

## EPIQ Elite Release 4.0

### ElastQ Imaging | Liver Elastography Overview

#### Effectively using ElastQ Imaging

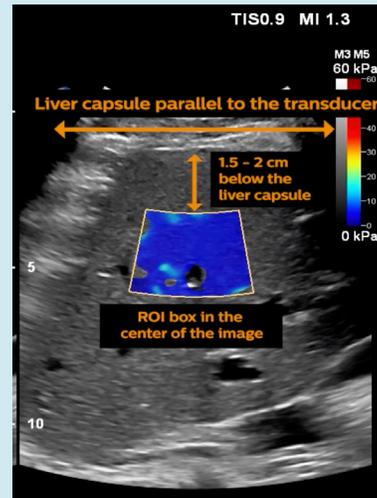
##### Patient Preparation

1. Fast for at least six hours prior to the examination.
2. Supine or left lateral oblique decubitus position with the right arm in maximal extension

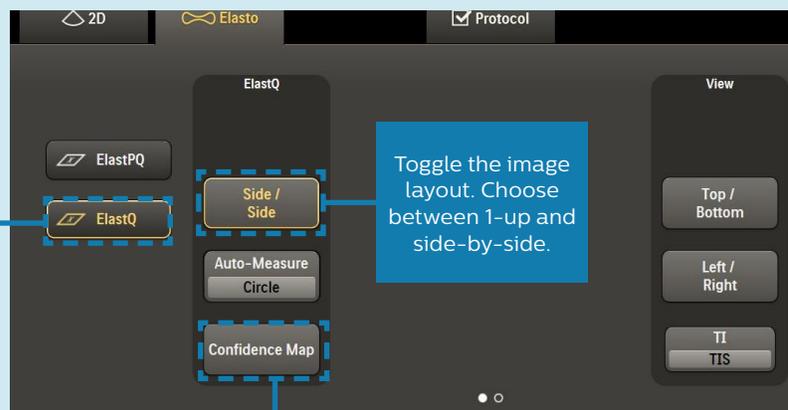


##### Acquiring the ElastQ Imaging data:

1. Ensure good transducer contact with adequate gel.
2. Position the transducer in the right intercostal space and aligned with the ribs.
3. Image liver segment 7 or 8, keeping the liver capsule parallel to the transducer surface.
4. Position the ROI box in the center of the image and 1.5-2 cm below the liver capsule.
5. Do not place the ROI box on or near a rib shadow or the liver capsule.
6. Ask the patient to pause breathing in a relaxed manner, rather than taking and holding a deep breath.
7. Wait for a stable image.
8. Acquire a cineloop with a minimum of six-second length.



Launch ElastQ



This button toggles the **Confidence Map** display on and off.

The color-coded Confidence Map provides an indication of quality across the stiffness/velocity value map. Low values (red) indicate that the stiffness value for a given pixel is less reliable. High values (green) indicated that the stiffness value for a given pixel is more reliable.

# Elastography Overview

## Effectively using ElastQ Imaging (continued)

### Optimal sampling caliper placement

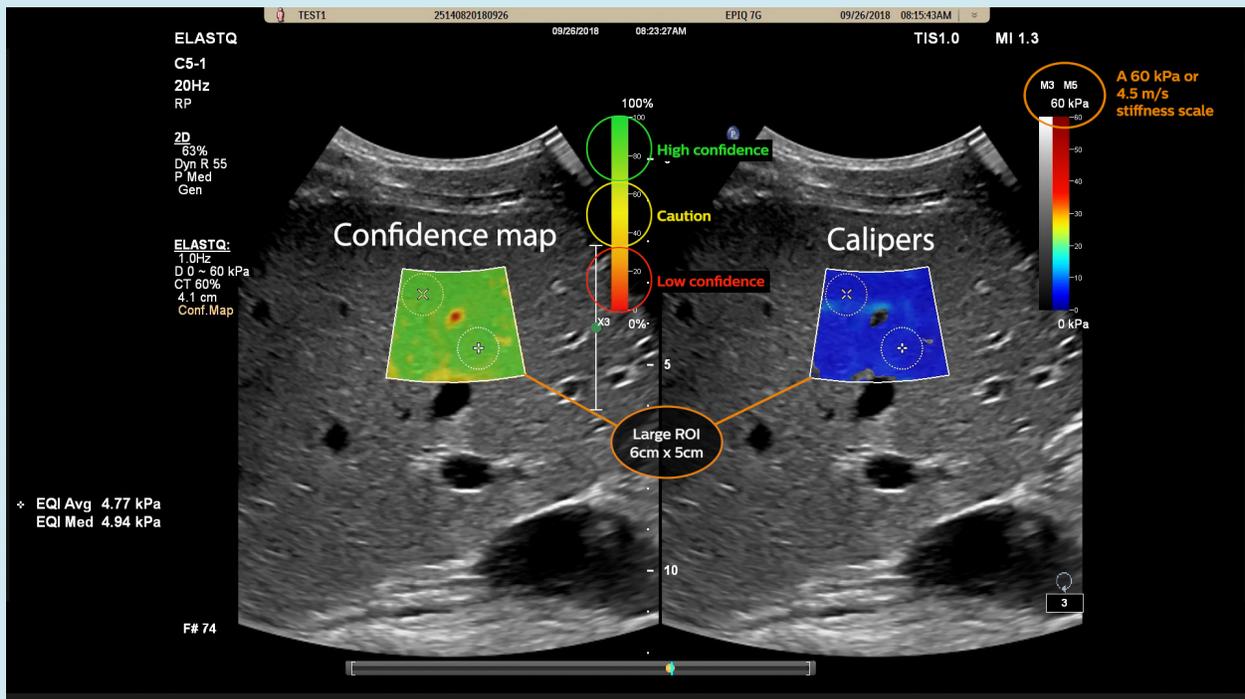
1. Review cineloop to identify frames where the tissue is stable and the color-coded stiffness/velocity map is consistent.
2. Measure areas of most representative color(s) that change the least over time.
3. Avoid measuring over rib shadows or areas near blood vessels.
4. Verify that the calipers placed on the stiffness/velocity image are in areas with high confidence (green on the confidence map).
5. Take no more than two measurements on one frame per cineloop acquisition.
6. Acquire up to 10 calipers on five different but consistent frames across multiple cineloops.

The screenshot shows the 'Review' window of the ElastQ software. It is titled 'Abdominal->EQI Stiffness: Right'. The 'Application' dropdown is set to 'Abdominal'. Under 'ElastPQ Stiffness', 'EQI Stiffness' is selected. The 'Side' is set to 'Right'. The 'Measurements' section lists several 'Liver EQI' measurements with their corresponding stiffness values in kPa. The 'Calculations' section provides summary statistics for the measurements.

Measurement	Value
Liver EQI 1	6.34 kPa
Liver EQI 2	6.57 kPa
Liver EQI 3	6.21 kPa
Liver EQI 4	6.27 kPa
Liver EQI 5	6.36 kPa
Liver EQI 6	5.41 kPa
Liver EQI 7	
Liver EQI 8	
Liver EQI 9	

Calculation	Value
Liver EQI Med	6.31 kPa
Liver EQI IQR/Med	2 %
Liver EQI IQR	0.15 kPa
Liver EQI Std	0.37 kPa



# Elastography Overview

## Effectively using ElastQ Imaging (continued)

### Patient Demographics

<b>Temp ID-20180918154741</b>			<b>Study Date: 09/18/2018</b>		
Patient ID: 41471520180918	Accession #:		Alt ID:		
DOB:	Age:	Gender:	Ht:	Wt:	BSA:
Institution: Test Hospital					
Referring Physician:					
Physician of Record:			Performed By:		
Comments:					

### Abdominal: Measurements and Calculations

#### EQI Liver Stiffness Calculations

Liver EQI Avg	6.19 kPa
Liver EQI Med	6.31 kPa
Liver EQI IQR/Med	8 %
Liver EQI IQR	0.50 kPa
Liver EQI Std	0.40 kPa
Liver EQI Avg Vel	1.43 m/s
Liver EQI Med Vel	1.44 m/s
Liver EQI IQR/Med Vel	4 %
Liver EQI IQR Vel	0.06 m/s
Liver EQI Std Vel	0.04 m/s

Please consult the user manual for further information.

