

## Ultrasound Protocol: Abdomen Complete

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Last Reviewed: 10/8/2024      Link to: [General Imaging Requirements and Pathology Protocol PDF](#)

### List of Required Images

#### **Aorta**

- **Sagittal** - Complete documentation to include:
  - Proximal with and without measurement AP
  - Mid with and without measurement AP
  - Distal with and without measurement AP

#### **Pancreas**

- **Transverse** - Complete documentation in transverse (long axis of organ). At least three gray scale images to include:
  - Head
  - Body
  - Tail

#### **Liver**

- **Left Lobe**
  - **Sagittal** - At least three gray scale images of the left lobe to include:
    - Medial to include IVC
    - Mid
    - Lateral
  - **Transverse** - At least three gray scale images of the left lobe to include:
    - Level of HV
    - Level of PV
    - Inferior to include caudate lobe
- **Right Lobe**
  - **Sagittal** - At least four gray scale images of the right lobe to include
    - Far lateral
    - Lateral to include renal parenchyma
    - Mid with and without length measurement
    - Medial to include porta hepatis
  - **Transverse** - At least four gray scale images of the right lobe to include:
    - Dome
    - Level of HV
    - Level of MPV
    - Inferior
- **Portal and Hepatic Veins**
  - Portal Vein: Color and Spectral Doppler image
  - Hepatic Veins: Provide best image of the 3 hepatic veins at IVC in a single image

## Gallbladder

- **Sagittal and transverse** - Complete documentation
  - GB imaging should be imaged both supine and LLD
  - With and without measurement AP GB wall
- Assess for sonographic Murphy sign, if unable to assess, document reason.

## Biliary Duct

- Extrahepatic duct with and without measurement. Document as much of the duct as possible.

## Kidneys All images to be included on both right and left

- **Sagittal** - Complete documentation with at least three gray scale images to include:
  - Lateral
  - Mid with and without length measurement
  - Medial
- **Transverse** - Complete documentation with at least three gray scale images to include:
  - Superior
  - Mid with and without color Doppler
  - Inferior

## Spleen

- **Sagittal and transverse** - Complete documentation with and without spleen length and/or volume

For how to document general pathology, see the [Imaging Requirements and Pathology Protocol](#) document.

## Additional Images for Anatomy-Specific Pathology

- **Liver: Cirrhosis, Hepatitis, or nodularity** is suspected by tech: Right and left liver capsule images using a linear transducer and CINE clip(s) through entire liver
- **Gallbladder**
  - Document mobility of stones and lack of mobility of polyps
  - Color over sludge and polyps; provide Spectral Doppler if color is real. Please comment on worksheet if color appears artifactual in real-time (i.e., related to motion)
  - CINE through polyps and sludge
  - Do NOT need to CINE through empty gallbladder or GB with obvious stones
- **Bile Ducts:** For intrahepatic bile ductal dilatation, provide images with color to show differences between vessels and adjacent dilated bile ducts; include CINE with color.
- **Renal:**
  - Cysts: When there are multiple simple cysts measure only the largest 1 on each side; if there is any complexity to a cyst evaluate completely per [Pathology Protocol](#).
  - Hydronephrosis:
    - Measure renal pelvis AP diameter
    - Add bladder image (do not need to do volume; show jet *only if readily seen*)
    - Evaluate distal ureters at bladder.

- If full bladder, the patient should void. Then re-check for hydro.
- Hematuria: If indication is for hematuria, transverse and longitudinal CINE through both kidneys (even if kidneys appear normal)
- Stents: Attempt to visualize proximal and distal coils.
- **Fluid:** Document Images only where fluid is present when evaluating all 4 quadrants and midline pelvis.

### Common Indications for Abdomen Complete Ultrasound

- Abdominal pain
- Hepatosplenomegaly
- Jaundice
- Right upper quadrant pain
- Gallstones
- Abnormal liver function test
- Liver lesions