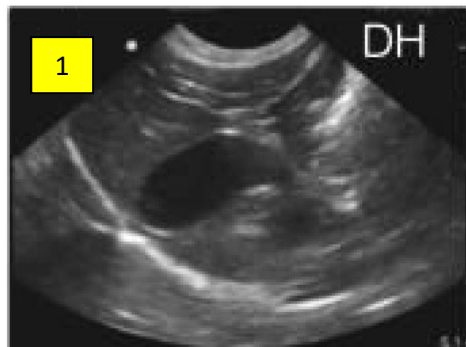


Tips for AFAST®

- The AFAST® views can be obtained in R or L lateral, sternal, modified sternal recumbency or standing. R lateral recumbency may be needed for DH View evaluation of the caudal vena cava and for sampling abdominal fluid at the HR-U site.

STEP 1: AFAST® & TFAST® Diaphragmatic Hepatic (DH) View

- **Place** the probe with marker toward the pet's head just caudal to the xyphoid, and increase the depth to target the liver filling $\frac{3}{4}$ of the screen, so that the **diaphragm** and caudal vena cava do not move out of view at the bottom of the screen with breathing.
- Angle the beam cranially until you see the **gall bladder kiss the diaphragm**. Look for fluid triangles around the **gall bladder**, and for gall bladder **halo sign**. Look at the **diaphragm-lung** line for **lung rockets**, **glide sign**, **pleural effusion** and **polygons (ascites)**.



- **Fan** left to right and back again, looking for **fluid triangles** between the **liver lobes**. Take **Video Clip 22**, being sure to capture any abnormalities seen.
- **Rock cranially** to see the **heart** bumping the diaphragm. Look for **pericardial** and **pleural effusion**. Take **Video Clip 23**, being sure to capture any abnormalities seen.
- **Return** to the gall bladder and then point the probe toward mid-abdomen to evaluate the **caudal vena cava** as it passes through the diaphragm (**fat**, **bounce**, or **flat**). Take **Video Clip 24**.
- If fluid triangles are all less than 5mm in the cat or less than 10mm in the dog, add 0.5 to the **abdominal fluid score** (AFS – see Step 6). If at least one area of free fluid is ≥ 5 mm in the cat or ≥ 10 mm in the dog, add 1 to the AFS.

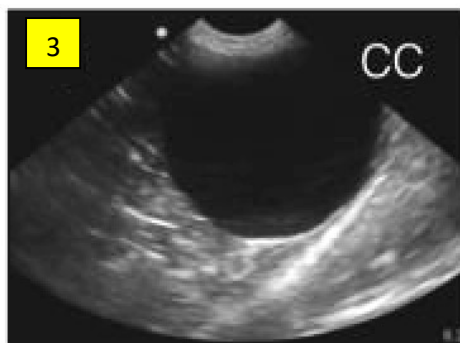
STEP 2: AFAST® SplenoRenal (SR) View



- Palpate where the left costal arch meets lumbar muscles. **Place** the probe here, with the notch toward the patient's head, so the beam is parallel to the spine.
- Find the long axis Tomato View of the **left kidney** seen in figure "13" (left). **Fan** through the kidney, medial to lateral and back again. Take care not to apply so much pressure that the left kidney is pushed out of the way. Look for **retroperitoneal fluid**, and **polygons** in the abdomen. **Great vessels** and **colon** will be seen.
- **Rock** the probe cranially to find the **spleen**, and look for more **fluid polygons**. **Stomach** and **colon** will be seen.
- **Return** the probe to mid-abdomen for 30 seconds to look for

abdominal **fluid polygons**.

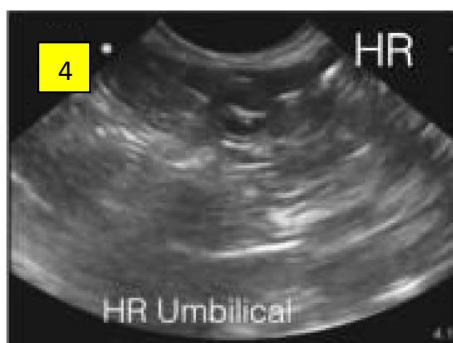
- Take **Video Clip 25**, including any abnormalities seen.
- If abdominal fluid triangles are all < 5 mm in the cat or < 10 mm in the dog, add 0.5 to the **AFS** running total which was started in Step 1 (DH View). If at least one area of free fluid is ≥ 5 mm in the cat or ≥ 10 mm in the dog, add 1 to the total AFS.



STEP 3: AFAST® CystoColic (CC) View

- **Place** the probe over the bladder, with the notch pointing toward the head, and visualize the **bladder** kissing the abdominal wall at the **thigh muscles**. This is the most sensitive location for finding abdominal **fluid triangles**, called the "CC Pouch." Wait for 30 seconds for fluid to pool there. The **colon** may or may not be seen. If the colon obstructs the view of the bladder, slide the probe ventrally toward midline.
- **Fan** from right to left and back, through the **bladder**. **Rock** cranially to look for **fluid triangles**. You will see loops of **small bowel**.
- **Return** to the bladder. Take **Video Clip 26**, including abnormalities.

- If abdominal fluid triangles are <5mm in the cat or <10mm in the dog, add 0.5 to the **AFS**. If free fluid is ≥5mm in the cat or ≥10mm in the dog, add 1 to the AFS.



STEP 4: AFAST® HepatoRenal Umbilical (HR-U) View

- **Place** the probe between the umbilicus and the table if in right lateral recumbency, with the notch pointed toward the head. Direct the beam into the lower half of the abdomen. **Small bowel** is seen, but liver and right kidney are not usually seen.
- **Fan** the probe toward and away from the table, looking for **fluid triangles**. **Rock** forward, and then **return** to the starting point.
- Take **Video Clip 27**, including any abnormalities seen.
- If abdominal fluid triangles are <5mm in the cat or <10mm in the dog, add 0.5 to the **AFS**. If free fluid is ≥5mm in the cat or ≥10mm in the dog, add 1 to the AFS.

add 1 to the AFS.

- If abdominal fluid is found, **tap** using a 22g 1-1/2 inch needle, and collect by gravity drip into red top and purple top blood tubes.



STEP 5: HR5th AFAST® Bonus View

- **Place** the probe on the right side, caudal to the last rib, where the costal arch meets the lumbar muscles. Point the beam cranially, to view the **Right Kidney** in long axis and **Liver**. In deep chested dogs, you may need to move into the 11th or 12th intercostal space to find this view. In cats, the kidney may be separated from the liver by soft tissue.
- **Fan** left to right through the kidney, and record **Video Clip 21**. Look for **retroperitoneal fluid** and **ascites**.
- There is no rock, return or AFS in this "bonus" AFAST® view.

STEP 6: AFAST® Abdominal Fluid Score (AFS)

- AFS is the sum of AFS points collected from each of the four AFAST views: DH, SR, CC and HR-U. Do not count abdominal fluid seen at HR5th Bonus View in the AFS.
- Retroperitoneal, pericardial and pleural fluid are not included in the AFS.
- Minimum AFS is 0. Maximum AFS is 4.

STEP 7: Focused Spleen Ultrasound (see separate handout)