

# Abdominal Ultrasound Protocols

Below you will find suggestions for performing an ultrasound study to send for specialist consultation. Each case is unique, and you may or may not be able to capture all of the image views.

## General tips:

1. If you see anything you consider to be abnormal, please submit the images with related anatomical structures.
2. Utilize cine loops of complicated abnormalities and color flow Doppler as needed.
3. Label all images and fully describe what you're seeing, where it's located, and what you're trying to rule out. This will help the specialist understand your scan and will in turn provide you with a more precise analysis, diagnosis, and treatment plan.
4. Most cases should require 30 images (or a combination of 30 images and videos), but please submit as many images as you deem necessary.
5. Typically, only still images are necessary, but video may be used to clarify pathology or anatomic location.
6. If you aren't sure what the structure is, label the image with location information. Provide additional information, questions, or concerns regarding these regions in your notes to the specialist.
7. Indicate the position of the patient for the study (e.g., dorsal, left or right lateral) and the orientation of the probe in your scan notes. Be sure to keep the probe orientation uniform throughout the exam.
8. If needed, use the private comments section to ask the specialist for suggestions regarding your images and technique.

## For a complete cardiac examination:

- Right-sided parasternal long axis images: left ventricular outflow tract; four-chamber view
- Right-sided parasternal short axis images: left ventricle; mitral valves; heart base with aorta and left atrium; heart base with pulmonary artery
- Left-sided apical images: four-chamber view; left ventricular outflow tract

## For a complete abdominal examination:

1. **Liver**
  - Gallbladder
  - Hepatic hilus showing portal vein and caudal vena cava
  - Representative images of hepatic parenchyma
  - If there's distension or concern for extra hepatic bile duct obstruction, trace the common bile duct to the duodenal papilla
  - Include cine loop with and without Doppler for the portal vein in case of possible shunt or visible partial or complete thrombosis
2. **Kidneys**
  - Longitudinal section
  - Cross section of hilus
  - Cross section of each pole
  - If there's evidence of pelvic distension or concern for ureteral calculi, include cine loop tracing of the ureter.
3. **Spleen**
  - Longitudinal and transverse images
4. **Adrenal glands**
  - Section showing length
  - Cross section of thickest area (with measurement)
5. **Intestinal tract**
  - Image as appropriate for lesions.
  - Provide images of the stomach, pyloric outflow, duodenum, jejunum, and colon to evaluate wall thickness.
6. **Urinary bladder**
  - Longitudinal and transverse images, including the urinary bladder neck
  - If there's concern for dependent urinary bladder content, cine loop with ballottement can be helpful.
7. **Pancreas**
  - Representative images of the pancreas
  - Right limb, body, left limb, and duodenal papilla in the duodenum should be imaged, if possible.
8. **Lymph nodes, vascular structures, prostate, and reproductive tract**
  - Representative images as appropriate for study/clinical indications