

ULTRASOUND PROTOCOLS



Reviewed: 1/5/2026; 1/10/2025; 01/11/2024; 01/12/23; 01/29/22; 10/30/20

Renal Doppler Ultrasound

Indication	Renal artery stenosis, uncontrolled HTN, Malignant HTN
Prep	Patient Supine
Special Instruction	Use the highest frequency curvilinear transducer; obtain 2D gray scale and Doppler images.
Procedure	<ul style="list-style-type: none">• Obtain routine sagittal and transverse images of the kidneys including appropriate measurements. Obtain routine images of the urinary bladder and volume calculation if possible.• Document any renal abnormality/pathology seen with appropriate measurements and color flow analysis. <p>Renal Doppler interrogation requires color and spectral analysis of the following renal vessels</p> <ul style="list-style-type: none">• Main RA from Ao origin to renal hilum<ul style="list-style-type: none">○ Proximal at RA origin from Ao○ Mid portion○ Distal○ Renal hilum• Segmental arteries• Interlobar arteries• Arcuate arteries• Intracortical vessels -if possible <p>**Angle correction to $\leq 60^\circ$ is required for all vessels except for arcuate and cortical vessels</p> <p>Aorta - spectral trace of the mid aorta proximal to the renal arteries is required for ratio calculation. This should also be obtained with the appropriate Doppler Technique.</p>