

# ULTRASOUND PROTOCOLS



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## Renal Doppler Ultrasound

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