

# Emergency U/S: Minimum Imaging Guidelines

## Table of contents:

### *Diagnostic imaging guidelines:*

- [Aorta](#)
  - [Biliary](#)
  - [Bladder retention](#)
  - [Cardiac](#)
  - [DVT](#)
  - [FAST](#)
- 
- [Renal](#)
  - [Soft Tissue](#)
  - [Thoracic](#)

# Minimum Aorta Imaging Guidelines:

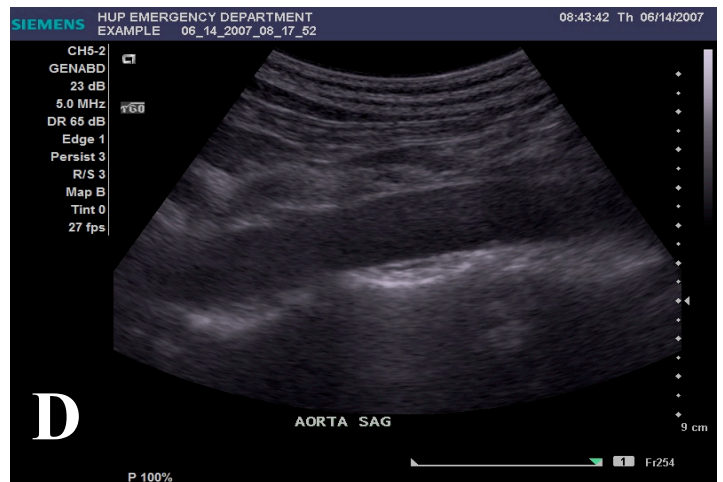
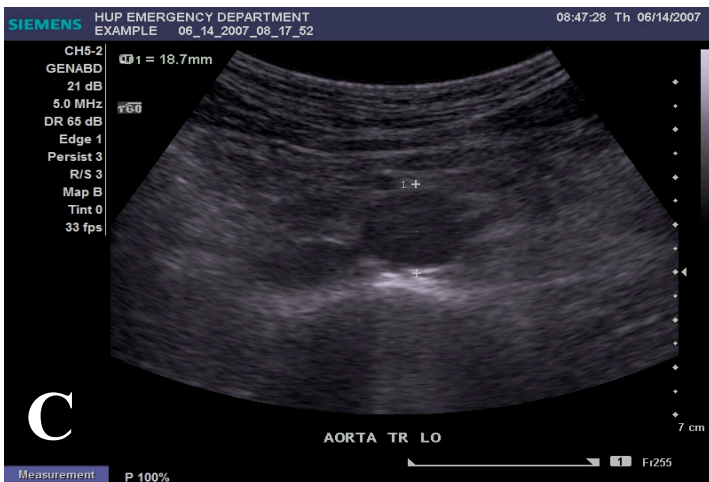
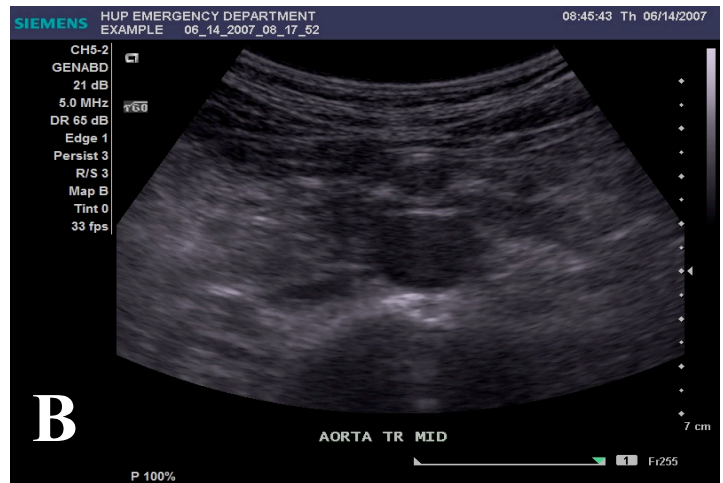
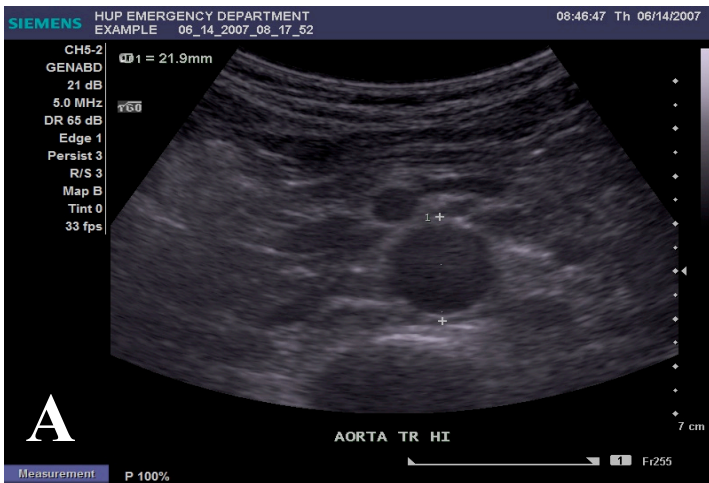
## Images to obtain:

1. Aorta transverse HIGH with anterior to posterior (AP) caliper measurement (high in the mid-epigastrium).....Fig A
2. Aorta transverse MID.....Fig B
3. Aorta transverse LOW with anterior to posterior (AP) caliper measurement (just above the bifurcation).....Fig C
  - Normal aorta diameter is generally considered  $< 3\text{cm}$
4. Aorta in longitudinal (sagittal).....Fig D

## How you might label the images:

1. AO TR HIGH
2. AO TR MID
3. AO TR LOW
4. AO LONG

*Note: My preference is that you also obtain video clips of the transverse and longitudinal aorta.....though this is not necessary for billing/documentation.....([click here](#) to link to normal aorta videos)*



# Minimum Gallbladder Imaging Guidelines:

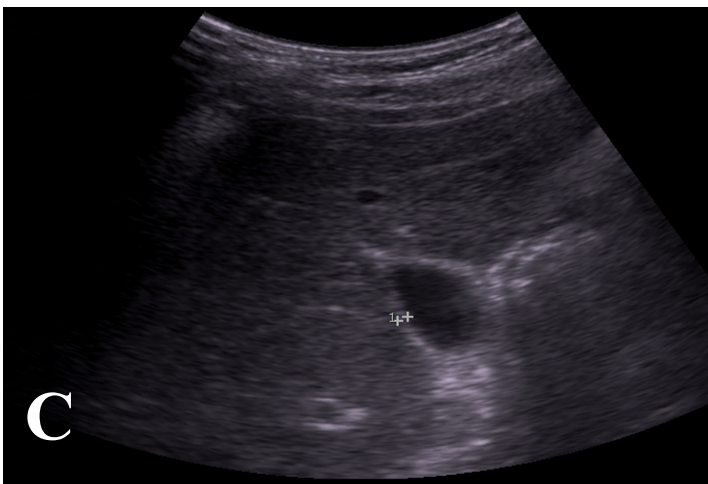
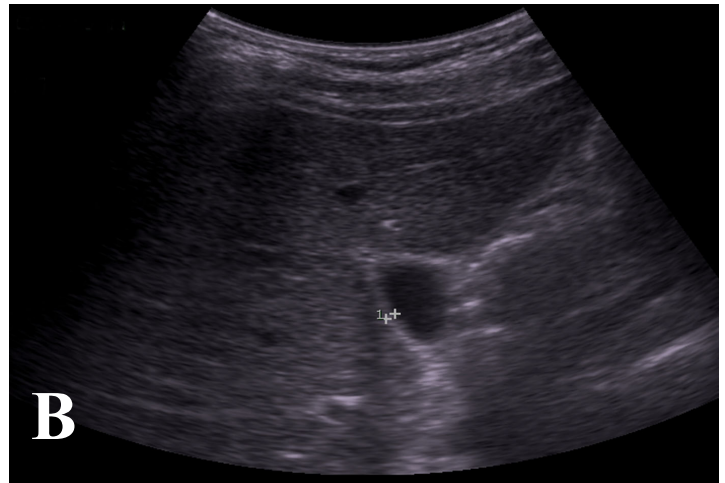
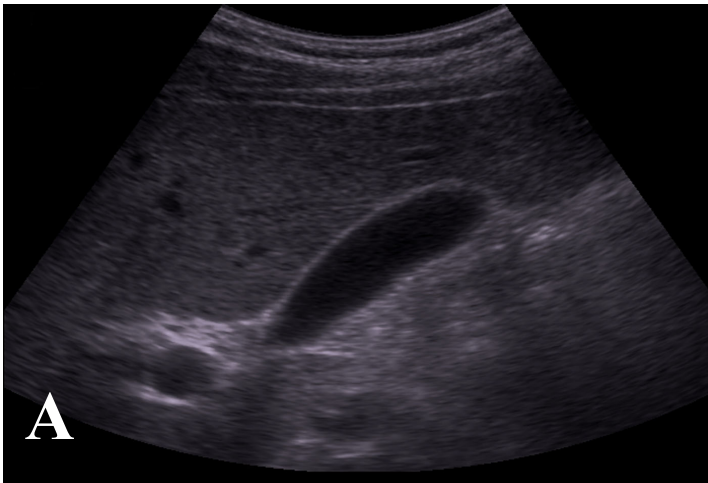
## Images to obtain:

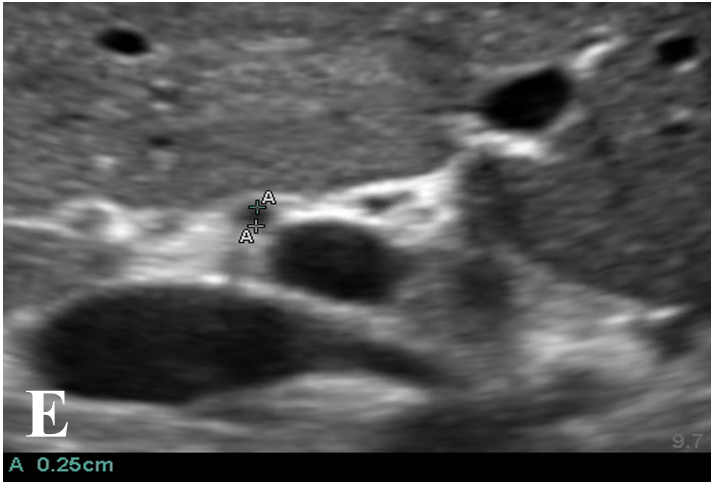
1. Gallbladder in longitudinal.....**Fig A**
2. Gallbladder transverse HI (near the neck) +/- calipers.....**Fig B**
  - Calipers should be on the liver side.....normal, though debatable, is generally considered  $< 4\text{mm}$
  - Only **one** of the transverse views needs to have the GB wall measured
3. Gallbladder transverse MID (body) +/- calipers.....**Fig C**
4. Gallbladder transverse LOW (fundus) +/- calipers.....**Fig D**

## How you might label the images:

1. GB LONG
2. GB TR (reasonable to use this same label for the high, mid, and low portions)

*Note: My preference is that you also obtain video clips of the GB long and short views.....though this is not necessary for billing/documentation.....([click here](#) to link to normal biliary videos)*





[Return to the index](#)

# Minimum Cardiac Imaging Guidelines:

The 4 views (+ IVC) of the cardiac study should be a series of VIDEOS rather than images.....the images below are simply to give you an idea of what to look for when performing cardiac imaging (for examples of cardiac videos, [click here](#))

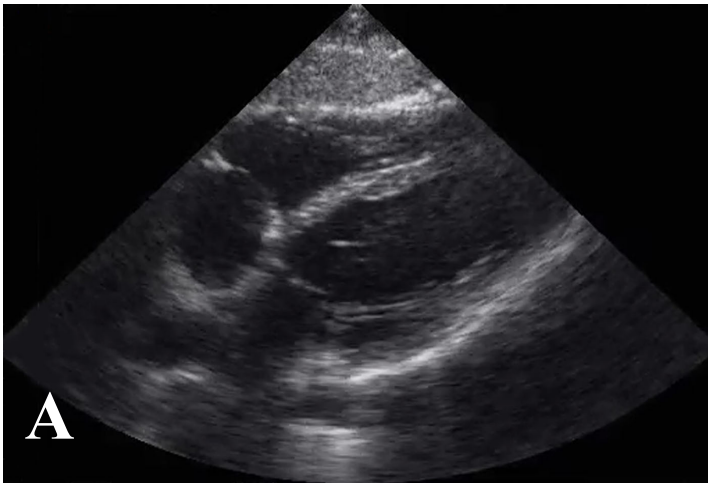
## Videos to obtain:

1. Subxiphoid view.....[Fig A](#)
2. Parasternal long axis view.....[Fig B](#)
3. Parasternal short axis view.....[Fig C](#)
4. Apical 4 chamber view.....[Fig D](#)
5. IVC view in longitudinal.....[Fig E](#)

## How you might label the videos:

1. SX
2. PSLA
3. PSSA
4. A4CH
5. IVC

**\*\*At a minimum, try to obtain 3 of the 4 listed CARDIAC views**



[Return to the index](#)

# Minimum Lower Extremity DVT Imaging Guidelines:

## Images to obtain (for each leg):

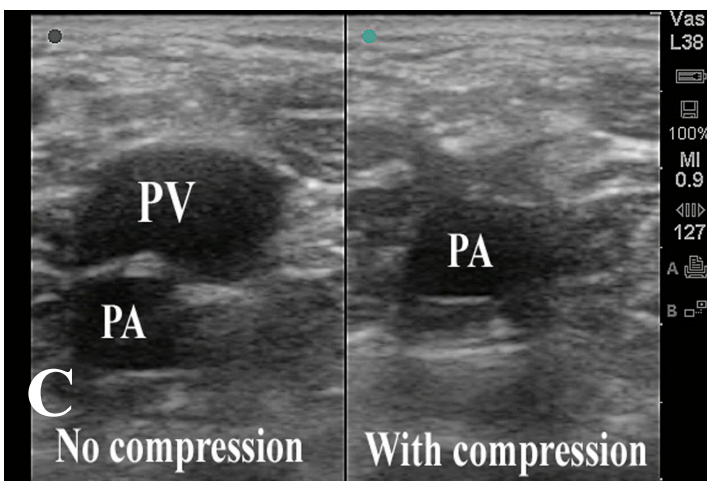
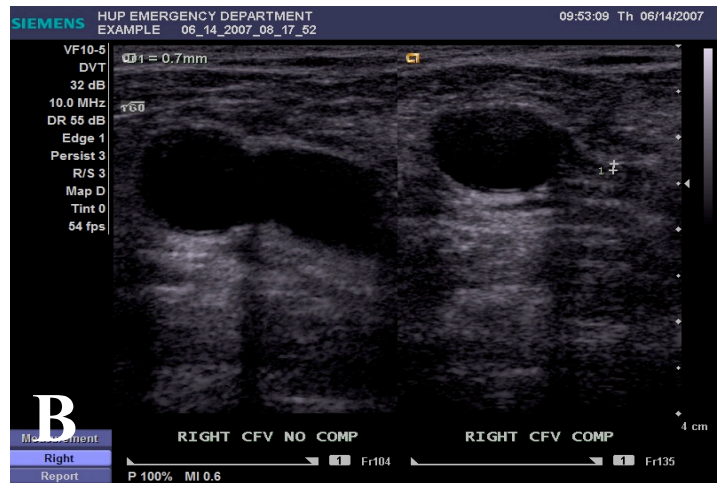
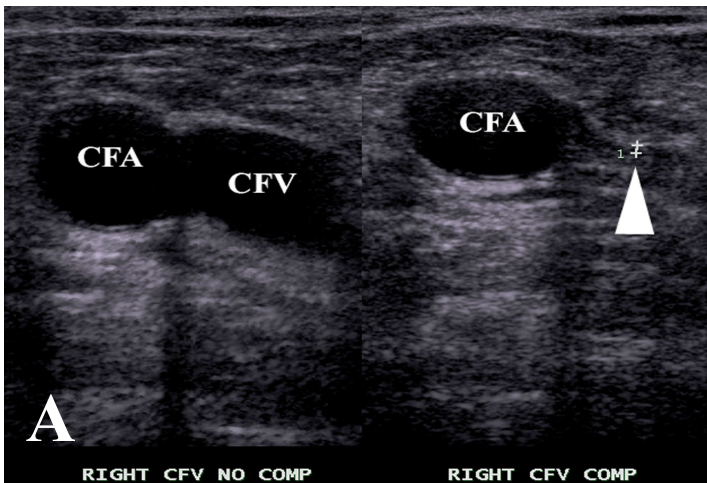
1. Dual screen of the Common Femoral Vein without/with compression (calipers over compressed vein).....Fig A
2. Dual screen of the Superficial Femoral Vein (mid-thigh) without/with compression (calipers over compressed vein).....Fig B
3. Dual screen of the Popliteal Vein without/with compression (calipers over compressed vein).....Fig C

**\*\*Note...**Figure B is the best example of the way the exam should be documented, with dual screen and calipers

## How you might label the images:

1. CFV
2. SFV
3. PV

**Note:** My preference is that you also obtain video clips of the upper thigh and popliteal fossa with dynamic compression.....though this is not necessary for billing/documentation.....([click here](#) to link to normal venous compression videos)



[Return to the index](#)

# Minimum FAST Imaging Guidelines:

## Images to obtain:

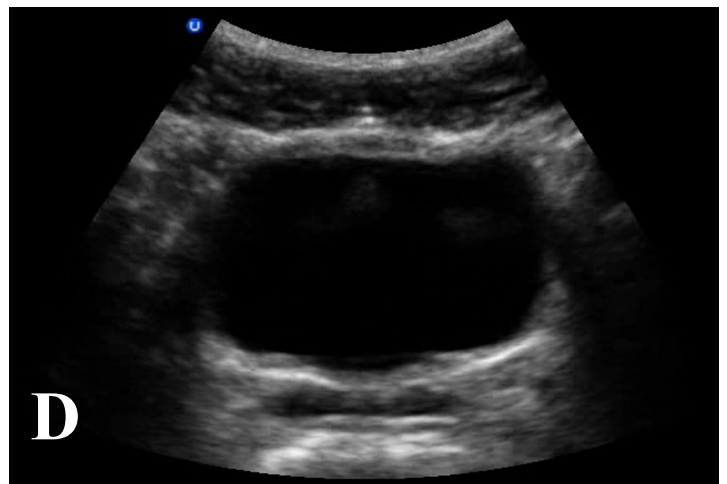
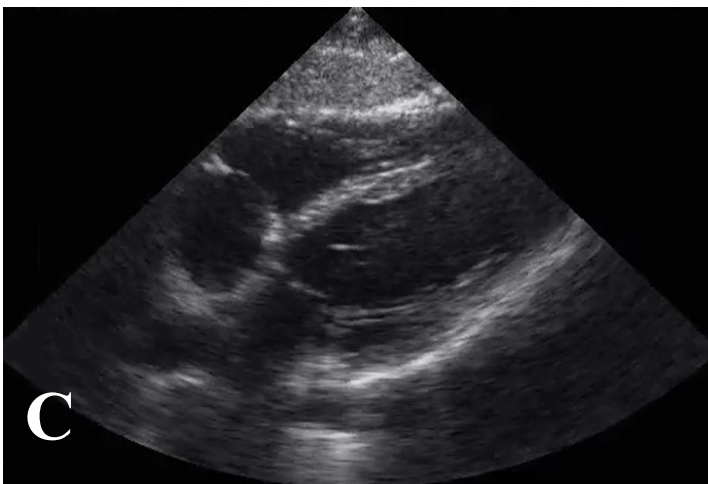
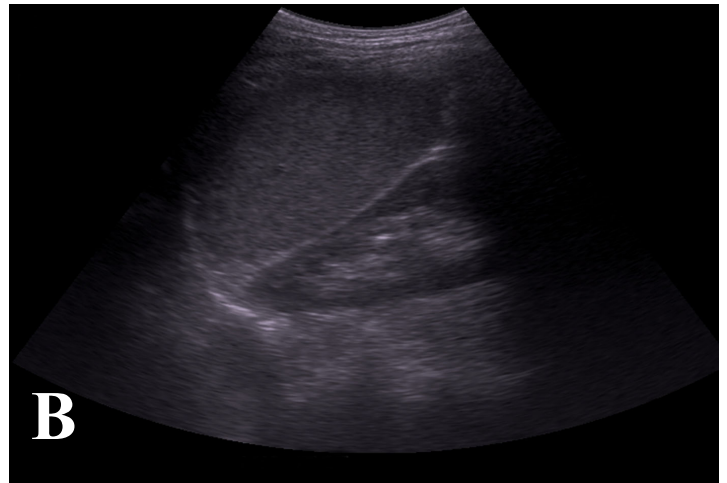
1. RUQ (**one or more** views to show pleural space, subphrenic space, Morison's, and inferior pole of the kidney).....[Fig A](#)
1. LUQ (**one or more** views to show pleural space, subphrenic space, splenorenal space, and inferior pole of the kidney; this may not be possible in the LUQ).....[Fig B](#)
2. Subxiphoid view (save **video** clip).....[Fig C](#) (Alternative if SX not available: **Parasternal long axis**.....[click her for example](#))
3. Suprapubic view in transverse.....[Fig D](#)

\*\*You should log the PTX portion of the study under "Thoracic", though do not bill separately for the PTX study

## How you might label the images:

1. RUQ
2. LUQ
3. SX
4. SP (for suprapubic)

*Note: My preference is that you also obtain video clips of the 4 views (the cardiac view **SHOULD** have a video).....though this is not necessary for billing/documentation.....([click here](#) to link to normal FAST videos)*



# Minimum Renal Imaging Guidelines:

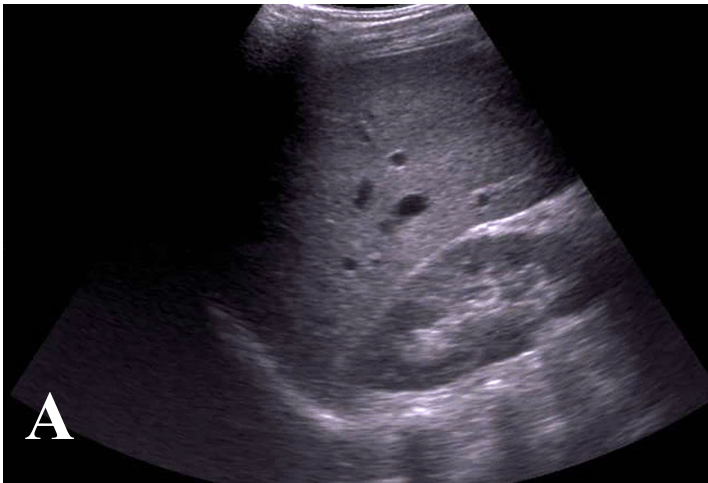
## Images to obtain:

1. Right kidney in longitudinal.....Fig A
1. Left kidney in longitudinal.....Fig B

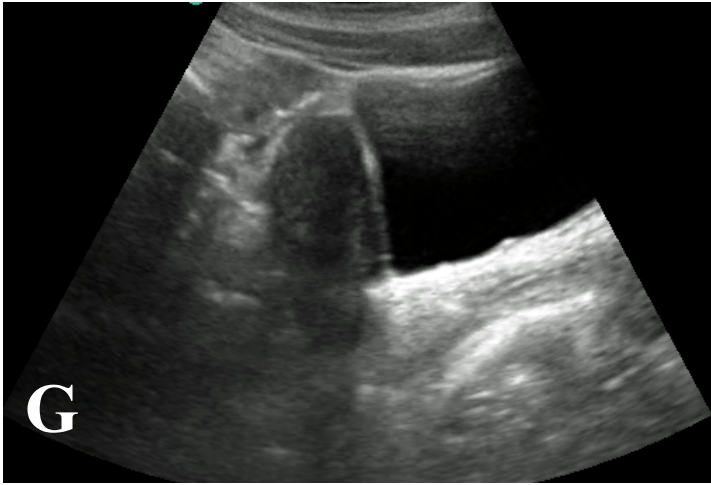
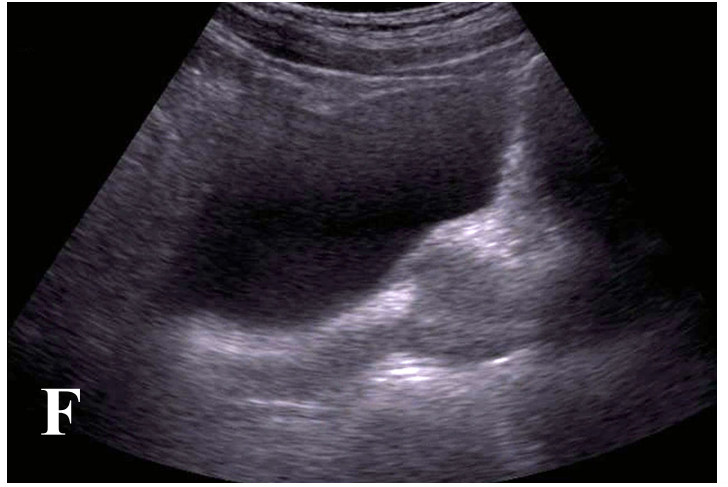
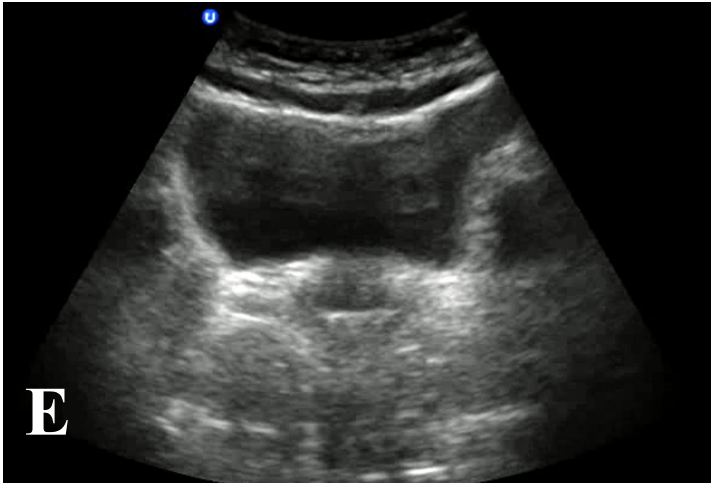
## How you might label the images:

1. R/L K LONG
2. R/L K TR (reasonable to use this same label for the high, mid, and low portions)
3. BL TR
4. BL LONG

*Note: My preference is that you also obtain video clips of the kidneys and bladder.....though this is not necessary for billing/documentation.....([click here](#) to link to normal Renal videos)*







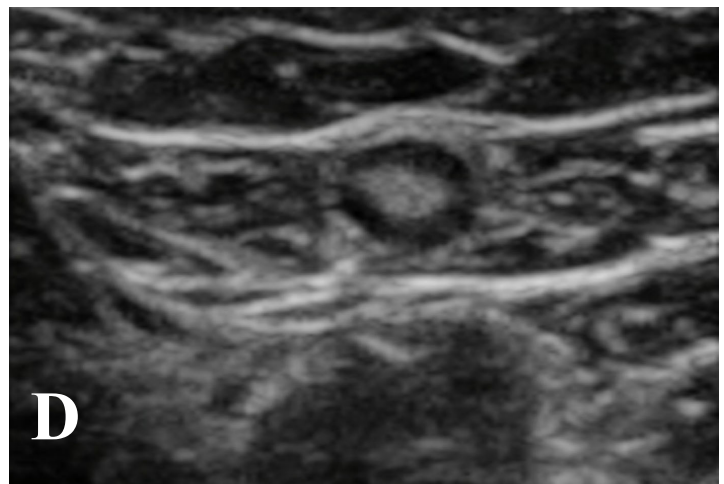
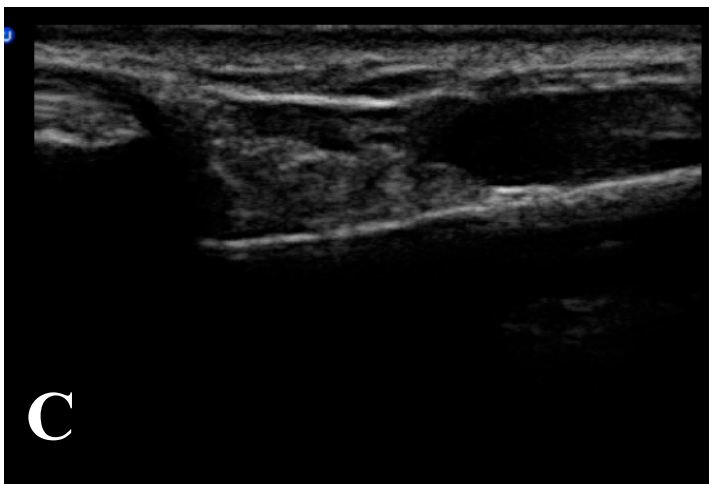
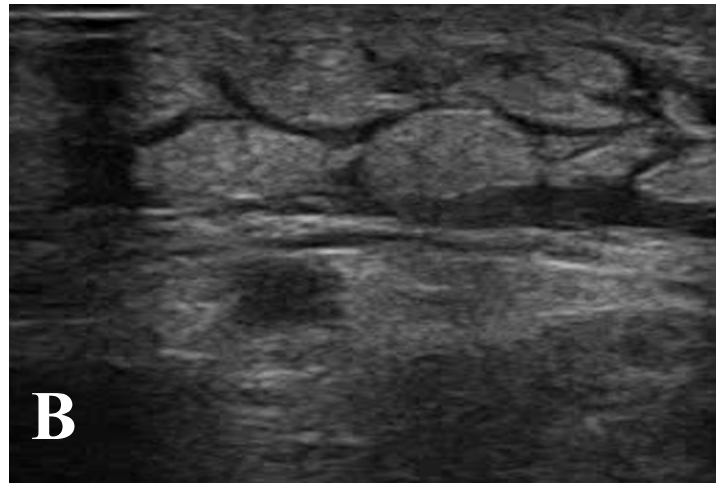
[Return to the index](#)

# Minimum Soft Tissue Imaging Guidelines:

## Images to obtain:

1. Any cellulitis or foreign body (Fig A) or cellulitis (Fig B) or fracture (Fig C) or other soft tissue finding like a lymph node (Fig D) should be obtained in 2 orthogonal planes (with consideration of caliper measurements as indicated).....**which means 2 images at least.....**

*Note: My preference is that you also obtain video clips of any soft tissue pathology.....though this is not necessary for billing/documentation.....([click here](#) to link to normal soft tissue videos)*



# Minimum Thoracic Imaging Guidelines:

## Images to obtain:

1. Still image of affected lung.....Figs A-B (A coronal view of the lung, with the probe placed along the lateral thoracic wall, allows visualization of the diaphragm and is an additional recommended image.....Fig C)
2. M-mode if looking for pneumothorax.....Fig D

*Note: My preference is that you also obtain video clips of the lung exam(s).....though this is not necessary for billing/documentation.....([click here](#) to link to normal thoracic videos)*

