



## Ultrasound

### [Ultrasound-machine](#)

Ultrasound is the most common diagnostic tool used to visualize horseshoe kidneys. Diagnosis will be made with the presence of fusion of the kidney's isthmus which is seen in the inferior part of the kidney. It will be hard to be seen if malrotation occurs or there is an altered renal axis.

## Considerations

### Hydronephrosis

#### [Water-in-kidney](#)

Horseshoe kidneys can cause abnormal positioning of the ureter. This frequently results in the stenosis of the ureteropelvic junction causing hydronephrosis.

### Nephrolithiasis

#### [Kidney Throwing Stones](#)

Nephrolithiasis is one of the most common complications and is seen in 20-60% of patients with horseshoe kidneys. It is a result of a stone formation due to impaired drainage of the collecting system.

### Infection

#### [Infectious-bacteria](#)

Infection is the other complication that may occur in patients with horseshoe kidney due to the presence of urine stasis resulting from ureteropelvic junction stenosis or stone formation.

### Increased Risk of Renal Cancer

#### [Up-arrow Risk Kidney Car-gnome Tumor-guy](#)

Horseshoe kidney carries an increased risk of renal cancer. Renal cell carcinoma is the most common renal cancer type seen in these patients.

### Excellent Prognosis

#### [Doctor with Excellent Prognosis](#)

Horseshoe kidney has an excellent prognosis, and typically doesn't affect life expectancy. One-third of those with horseshoe kidney will have this disease discovered incidentally.