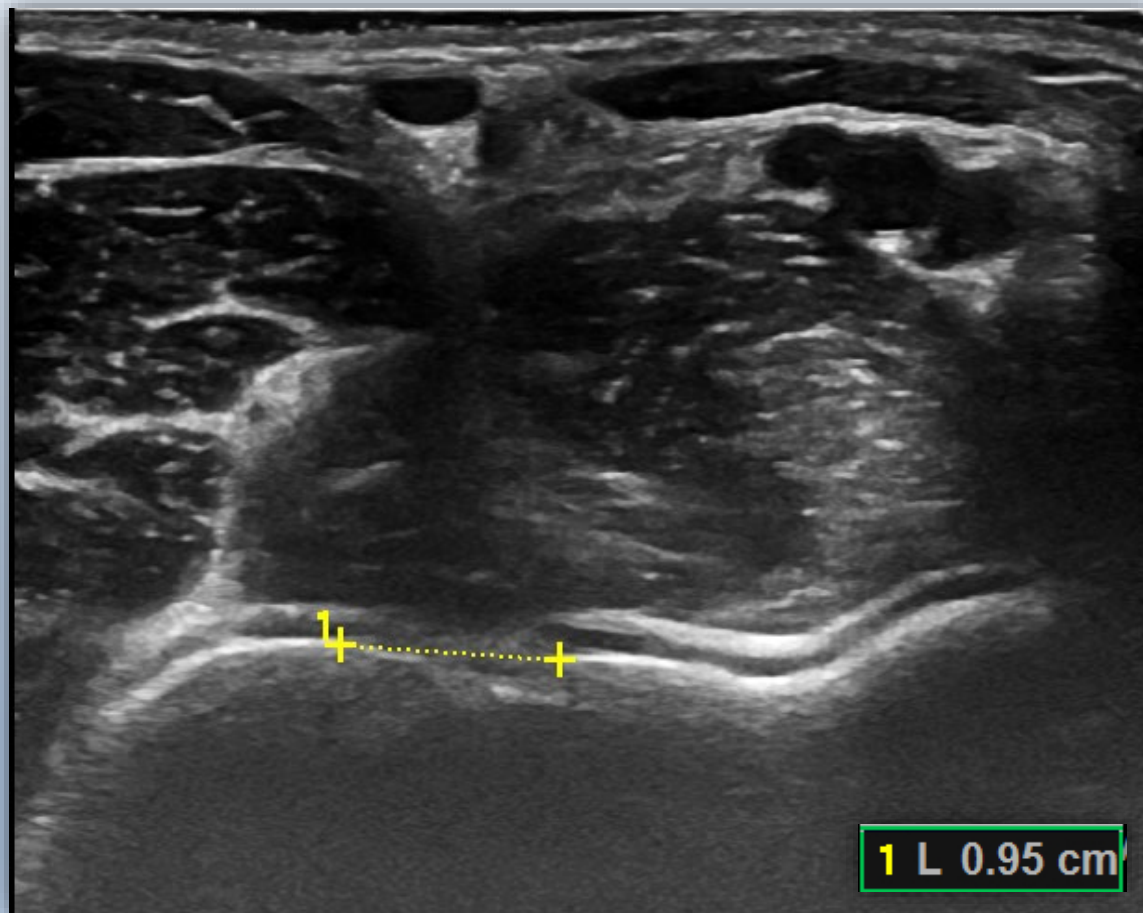
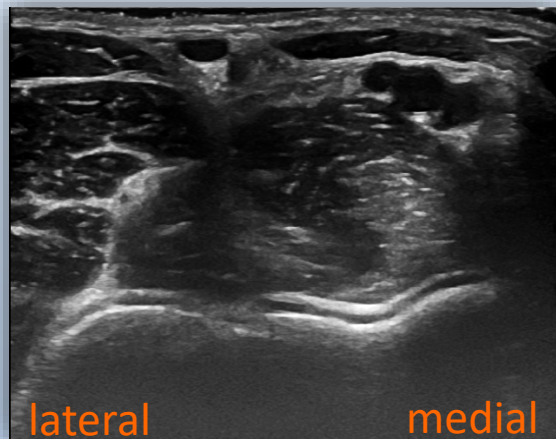
Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

J.A.D.E. PROTOCOL

| ELBOW | | | | | | |
|---|---|--------------------------------------|--|---|---|--|
| Purpose of Image | Description | Measurement | *Power Doppler | Compressibility | Position | Picture |
| Anterior Osteochondral Interface: <i>Osteochondral Line</i> | <p><u>Joint Space content:</u></p> <p><input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> obliterated joint space <input type="checkbox"/> osteophytes <input type="checkbox"/> other _____</p> | Length of osteochondral alterations: | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension</p> <p>Axis: SAX</p> <p>Probe Position: In antecubital fossa</p> <p>Bony landmarks: Ulnar trochlea (medial) and humeral capitulum (lateral)</p> <p>Muscles: Brachialis (central), brachioradialis (lateral), pronator (medial), biceps brachialis tendon (superior to brachialis)</p> <p>Blood vessels: brachial artery and vein</p> <p>Nerves: radial nerve (lateral), median nerve (medial)</p> <p>Measurement: individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations.</p> |  |


* Power Doppler Explanation on page 11

J.A.D.E. Protocol: Elbow
Anterior Elbow SAX
Osteochondral Interface Irregularities



Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

J.A.D.E. PROTOCOL

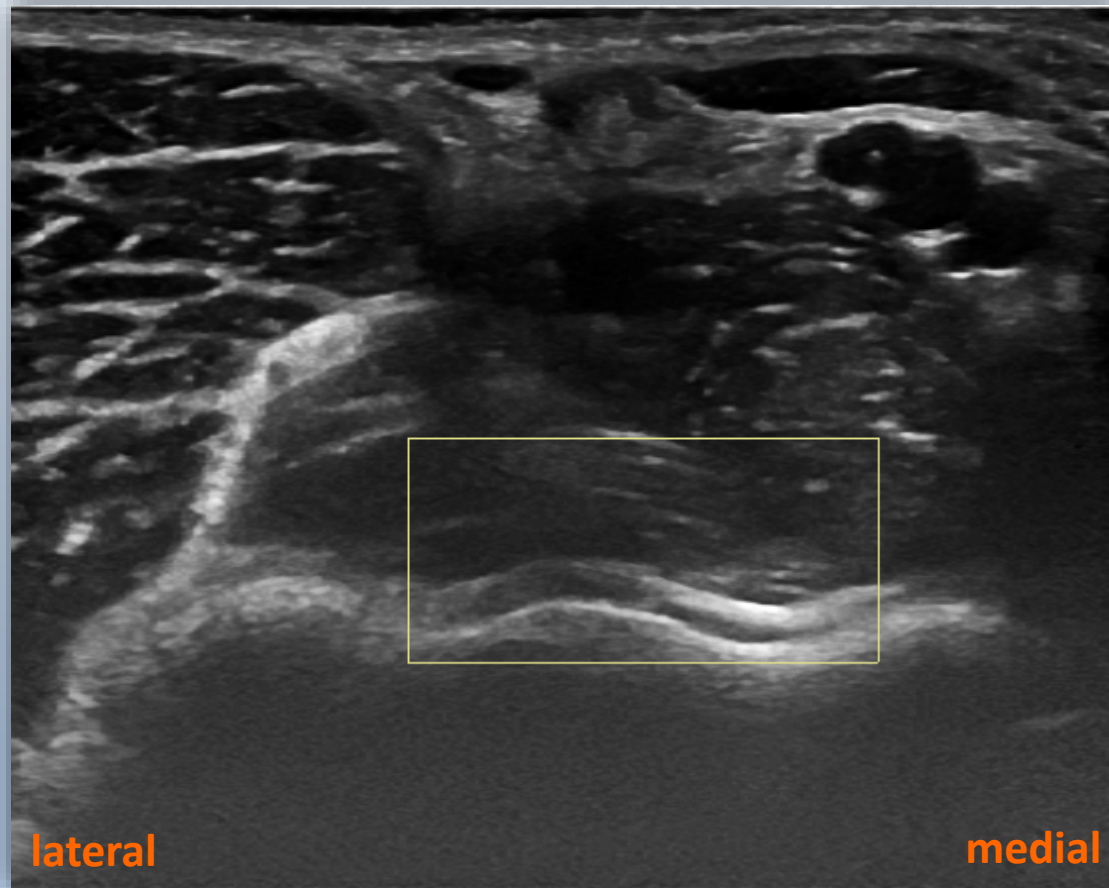
| ELBOW | | | | | | |
|---|---|---|---|--|---|--|
| Purpose of Image | Description | Measurement | *Power Doppler | Compressibility | Position | Picture |
| Anterior Osteochondral Interface: <i>Osteochondral Line</i> | <p><u>Joint Space content:</u></p> <p><input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> obliterated joint space <input type="checkbox"/> osteophytes <input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p>0.95 cm</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension</p> <p>Axis: SAX</p> <p>Probe Position: In antecubital fossa</p> <p>Bony landmarks: Ulnar trochlea (medial) and humeral capitulum (lateral)</p> <p>Muscles: Brachialis (central), brachioradialis (lateral), pronator (medial), biceps brachialis tendon (superior to brachialis)</p> <p>Blood vessels: brachial artery and vein</p> <p>Nerves: radial nerve (lateral), median nerve (medial)</p> <p>Measurement: individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations.</p> |  |

* Power Doppler Explanation on page 11

J.A.D.E. Protocol: Elbow


Anterior Elbow SAX

Osteochondral Interface – Power Doppler



Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

J.A.D.E. PROTOCOL

| ELBOW | | | | | | |
|---|---|---|---|--|---|--|
| Purpose of Image | Description | Measurement | *Power Doppler | Compressibility | Position | Picture |
| Anterior Osteochondral Interface: <i>Osteochondral Line</i> | <p><u>Joint Space content:</u></p> <p><input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> obliterated joint space <input type="checkbox"/> osteophytes <input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p>0.95 cm</p> | <p><input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> N/A</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension</p> <p>Axis: SAX</p> <p>Probe Position: In antecubital fossa</p> <p>Bony landmarks: Ulnar trochlea (medial) and humeral capitulum (lateral)</p> <p>Muscles: Brachialis (central), brachioradialis (lateral), pronator (medial), biceps brachialis tendon (superior to brachialis)</p> <p>Blood vessels: brachial artery and vein</p> <p>Nerves: radial nerve (lateral), median nerve (medial)</p> <p>Measurement: individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations.</p> |  |

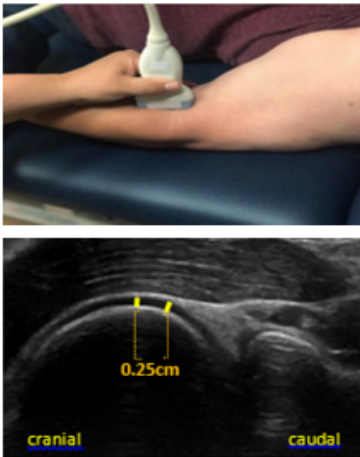
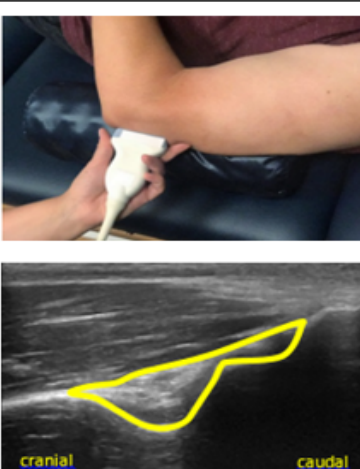
* Power Doppler Explanation on page 11

J.A.D.E. Protocol: Elbow
Anterior Elbow LAX
Cartilage Thickness

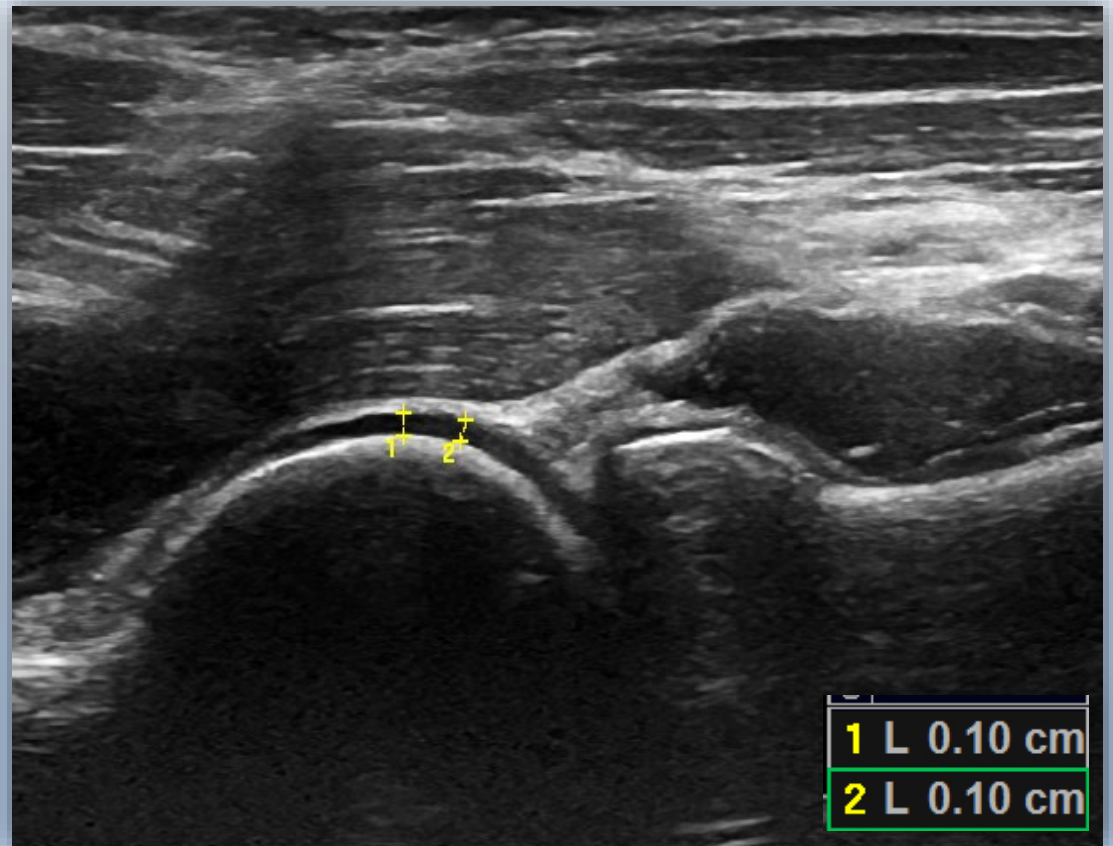
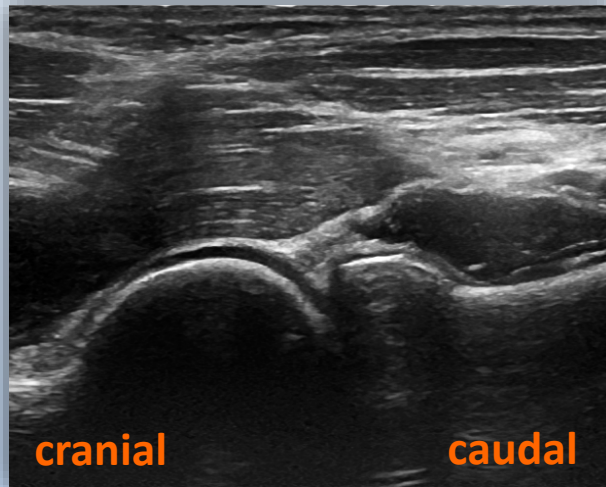


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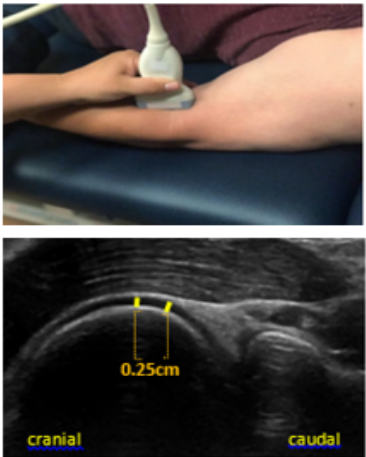
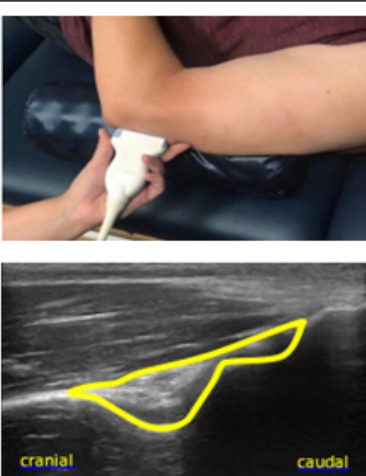
| | | | | | | |
|--|---|--|---|--|---|--|
| <p>Anterior Lateral Joint: Cartilage Thickness</p> | <p><u>Joint space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex: 0.25cm caudal to apex:</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension Axis: LAX Probe Position: Lateral aspect of the antecubital fossa over the humeroradial joint space Bony landmarks: humeral capitulum (proximal) and radial head (distal) Muscles: brachioradialis (superior to humeroradial joint) Blood vessels: none Nerves: none Measurement: Assess cartilage thickness at the apex and 0.25cm caudally. Assure that measurement is perpendicular to the bony margin.</p> |  |
| <p>Posterior Joint: Fat Pad Triceps Tendon</p> | <p><u>Fat Pad content:</u> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> displacement of fat pad <input type="checkbox"/> tendon abnormality <input type="checkbox"/> fat pad change of echogenicity <input type="checkbox"/> other _____</p> | <p>Area cm²</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A</p> | <p>Patient Position: supine, upper extremity in internal rotation and 90° elbow flexion and palm resting on abdomen; bolster underneath the elbow will provide support Axis: LAX Probe Position: posterior elbow superior to the olecranon Bony landmarks: humerus (proximal) and olecranon (distal) Muscles: triceps tendon (most superior/attaches to olecranon) and medial triceps belly (inferior to triceps tendon) Blood vessels: none Nerves: none</p> |  |

J.A.D.E. Protocol: Elbow Anterior Elbow LAX Cartilage Thickness



Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

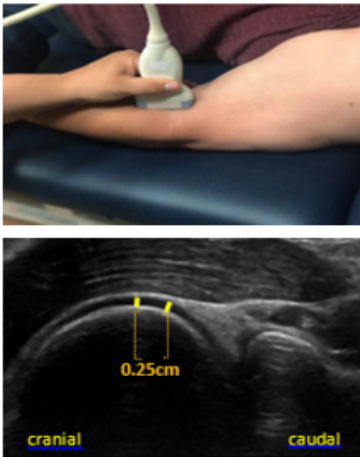
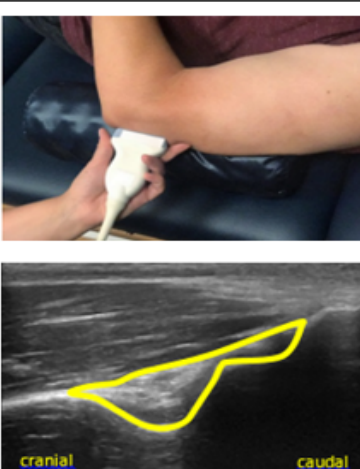
| | | | | | | |
|--|---|--|---|--|---|--|
| <p>Anterior Lateral Joint: Cartilage Thickness</p> | <p><u>Joint space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex: 0.10cm 0.25cm caudal to apex: 0.10cm</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension Axis: LAX Probe Position: Lateral aspect of the antecubital fossa over the humeroradial joint space Bony landmarks: humeral capitulum (proximal) and radial head (distal) Muscles: brachioradialis (superior to humeroradial joint) Blood vessels: none Nerves: none Measurement: Assess cartilage thickness at the apex and 0.25cm caudally. Assure that measurement is perpendicular to the bony margin.</p> |  |
| <p>Posterior Joint: Fat Pad Triceps Tendon</p> | <p><u>Fat Pad content:</u> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> displacement of fat pad <input type="checkbox"/> tendon abnormality <input type="checkbox"/> fat pad change of echogenicity <input type="checkbox"/> other _____</p> | <p>Area cm²</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A</p> | <p>Patient Position: supine, upper extremity in internal rotation and 90° elbow flexion and palm resting on abdomen; bolster underneath the elbow will provide support Axis: LAX Probe Position: posterior elbow superior to the olecranon Bony landmarks: humerus (proximal) and olecranon (distal) Muscles: triceps tendon (most superior/attaches to olecranon) and medial triceps belly (inferior to triceps tendon) Blood vessels: none Nerves: none</p> |  |

J.A.D.E. Protocol: Elbow
Anterior Elbow LAX
Cartilage Thickness – Power Doppler



Name: _____ Date: _____

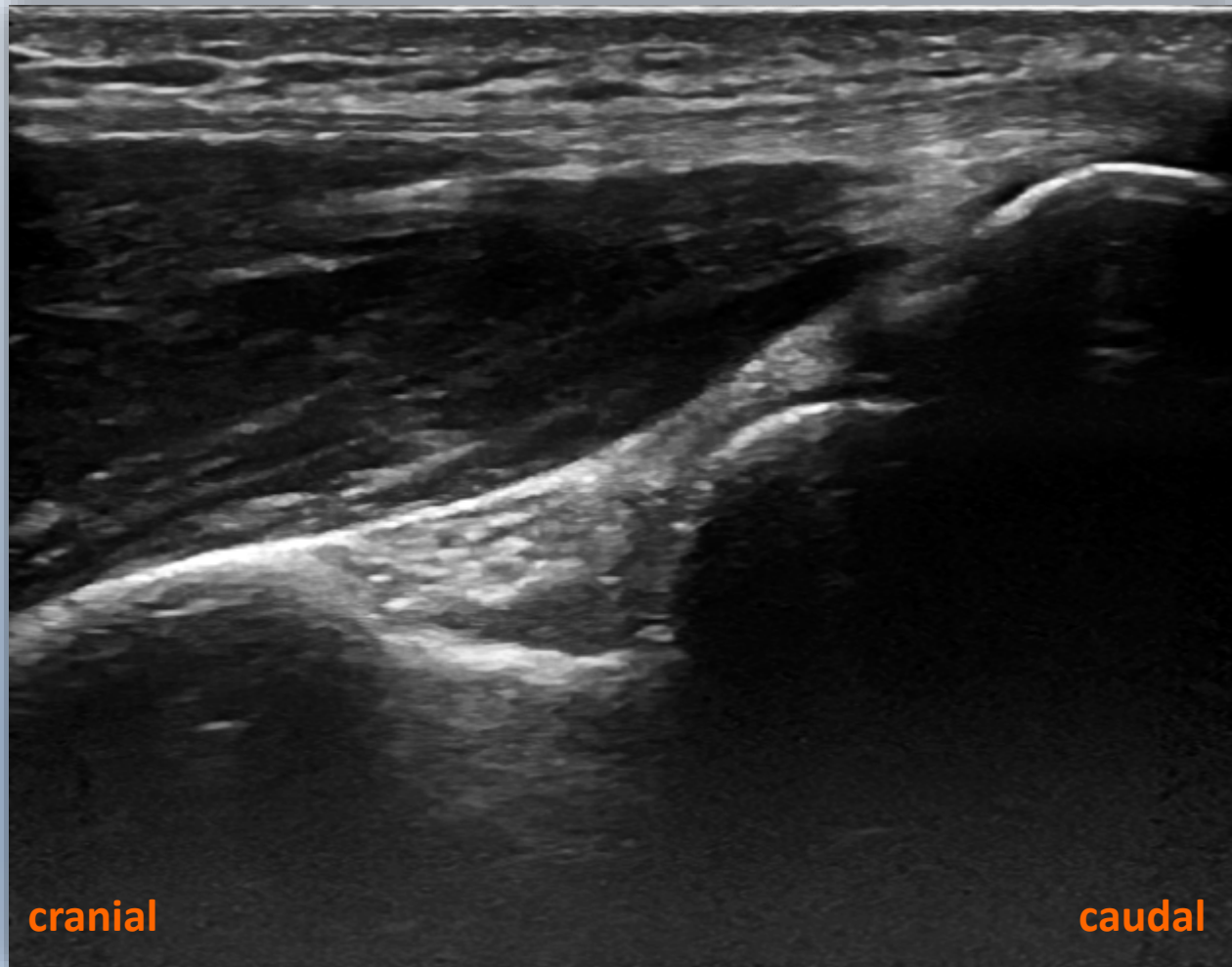
Patient Number: _____ Person completing this form: _____

| | | | | | | |
|---|---|--|--|--|---|--|
| <p>Anterior Lateral Joint: <i>Cartilage Thickness</i></p> | <p><u>Joint space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex: 0.10cm 0.25cm caudal to apex: 0.10cm</p> | <p><input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension Axis: LAX Probe Position: Lateral aspect of the antecubital fossa over the humeroradial joint space Bony landmarks: humeral capitulum (proximal) and radial head (distal) Muscles: brachioradialis (superior to humeroradial joint) Blood vessels: none Nerves: none Measurement: Assess cartilage thickness at the apex and 0.25cm caudally. Assure that measurement is perpendicular to the bony margin.</p> |  |
| <p>Posterior Joint: <i>Fat Pad Triceps Tendon</i></p> | <p><u>Fat Pad content:</u> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> displacement of fat pad <input type="checkbox"/> tendon abnormality <input type="checkbox"/> fat pad change of echogenicity <input type="checkbox"/> other _____</p> | <p>Area cm²</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A</p> | <p>Patient Position: supine, upper extremity in internal rotation and 90° elbow flexion and palm resting on abdomen; bolster underneath the elbow will provide support Axis: LAX Probe Position: posterior elbow superior to the olecranon Bony landmarks: humerus (proximal) and olecranon (distal) Muscles: triceps tendon (most superior/attaches to olecranon) and medial triceps belly (inferior to triceps tendon) Blood vessels: none Nerves: none</p> |  |

J.A.D.E. Protocol: Elbow

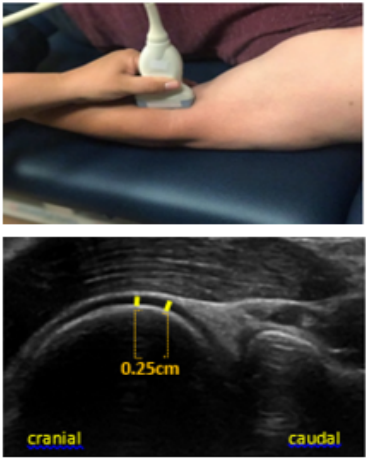
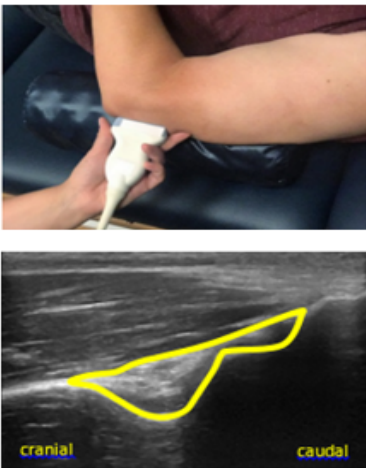
Posterior Elbow LAX

Fat Pad Displacement and Olecranon Recess Area

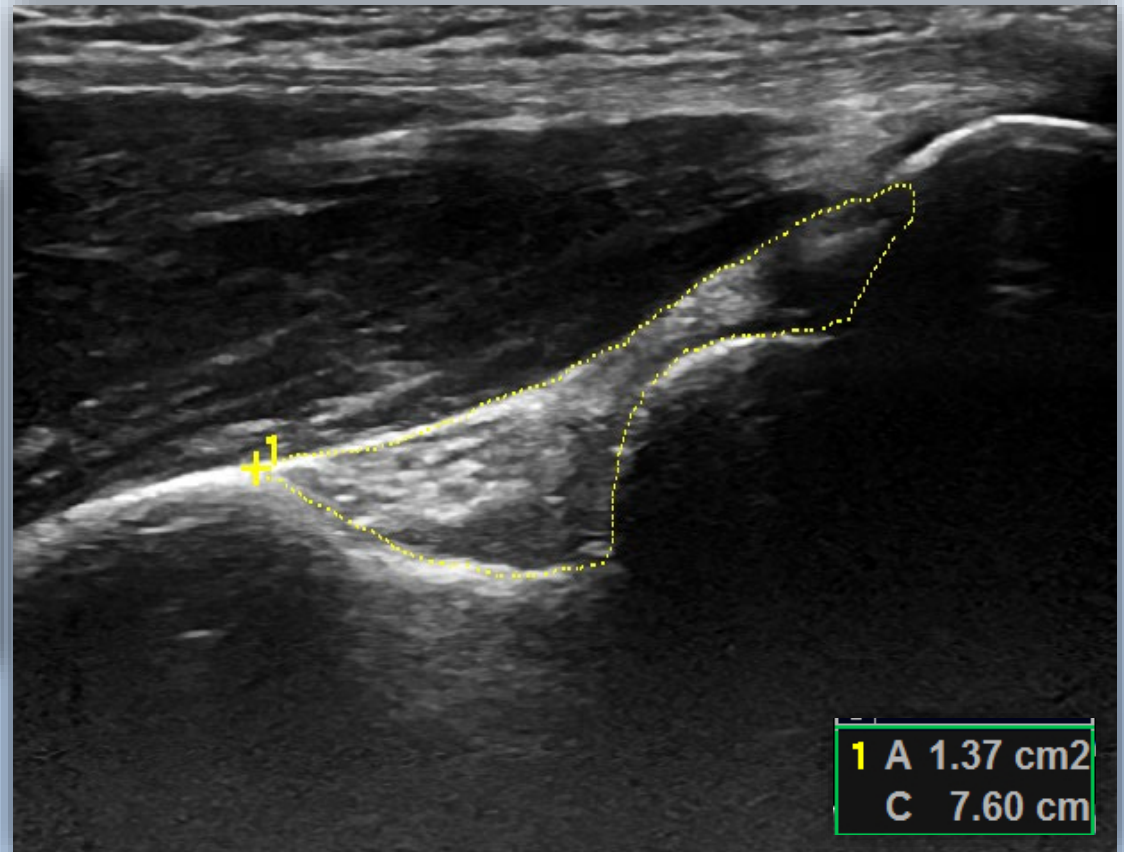
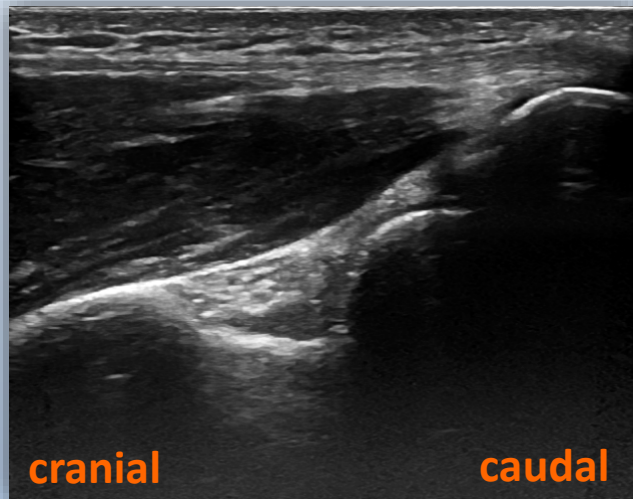


Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

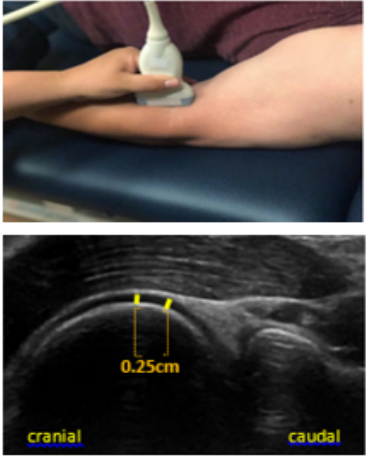
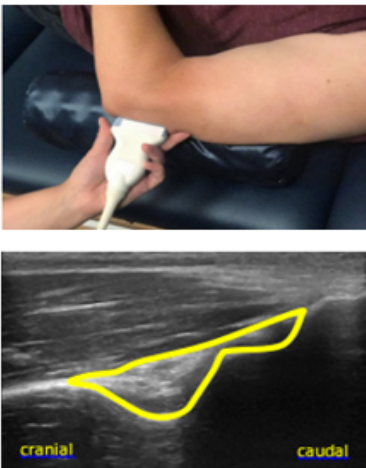
| | | | | | | |
|---|---|--|--|--|---|--|
| <p>Anterior Lateral Joint: <i>Cartilage Thickness</i></p> | <p><u>Joint space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex: 0.10cm 0.25cm caudal to apex: 0.10cm</p> | <p><input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension Axis: LAX Probe Position: Lateral aspect of the antecubital fossa over the humeroradial joint space Bony landmarks: humeral capitulum (proximal) and radial head (distal) Muscles: brachioradialis (superior to humeroradial joint) Blood vessels: none Nerves: none Measurement: Assess cartilage thickness at the apex and 0.25cm caudally. Assure that measurement is perpendicular to the bony margin.</p> |  |
| <p>Posterior Joint: <i>Fat Pad Triceps Tendon</i></p> | <p><u>Fat Pad content:</u> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input checked="" type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> displacement of fat pad <input type="checkbox"/> tendon abnormality <input checked="" type="checkbox"/> fat pad change of echogenicity <input type="checkbox"/> other _____</p> | <p>Area cm²</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, upper extremity in internal rotation and 90° elbow flexion and palm resting on abdomen; bolster underneath the elbow will provide support Axis: LAX Probe Position: posterior elbow superior to the olecranon Bony landmarks: humerus (proximal) and olecranon (distal) Muscles: triceps tendon (most superior/attaches to olecranon) and medial triceps belly (inferior to triceps tendon) Blood vessels: none Nerves: none</p> |  |

J.A.D.E. Protocol: Elbow
Posterior Elbow LAX
Fat Pad Displacement and Olecranon Recess Area



Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

| | | | | | | |
|---|---|--|--|--|---|--|
| <p>Anterior Lateral Joint: <i>Cartilage Thickness</i></p> | <p><u>Joint space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex: 0.10cm</p> <p>0.25cm caudal to apex: 0.10cm</p> | <p><input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension Axis: LAX Probe Position: Lateral aspect of the antecubital fossa over the humeroradial joint space Bony landmarks: humeral capitulum (proximal) and radial head (distal) Muscles: brachioradialis (superior to humeroradial joint) Blood vessels: none Nerves: none Measurement: Assess cartilage thickness at the apex and 0.25cm caudally. Assure that measurement is perpendicular to the bony margin.</p> |  |
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J.A.D.E. Protocol: Elbow

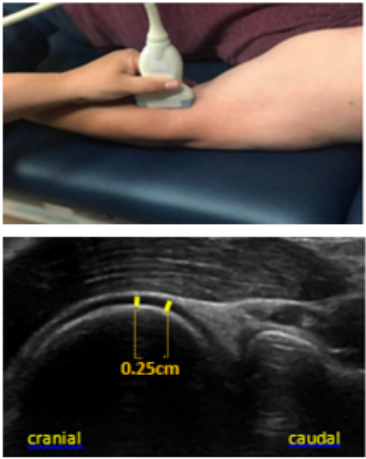
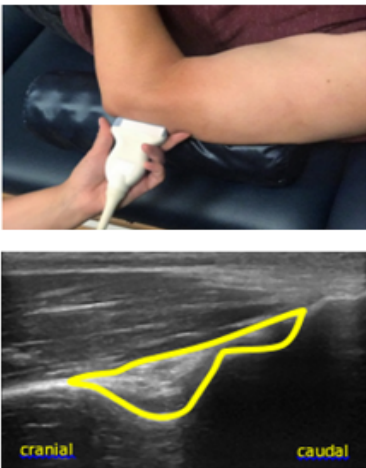
Posterior Elbow LAX

Fat Pad Displacement and Olecranon Recess Area – PD



Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

| | | | | | | |
|--|---|--|--|--|---|--|
| <p>Anterior Lateral Joint: Cartilage Thickness</p> | <p><u>Joint space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex: 0.10cm 0.25cm caudal to apex: 0.10cm</p> | <p><input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: Supine, palm up with bolster under the hand to limit elbow extension Axis: LAX Probe Position: Lateral aspect of the antecubital fossa over the humeroradial joint space Bony landmarks: humeral capitulum (proximal) and radial head (distal) Muscles: brachioradialis (superior to humeroradial joint) Blood vessels: none Nerves: none Measurement: Assess cartilage thickness at the apex and 0.25cm caudally. Assure that measurement is perpendicular to the bony margin.</p> |  |
| <p>Posterior Joint: Fat Pad Triceps Tendon</p> | <p><u>Fat Pad content:</u> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input checked="" type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> displacement of fat pad <input type="checkbox"/> tendon abnormality <input checked="" type="checkbox"/> fat pad change of echogenicity <input type="checkbox"/> other _____</p> | <p>Area cm² 1.37cm²</p> | <p><input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, upper extremity in internal rotation and 90° elbow flexion and palm resting on abdomen; bolster underneath the elbow will provide support Axis: LAX Probe Position: posterior elbow superior to the olecranon Bony landmarks: humerus (proximal) and olecranon (distal) Muscles: triceps tendon (most superior/attaches to olecranon) and medial triceps belly (inferior to triceps tendon) Blood vessels: none Nerves: none</p> |  |

THANK YOU

Joint *Tissue* **Activity and Damage Exam**

J.A.D.E.

Practical Application

Part 2

By Lena Volland PT, DPT

J.A.D.E. Protocol

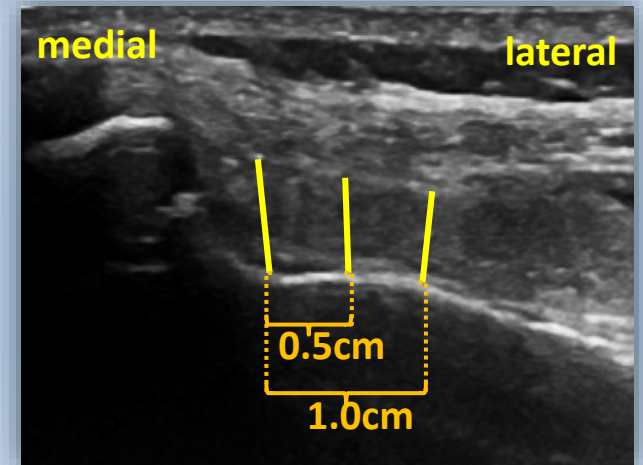
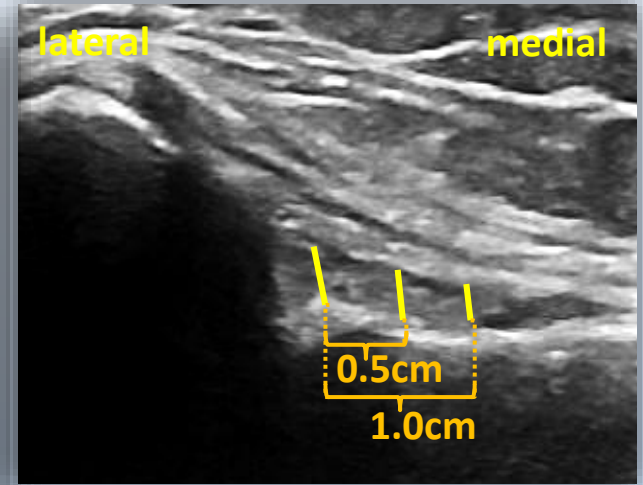
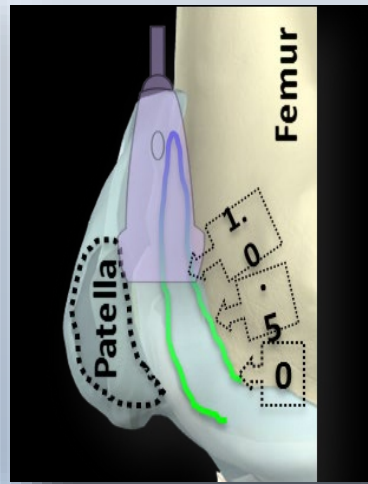
KNEE

J.A.D.E. Protocol

RECOMMENDED VIEWS

J.A.D.E. Protocol: Knee

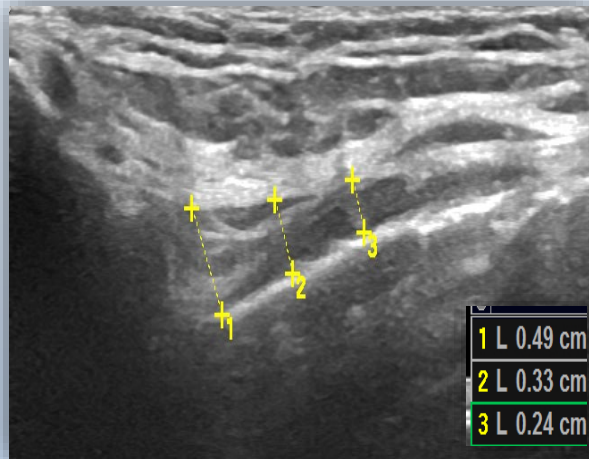
Medial/Lateral Patellofemoral Recess



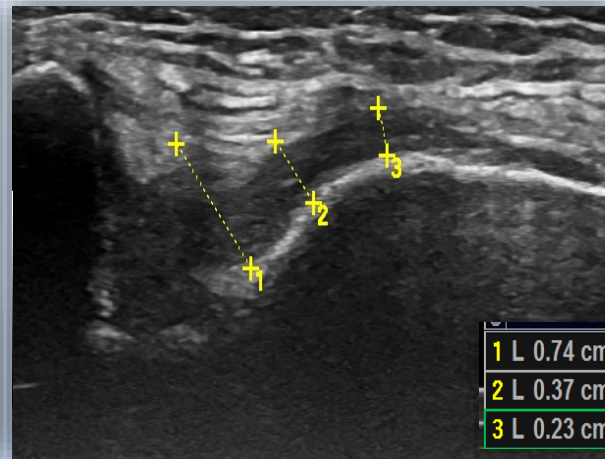
Measure the expansion of the recess at the origin of the femoral cortex and at 0.5 cm and 1.0 cm from the origin of the femoral cortex. Measurement is *perpendicular* to the bony margin.

J.A.D.E. Protocol: Knee

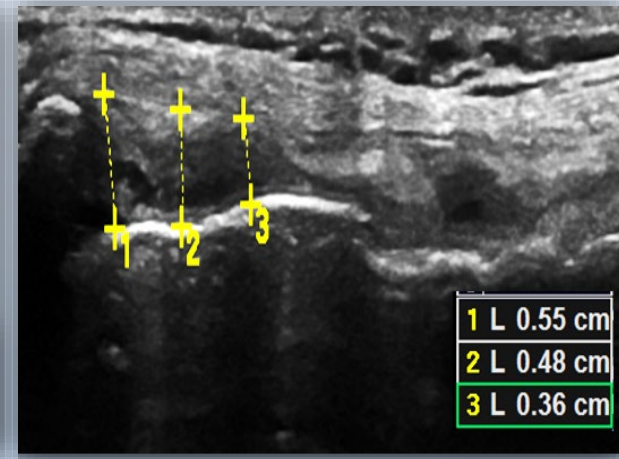
Examples: Medial Patellofemoral Recess



Femoral cortex: 0.49cm
0.5cm: 0.33cm
1cm: 0.24cm



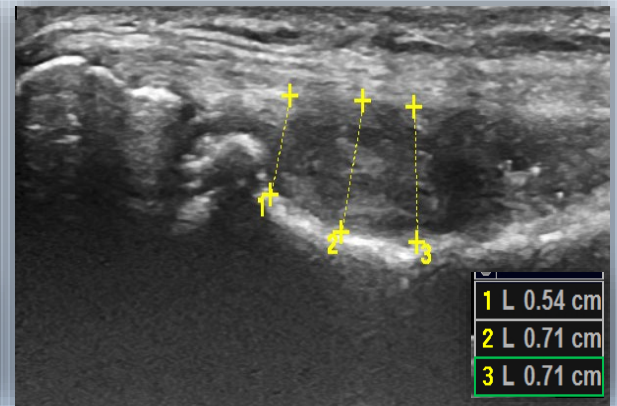
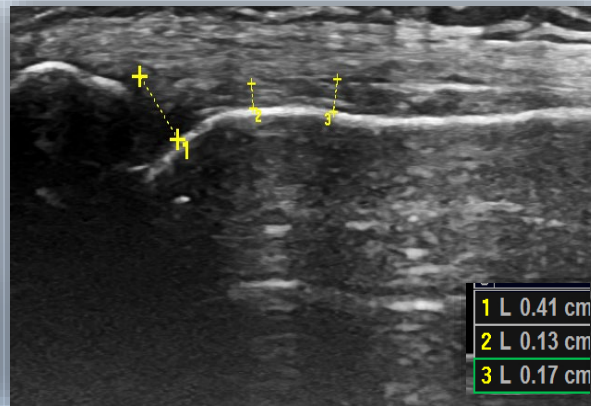
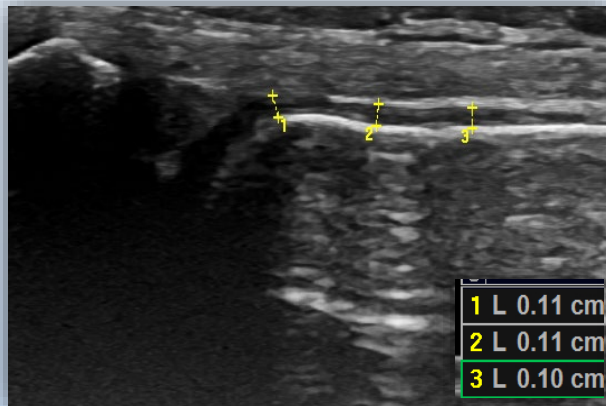
Femoral cortex: 0.74cm
0.5cm: 0.37cm
1cm: 0.23cm



Femoral cortex: 0.55cm
0.5cm: 0.48cm
1cm: 0.36cm

J.A.D.E. Protocol: Knee

Examples: Lateral Patellofemoral Recess

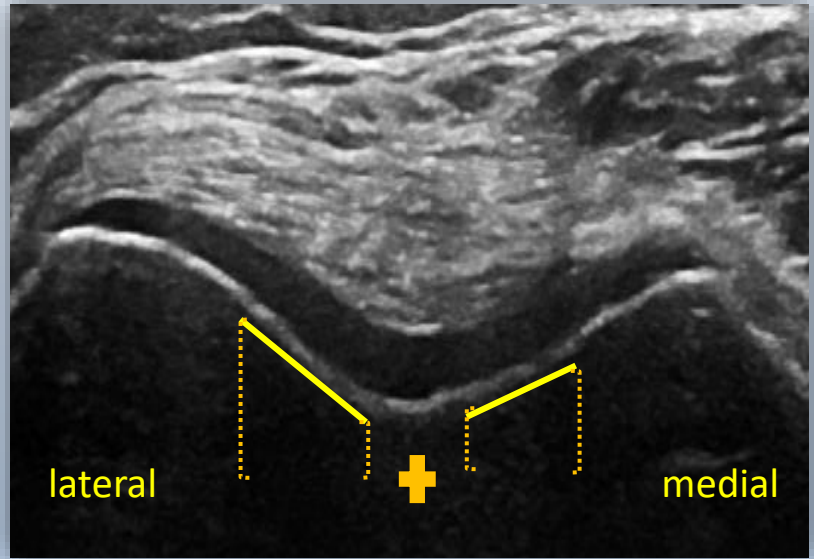
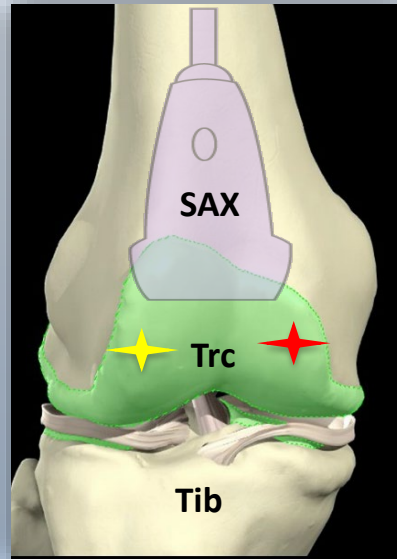


Femoral cortex: 0.11cm
0.5cm: 0.11cm
1.0cm: 0.10cm

Femoral cortex: 0.41cm
0.5cm: 0.13cm
1.0cm: 0.17cm

Femoral cortex: 0.54cm
0.5cm: 0.71cm
1.0cm: 0.71cm

J.A.D.E. Protocol: Knee
Sunrise View
Osteochondral Interface Irregularities

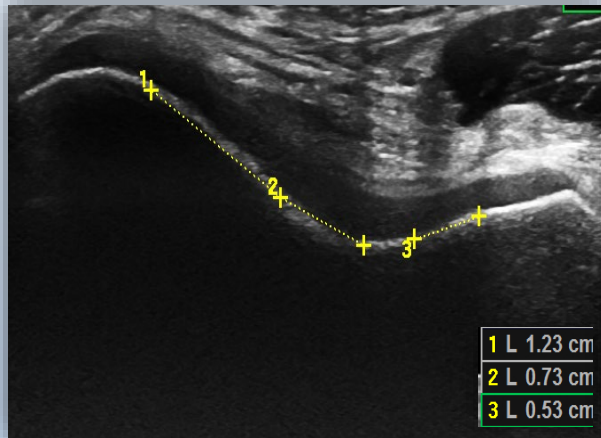


Measure any variation from the hyperechoic, smooth, intact bony interface.

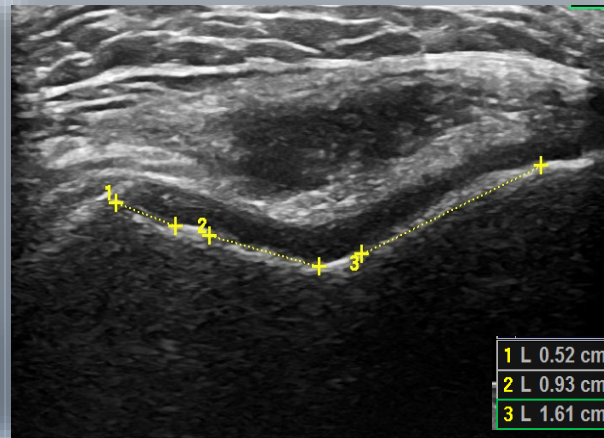
J.A.D.E. Protocol: Knee

Sunrise View

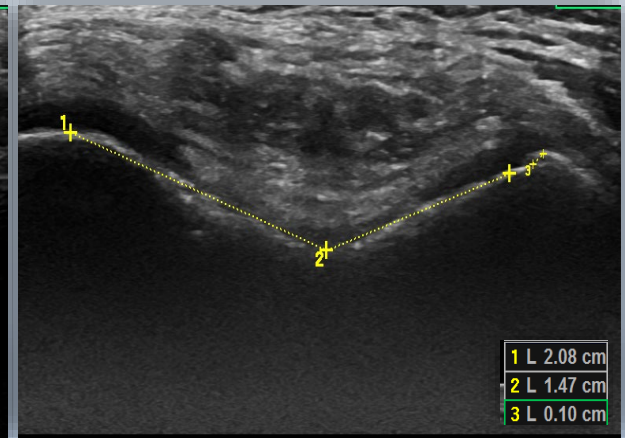
Examples: Osteochondral Interface Irregularities



Total length: 2.49cm

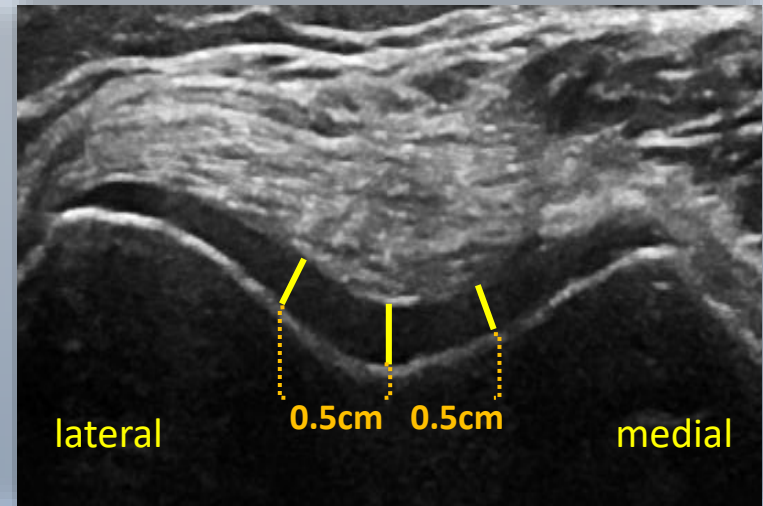
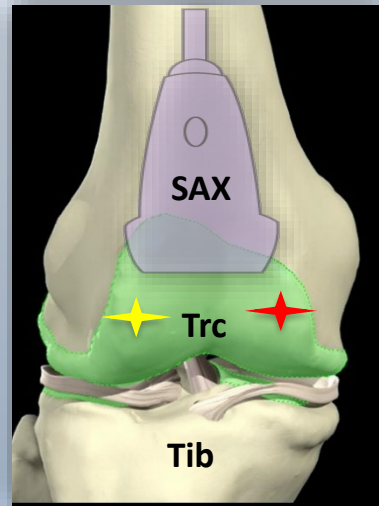


Total length: 3.06cm



Total length: 3.65cm

J.A.D.E. Protocol: Knee Sunrise View Cartilage Thickness

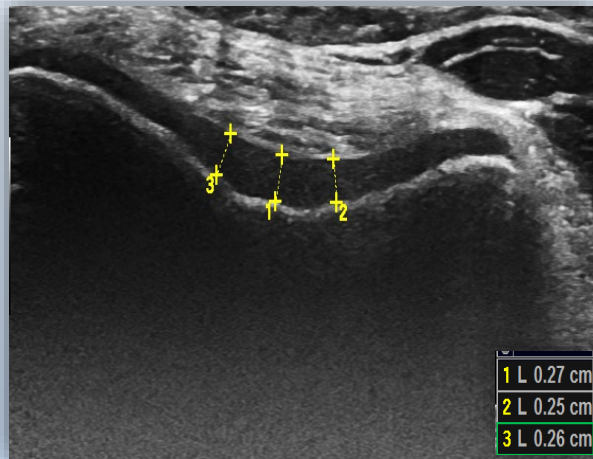


Assess cartilage thickness at the lowest point of the trochlea and 0.5cm medially and laterally. Measurement is *perpendicular* to the bony margin.

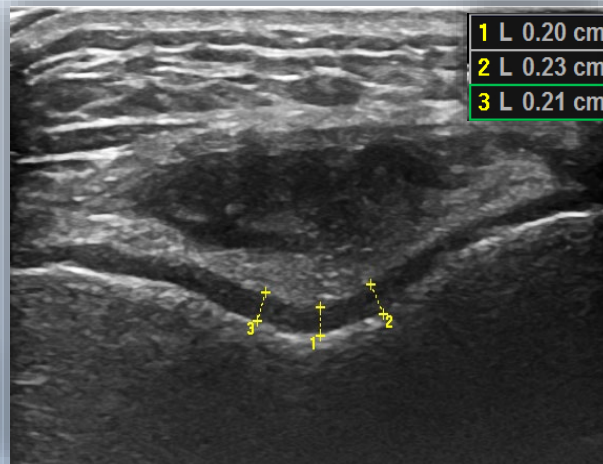
J.A.D.E. Protocol: Knee

Sunrise View

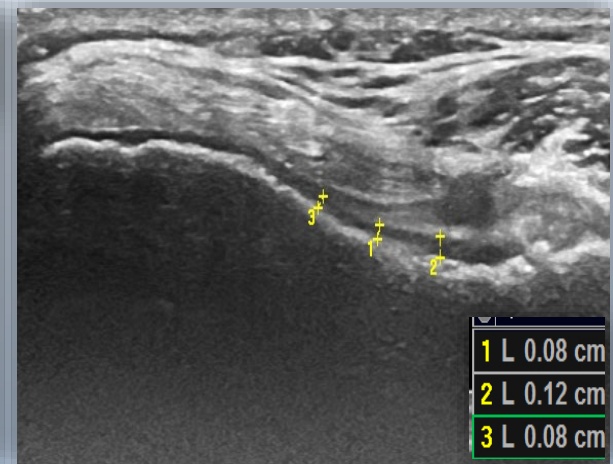
Examples: Cartilage Thickness



Trochlea: 0.27cm
0.5cm medial: 0.25cm
0.5cm lateral: 0.26cm



Trochlea: 0.20cm
0.5cm medial: 0.23cm
0.5cm lateral: 0.21cm

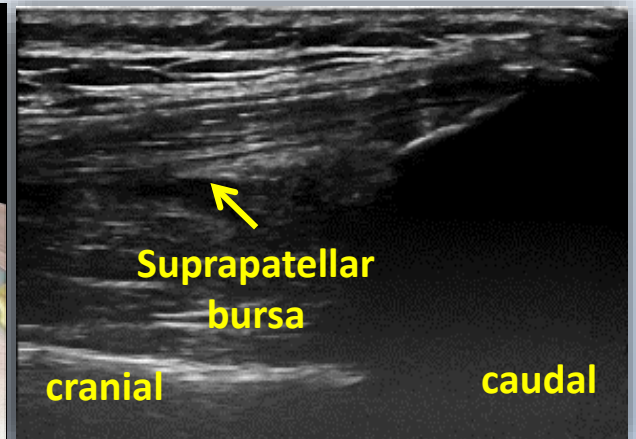
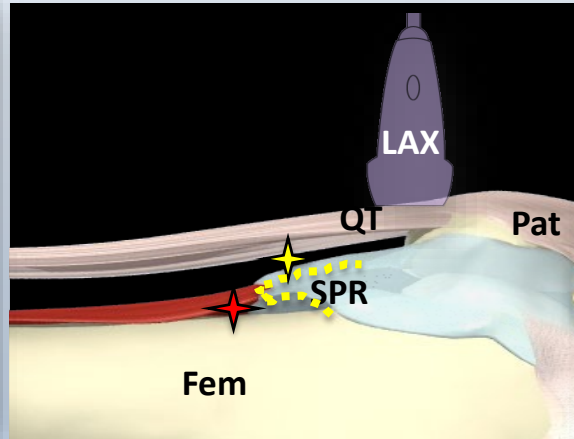


Trochlea: 0.08cm
0.5cm medial: 0.12cm
0.5cm lateral: 0.08cm

J.A.D.E. Protocol

ADDITIONAL VIEWS

J.A.D.E. Protocol: Knee Suprapatellar Recess LAX



Sonopalpation

Possible content of recess:

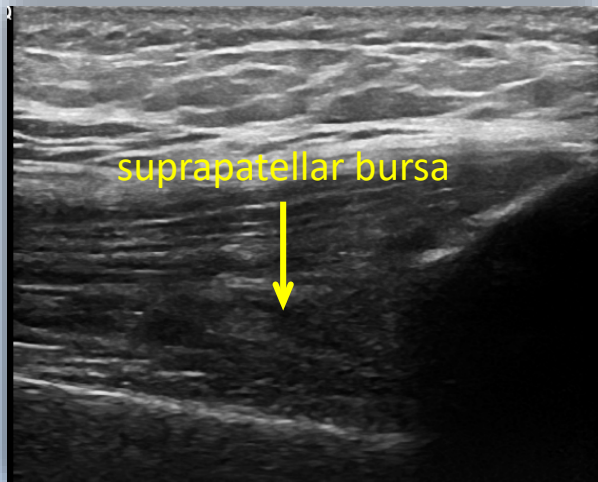
- Complex fluid
- Fatty tissue
- Synovial hypertrophy
- Blood by-product

**Differentiation by sonopalpation/compressibility of the bursal contents
and NOT echotexture**

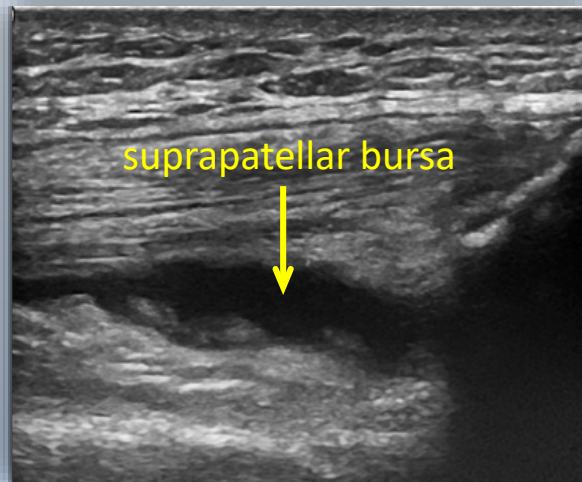
Suprapatellar recess findings can be non-specific relative to content

J.A.D.E. Protocol: Knee

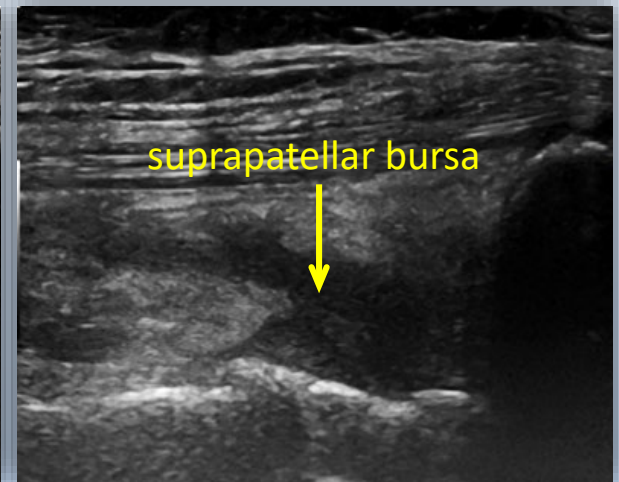
Examples: Suprapatellar Recess LAX



Normal suprapatellar bursa

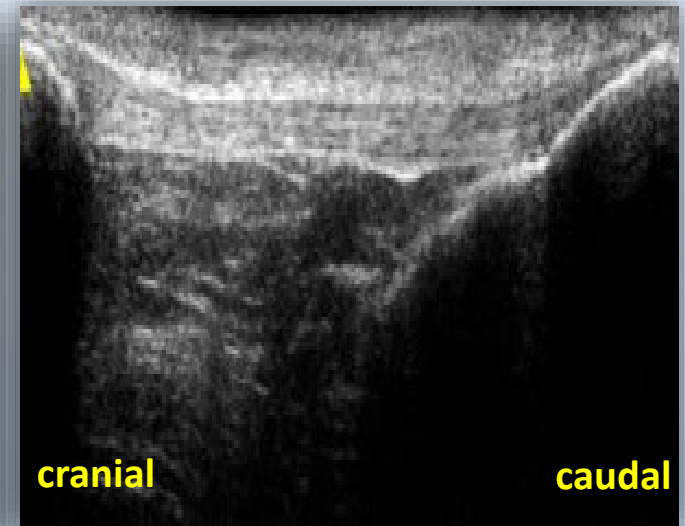
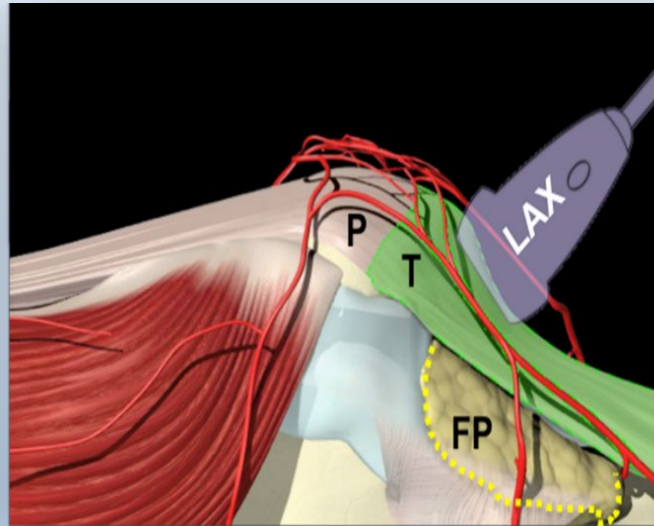


Suprapatellar bursa with protruding soft tissue and compressible anechoic simple effusion



Suprapatellar bursa with non compressible mixed echogenicity indicative of soft tissue expansion

J.A.D.E. Protocol: Knee Infrapatellar Recess



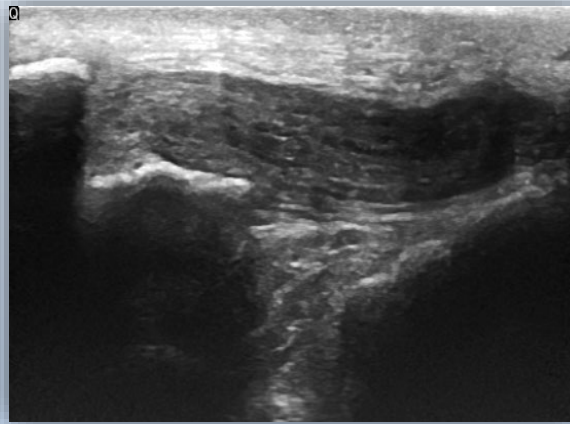
Evaluation of Hoffa fat pad and patella
ligament

J.A.D.E. Protocol: Knee

Examples: Infrapatellar Recess



Normal Hoffa fat pad and patella ligament



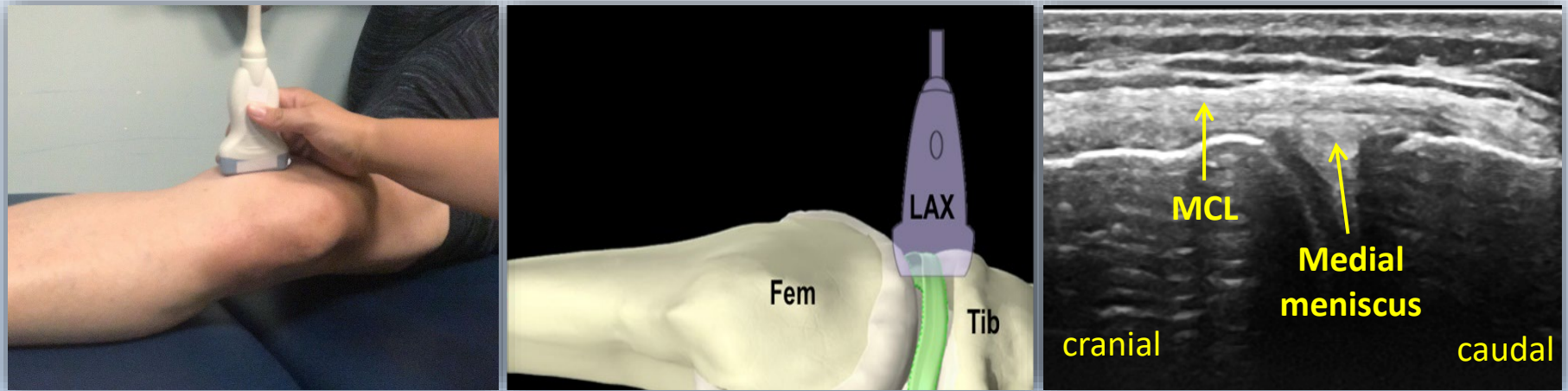
Abnormal tendinous structure and Hoffa fat pad



Abnormal tendinous structure and Hoffa fat pad with positive power doppler

J.A.D.E. Protocol Knee

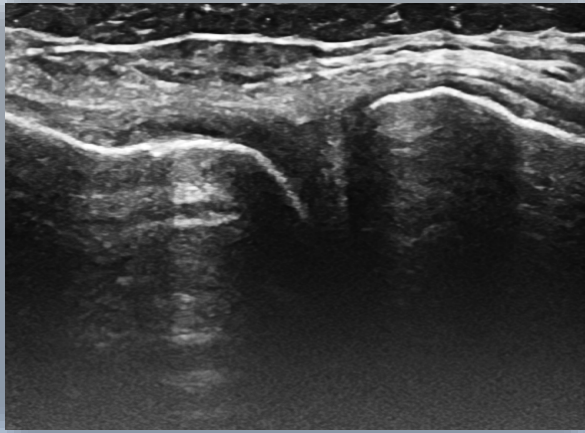
Medial Meniscus and Medial Collateral Ligament LAX



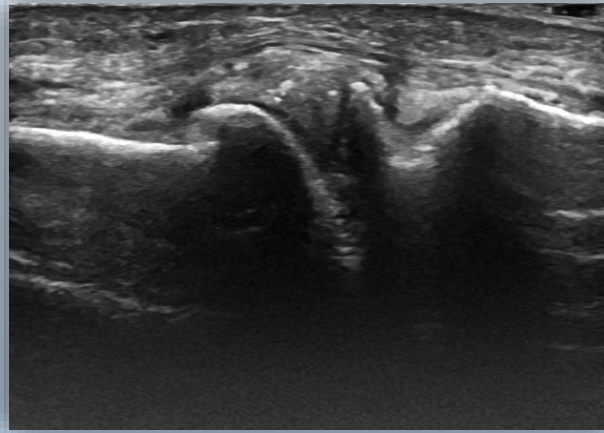
Assessment of the continuity of the
medial meniscus and MCL

J.A.D.E. Protocol Knee

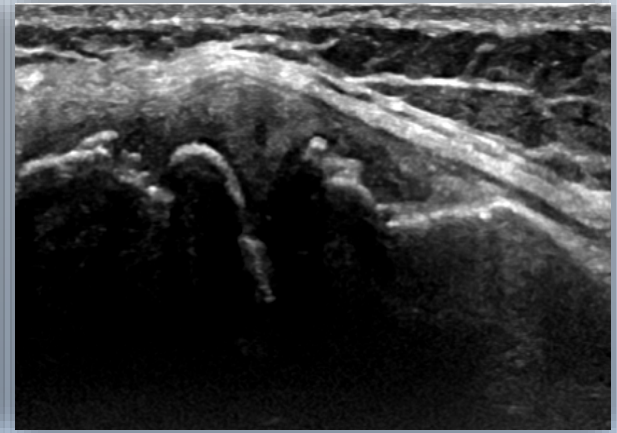
Examples: Medial Meniscus and Medial Collateral Ligament LAX



Mild changes in
echogenicity of
meniscus



Abnormal meniscus
echogenicity with changes
of regularity in meniscus,
bone and MCL



Significant
irregularities of
meniscus, MCL and
bone

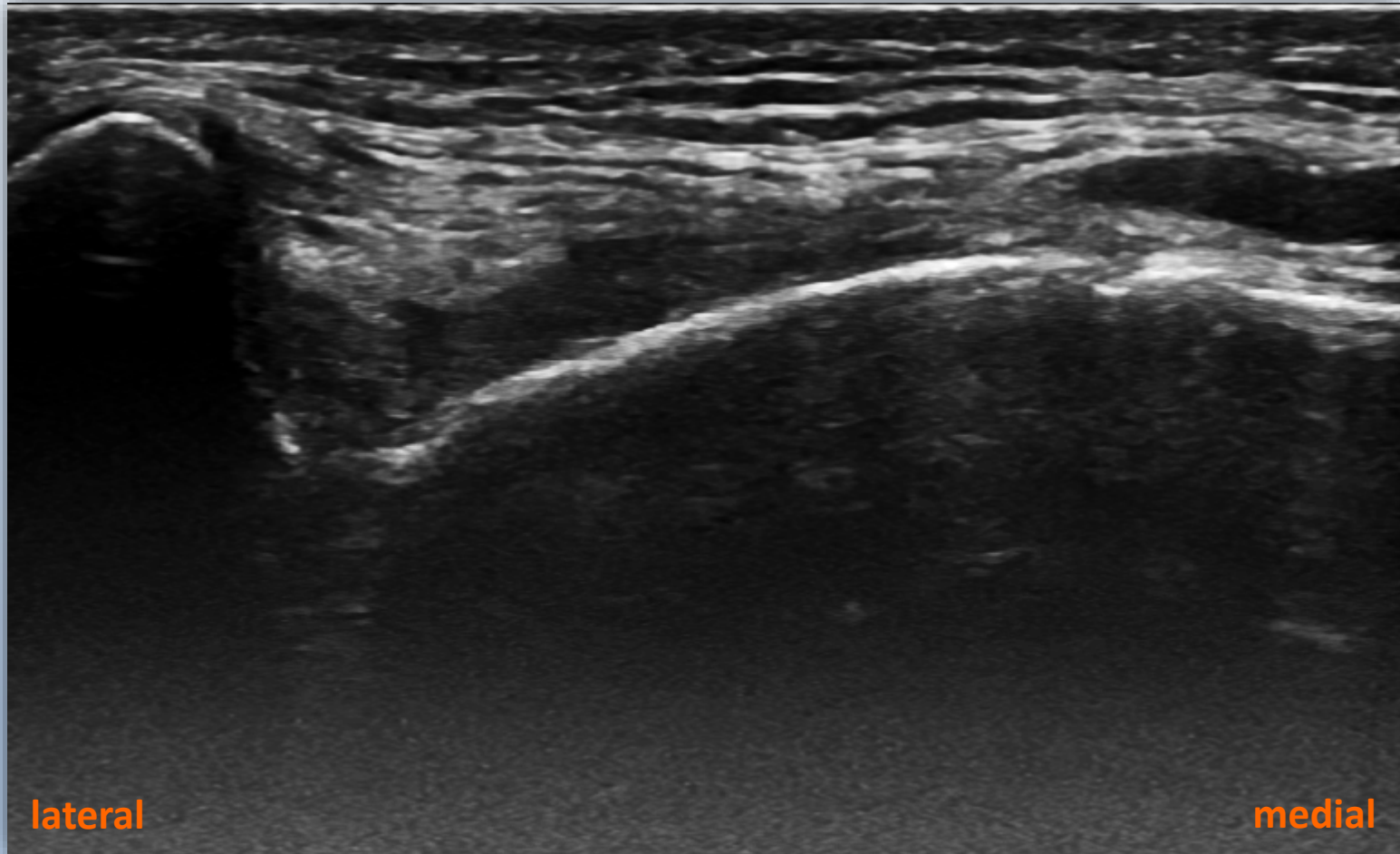
Case Study

KNEE

J.A.D.E. Protocol

RECOMMENDED VIEWS

J.A.D.E. Protocol: Knee
Medial Patellofemoral Recess




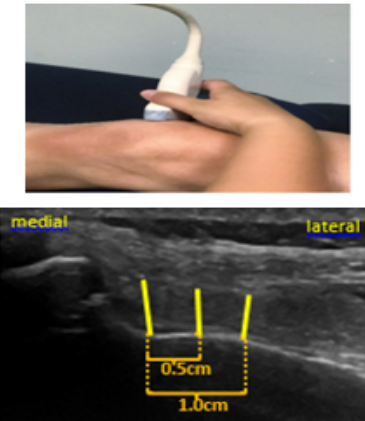
lateral

medial

Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

KNEE Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|---|---|---|---|--|--|
| Medial Recess Soft Tissue Expansion | <p>Medial recess content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a hand palpating the medial side of a knee. The bottom image is an ultrasound scan of the medial knee joint. It shows the femoral cortex and the medial recess. Yellow dashed lines indicate measurements at 0.5 cm and 1.0 cm from the femoral cortex. Labels 'lateral' and 'medial' are present on the ultrasound image.</p> |
| Lateral Recess Soft Tissue Expansion | <p>Lateral Recess Content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a hand palpating the lateral side of a knee. The bottom image is an ultrasound scan of the lateral knee joint. It shows the femoral cortex and the lateral recess. Yellow dashed lines indicate measurements at 0.5 cm and 1.0 cm from the femoral cortex. Labels 'medial' and 'lateral' are present on the ultrasound image.</p> |

J.A.D.E. Protocol: Knee


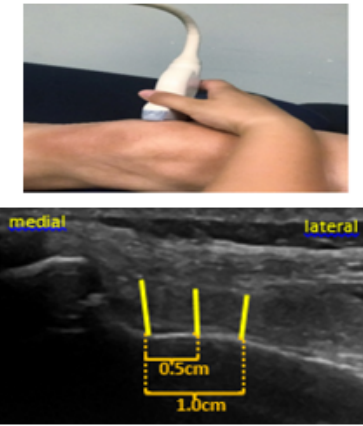
Medial Patellofemoral Recess



Name: _____ Date: _____

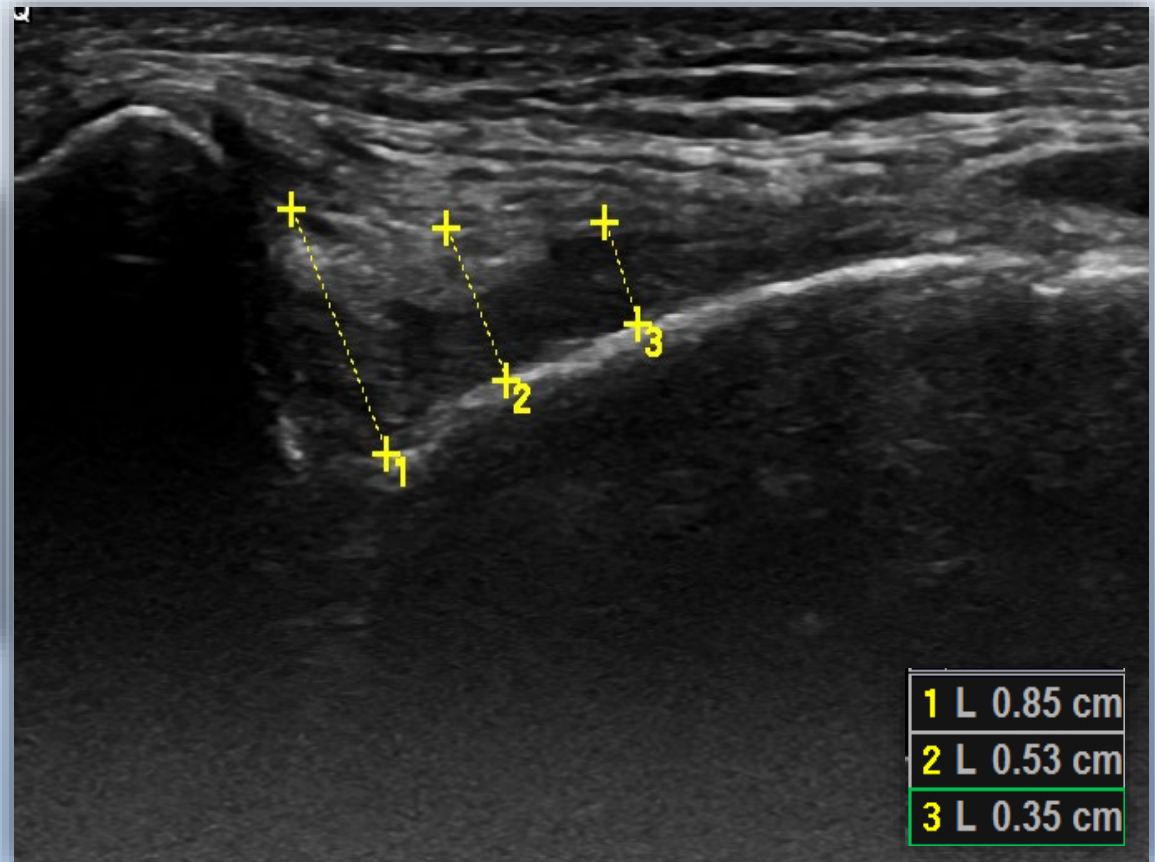
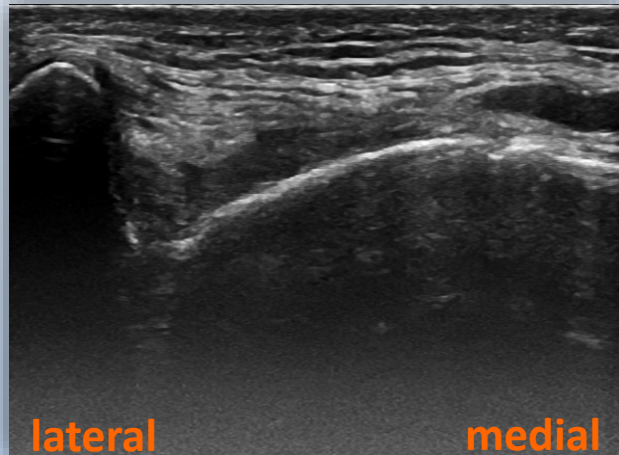
Patient Number: _____ Person completing this form: _____

KNEE Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|---|---|---|--|--|---|
| Medial Recess Soft Tissue Expansion | <p>Medial recess content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p>Soft tissue measurement during compression:</p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a hand palpating the medial side of a knee. The bottom image is an ultrasound scan of the medial knee joint. It shows the femoral cortex and the medial recess. Yellow dashed lines and arrows indicate measurements taken at 0.5 cm and 1.0 cm from the origin of the femoral cortex. Labels 'lateral' and 'medial' are present on the ultrasound image.</p> |
| Lateral Recess Soft Tissue Expansion | <p>Lateral Recess Content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p>Soft tissue measurement during compression:</p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a hand palpating the lateral side of a knee. The bottom image is an ultrasound scan of the lateral knee joint. It shows the femoral cortex and the lateral recess. Yellow dashed lines and arrows indicate measurements taken at 0.5 cm and 1.0 cm from the origin of the femoral cortex. Labels 'medial' and 'lateral' are present on the ultrasound image.</p> |

J.A.D.E. Protocol: Knee


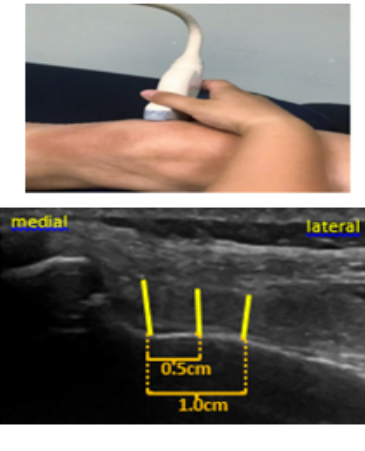
Medial Patellofemoral Recess



Name: _____ Date: _____

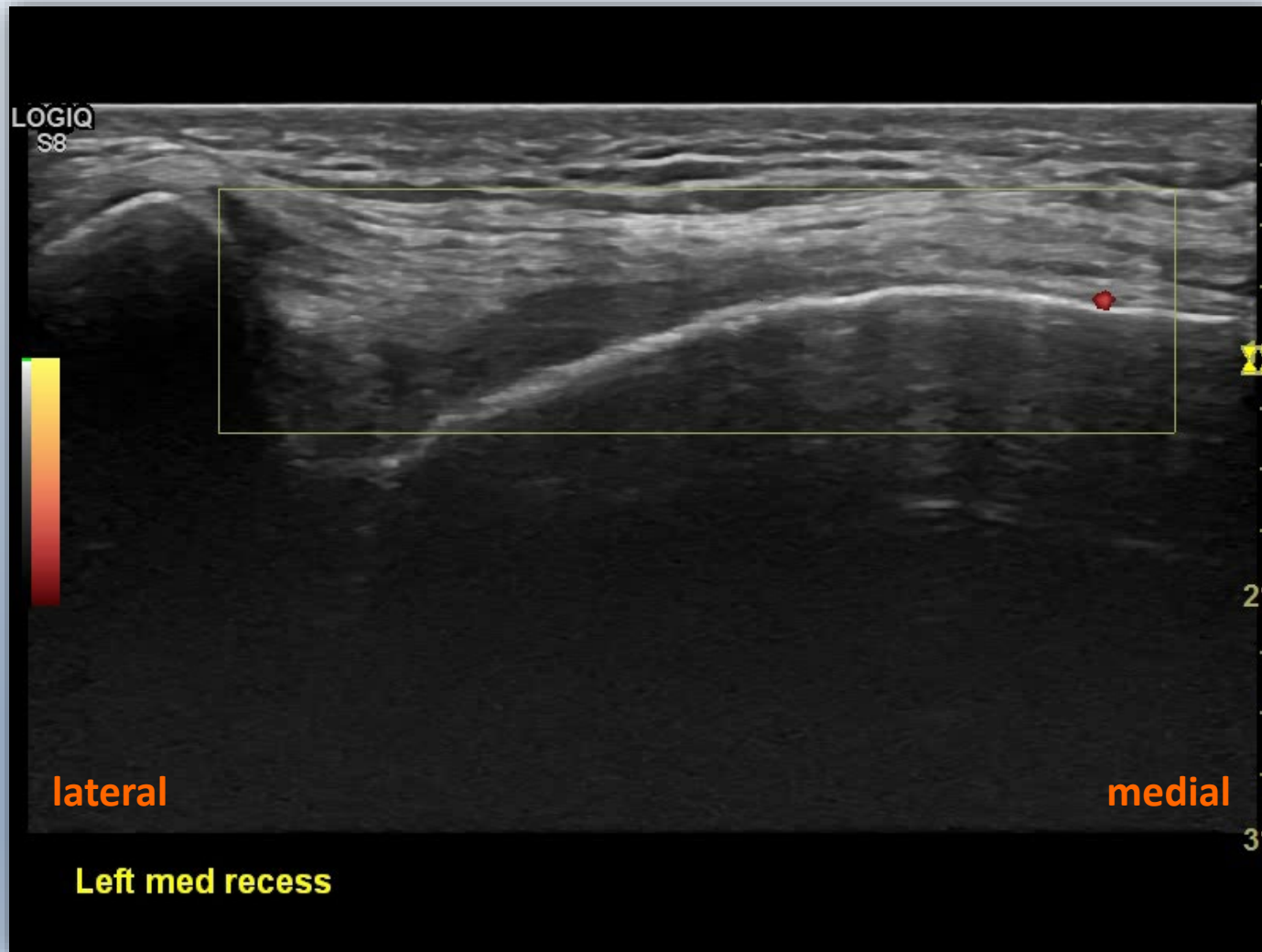
Patient Number: _____ Person completing this form: _____

KNEE Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|---|--|---|--|--|--|
| Medial Recess Soft Tissue Expansion | <p>Medial recess content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p style="text-align: center;">0.85cm</p> <p>0.5cm:</p> <p style="text-align: center;">0.53cm</p> <p>1.0cm:</p> <p style="text-align: center;">0.35cm</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a 30-degree flexion position. A hand is palpating the medial side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the medial recess. Yellow dashed lines indicate measurements at 0.5 cm and 1.0 cm from the origin of the femoral cortex. The measurements are labeled as 0.5cm and 1.0cm. The femur is labeled as 'lateral' and the patella as 'medial'.</p> |
| Lateral Recess Soft Tissue Expansion | <p>Lateral Recess Content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a 30-degree flexion position. A hand is palpating the lateral side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the lateral recess. Yellow dashed lines indicate measurements at 0.5 cm and 1.0 cm from the origin of the femoral cortex. The measurements are labeled as 0.5cm and 1.0cm. The femur is labeled as 'lateral' and the patella as 'medial'.</p> |

J.A.D.E. Protocol: Knee


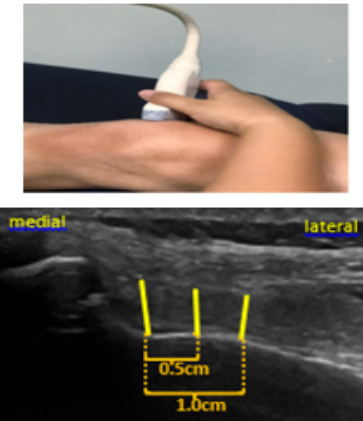
Medial Patellofemoral Recess – Power Doppler



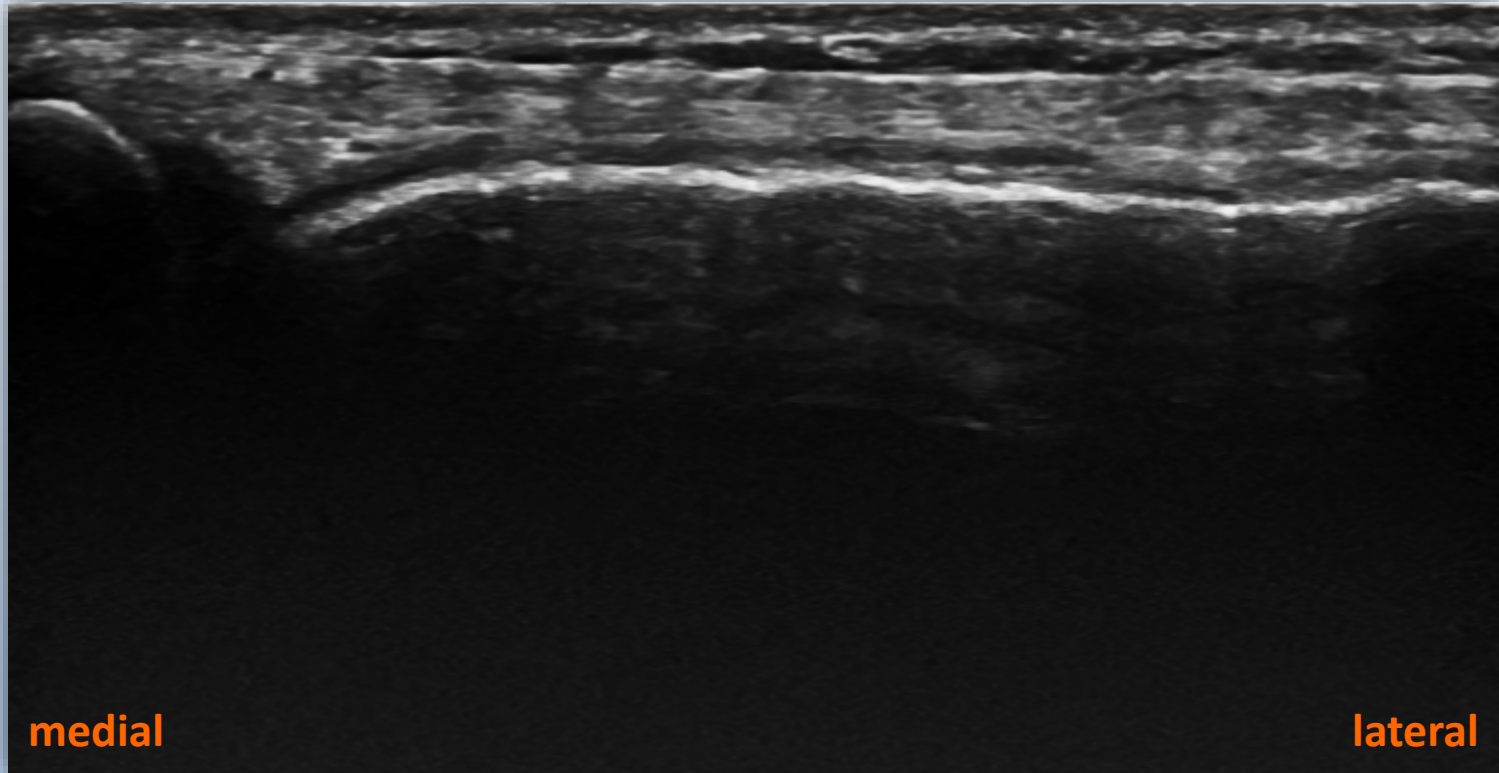
Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

KNEE
Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|---|--|--|--|--|---|
| Medial Recess Soft Tissue Expansion | <p>Medial recess content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.85cm</p> <p>0.5cm:</p> <p>0.53cm</p> <p>1.0cm:</p> <p>0.35cm</p> | <p><input type="checkbox"/> 0</p> <p><input checked="" type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image shows a clinical photograph of a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the medial side of the knee. The bottom image is a longitudinal B-mode ultrasound of the knee joint in a supine position with the knee flexed at 30 degrees. The probe is positioned medially. The femoral cortex is visible, and the height of the medial recess is measured at three points: 0 cm, 0.5 cm, and 1.0 cm from the origin of the femoral cortex. The measurements are 0.85 cm, 0.53 cm, and 0.35 cm respectively. Labels 'lateral' and 'medial' are present on the ultrasound image.</p> |
| Lateral Recess Soft Tissue Expansion | <p>Lateral Recess Content:</p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p>Assessment:</p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image shows a clinical photograph of a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the lateral side of the knee. The bottom image is a longitudinal B-mode ultrasound of the knee joint in a supine position with the knee flexed at 30 degrees. The probe is positioned laterally. The femoral cortex is visible, and the height of the lateral recess is measured at three points: 0 cm, 0.5 cm, and 1.0 cm from the origin of the femoral cortex. Labels 'medial' and 'lateral' are present on the ultrasound image.</p> |


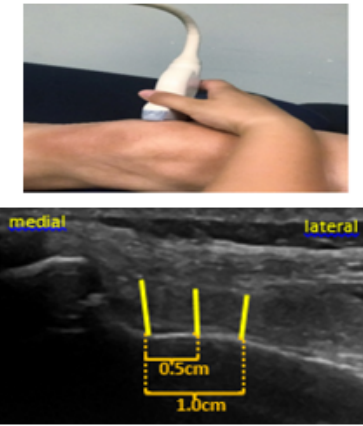
J.A.D.E. Protocol: Knee
Lateral Patellofemoral Recess



Name: _____ Date: _____

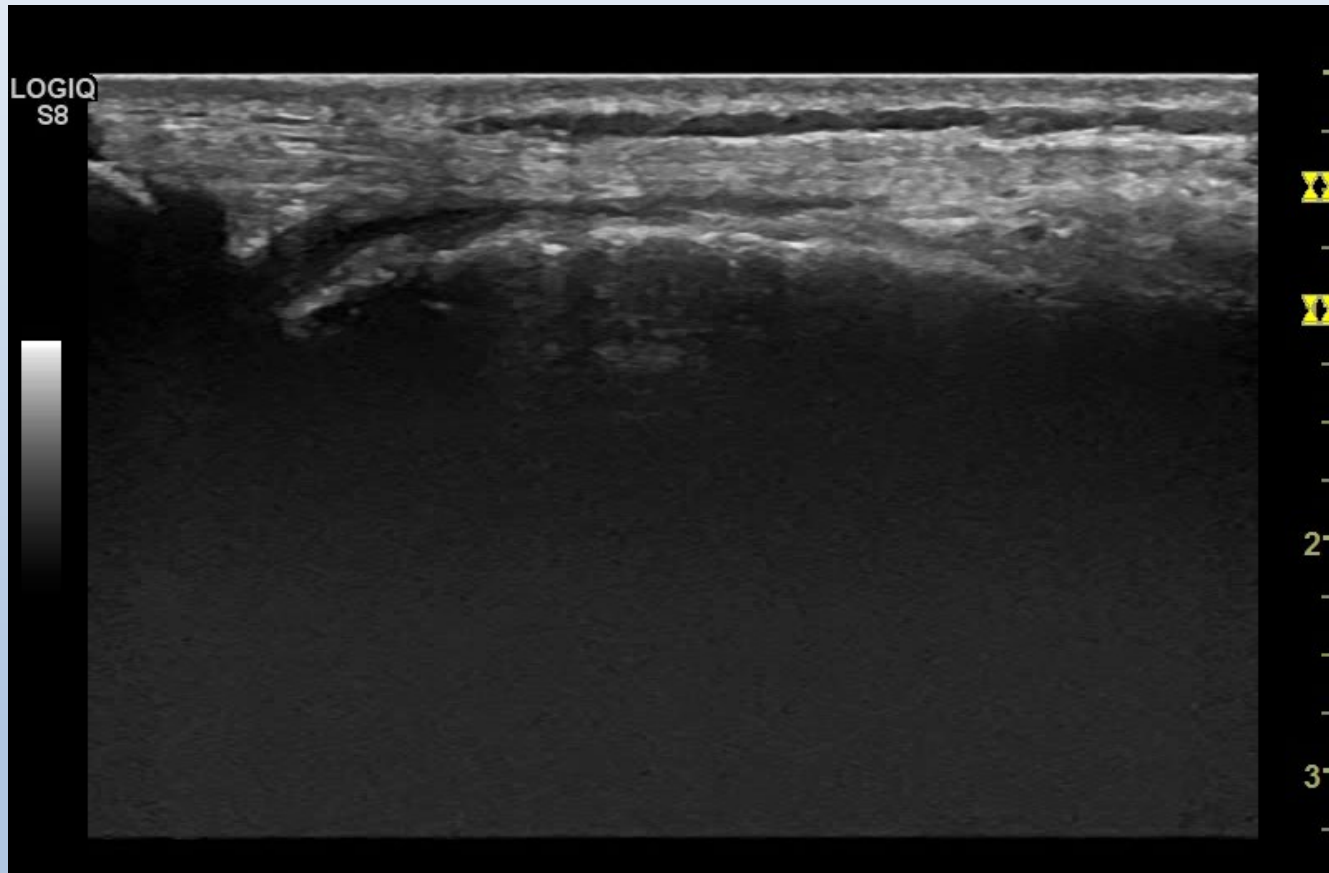
Patient Number: _____ Person completing this form: _____

KNEE
Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|--|--|--|--|--|---|
| Medial Recess Soft Tissue Expansion | <p><u>Medial recess content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.85cm</p> <p>0.5cm:</p> <p>0.53cm</p> <p>1.0cm:</p> <p>0.35cm</p> | <p><input type="checkbox"/> 0</p> <p><input checked="" type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the medial side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the medial recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. The measurements are 0.85 cm, 0.53 cm, and 0.35 cm respectively. Labels 'lateral' and 'medial' are present on the ultrasound image.</p> |
| Lateral Recess Soft Tissue Expansion | <p><u>Lateral Recess Content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input checked="" type="checkbox"/> anechoic simple fluid</p> <p><input checked="" type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the lateral side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the lateral recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. Labels 'medial' and 'lateral' are present on the ultrasound image.</p> |

J.A.D.E. Protocol: Knee


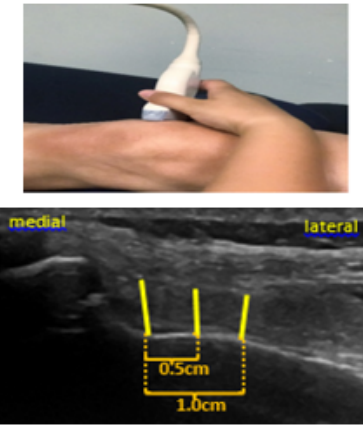
Lateral Patellofemoral Recess – Compressibility



Name: _____ Date: _____

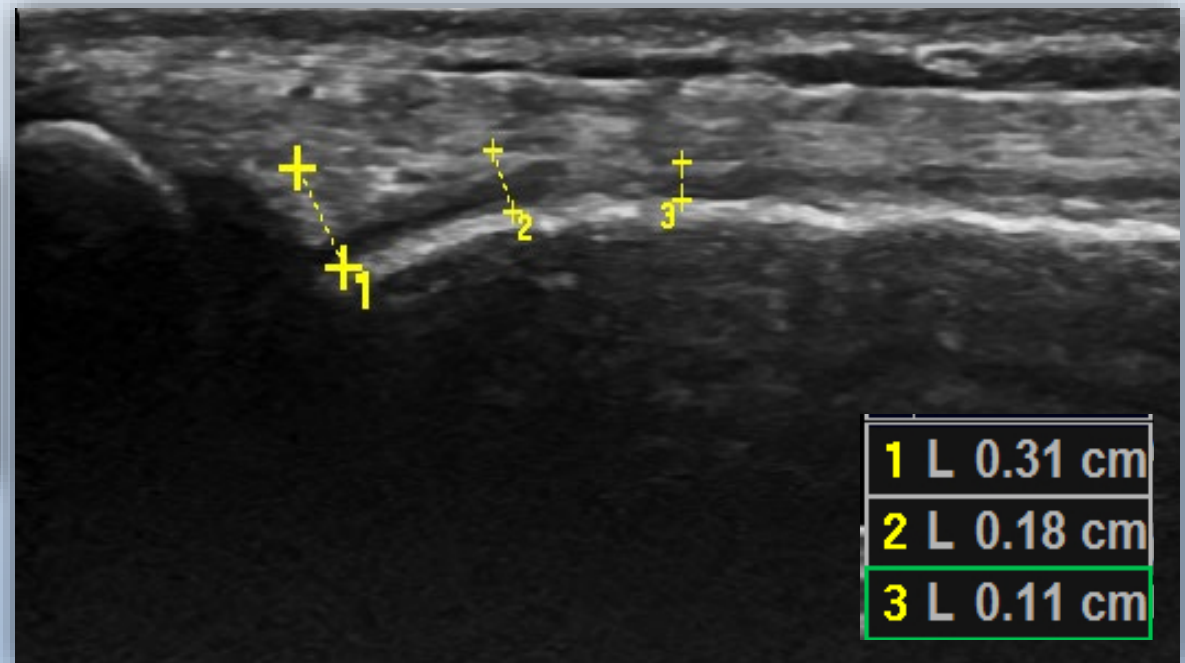
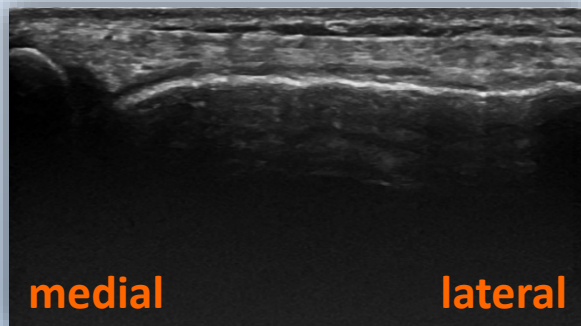
Patient Number: _____ Person completing this form: _____

KNEE
Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|--|--|--|--|--|---|
| Medial Recess Soft Tissue Expansion | <p><u>Medial recess content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.85cm</p> <p>0.5cm:</p> <p>0.53cm</p> <p>1.0cm:</p> <p>0.35cm</p> | <p><input type="checkbox"/> 0</p> <p><input checked="" type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the medial side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the medial recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. The measurements are 0.85 cm, 0.53 cm, and 0.35 cm respectively. Labels 'lateral' and 'medial' are present on the ultrasound image.</p> |
| Lateral Recess Soft Tissue Expansion | <p><u>Lateral Recess Content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input checked="" type="checkbox"/> anechoic simple fluid</p> <p><input checked="" type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.5cm:</p> <p>1.0cm:</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the lateral side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the lateral recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. Labels 'medial' and 'lateral' are present on the ultrasound image.</p> |

J.A.D.E. Protocol: Knee


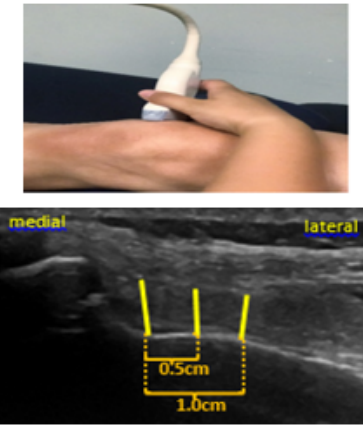
Lateral Patellofemoral Recess



Name: _____ Date: _____

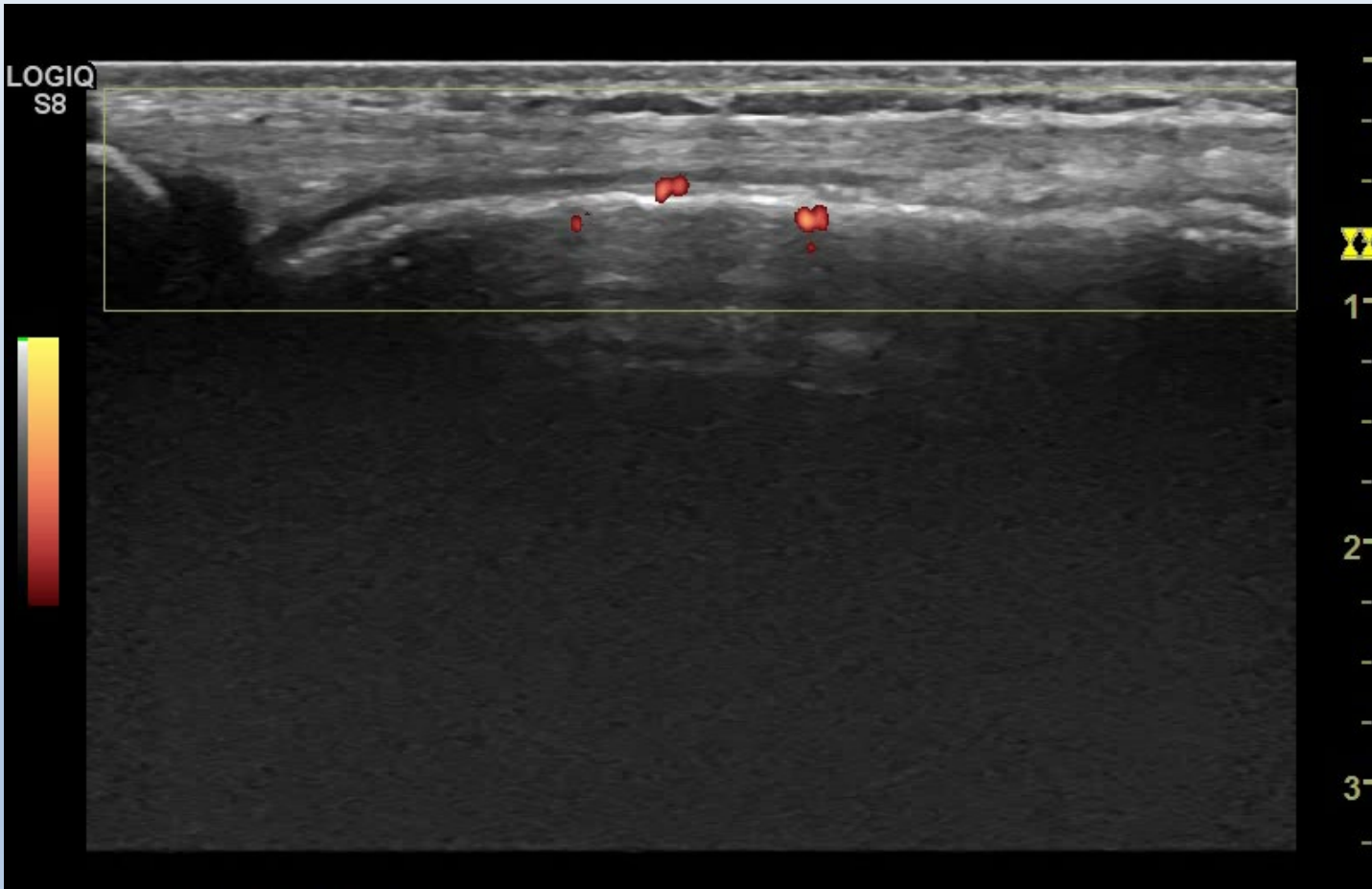
Patient Number: _____ Person completing this form: _____

KNEE
Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|--|--|--|--|--|--|
| Medial Recess Soft Tissue Expansion | <p><u>Medial recess content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.85cm</p> <p>0.5cm:</p> <p>0.53cm</p> <p>1.0cm:</p> <p>0.35cm</p> | <p><input type="checkbox"/> 0</p> <p><input checked="" type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the medial side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the medial recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. The measurements are 0.85 cm, 0.53 cm, and 0.35 cm respectively. Labels 'lateral' and 'medial' are present on the ultrasound image.</p> |
| Lateral Recess Soft Tissue Expansion | <p><u>Lateral Recess Content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input checked="" type="checkbox"/> anechoic simple fluid</p> <p><input checked="" type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.31cm</p> <p>0.5cm:</p> <p>0.18cm</p> <p>1.0cm:</p> <p>0.11cm</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input checked="" type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image is a clinical photograph showing a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the lateral side of the knee. The bottom image is an ultrasound image in a sagittal axis (SAX) view. It shows the femoral cortex and the lateral recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. The measurements are 0.31 cm, 0.18 cm, and 0.11 cm respectively. Labels 'medial' and 'lateral' are present on the ultrasound image.</p> |

J.A.D.E. Protocol: Knee


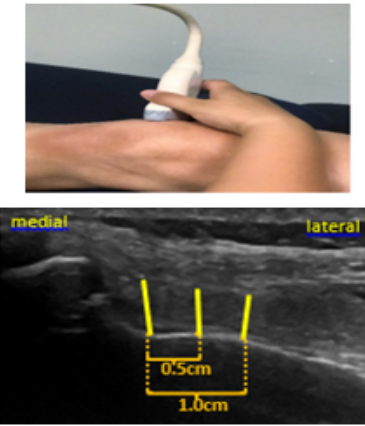
Lateral Patellofemoral Recess – Power Doppler



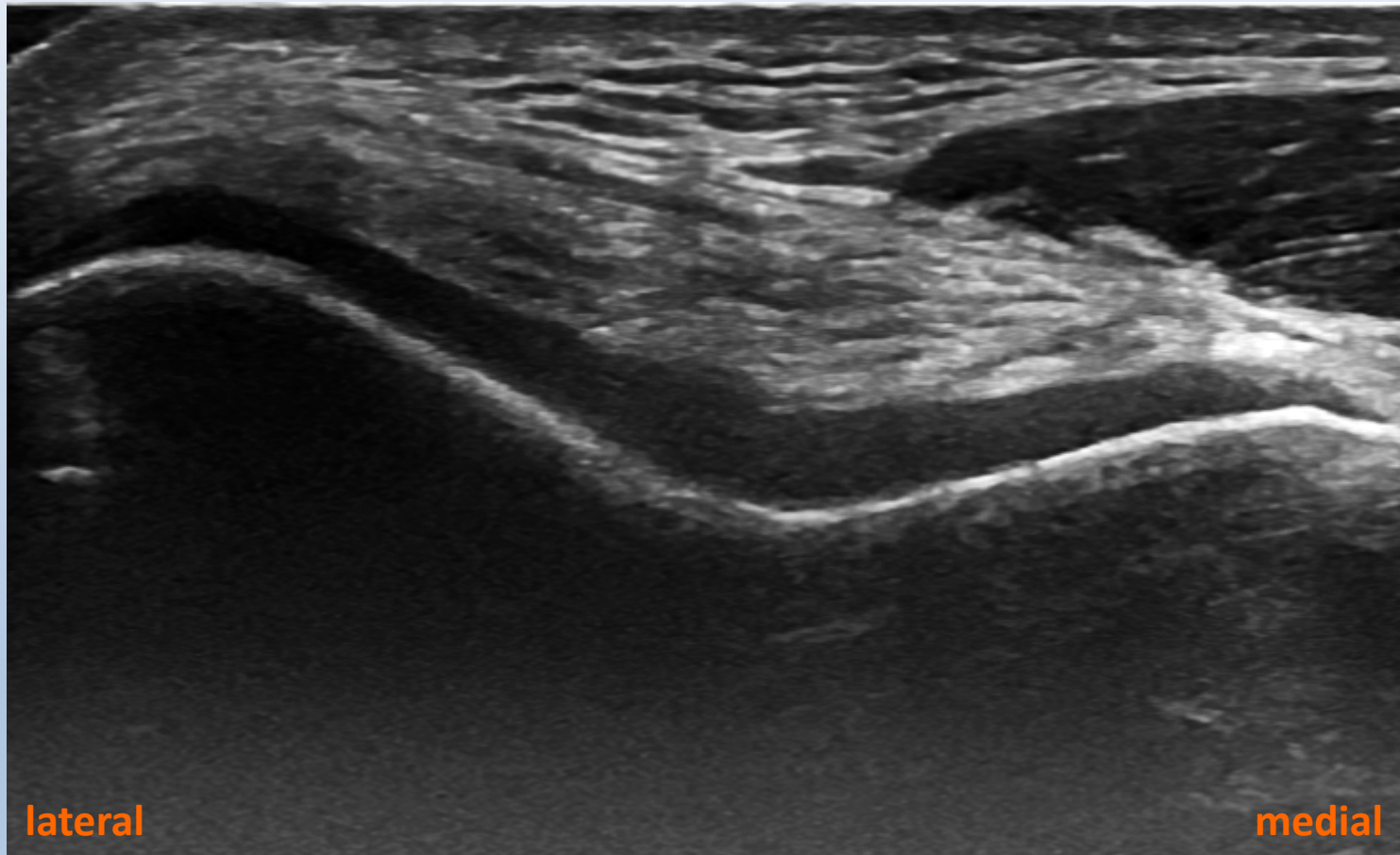
Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

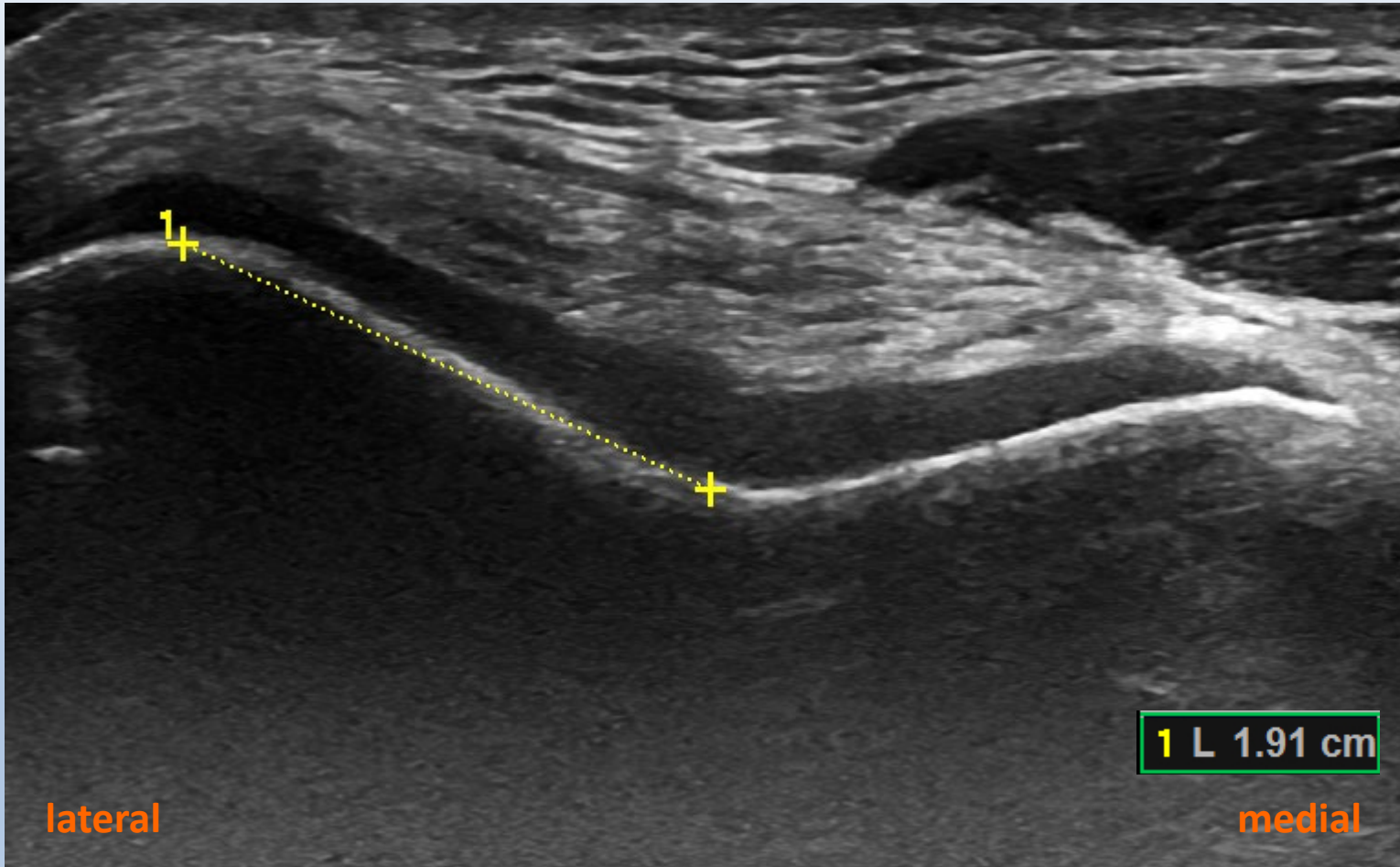
KNEE
Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|--|--|--|--|--|---|
| Medial Recess Soft Tissue Expansion | <p><u>Medial recess content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.85cm</p> <p>0.5cm:</p> <p>0.53cm</p> <p>1.0cm:</p> <p>0.35cm</p> | <p><input type="checkbox"/> 0</p> <p><input checked="" type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input checked="" type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: medial mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image shows a clinical photograph of a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the medial side of the knee. The bottom image is an ultrasound scan in a sagittal axis (SAX) view. It shows the femoral cortex and the medial recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. The measurements are 0.85 cm, 0.53 cm, and 0.35 cm respectively. Labels 'lateral' and 'medial' are present on the ultrasound image.</p> |
| Lateral Recess Soft Tissue Expansion | <p><u>Lateral Recess Content:</u></p> <p><input type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input checked="" type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input checked="" type="checkbox"/> anechoic simple fluid</p> <p><input checked="" type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> other _____</p> | <p><i>Soft tissue measurement during compression:</i></p> <p>Femoral cortex (start at cortical bone) 0cm:</p> <p>0.31cm</p> <p>0.5cm:</p> <p>0.18cm</p> <p>1.0cm:</p> <p>0.11cm</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input checked="" type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input checked="" type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, Axis: SAX</p> <p>Probe Position: lateral mid patella</p> <p>Bony landmarks: patella (medial) and femur (lateral)</p> <p>Muscles: none</p> <p>Blood vessels: none</p> <p>Nerves: none</p> <p>Other: retinaculum (medial to patella)</p> <p>Measurement: Assess soft tissue expansion by measuring the height of the recess at the origin of the femoral cortex and at 0.5 and 1.0 cm from the origin of the femoral cortex. Assure that measurement is perpendicular to the bony margin.</p> |  <p>The top image shows a clinical photograph of a person's knee in a supine position with the knee flexed at 30 degrees. A hand is palpating the lateral side of the knee. The bottom image is an ultrasound scan in a sagittal axis (SAX) view. It shows the femoral cortex and the lateral recess. Yellow dashed lines and arrows indicate measurements taken at the origin of the femoral cortex, 0.5 cm, and 1.0 cm from the origin. The measurements are 0.31 cm, 0.18 cm, and 0.11 cm respectively. Labels 'medial' and 'lateral' are present on the ultrasound image.</p> |

J.A.D.E. Protocol Knee
Sunrise View
Osteochondral Interface Irregularities


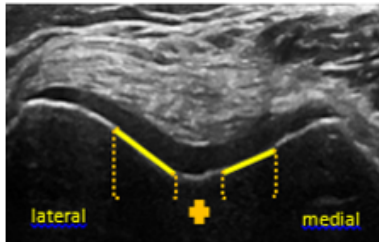
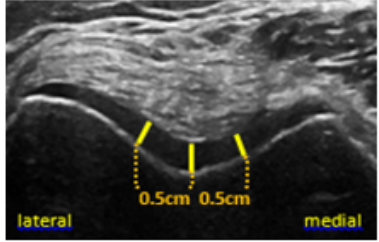


J.A.D.E. Protocol Knee
Sunrise View
Osteochondral Interface Irregularities

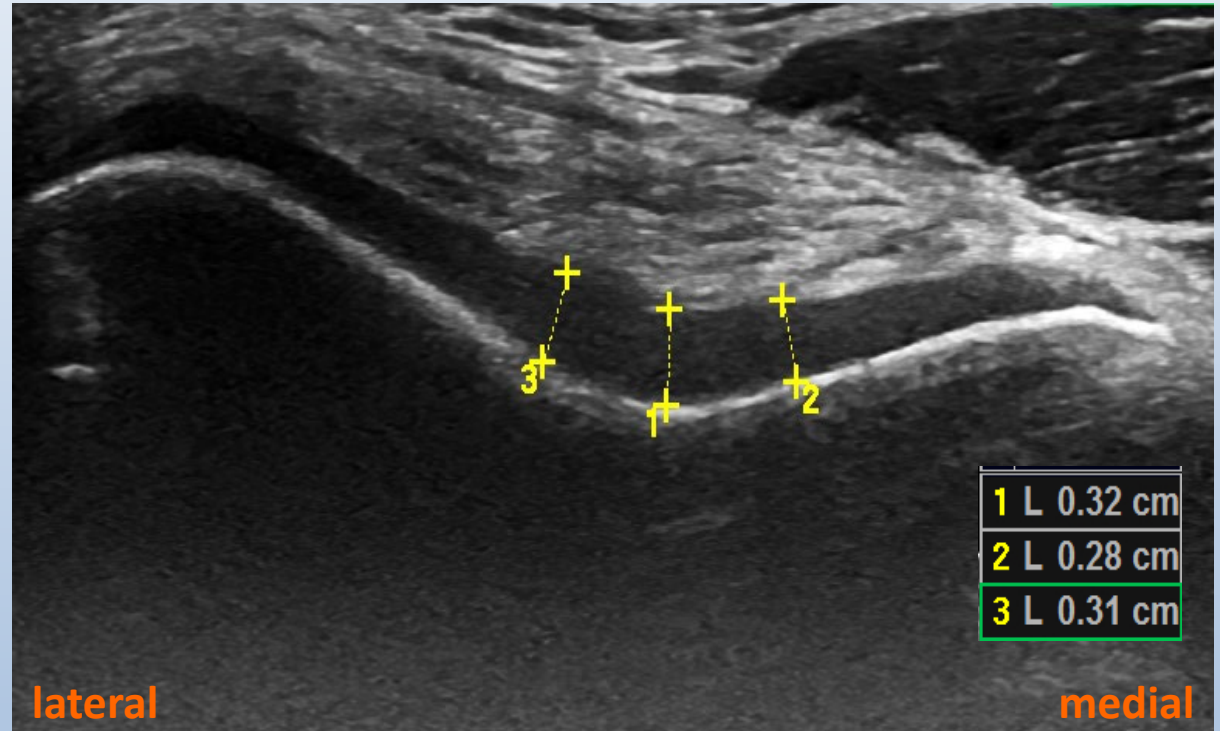
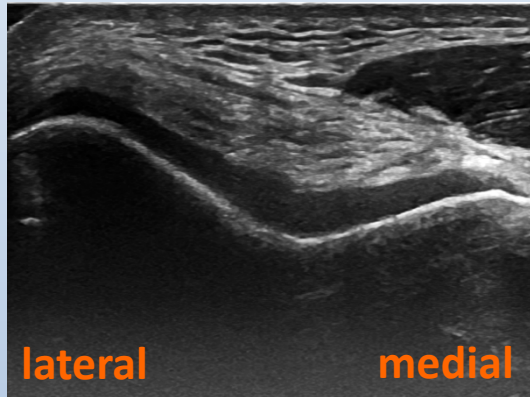


Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____


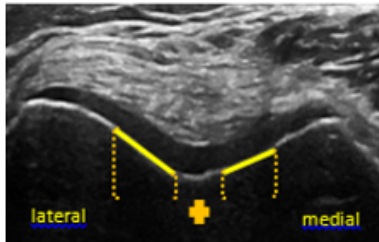
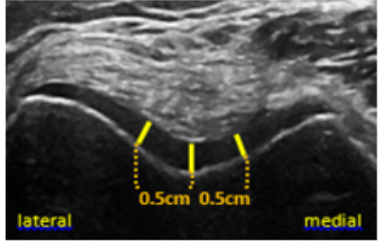
| | | | | | | |
|--|--|---|---|--|---|--|
| <p>Sunrise: Osteochondral Line Cartilage Thickness</p> | <p><input checked="" type="checkbox"/> Irregular bony margin <input type="checkbox"/> osteophytes <input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">1.91cm</p> <p>Cartilage Thickness: Trochlea:</p> <p>0.5cm med:</p> <p>0.5cm lat:</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 90° flexion, foot planted Axis: SAX Probe Position: proximal to patella Bony landmarks: femoral trochlea Muscles: quadriceps tendon (superior) and vastus medialis (medial) Blood vessels: none Nerves: none Measurement (osteochondral alteration): individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations. Measurement (cartilage thickness): Assess cartilage thickness at the lowest point of the trochlea and 0.5cm medially and laterally. Assure that measurement is perpendicular to the bony margin.</p> |    |
|--|--|---|---|--|---|--|

J.A.D.E. Protocol: Knee Sunrise View Cartilage Thickness

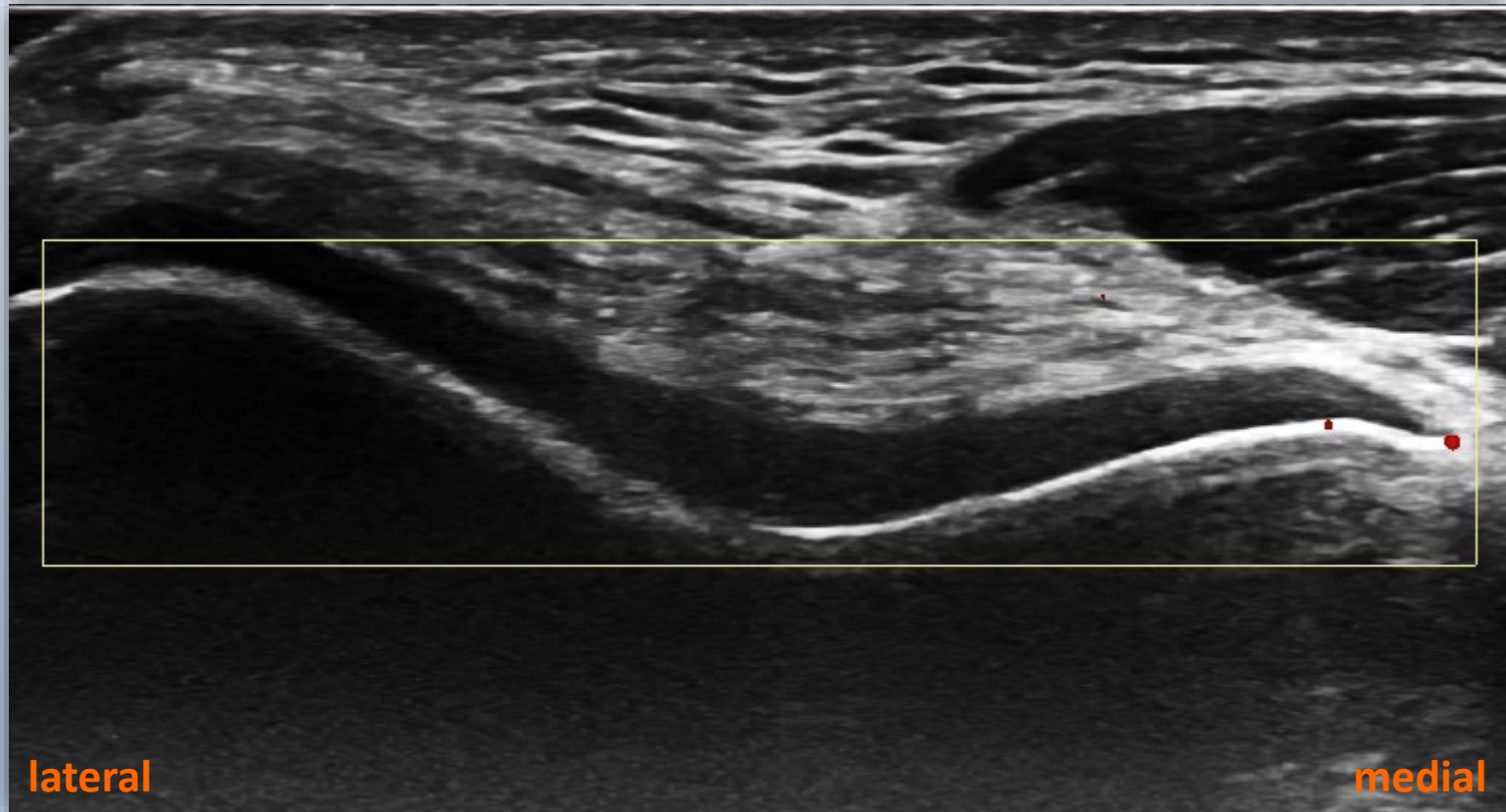


Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____


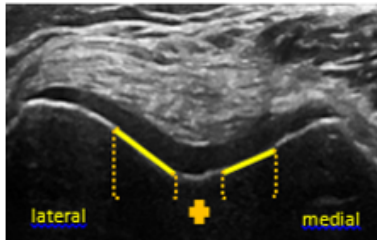
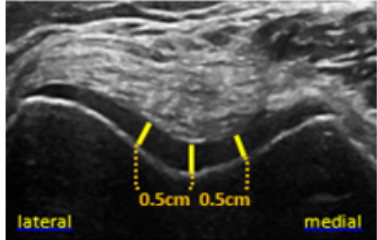
| | | | | | | |
|--|--|---|---|--|---|--|
| <p>Sunrise: Osteochondral Line Cartilage Thickness</p> | <p><input checked="" type="checkbox"/> Irregular bony margin <input type="checkbox"/> osteophytes <input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">1.91cm</p> <p>Cartilage Thickness: Trochlea:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">0.32cm</p> <p>0.5cm med:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">0.28cm</p> <p>0.5cm lat:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">0.31cm</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 90° flexion, foot planted Axis: SAX Probe Position: proximal to patella Bony landmarks: femoral trochlea Muscles: quadriceps tendon (superior) and vastus medialis (medial) Blood vessels: none Nerves: none Measurement (osteochondral alteration): individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations. Measurement (cartilage thickness): Assess cartilage thickness at the lowest point of the trochlea and 0.5cm medially and laterally. Assure that measurement is perpendicular to the bony margin.</p> |    |
|--|--|---|---|--|---|--|

J.A.D.E. Protocol: Knee
Sunrise View
Cartilage Thickness – Power Doppler



Name: _____ Date: _____

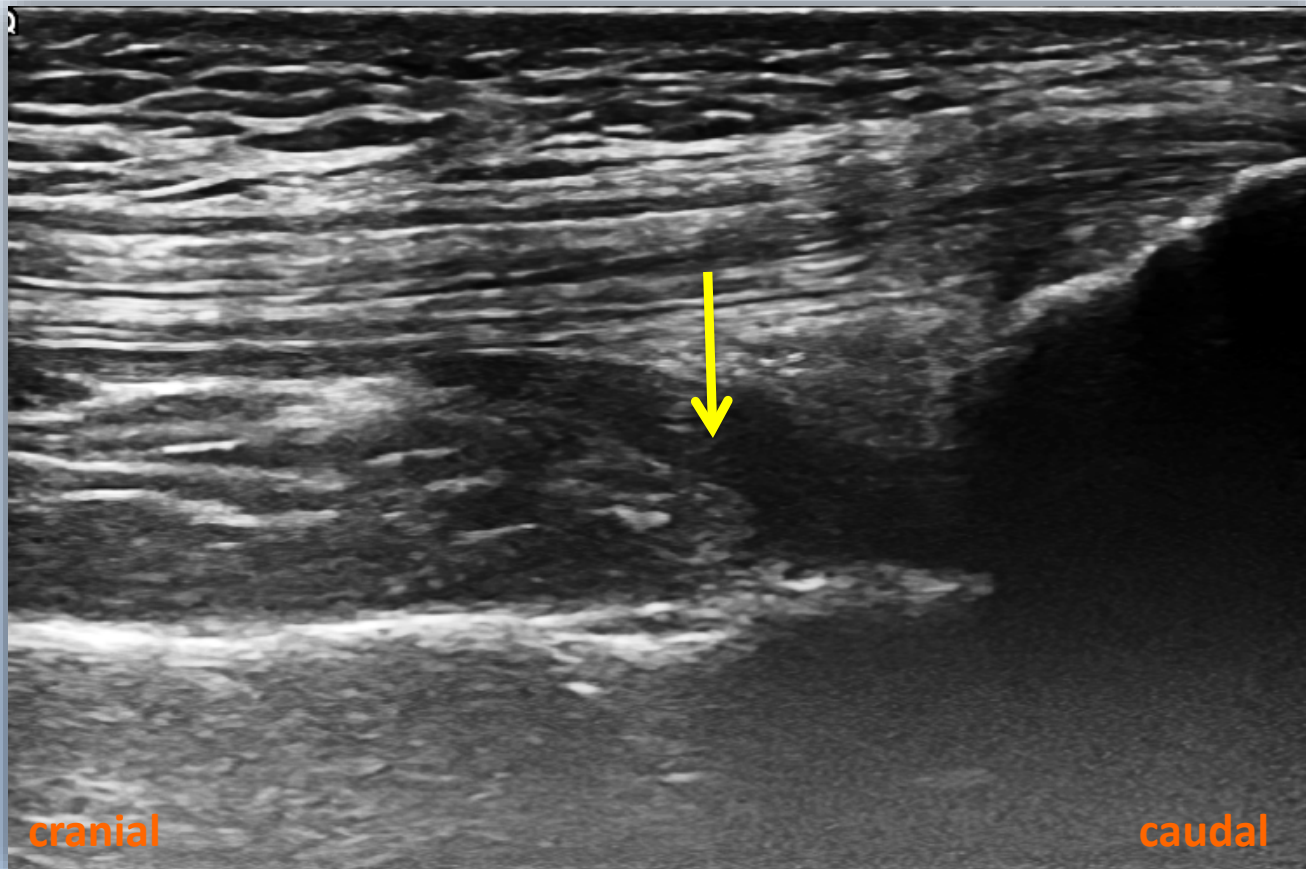
Patient Number: _____ Person completing this form: _____

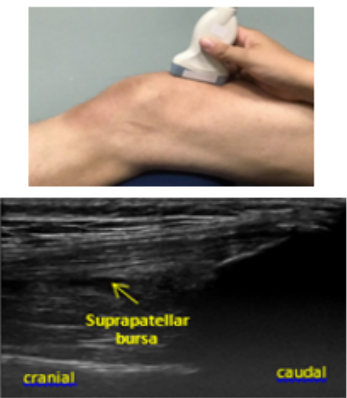

| | | | | | | |
|--|--|---|--|--|---|--|
| <p>Sunrise: Osteochondral Line Cartilage Thickness</p> | <p><input checked="" type="checkbox"/> Irregular bony margin <input type="checkbox"/> osteophytes <input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">1.91cm</p> <p>Cartilage Thickness: Trochlea:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">0.32cm</p> <p>0.5cm med:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">0.28cm</p> <p>0.5cm lat:</p> <p style="text-align: center; color: orange; font-size: 1.2em;">0.31cm</p> | <p><input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 90° flexion, foot planted Axis: SAX Probe Position: proximal to patella Bony landmarks: femoral trochlea Muscles: quadriceps tendon (superior) and vastus medialis (medial) Blood vessels: none Nerves: none Measurement (osteochondral alteration): individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations. Measurement (cartilage thickness): Assess cartilage thickness at the lowest point of the trochlea and 0.5cm medially and laterally. Assure that measurement is perpendicular to the bony margin.</p> |    |
|--|--|---|--|--|---|--|

J.A.D.E. Protocol

ADDITIONAL VIEWS

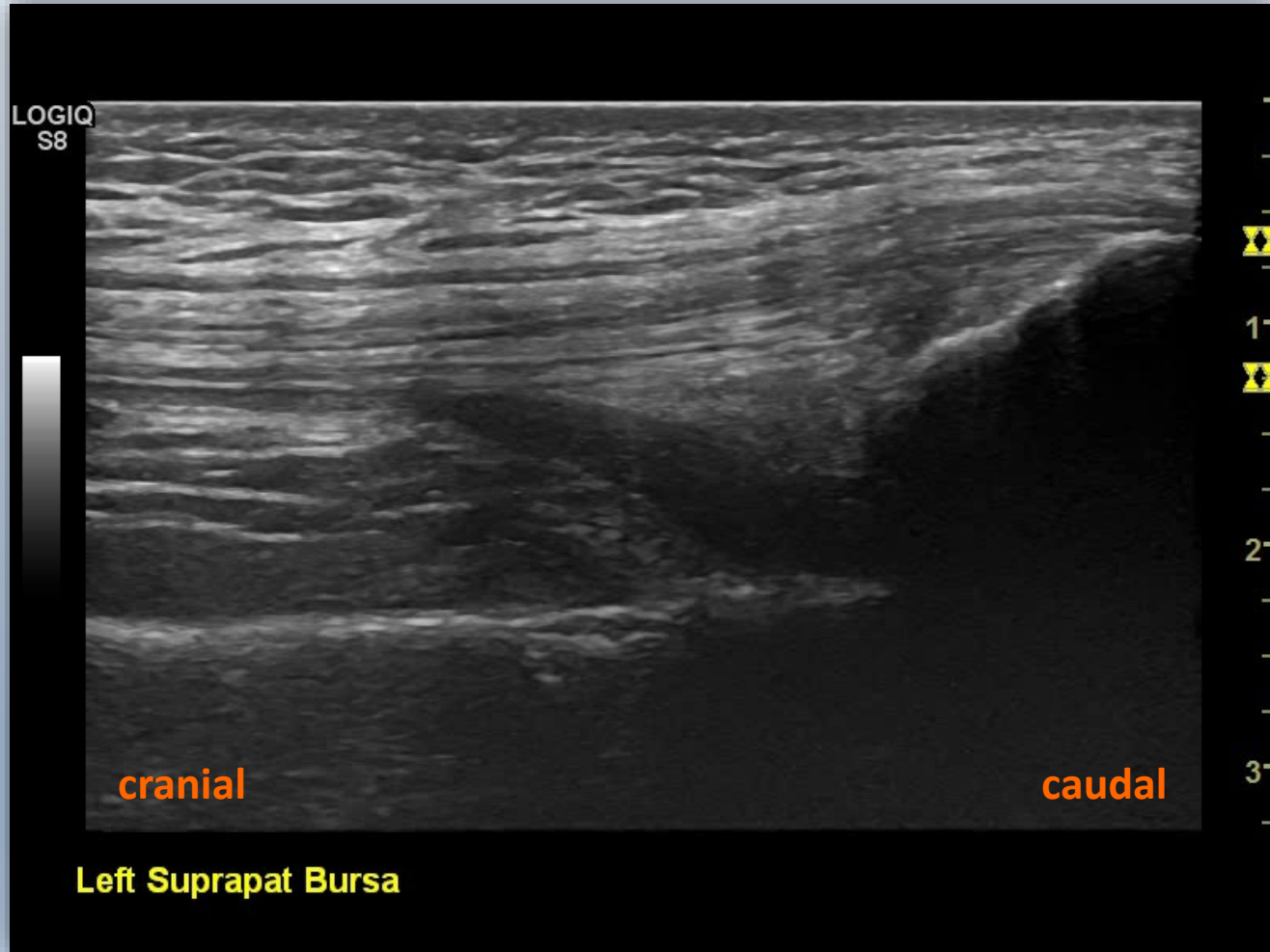
J.A.D.E. Protocol: Knee Suprapatellar Recess LAX



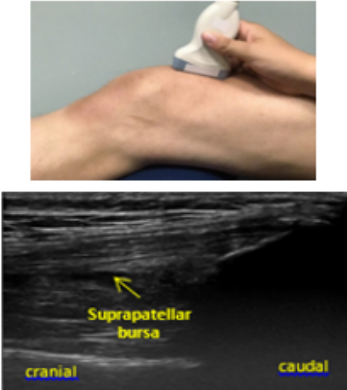

| KNEE Additional Views | | | | | | |
|--|--|-------------|--|--|---|--|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Suprapatellar Recess: <i>Suprapatellar Bursa and structures</i> | <p><u>Suprapatellar bursa content:</u></p> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input checked="" type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion Axis: LAX Probe Position: proximal to the patella and in midline of the knee joint Bony landmarks: femur (proximal) and patella (distal) Muscles: quadriceps tendon (superior) Blood vessels: none Nerves: none Other: suprapatellar bursa and fat pad between femur and quadriceps</p> |  |
| Infrapatellar Recess: <i>Hoffa Fat Pad</i> | <p><u>Infrapatellar Fat Pad content:</u></p> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion, Axis: LAX Probe Position: distal to patella Bony landmarks: patella (proximal) and tibia (distal) Muscles: patellar tendon (central between patella and tibia) Blood vessels: none Nerves: none Other: Hoffa fat pad inferior to patellar tendon</p> |  |

J.A.D.E. Protocol: Knee

Suprapatellar Recess LAX – Compressibility

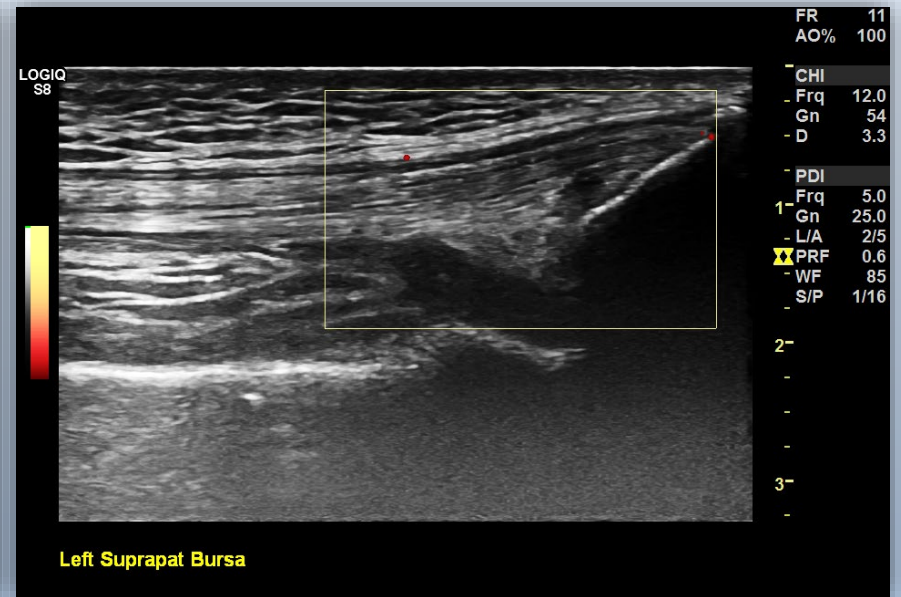
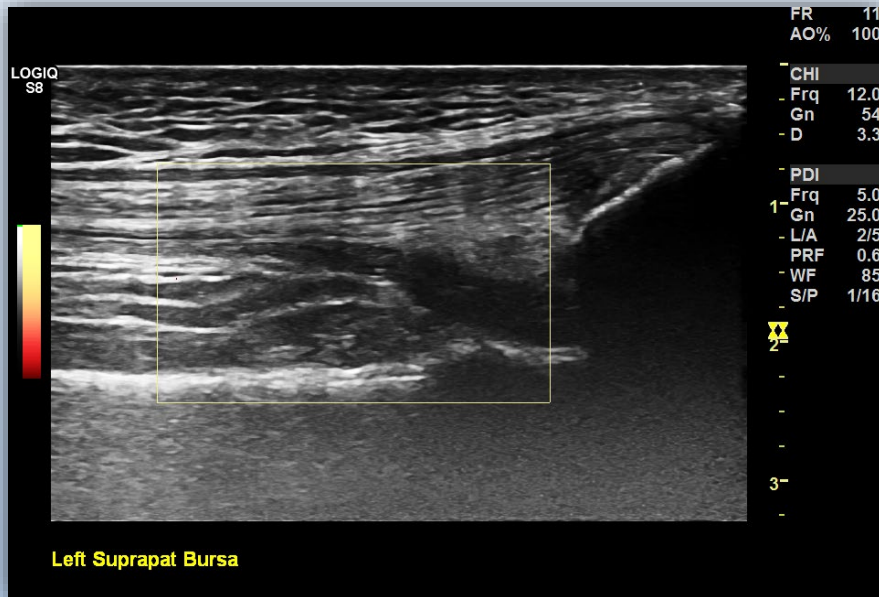





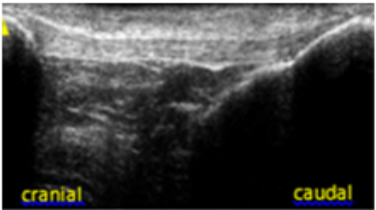
Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

| KNEE Additional Views | | | | | | |
|--|--|-------------|--|---|---|--|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Suprapatellar Recess: <i>Suprapatellar Bursa and structures</i> | <p><u>Suprapatellar bursa content:</u></p> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input checked="" type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input checked="" type="checkbox"/> non compressible <input type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion Axis: LAX Probe Position: proximal to the patella and in midline of the knee joint Bony landmarks: femur (proximal) and patella (distal) Muscles: quadriceps tendon (superior) Blood vessels: none Nerves: none Other: suprapatellar bursa and fat pad between femur and quadriceps</p> |  |
| Infrapatellar Recess: <i>Hoffa Fat Pad</i> | <p><u>Infrapatellar Fat Pad content:</u></p> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion, Axis: LAX Probe Position: distal to patella Bony landmarks: patella (proximal) and tibia (distal) Muscles: patellar tendon (central between patella and tibia) Blood vessels: none Nerves: none Other: Hoffa fat pad inferior to patellar tendon</p> |  |

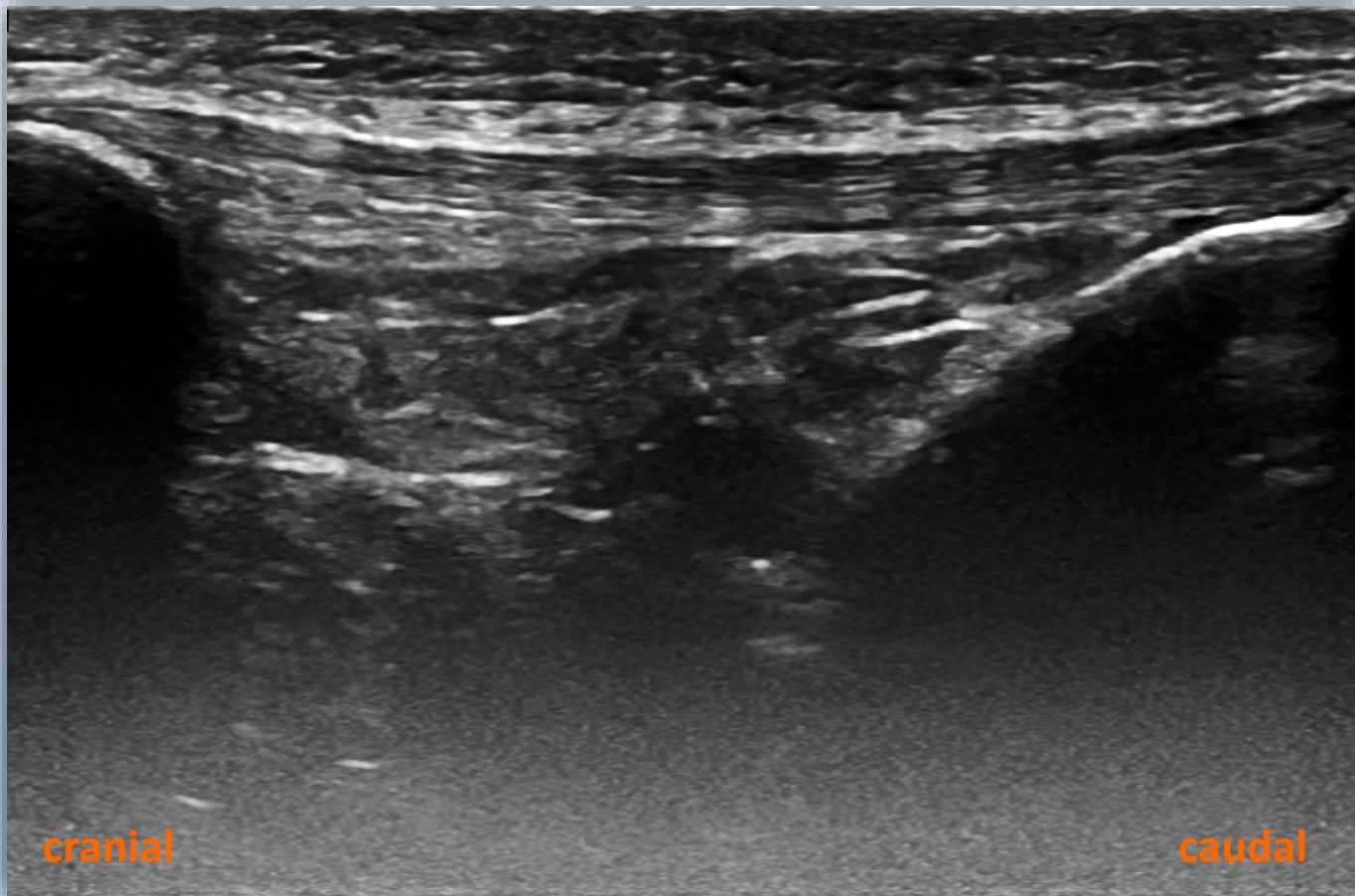
J.A.D.E. Protocol: Knee

Suprapatellar Recess LAX – Power Doppler




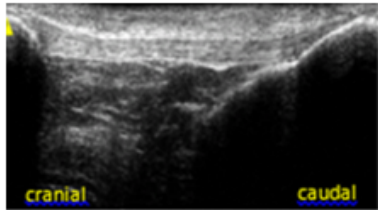


| KNEE Additional Views | | | | | | |
|--|---|-------------|---|---|--|---|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Suprapatellar Recess: <i>Suprapatellar Bursa and structures</i> | <u>Suprapatellar bursa content:</u> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input checked="" type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal <u>Assessment:</u> <input type="checkbox"/> Hypoechoic complex fluid <input type="checkbox"/> Anechoic simple fluid <input checked="" type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> tendon abnormality <input checked="" type="checkbox"/> other Irregular bony margin of the patella | | <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input checked="" type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, knee at 30° flexion Axis: LAX Probe Position: proximal to the patella and in midline of the knee joint Bony landmarks: femur (proximal) and patella (distal) Muscles: quadriceps tendon (superior) Blood vessels: none Nerves: none Other: suprapatellar bursa and fat pad between femur and quadriceps |   |
| Infrapatellar Recess: <i>Hoffa Fat Pad</i> | <u>Infrapatellar Fat Pad content:</u> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal <u>Assessment:</u> <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> tendon abnormality <input type="checkbox"/> other _____ | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, knee at 30° flexion, Axis: LAX Probe Position: distal to patella Bony landmarks: patella (proximal) and tibia (distal) Muscles: patellar tendon (central between patella and tibia) Blood vessels: none Nerves: none Other: Hoffa fat pad inferior to patellar tendon |   |

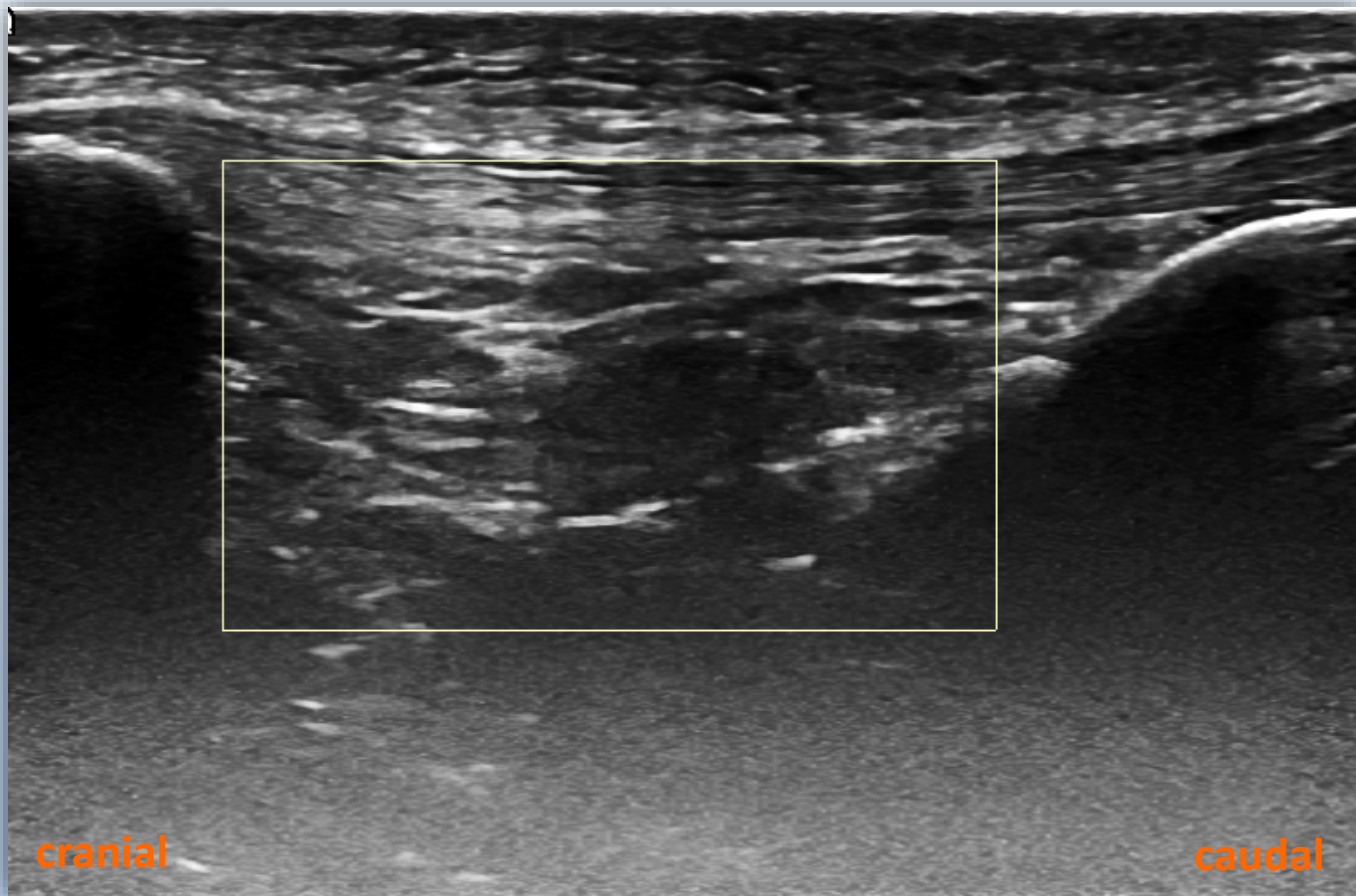
J.A.D.E. Protocol: Knee **Infrapatellar Recess**



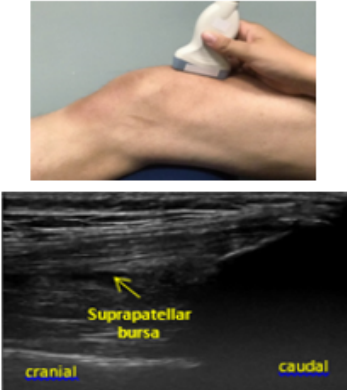
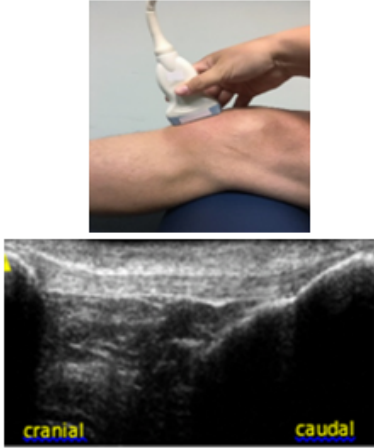
Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

| KNEE Additional Views | | | | | | |
|--|--|-------------|---|---|---|---|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Suprapatellar Recess: <i>Suprapatellar Bursa and structures</i> | <p><u>Suprapatellar bursa content:</u></p> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input checked="" type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input checked="" type="checkbox"/> non compressible <input type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion Axis: LAX Probe Position: proximal to the patella and in midline of the knee joint Bony landmarks: femur (proximal) and patella (distal) Muscles: quadriceps tendon (superior) Blood vessels: none Nerves: none Other: suprapatellar bursa and fat pad between femur and quadriceps</p> |   |
| Infrapatellar Recess: <i>Hoffa Fat Pad</i> | <p><u>Infrapatellar Fat Pad content:</u></p> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion, Axis: LAX Probe Position: distal to patella Bony landmarks: patella (proximal) and tibia (distal) Muscles: patellar tendon (central between patella and tibia) Blood vessels: none Nerves: none Other: Hoffa fat pad inferior to patellar tendon</p> |   |

J.A.D.E. Protocol: Knee Infrapatellar Recess – Power Doppler

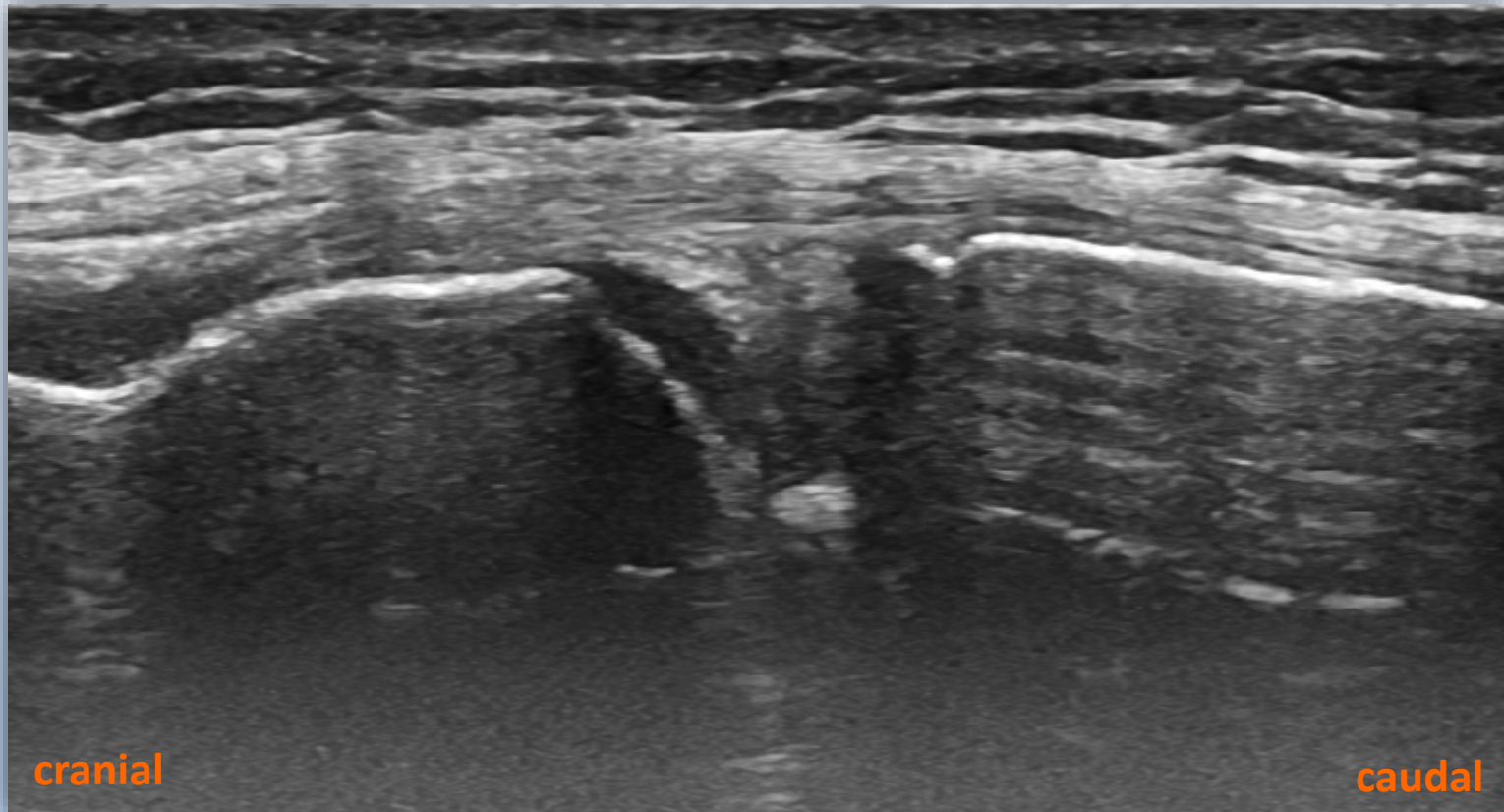


Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

| KNEE Additional Views | | | | | | |
|--|--|-------------|---|---|---|--|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Suprapatellar Recess: <i>Suprapatellar Bursa and structures</i> | <p><u>Suprapatellar bursa content:</u></p> <input type="checkbox"/> none <input type="checkbox"/> anechoic <input checked="" type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input checked="" type="checkbox"/> non compressible <input type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion Axis: LAX Probe Position: proximal to the patella and in midline of the knee joint Bony landmarks: femur (proximal) and patella (distal) Muscles: quadriceps tendon (superior) Blood vessels: none Nerves: none Other: suprapatellar bursa and fat pad between femur and quadriceps</p> |  |
| Infrapatellar Recess: <i>Hoffa Fat Pad</i> | <p><u>Infrapatellar Fat Pad content:</u></p> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal | | <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A | <p>Patient Position: supine, knee at 30° flexion, Axis: LAX Probe Position: distal to patella Bony landmarks: patella (proximal) and tibia (distal) Muscles: patellar tendon (central between patella and tibia) Blood vessels: none Nerves: none Other: Hoffa fat pad inferior to patellar tendon</p> |  |

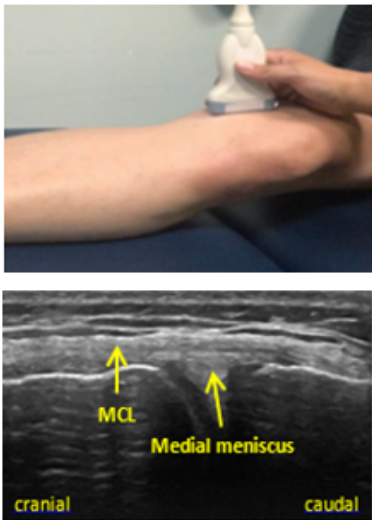
J.A.D.E. Protocol Knee

Medial Meniscus and Medial Collateral Ligament LAX



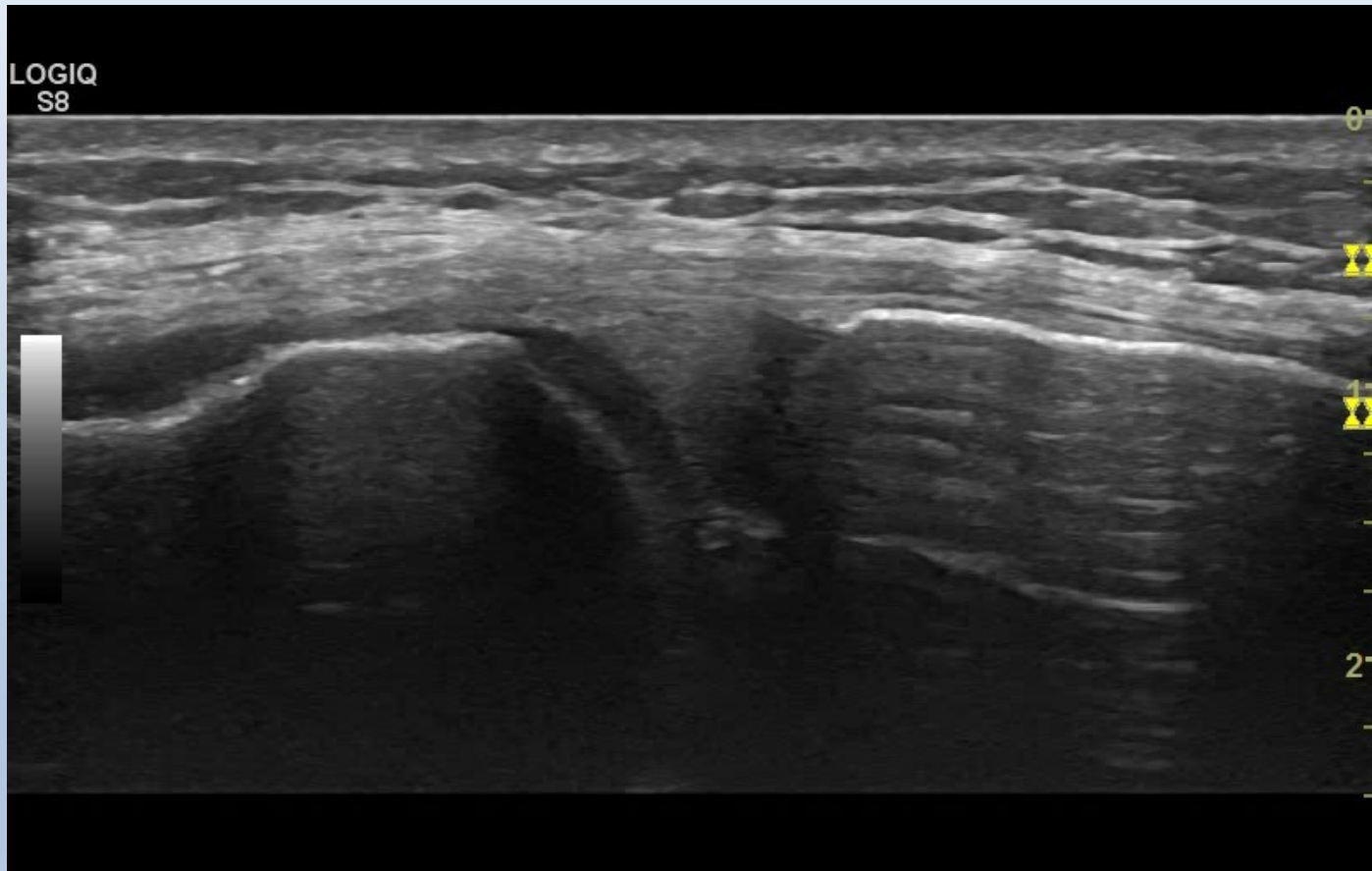
Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

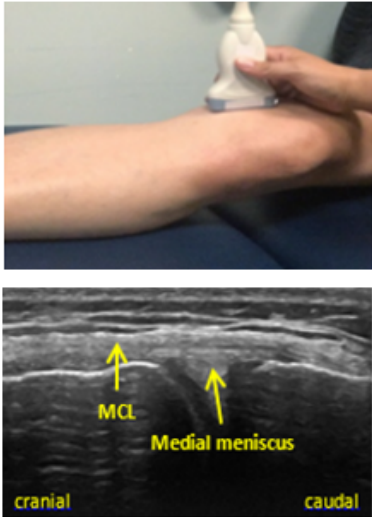
| | | | | | | |
|--------------------------------|--|--|--|--|--|---|
| <p>Medial meniscus and MCL</p> | <p><input checked="" type="checkbox"/> MCL abnormality <input checked="" type="checkbox"/> medial meniscus abnormality <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> other _____</p> <p><u>Meniscus abnormality</u> <u>Description:</u> <input checked="" type="checkbox"/> tear <input checked="" type="checkbox"/> irregularities <input type="checkbox"/> altered echogenicity</p> | | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A</p> | <p>Patient Position: supine, knee at 30° flexion, external rotation of the hip Axis: LAX Probe Position: medial joint space Bony landmarks: femur (proximal) and tibia (distal) Muscles: none Blood vessels: none Nerves: none Other: medial meniscus (between femur and tibia) and MCL (superior to meniscus)</p> |  |
|--------------------------------|--|--|--|--|--|---|

J.A.D.E. Protocol Knee

Medial Meniscus and Medial Collateral Ligament LAX - Compressibility

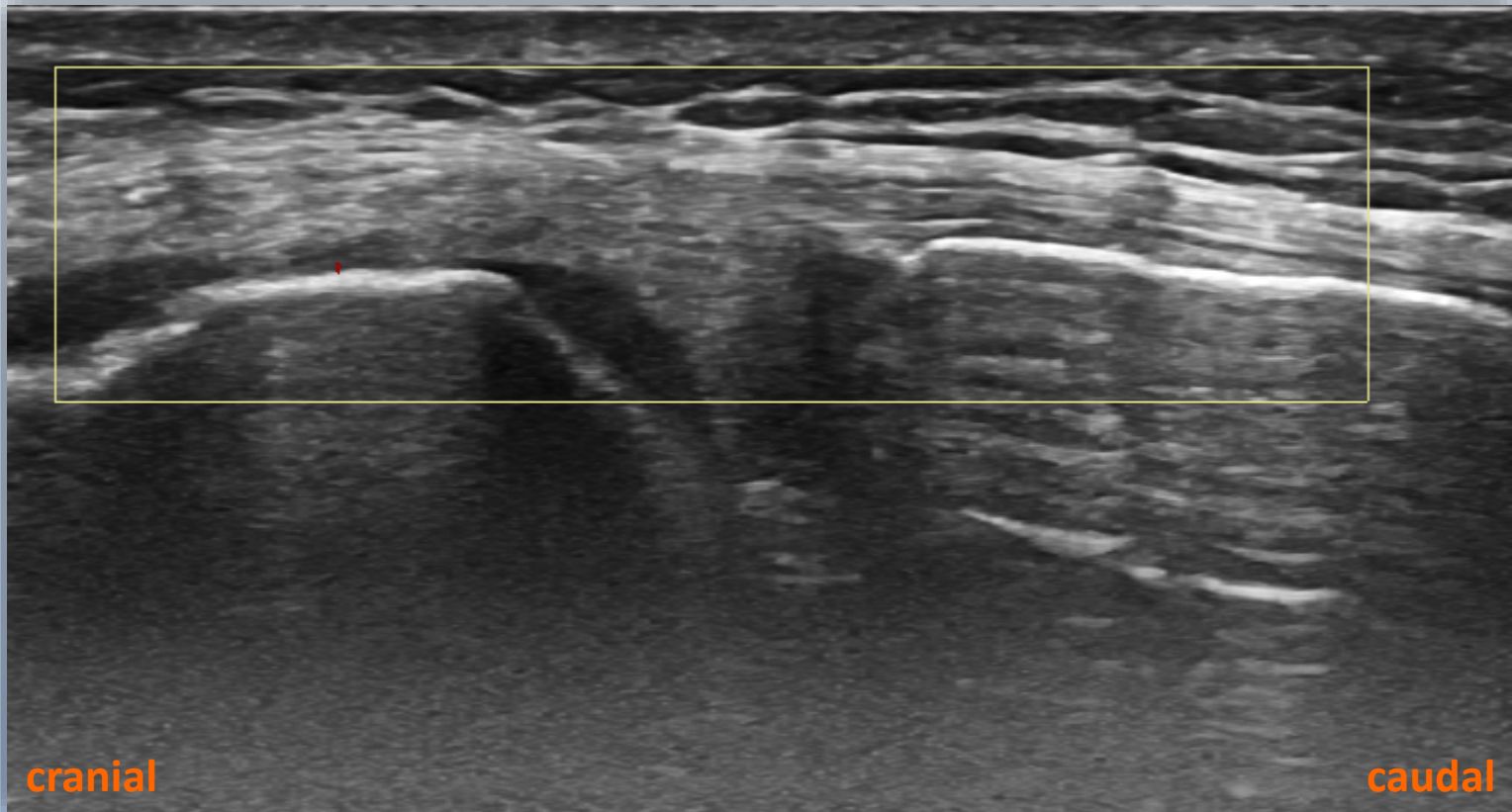


Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____


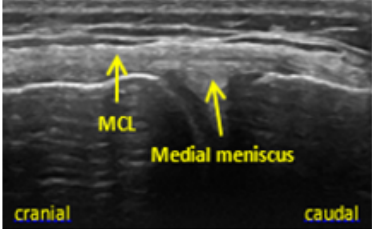
| | | | | | | |
|-------------------------|---|--|--|---|--|---|
| Medial meniscus and MCL | <input checked="" type="checkbox"/> MCL abnormality <input checked="" type="checkbox"/> medial meniscus abnormality <input checked="" type="checkbox"/> irregular bony margin <input checked="" type="checkbox"/> other <u>Meniscus abnormality</u> <u>Description:</u> <input checked="" type="checkbox"/> tear <input checked="" type="checkbox"/> irregularities <input type="checkbox"/> altered echogenicity | Soft tissue expansion inf. to MCL and within joint space | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input checked="" type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, knee at 30° flexion, external rotation of the hip Axis: LAX Probe Position: medial joint space Bony landmarks: femur (proximal) and tibia (distal) Muscles: none Blood vessels: none Nerves: none Other: medial meniscus (between femur and tibia) and MCL (superior to meniscus) |  <p>The top image shows a clinical photograph of a person's knee being palpated. The bottom image is an ultrasound scan of the medial joint space, showing the MCL and Medial meniscus with yellow arrows pointing to them. The scan is oriented with 'cranial' on the left and 'caudal' on the right.</p> |
|-------------------------|---|--|--|---|--|---|

J.A.D.E. Protocol Knee

Medial Meniscus and Medial Collateral Ligament LAX – Power Doppler



Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

| | | | | | | |
|-------------------------|---|--|---|---|--|--|
| Medial meniscus and MCL | <input checked="" type="checkbox"/> MCL abnormality <input checked="" type="checkbox"/> medial meniscus abnormality <input checked="" type="checkbox"/> irregular bony margin <input checked="" type="checkbox"/> other <u>Meniscus abnormality</u> <u>Description:</u> <input checked="" type="checkbox"/> tear <input checked="" type="checkbox"/> irregularities <input type="checkbox"/> altered echogenicity | | <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input checked="" type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, knee at 30° flexion, external rotation of the hip Axis: LAX Probe Position: medial joint space Bony landmarks: femur (proximal) and tibia (distal) Muscles: none Blood vessels: none Nerves: none Other: medial meniscus (between femur and tibia) and MCL (superior to meniscus) |   |
|-------------------------|---|--|---|---|--|--|

Soft tissue expansion inf. to MCL and within joint space

THANK YOU

Joint *Tissue* **Activity and Damage Exam**

J.A.D.E.

Practical Application

Part 3

By Lena Volland PT, DPT

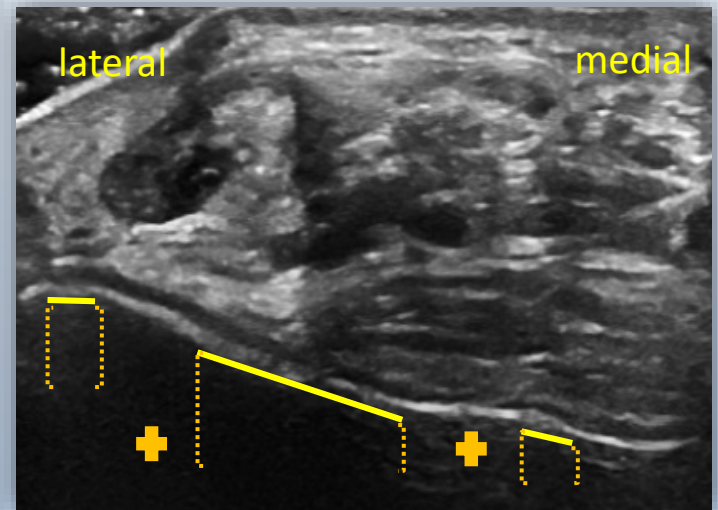
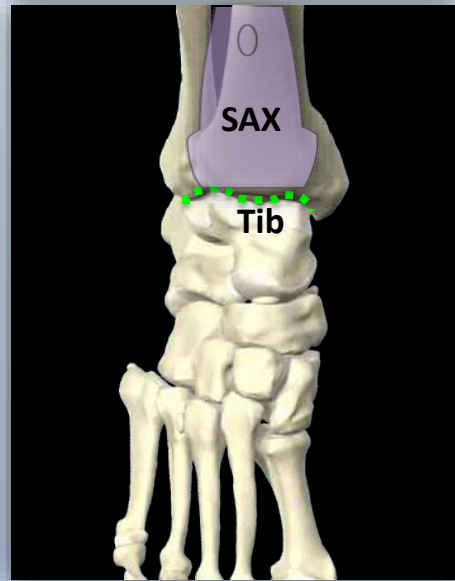
J.A.D.E. Protocol

ANKLE

J.A.D.E. Protocol

RECOMMENDED VIEWS

J.A.D.E. Protocol: Ankle
Anterior Ankle SAX
Osteochondral Interface Irregularities

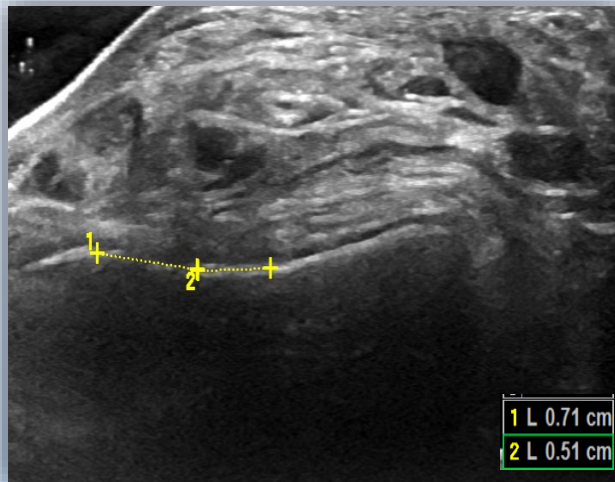


Measure any variation from hyperechoic, smooth, intact bony interface.

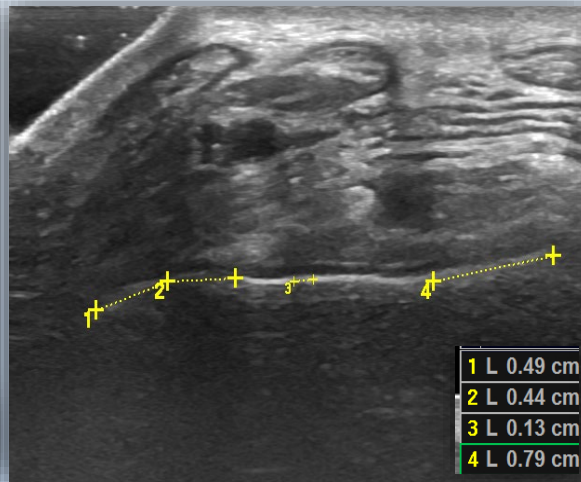
J.A.D.E. Protocol: Ankle

Examples: Anterior Ankle SAX

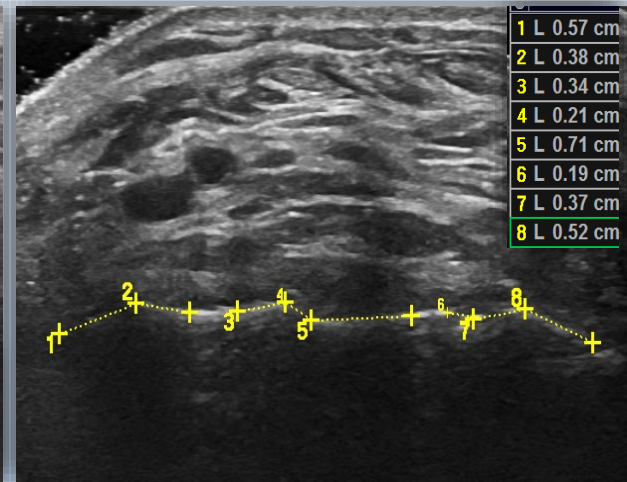
Osteochondral Interface Irregularities



Total length: 1.22cm



Total length: 1.85cm



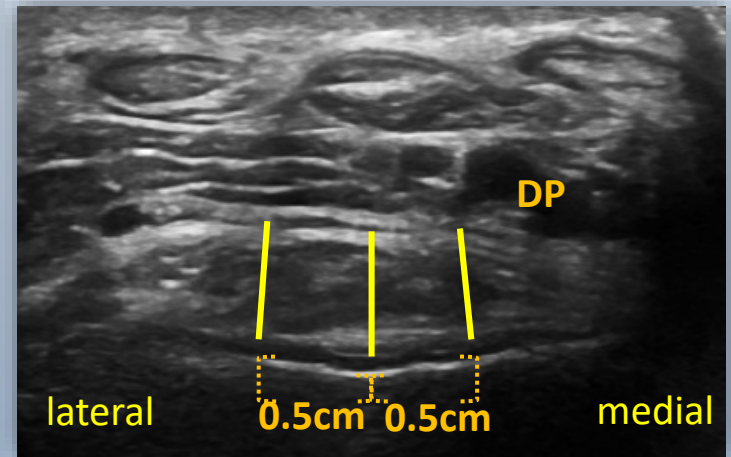
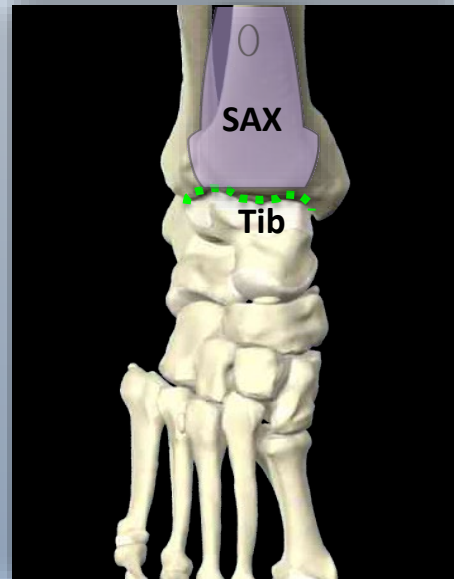
Total length: 3.63cm

J.A.D.E. Protocol: Ankle

Anterior Ankle SAX

Capsular Interface Thickness

The Tibio-Talar Joint contains an extra-synovial yet intra-capsular Fat Pad
Capsule + Fat Pad = Combined Interface

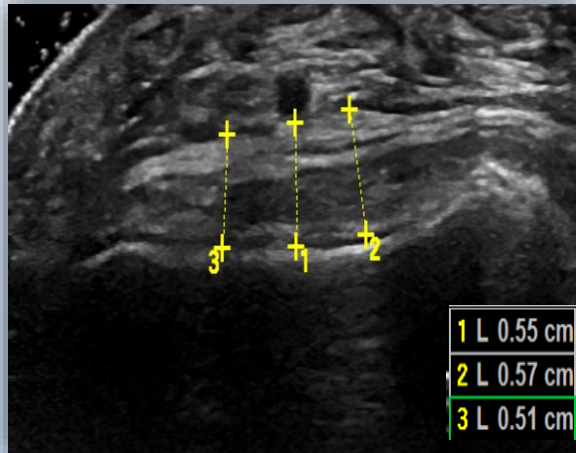


Measure the thickness of the capsular interface from the beginning of the synovial membrane to the height of the Dorsalis Pedis artery at the lowest point of the trochlea and 0.5cm medially and laterally.

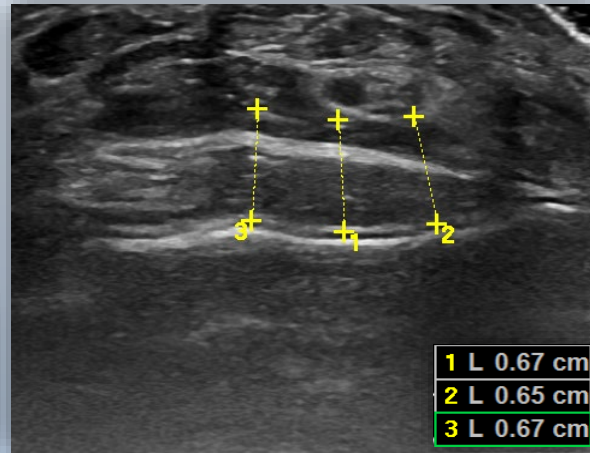
Measurement is perpendicular to the bony margin.

J.A.D.E. Protocol: Ankle

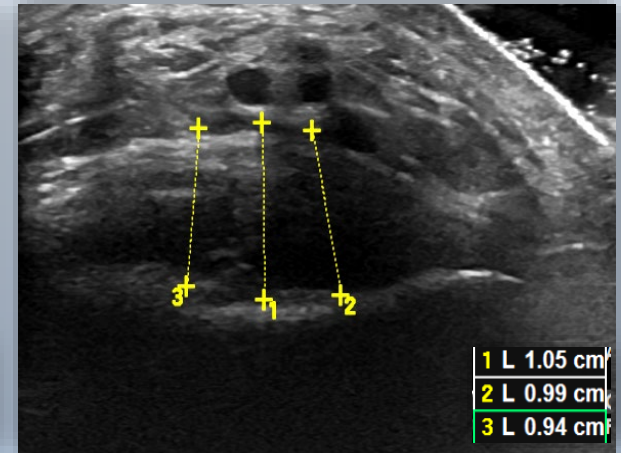
Examples: Anterior Ankle SAX Capsular Interface Thickness



Trochlea: 0.55cm
0.5cm medial: 0.57cm
0.5cm lateral: 0.51cm

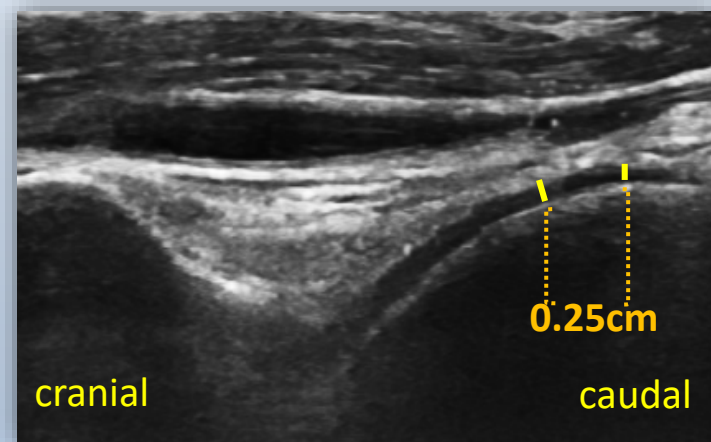
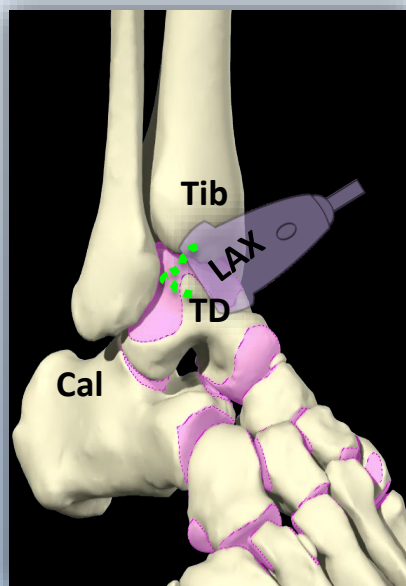


Trochlea: 0.67cm
0.5cm medial: 0.65cm
0.5cm lateral: 0.67cm



Trochlea: 1.05cm
0.5cm medial: 0.99cm
0.5cm lateral: 0.94cm

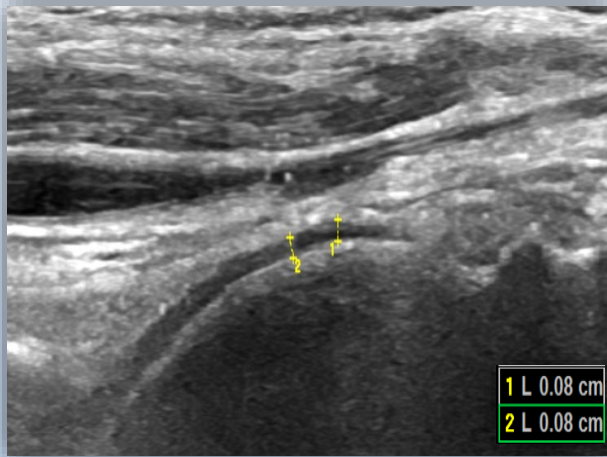
J.A.D.E. Protocol: Ankle Anterior Ankle LAX Cartilage Thickness



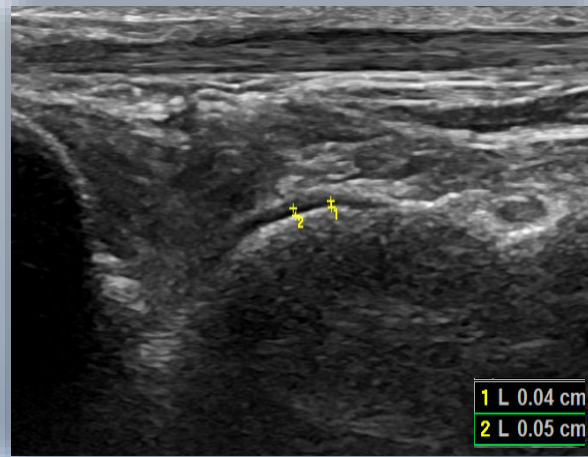
Measure cartilage thickness at the Apex and 0.25 cm
cranially on the talar dome.

Measurement is **perpendicular** to the bony margin.

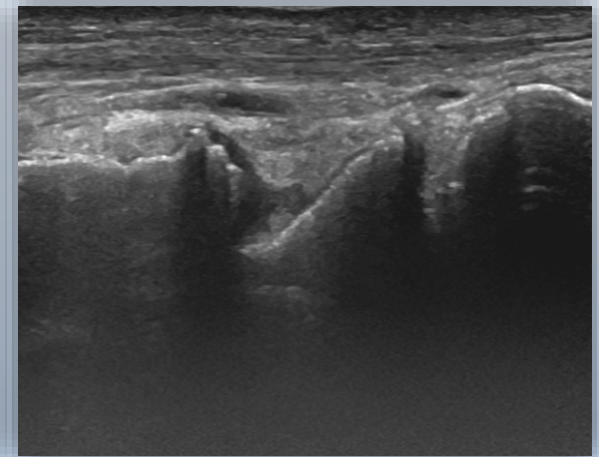
J.A.D.E. Protocol: Ankle
**Examples: Anterior Ankle LAX
Cartilage Thickness**



Apex: 0.08cm
0.25cm cranial: 0.08cm



Apex: 0.04cm
0.25cm cranial: 0.05cm

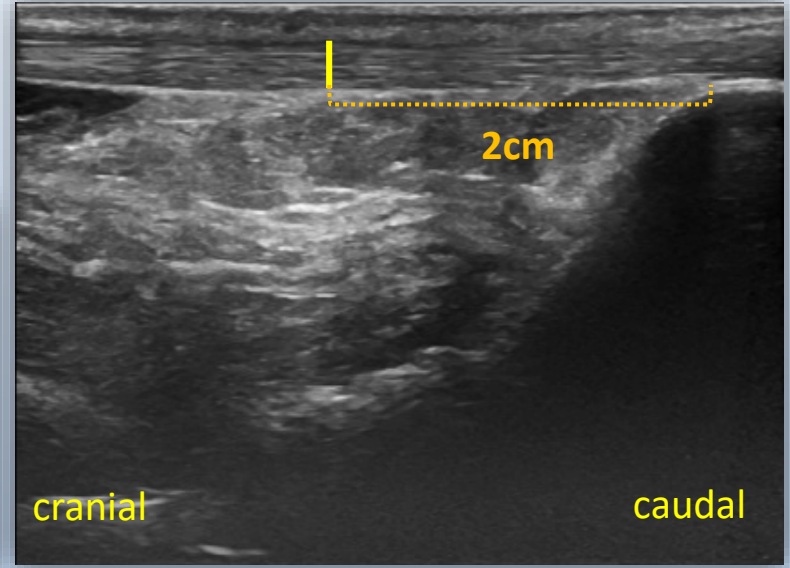
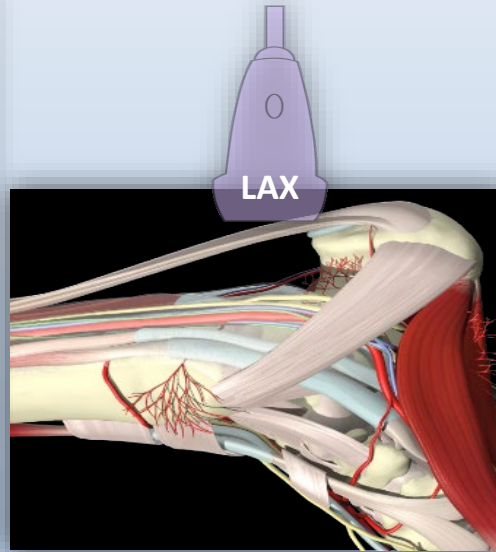


Apex: 0.00cm
0.25cm cranial: 0.00cm

J.A.D.E. Protocol

ADDITIONAL VIEWS

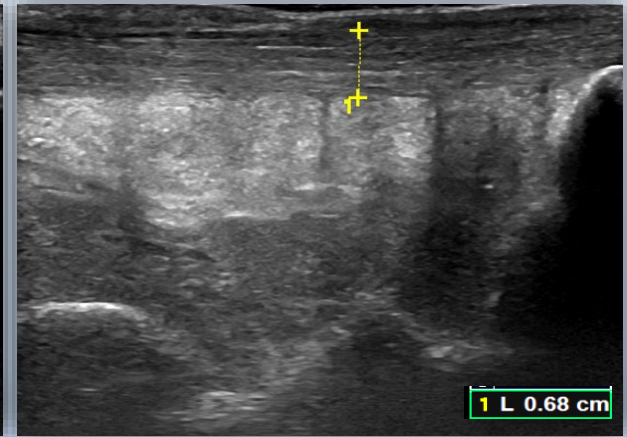
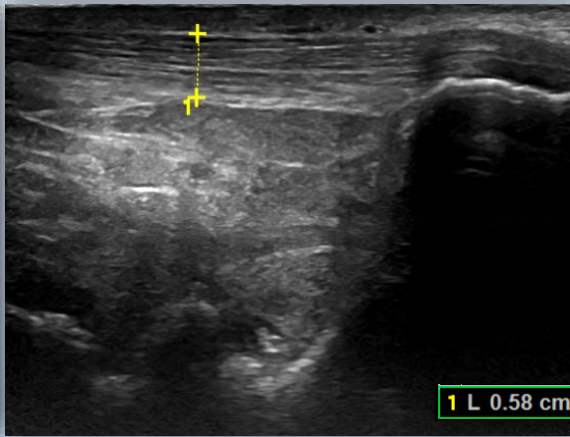
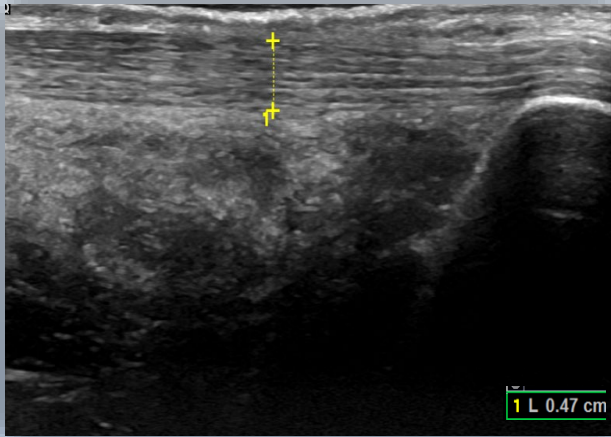
J.A.D.E. Protocol: Ankle **Achilles Tendon LAX**



Assess tendon thickness by measuring ***perpendicularly*** at 2cm cranially from the attachment of the Achilles tendon on the calcaneus.

J.A.D.E. Protocol: Ankle

Examples: Achilles Tendon LAX



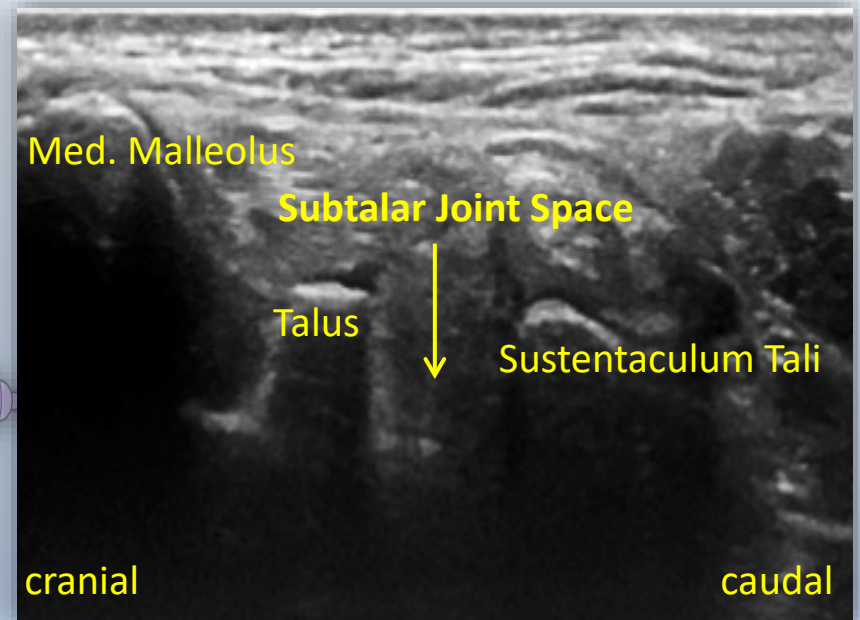
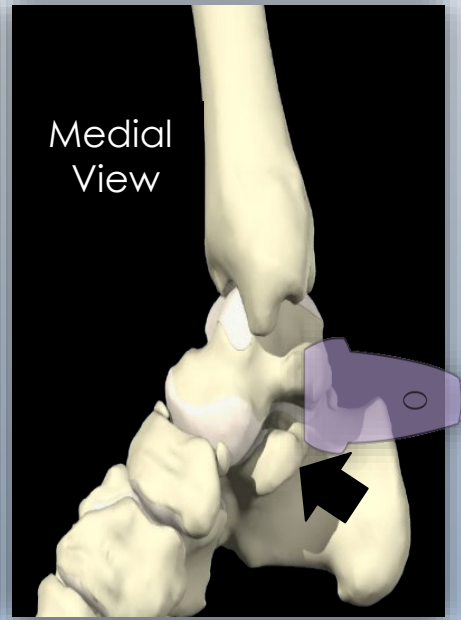
2cm from calcaneus: 0.47cm

2cm from calcaneus: 0.58cm

2cm from calcaneus: 0.68cm

J.A.D.E. Protocol: Ankle

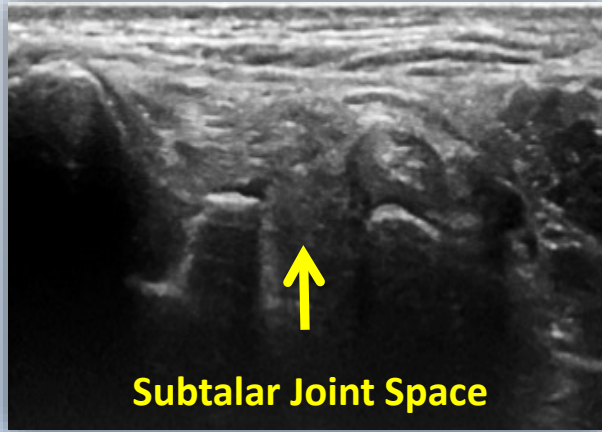
Subtalar Joint Medial Approach



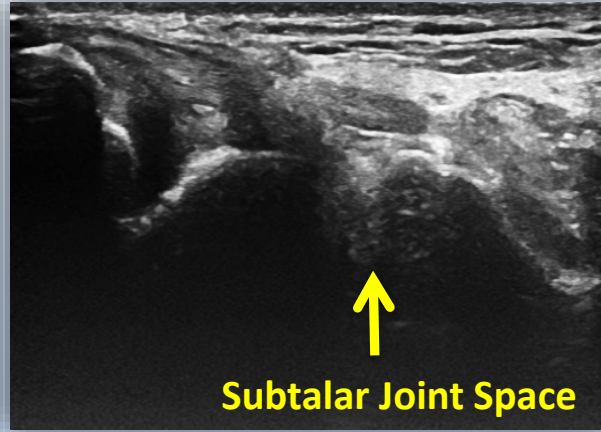
Assessment of subtalar joint abnormalities, considering bony irregularities and soft tissue expansion

J.A.D.E. Protocol: Ankle

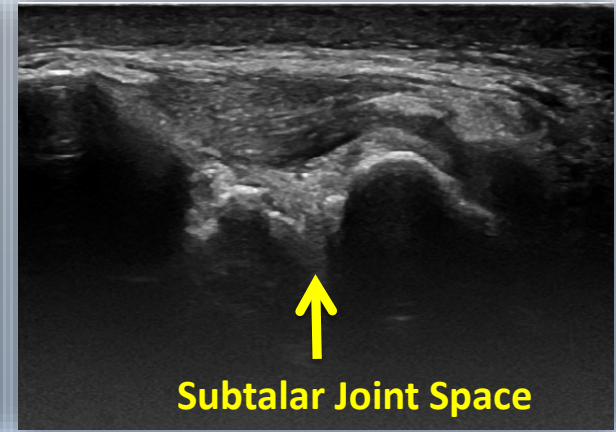
Examples: Subtalar Joint Medial Approach



Mild irregularities



Irregular bony margin
and soft tissue
proliferation



Significant irregular
bony margin and
soft tissue
expansion

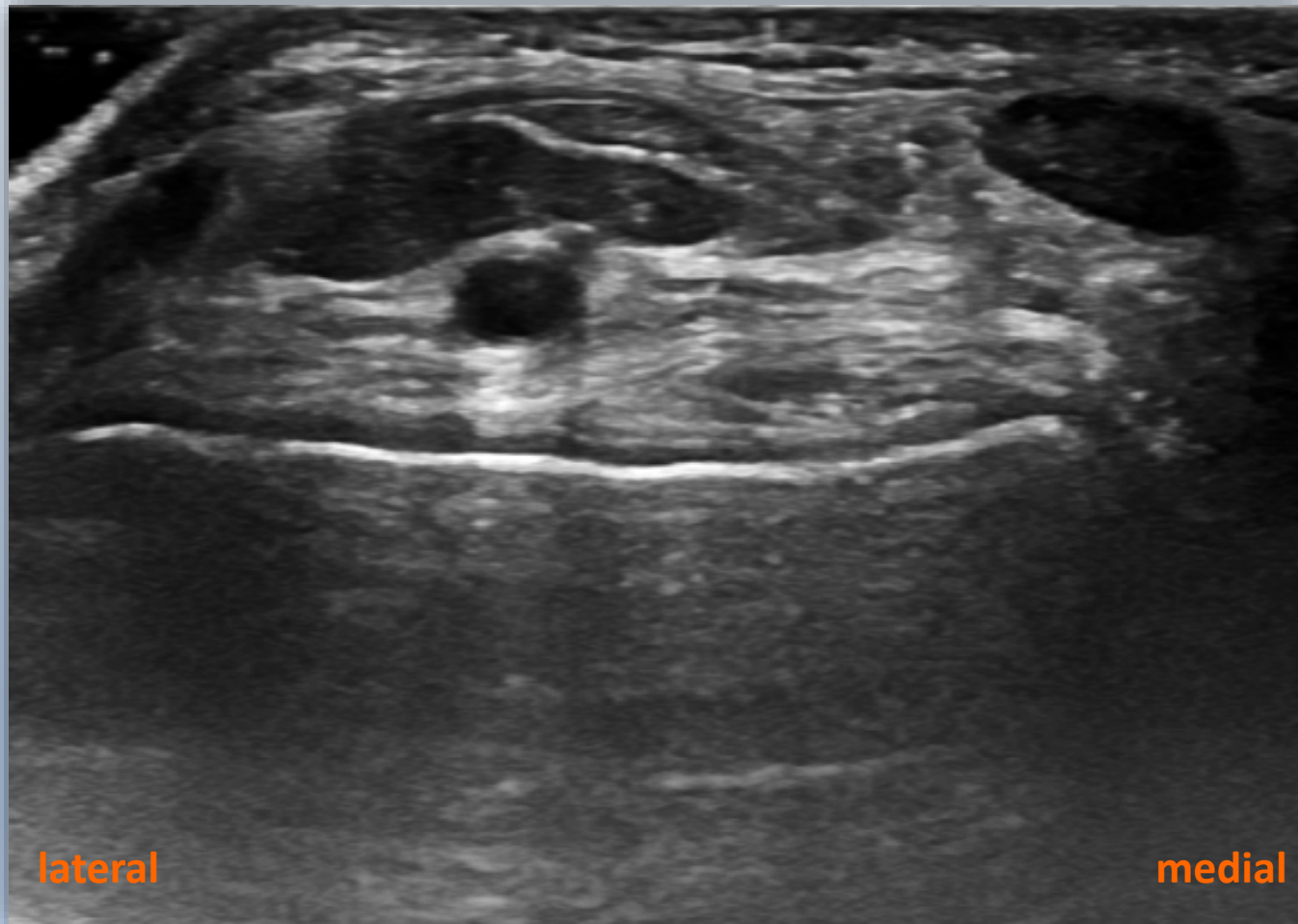
Case Study

ANKLE

J.A.D.E. Protocol

RECOMMENDED VIEWS


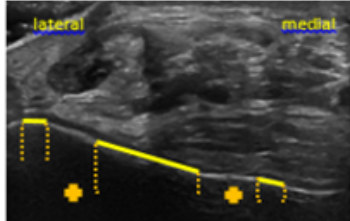
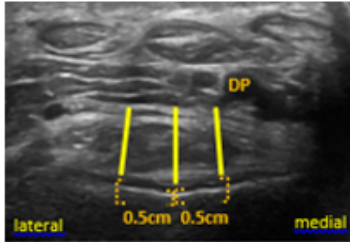
J.A.D.E. Protocol: Ankle
Anterior Ankle SAX
Osteochondral Interface Irregularities



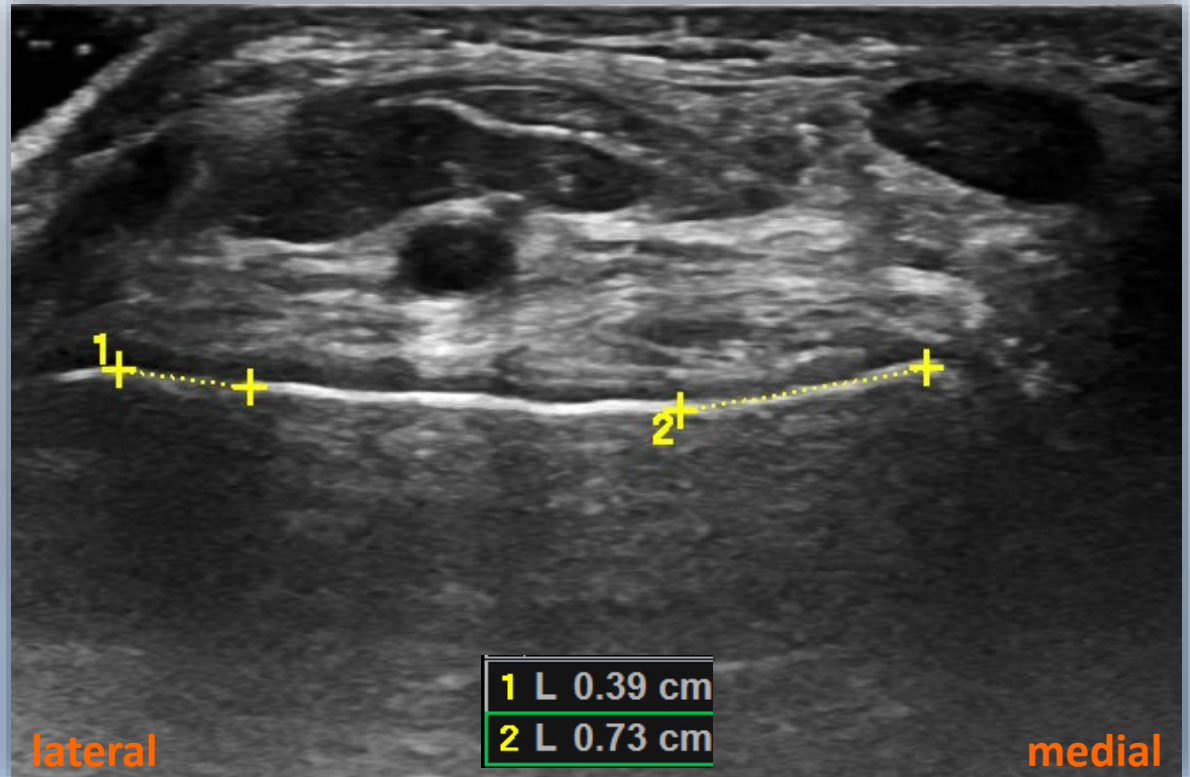
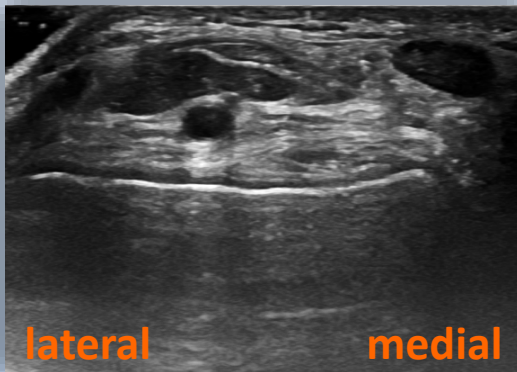
Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

ANKLE Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|--|--|--|---|--|--|--|
| Anterior Joint Space SAX: Osteochondral Line and Capsular Thickness | <p><u>Joint Space content:</u></p> <p><input checked="" type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> diminished joint space</p> <p><input type="checkbox"/> osteophytes</p> <p><input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p><i>Capsular Thickness (from synovial membrane to EDL):</i> Midpoint:</p> <p>0.5cm med:</p> <p>0.5cm lat:</p> <p>New: Capsular thickness should include all soft tissue between the synovial membrane (<i>inferior margin</i>) and the Extensor Digitorum Longus (EDL) (<i>superior margin</i>)</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, foot rests on bolster</p> <p>Axis: SAX</p> <p>Probe Position: across anterior tibiotalar joint</p> <p>Bony landmarks: talus</p> <p>Muscles: superior to tibia, Extensor digitorum longus (lateral), Extensor Hallucis Longus (center), Tibialis Anterior (medial)</p> <p>Blood vessels: dorsalis pedis artery and vein</p> <p>Nerves: deep peroneal nerve</p> <p>Measurement (osteochondral alteration): individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations.</p> <p>Measurement (capsular interface): measure the thickness of the capsular interface from the beginning of the synovial membrane to the height of the Extensor Hallucis Longus muscle at the lowest point of the trochlea and 0.5cm to the medially and laterally. Assure that measurement is perpendicular to the bony margin.</p> |    |


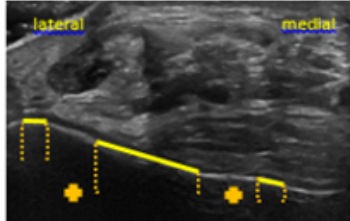
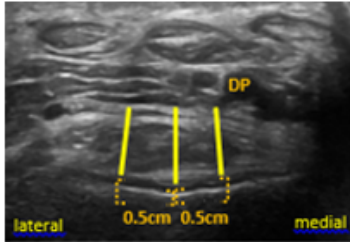
J.A.D.E. Protocol: Ankle
Anterior Ankle SAX
Osteochondral Interface Irregularities



Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

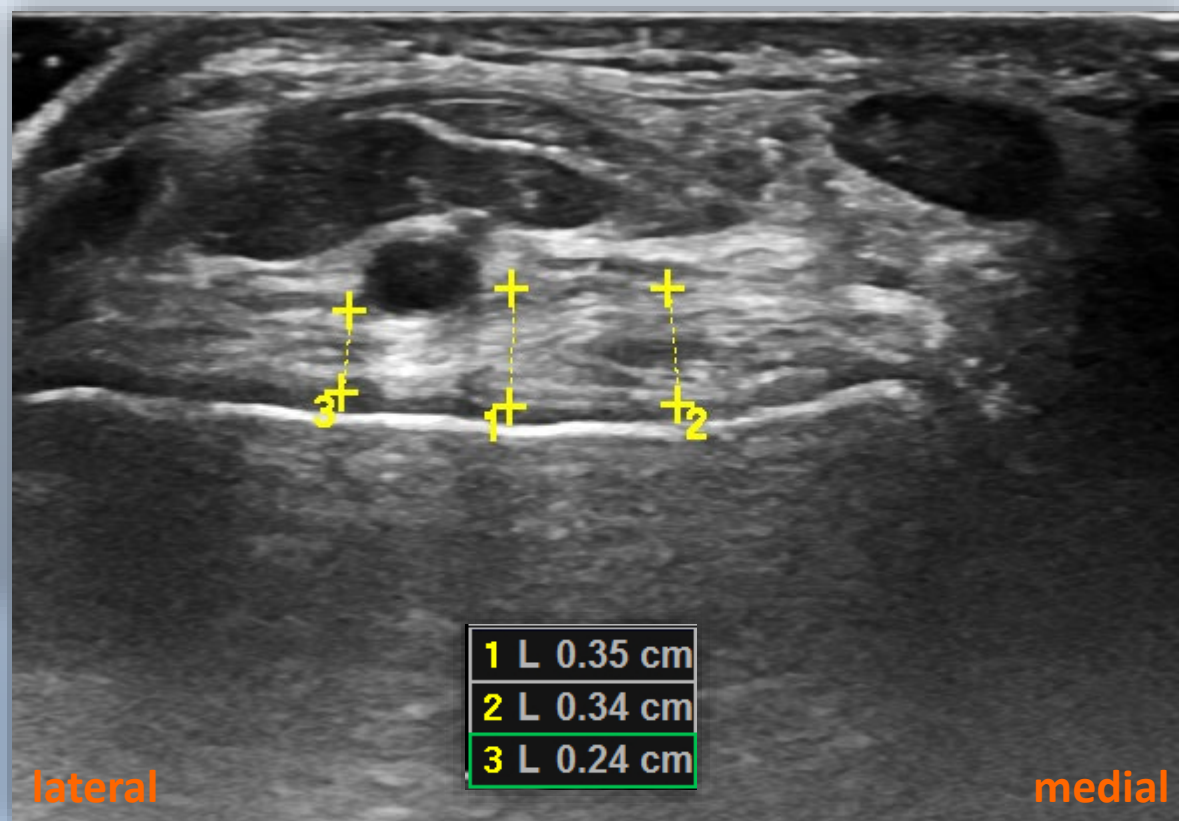
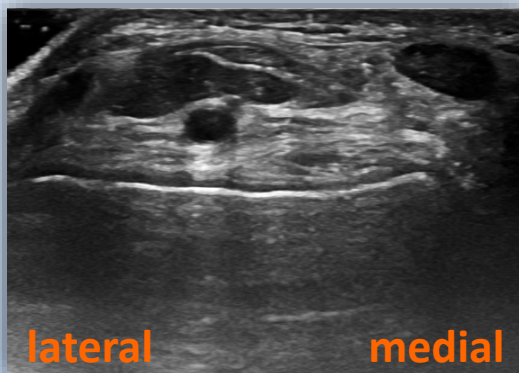
ANKLE Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|---|--|--|---|--|--|--|
| Anterior Joint Space SAX: <i>Osteochondral I Line and Capsular Thickness</i> | <p><u>Joint Space content:</u></p> <p><input checked="" type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> diminished joint space</p> <p><input type="checkbox"/> osteophytes</p> <p><input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p style="font-size: 1.5em; color: orange; text-align: center;">1.12cm</p> <p><i>Capsular Thickness (from synovial membrane to EDL):</i></p> <p>Midpoint:</p> <p>0.5cm med:</p> <p>0.5cm lat:</p> <p>New: Capsular thickness should include all soft tissue between the synovial membrane (<i>inferior margin</i>) and the Extensor Digitorum Longus (EDL) (<i>superior margin</i>)</p> | <p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, foot rests on bolster</p> <p>Axis: SAX</p> <p>Probe Position: across anterior tibiotalar joint</p> <p>Bony landmarks: talus</p> <p>Muscles: superior to tibia, Extensor digitorum longus (lateral), Extensor Hallucis Longus (center), Tibialis Anterior (medial)</p> <p>Blood vessels: dorsalis pedis artery and vein</p> <p>Nerves: deep peroneal nerve</p> <p>Measurement (osteochondral alteration): individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations.</p> <p>Measurement (capsular interface): measure the thickness of the capsular interface from the beginning of the synovial membrane to the height of the Extensor Hallucis Longus muscle at the lowest point of the trochlea and 0.5cm to the medially and laterally. Assure that measurement is perpendicular to the bony margin.</p> |    |

J.A.D.E. Protocol: Ankle

Anterior Ankle SAX


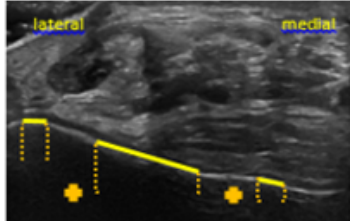
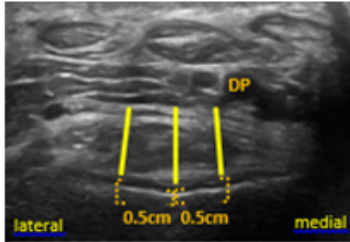
Capsular Interface



Name: _____ Date: _____

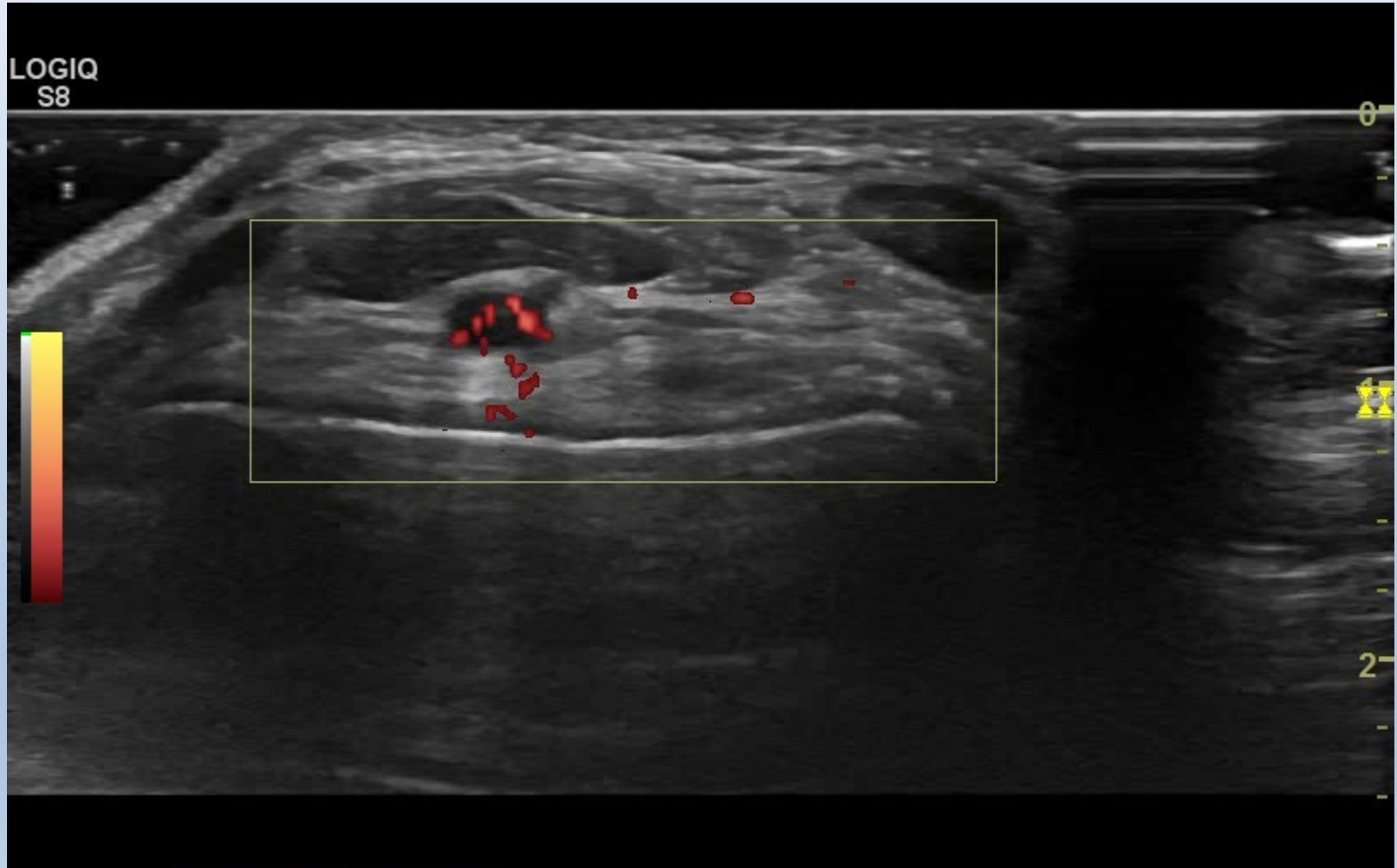
Patient Number: _____ Person completing this form: _____

ANKLE Recommended Views

| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|---|--|---|--|---|--|--|
| Anterior Joint Space SAX: Osteochondral I Line and Capsular Thickness | <p><u>Joint Space content:</u></p> <p><input checked="" type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> diminished joint space</p> <p><input type="checkbox"/> osteophytes</p> <p><input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p style="font-size: 1.2em; color: orange;">1.12cm</p> <p><i>Capsular Thickness (from synovial membrane to EDL):</i></p> <p>Midpoint:</p> <p style="font-size: 1.2em; color: orange;">0.35cm</p> <p>0.5cm med:</p> <p style="font-size: 1.2em; color: orange;">0.34cm</p> <p>0.5cm lat:</p> <p style="font-size: 1.2em; color: orange;">0.24cm</p> <p>New: Capsular thickness should include all soft tissue between the synovial membrane (<i>inferior margin</i>) and the Extensor Digitorum Longus (EDL) (<i>superior margin</i>)</p> | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A | <p>Patient Position: supine, foot rests on bolster</p> <p>Axis: SAX</p> <p>Probe Position: across anterior tibiotalar joint</p> <p>Bony landmarks: talus</p> <p>Muscles: superior to tibia, Extensor digitorum longus (lateral), Extensor Hallucis Longus (center), Tibialis Anterior (medial)</p> <p>Blood vessels: dorsalis pedis artery and vein</p> <p>Nerves: deep peroneal nerve</p> <p>Measurement (osteochondral alteration): individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations.</p> <p>Measurement (capsular interface): measure the thickness of the capsular interface from the beginning of the synovial membrane to the height of the Extensor Hallucis Longus muscle at the lowest point of the trochlea and 0.5cm to the medially and laterally. Assure that measurement is perpendicular to the bony margin.</p> |    |

J.A.D.E. Protocol: Ankle


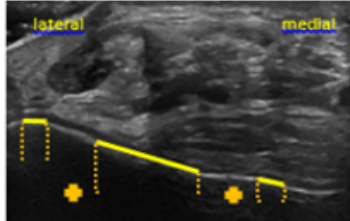
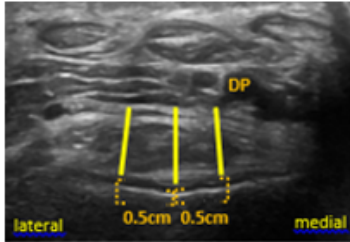
Anterior Ankle SAX - Power Doppler



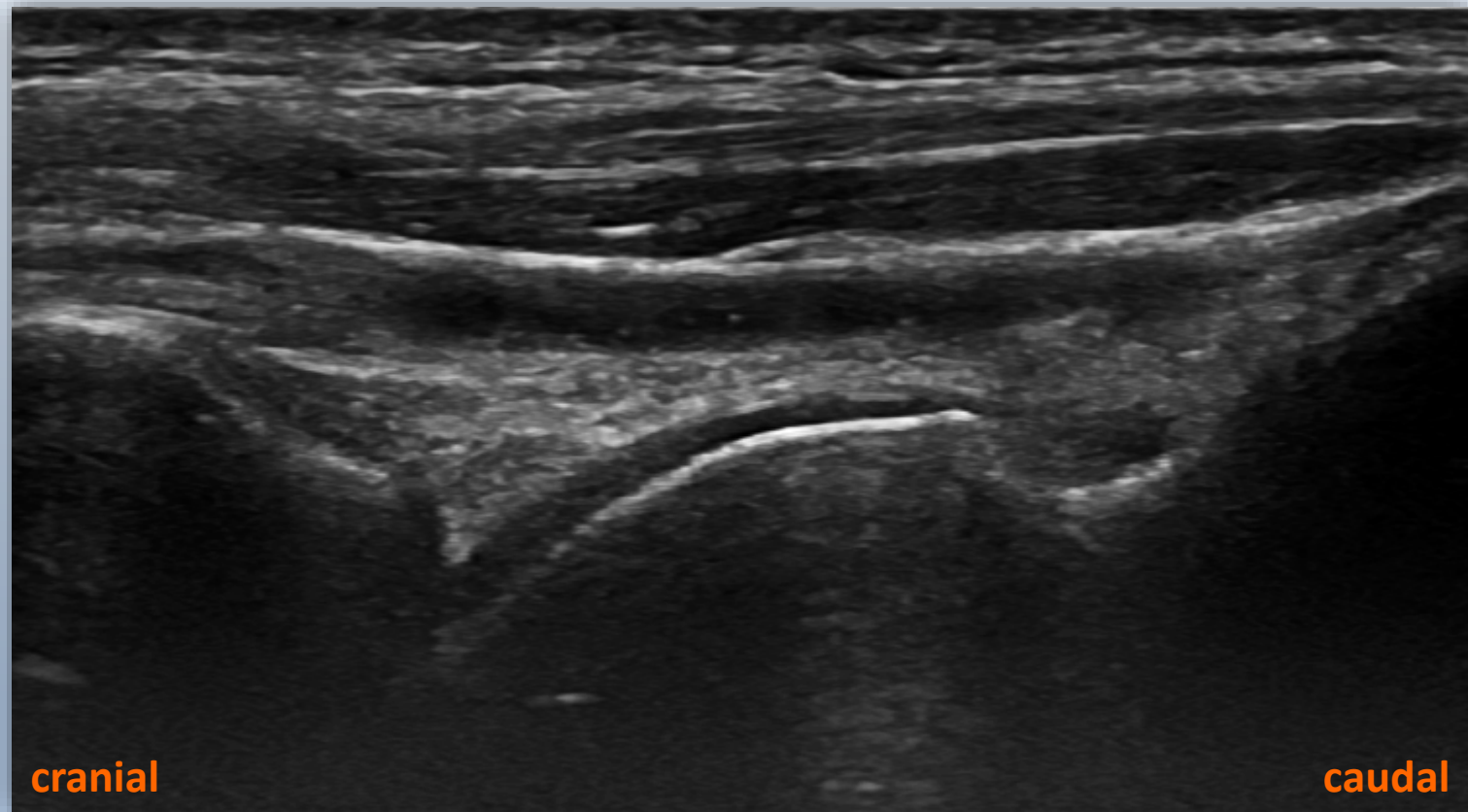
Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

ANKLE Recommended Views


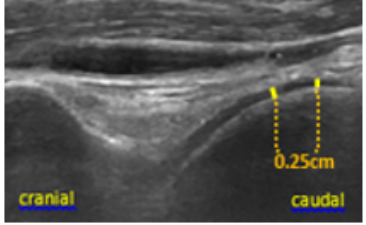
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
|---|--|---|--|--|--|--|
| Anterior Joint Space SAX: <i>Osteochondral I Line and Capsular Thickness</i> | <p><u>Joint Space content:</u></p> <p><input checked="" type="checkbox"/> none</p> <p><input type="checkbox"/> anechoic</p> <p><input type="checkbox"/> hypoechoic</p> <p><input type="checkbox"/> mixed signal</p> <p><u>Assessment:</u></p> <p><input type="checkbox"/> hypoechoic complex fluid</p> <p><input type="checkbox"/> anechoic simple fluid</p> <p><input type="checkbox"/> soft tissue proliferation</p> <p><input checked="" type="checkbox"/> irregular bony margin</p> <p><input type="checkbox"/> diminished joint space</p> <p><input type="checkbox"/> osteophytes</p> <p><input type="checkbox"/> other _____</p> | <p>Length of osteochondral alterations:</p> <p style="text-align: center; font-size: 1.2em; color: orange;">1.12cm</p> <p><i>Capsular Thickness (from synovial membrane to EDL):</i></p> <p>Midpoint:</p> <p style="text-align: center; font-size: 1.2em; color: orange;">0.35cm</p> <p>0.5cm med:</p> <p style="text-align: center; font-size: 1.2em; color: orange;">0.34cm</p> <p>0.5cm lat:</p> <p style="text-align: center; font-size: 1.2em; color: orange;">0.24cm</p> <p>New: Capsular thickness should include all soft tissue between the synovial membrane (<i>inferior margin</i>) and the Extensor Digitorum Longus (EDL) (<i>superior margin</i>)</p> | <p><input checked="" type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely</p> <p><input type="checkbox"/> partially</p> <p><input type="checkbox"/> non compressible</p> <p><input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, foot rests on bolster</p> <p>Axis: SAX</p> <p>Probe Position: across anterior tibiotalar joint</p> <p>Bony landmarks: talus</p> <p>Muscles: superior to tibia, Extensor digitorum longus (lateral), Extensor Hallucis Longus (center), Tibialis Anterior (medial)</p> <p>Blood vessels: dorsalis pedis artery and vein</p> <p>Nerves: deep peroneal nerve</p> <p>Measurement (osteochondral alteration): individually measure any variation from hyperechoic, smooth, intact bony interface. Then add the values together for the total length of alterations.</p> <p>Measurement (capsular interface): measure the thickness of the capsular interface from the beginning of the synovial membrane to the height of the Extensor Hallucis Longus muscle at the lowest point of the trochlea and 0.5cm to the medially and laterally. Assure that measurement is perpendicular to the bony margin.</p> |    |

J.A.D.E. Protocol: Ankle
Anterior Ankle LAX
Cartilage Thickness

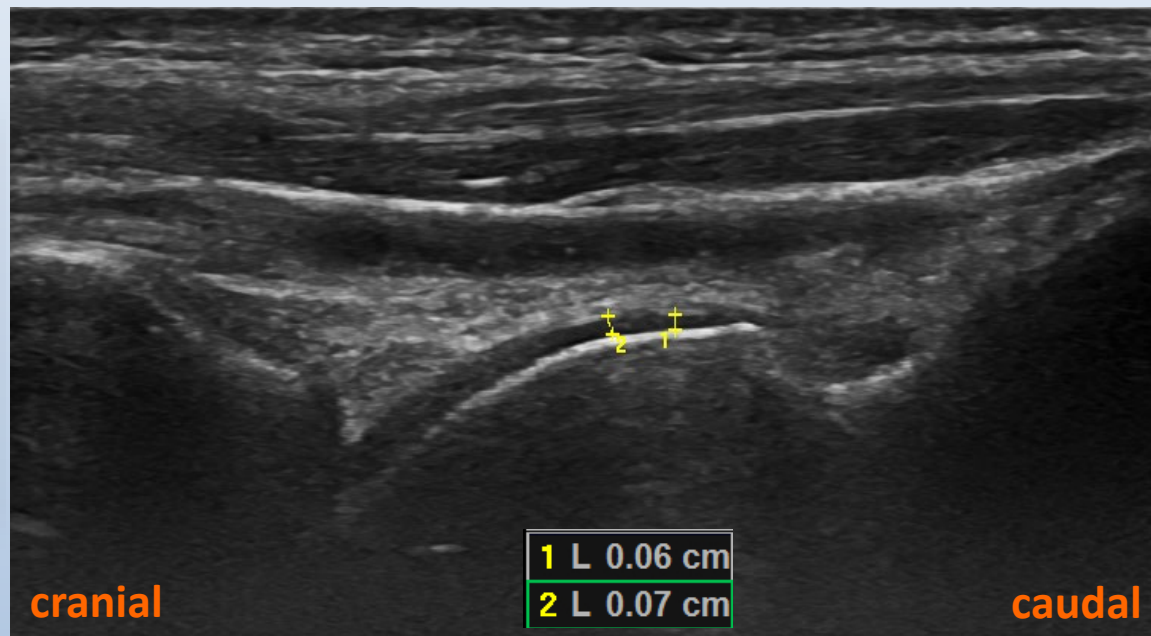
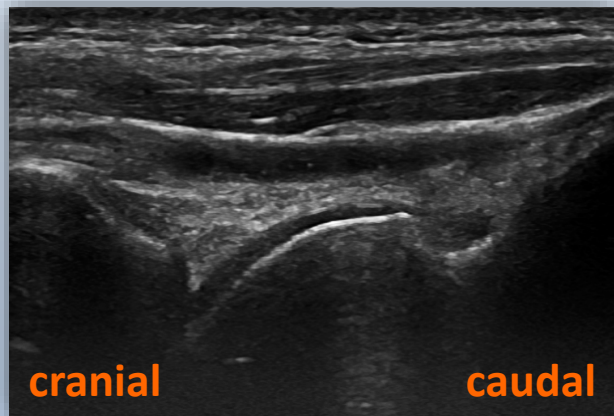


Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____


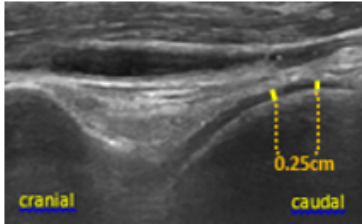
| | | | | | | |
|--|---|---|---|--|---|---|
| <p>Anterior Joint Space LAX: Cartilage Thickness</p> | <p><u>Joint Space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p>Assessment: <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> diminished joint space <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex:</p> <p>0.25cm cranial:</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, foot rests on bolster Axis: LAX Probe Position: across anterior talocrural joint Bony landmarks: tibia (proximal), talar dome (center), and talar head (medial) Muscles: Blood vessels: dorsalis pedis artery Nerves: none Other: fat pad anterior to talocrural joint space Measurement: Assess cartilage thickness perpendicularly to the bony margin at the apex and 0.25cm cranially.</p> |   |
|--|---|---|---|--|---|---|

J.A.D.E. Protocol: Ankle Anterior Ankle LAX Cartilage Thickness

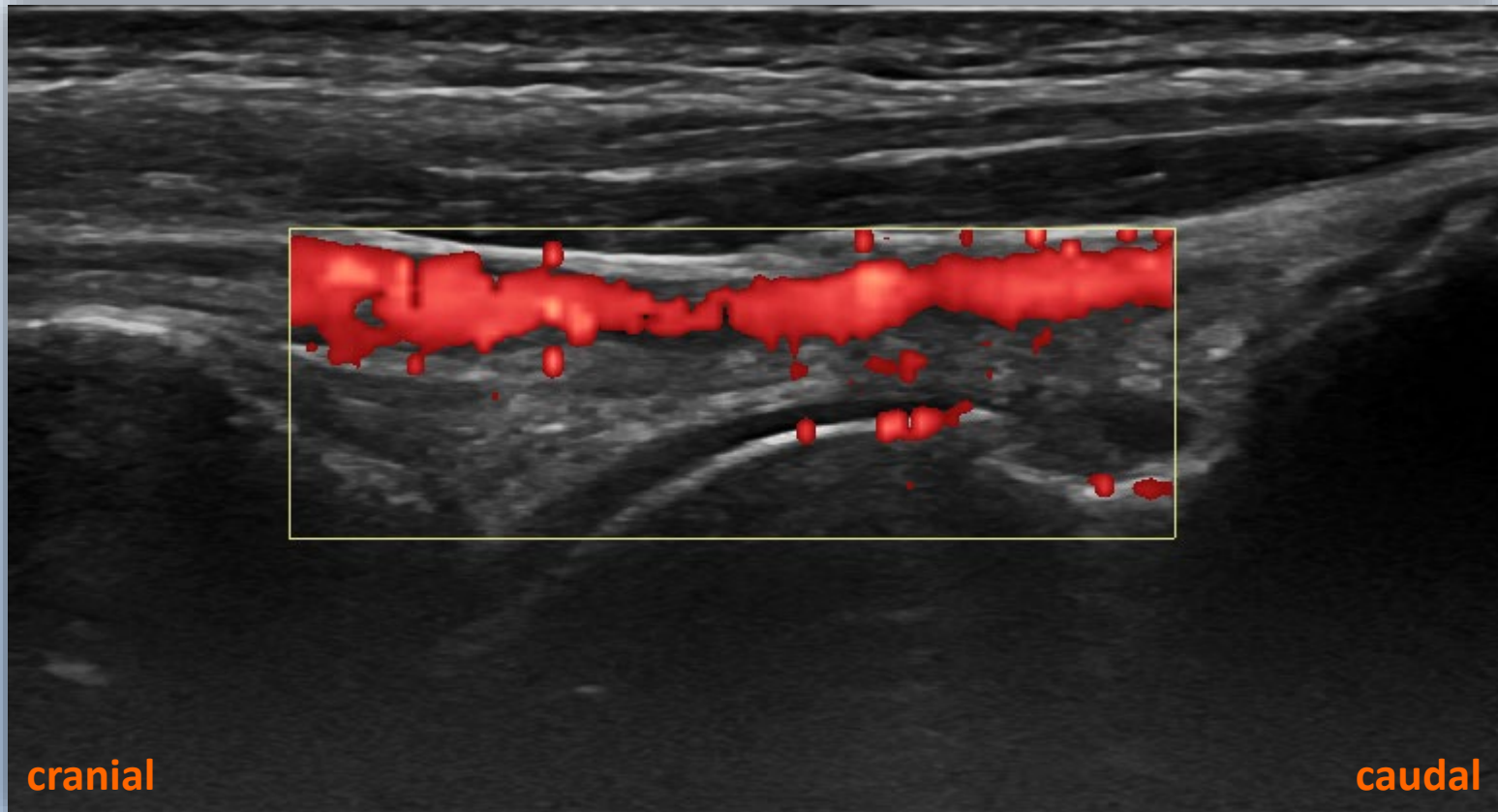


Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____


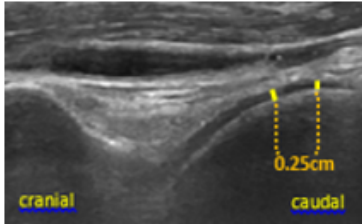
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|--|---|---|---|--|---|---|
| <p>Anterior Joint Space LAX: Cartilage Thickness</p> | <p><u>Joint Space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p>Assessment: <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> diminished joint space <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex:</p> <p style="text-align: center;">0.06cm</p> <p>0.25cm cranial:</p> <p style="text-align: center;">0.07cm</p> | <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, foot rests on bolster Axis: LAX Probe Position: across anterior talocrural joint Bony landmarks: tibia (proximal), talar dome (center), and talar head (medial) Muscles: Blood vessels: dorsalis pedis artery Nerves: none Other: fat pad anterior to talocrural joint space Measurement: Assess cartilage thickness perpendicularly to the bony margin at the apex and 0.25cm cranially.</p> |   |
|--|---|---|---|--|---|---|

J.A.D.E. Protocol: Ankle
Anterior Ankle LAX - Power Doppler



Name: _____ Date: _____

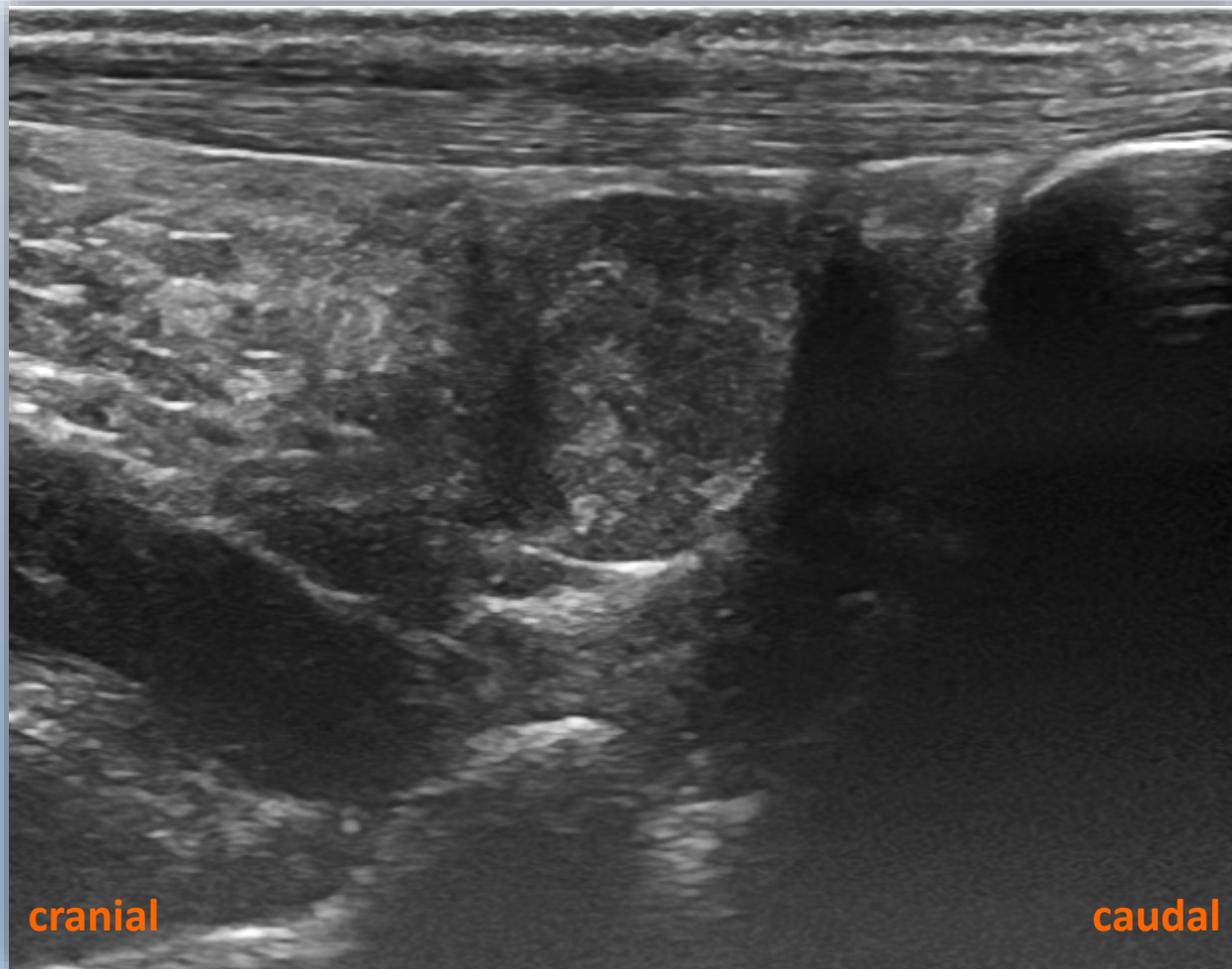
Patient Number: _____ Person completing this form: _____

| | | | | | | |
|--|---|---|---|---|---|--|
| <p>Anterior Joint Space LAX: Cartilage Thickness</p> | <p><u>Joint Space content:</u> <input checked="" type="checkbox"/> none <input type="checkbox"/> anechoic <input type="checkbox"/> hypoechoic <input type="checkbox"/> mixed signal</p> <p>Assessment: <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input checked="" type="checkbox"/> irregular bony margin <input type="checkbox"/> diminished joint space <input type="checkbox"/> other _____</p> | <p><u>Cartilage Thickness:</u> Apex: 0.06cm</p> <p>0.25cm cranial: 0.07cm</p> | <p><input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3</p> | <p><input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A</p> | <p>Patient Position: supine, foot rests on bolster Axis: LAX Probe Position: across anterior talocrural joint Bony landmarks: tibia (proximal), talar dome (center), and talar head (medial) Muscles: Blood vessels: dorsalis pedis artery Nerves: none Other: fat pad anterior to talocrural joint space Measurement: Assess cartilage thickness perpendicularly to the bony margin at the apex and 0.25cm cranially.</p> |   |
|--|---|---|---|---|---|--|


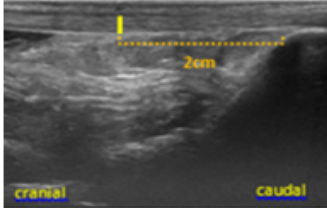

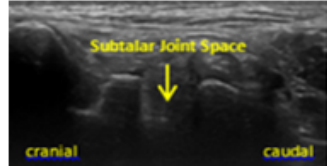
J.A.D.E. Protocol

ADDITIONAL VIEWS

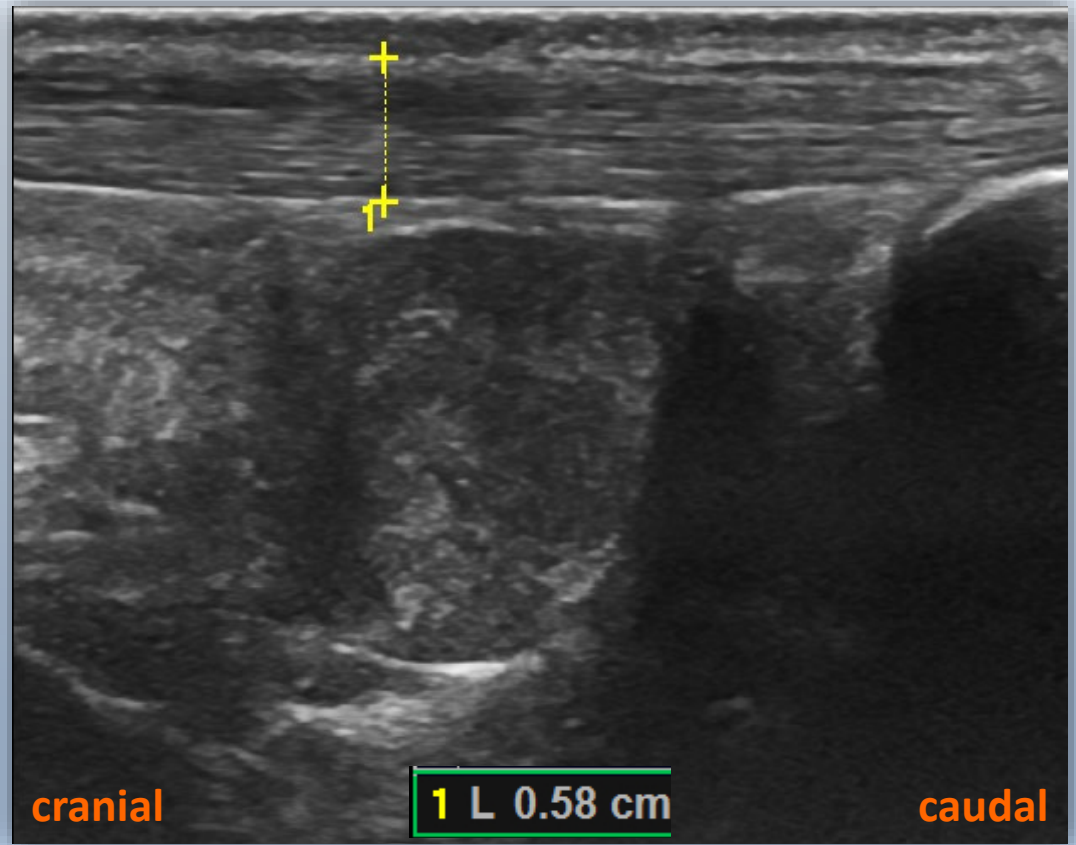
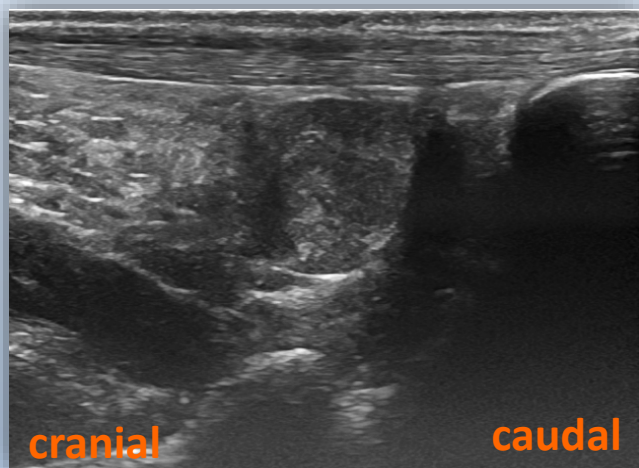
J.A.D.E. Protocol: Ankle
Achilles Tendon LAX




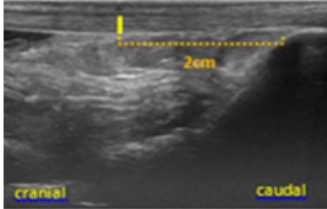

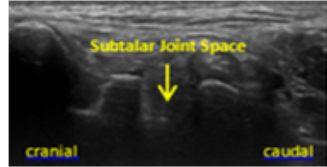
Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

| ANKLE Additional Views | | | | | | |
|--|---|--|--|---|--|---|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Achilles tendon Thickness Kager's Fat Pad | <input checked="" type="checkbox"/> abnormal tendon fibers <input type="checkbox"/> irregular bony margin (calcaneus) <input type="checkbox"/> other _____ | Tendon thickness measurement: 2.0cm from calcaneus: | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A | Patient Position: prone, foot resting on a bolster Axis: LAX Probe Position: distal Achilles tendon Bony landmarks: tibia (proximal) and calcaneus (distal) Muscles: Achilles tendon (superior), Tibialis Posterior tendon (superior to tibia), and Flexor Digitorum tendon (superior to tibialis posterior) Blood vessels: none Nerves: none Other: Kager's fat pad (inferior to Achilles tendon), retro-calcaneal bursa (between Achilles tendon and calcaneus) Measurement: Assess tendon thickness by measuring perpendicularly at 2cm cranially from the end of the calcaneus. |   |
| Subtalar Joint | <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input type="checkbox"/> other _____ | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, foot rests on bolster, external rotation of the hip Axis: LAX Probe Position: connecting medial malleolus with calcaneus Bony landmarks: medial malleolus (proximal), sustentaculum tali (center), calcaneus (medial) Muscles: none Blood vessels: none Nerves: none |   |

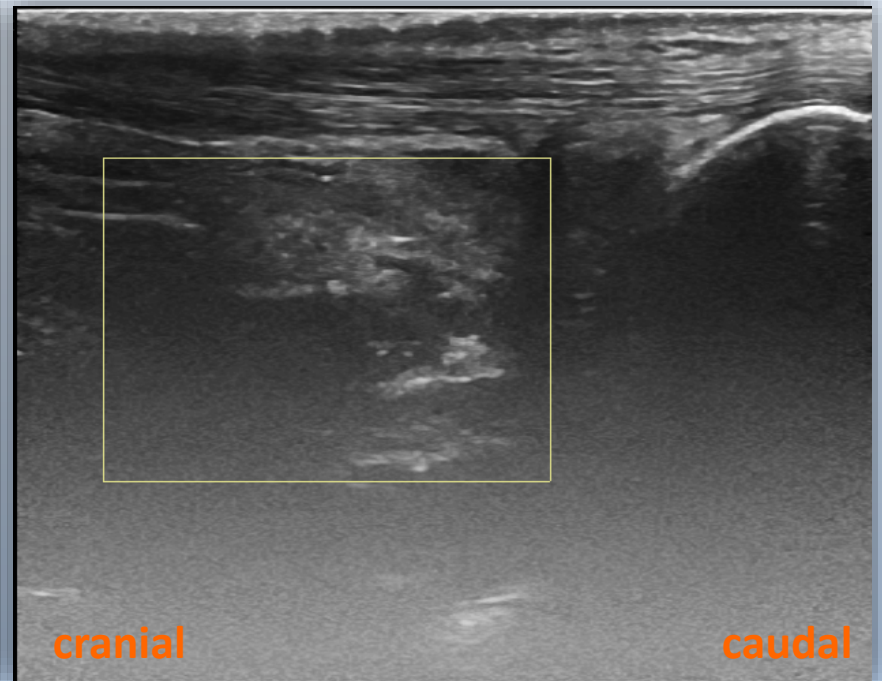
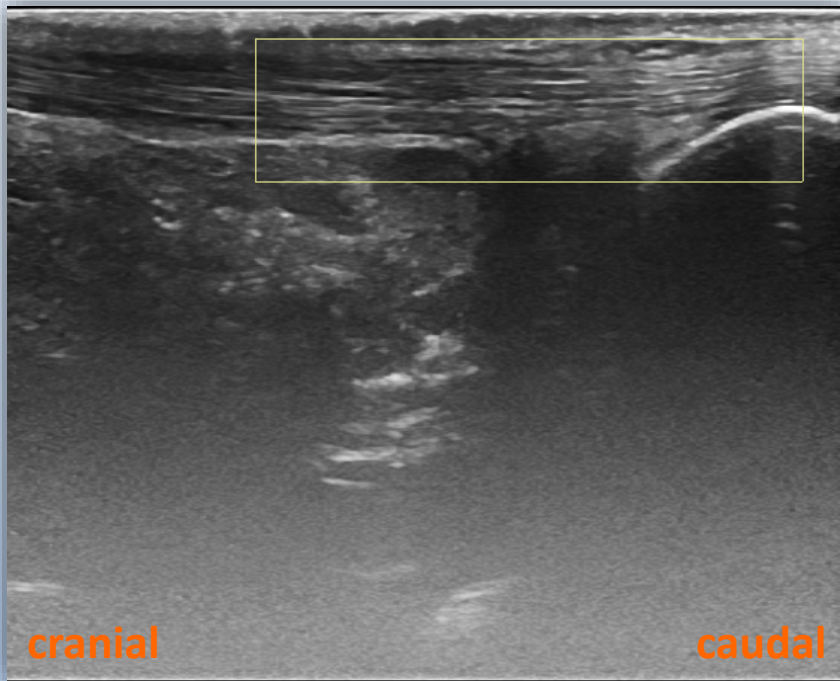
J.A.D.E. Protocol: Ankle **Achilles Tendon LAX**




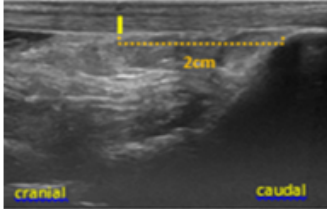

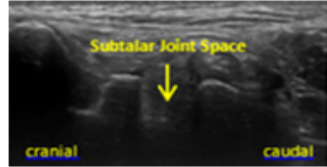
Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

| ANKLE Additional Views | | | | | | |
|--|---|---|--|---|--|---|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Achilles tendon Thickness Kager's Fat Pad | <input checked="" type="checkbox"/> abnormal tendon fibers <input type="checkbox"/> irregular bony margin (calcaneus) <input type="checkbox"/> other _____ | Tendon thickness measurement: 2.0cm from calcaneus: <div style="text-align: center; color: orange; font-size: 1.2em;">0.58cm</div> | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A | Patient Position: prone, foot resting on a bolster Axis: LAX Probe Position: distal Achilles tendon Bony landmarks: tibia (proximal) and calcaneus (distal) Muscles: Achilles tendon (superior), Tibialis Posterior tendon (superior to tibia), and Flexor Digitorum tendon (superior to tibialis posterior) Blood vessels: none Nerves: none Other: Kager's fat pad (inferior to Achilles tendon), retro-calcaneal bursa (between Achilles tendon and calcaneus) Measurement: Assess tendon thickness by measuring perpendicularly at 2cm cranially from the end of the calcaneus. |   |
| Subtalar Joint | <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input type="checkbox"/> other _____ | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, foot rests on bolster, external rotation of the hip Axis: LAX Probe Position: connecting medial malleolus with calcaneus Bony landmarks: medial malleolus (proximal), sustentaculum tali (center), calcaneus (medial) Muscles: none Blood vessels: none Nerves: none |   |

J.A.D.E. Protocol: Ankle
Achilles Tendon LAX – Power Doppler

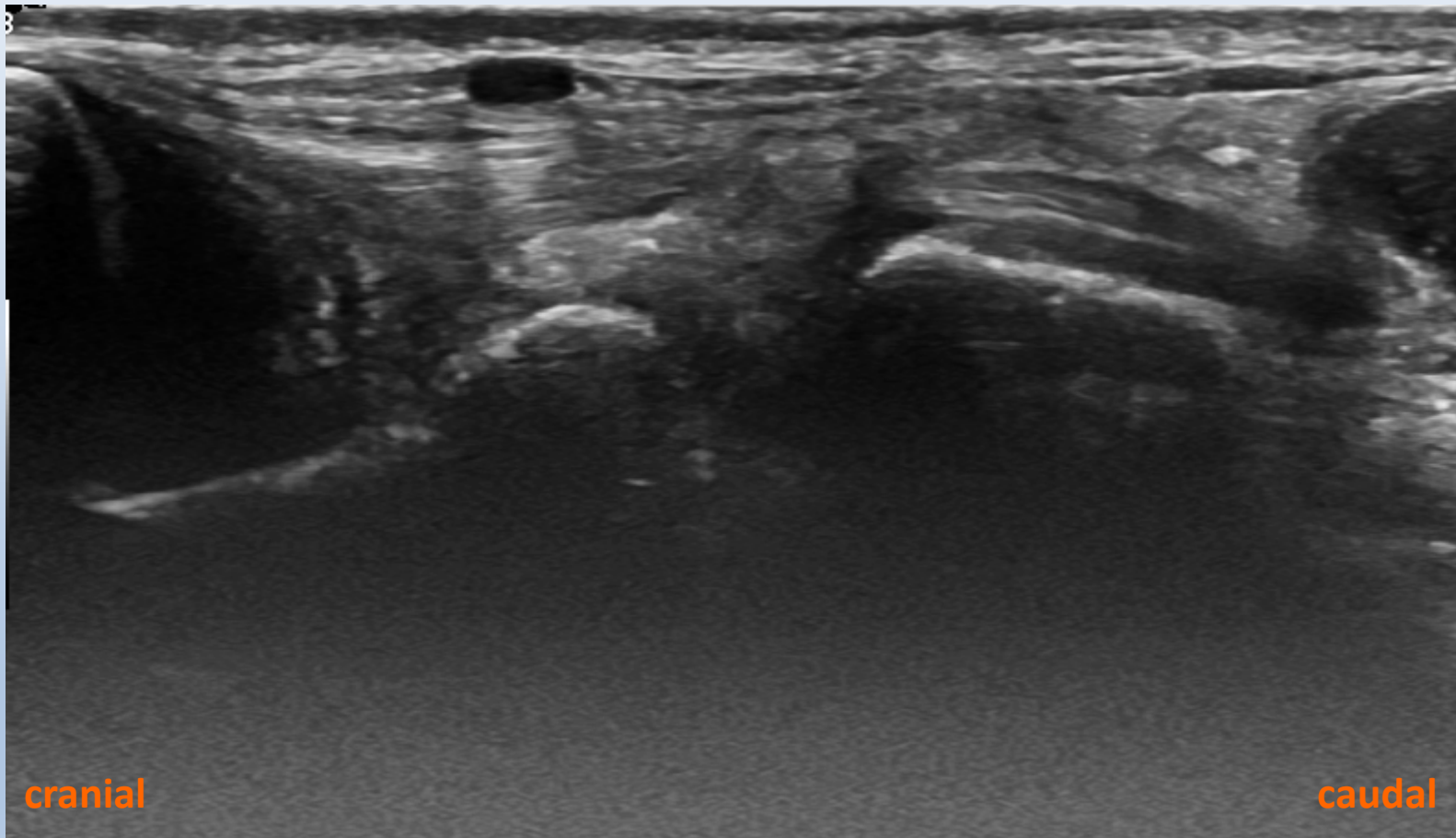


Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____


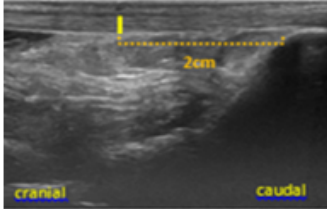

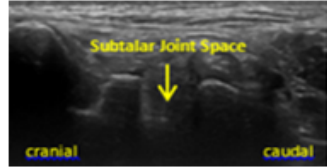
| ANKLE Additional Views | | | | | | |
|--|---|---|---|---|--|---|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
| Achilles tendon Thickness Kager's Fat Pad | <input checked="" type="checkbox"/> abnormal tendon fibers <input type="checkbox"/> irregular bony margin (calcaneus) <input type="checkbox"/> other _____ | Tendon thickness measurement: 2.0cm from calcaneus: <div style="text-align: center; color: orange; font-size: 1.2em;">0.58cm</div> | <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input checked="" type="checkbox"/> N/A | Patient Position: prone, foot resting on a bolster Axis: LAX Probe Position: distal Achilles tendon Bony landmarks: tibia (proximal) and calcaneus (distal) Muscles: Achilles tendon (superior), Tibialis Posterior tendon (superior to tibia), and Flexor Digitorum tendon (superior to tibialis posterior) Blood vessels: none Nerves: none Other: Kager's fat pad (inferior to Achilles tendon), retro-calcaneal bursa (between Achilles tendon and calcaneus) Measurement: Assess tendon thickness by measuring perpendicularly at 2cm cranially from the end of the calcaneus. |   |
| Subtalar Joint | <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input type="checkbox"/> soft tissue proliferation <input type="checkbox"/> other _____ | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, foot rests on bolster, external rotation of the hip Axis: LAX Probe Position: connecting medial malleolus with calcaneus Bony landmarks: medial malleolus (proximal), sustentaculum tali (center), calcaneus (medial) Muscles: none Blood vessels: none Nerves: none |   |

J.A.D.E. Protocol: Ankle

Subtalar Joint Medial Approach

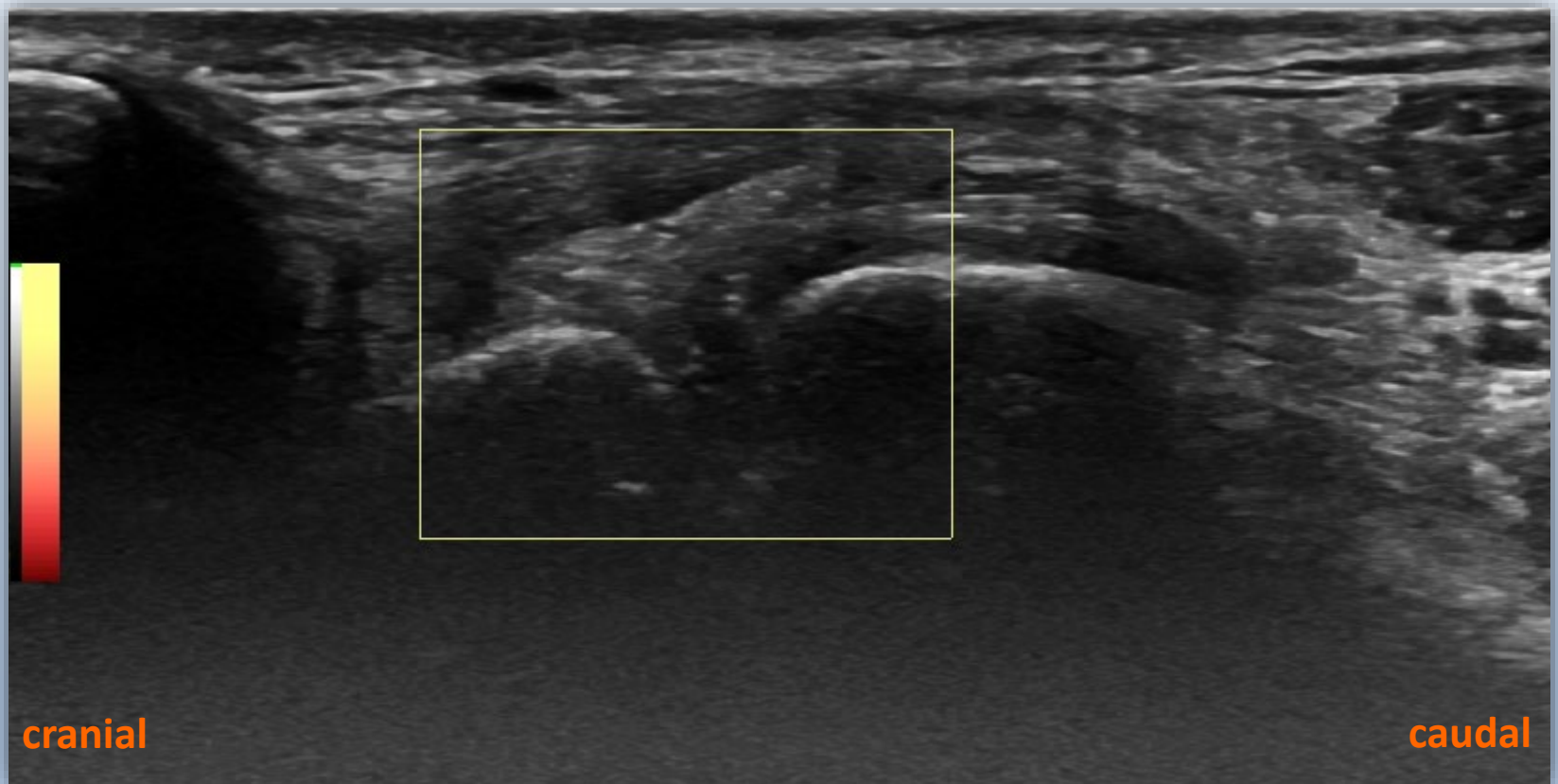


Name: _____ Date: _____
 Patient Number: _____ Person completing this form: _____

| ANKLE Additional Views | | | | | | |
|--|--|---|---|---|--|---|
| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
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| Subtalar Joint | <input type="checkbox"/> hypoechoic complex fluid <input type="checkbox"/> anechoic simple fluid <input checked="" type="checkbox"/> soft tissue proliferation <input type="checkbox"/> other _____ | | <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 | <input type="checkbox"/> completely <input type="checkbox"/> partially <input checked="" type="checkbox"/> non compressible <input type="checkbox"/> N/A | Patient Position: supine, foot rests on bolster, external rotation of the hip Axis: LAX Probe Position: connecting medial malleolus with calcaneus Bony landmarks: medial malleolus (proximal), sustentaculum tali (center), calcaneus (medial) Muscles: none Blood vessels: none Nerves: none |   |


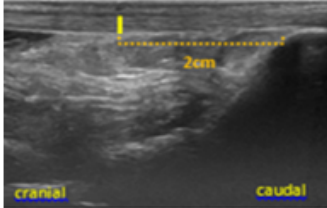

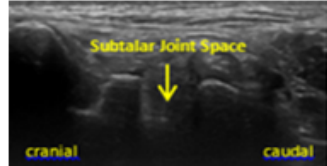
J.A.D.E. Protocol: Ankle

Subtalar Joint Medial Approach – Power Doppler



Name: _____ Date: _____

Patient Number: _____ Person completing this form: _____

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| Purpose of Image | Description | Measurement | Power Doppler | Compressibility | Position | Picture |
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THANK YOU