

1. Can we get an average velocity with power doppler? **No. Power Doppler cannot measure any velocities.**
2. Between angles less than 60 degrees and angle kept at 60 degrees which is best to measure velocity in a vessel (eg carotids)? Kindly give reasons if any . Many thanks. **Any reliable velocity measurement must include angle correction. Technically, the lower the angle the more accurate the velocity measurement. Having said that, there are a couple of reasons you might choose to keep them at a consistent 60 degrees. First, the original studies that validated the correlation between peak systolic velocities and percent of stenosis were done at 60 degrees. Second, keeping it at a constant 60 degrees is generally more reproducible from one operator to the next. This can be helpful when doing follow up exams. Many systems have a Doppler assist function that will help you accomplish this.**
3. What do different color shades indicate in power Doppler? **The brightness of the pixels represents the amplitude of the signal (related to Power Doppler), the brighter, the higher the amplitude think loudness) What's directional power Doppler? How does it work? Directional Power Doppler (dPD) is a type of ultrasound imaging that combines the flow information from color Doppler with the anatomic detail of Power Doppler. dPD is a useful tool for evaluating blood flow and can be used in a variety of applications. It is a bit of a hybrid of color and power Doppler. Not available on all ultrasound systems. What's microflow? is it a form of power Doppler? Microflow, Microvascular, Superb Microvascular Imaging are brand names for the technology describing an innovative Doppler technique for vascular examination. It uses an intelligent algorithm that efficiently separates low-speed flow signals from motion artifacts so that it can assess microvessels and the vessel distribution in detail. Yes, it is a form of power Doppler, it is not available on all systems.**
4. Are the angles of insolation and Doppler angle are the same? To me, NO. Am I I right? **For our use in looking at blood flow the Doppler angle, angle of insonation and angle of incidence are basically the same.**
5. As far as i know, there is a simple way to tell aliasing from high velocity on color Doppler without adding spectral. Do you agree? **Increasing the color Doppler scale will prevent aliasing to a point. If the Doppler shift is too high, aliasing will still occur.**
6. Please answer this question: in high resistance flow which ends before next systole, where, at what point do you measure the EDV? **EDV would be measured and that last point in time before systole begins. In high resistance flow patterns, this can easily be 0.**
7. Do you need to do angle correction for a renal Doppler study? **As it is often very difficult to do angle corrections due to the size and course of the vessels. If velocities are what you need, then angle correction must be done. So yes, angle correction should be performed when doing studies for renal artery stenosis.**
8. Is the twinkle affect Doppler? **The twinkle effect is a Doppler artifact. On 2D imaging it is known as a comet-tail artifact. It occurs behind (distal to) a highly reflective interface such as crystals, stones, calcifications. It displays as a random mixture of red and blue pixels behind (distal to) these reflectors.**
9. How does the size of your doppler box affect your image? If looking for small vessels, specifically msk, is smaller box better? **Definitely. The smaller the box the better. It only needs to be big enough to show the region you are interested in**

10. what is general scale setting for setting for kidney scan? There really isn't an ideal scale setting as all systems, and patients vary. Adjust the parameters and techniques we spoke of in the webinar (scale/gain) to demonstrate the flow
11. What does venous flow look like on a testicular ultrasound since color shift
12. how do you explain the steering box The steering box is used to lower the angle of insonation, the lower the angle the better the Doppler signal will be. Steering the box one direction or the other, depending on the course of the vessel, will improve the Doppler signal. Very helpful when using linear array transducers.
13. what are the indications of doppler. Especially in first trimester The use of Doppler under 14 weeks is not indicated. There are parameters for screening for trisomy, I would refer you to the ACOG and AIUM for those specifics
14. Can you explain High PRF High pulse repetition frequency (HPRF) is a tool that allows us to increase the Doppler scale to avoid signal aliasing. The higher the PRF, the greater the ability to demonstrate the flow without aliasing. It is generally a setting that allows us to quickly increase the PRF to its maximum.
15. in which scenario we should use cw doppler CW Doppler is used in cardiac imaging to measure very high velocities like those seen in stenotic heart valves.
16. please explain the steering box The steering box is used to lower the angle of insonation, the lower the angle the better the Doppler signal will be. Steering the box one direction or the other, depending on the course of the vessel, will improve the Doppler signal. Very helpful when using linear array transducers.
17. How can we check if doppler setting is accurate specially for post liver transplant in left and right cystic artery, and hepatic veins. Thank you! Not sure I understand your question. Could you reach out to me at kevin.rooker@gehealthcare.com, and we'll get you an answer
18. I always wondered if we play with wall filters to make color look pretty, does that affect diagnosis? Great question. Certainly, within the realm of possibility. We need to answer the questions we are seeking using whatever settings we need to use to obtain that information may be used. The "pretty" imaging needs to be secondary to that