May demonstrate:

- · renal artery stenosis
- renal artery obstruction (e.g. arterioembolism, aortic dissection)
- renal vein thrombosis (e.g. procoagulant states, renal cell carcinoma)

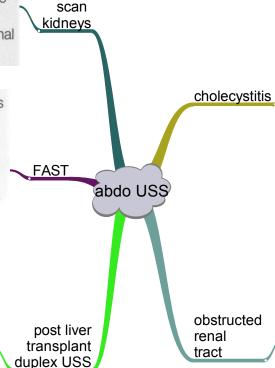
Screens for free fluid (dark anechoic appearance), gross solid organ injury and pericardial tamponade

Four views:

- perihepatic Morrison's (hepatorenal) pouch
- perisplenic—splenorenal recess
- pelvic—pouch of Douglas (female) or rectovesical pouch (male)
- · pericardial-subxiphoid and parasternal views

May demonstrate:

- fluid collections (may indicate ongoing bleeding, bile leakage, infection or ascites)
- · portal vein thrombosis or stenosis
- · hepatic artery thrombosis, stenosis, pseudoaneurysm
- IVC stenosis or thrombosis
- bile duct strictures—anastomotic or non-anastomotic



duplex

Acalculous cholecystitis:

- gallbladder wall thickening >3 mm in a non-collapsed gallbladder
- striated gallbladder secondary to gallbladder wall oedema
- sonographic Murphy's sign (localised gallbladder tenderness)
- pericholecystic fluid—without generalised ascites
- mucosal sloughing
- · intramural gas
- echogenic bile (sludge)
- gallbladder distension (>5 cm transverse diameter)

Calculous cholecystitis:

 same features plus echogenic gallstones which may be impacted in the gallbladder neck

Ultrasound should be routinely performed in the presence of acute renal failure

Unilateral or bilateral obstruction:

- dilated caliceal system, renal distortion and perinephric oedema, hydronephrosis with ureteric dilatation
- obstructing masses or calculi