

PRESENTATION AND EXAM FINDINGS:

- Preliminary technologist reports are provided to the interpreting physician.
- All studies are performed in B-mode, color, and/or limited color scale and color Doppler. Color Doppler studies are performed in the following vessels: ICA, CCA, ECA, and Subclavian. ICA, CCA, and ECA studies include PSV/EDV measurements, including pathology if present.
- When available, previous studies should be obtained for comparison.
- Present record of diagnostic images, data, explanations, and technical worksheet to the interpreting physician for use in rendering a diagnosis and technical supplies.

D. FINDINGS:

1. The ICA is considered **normal** when the PSV is less than 140 cm/sec and no plaque is present or intimal thickening is visible.
2. A **<20% ICA stenosis** is diagnosed when ICA PSV is less than 140 cm/sec and any of the following criteria are present: Additional criteria include ICA EDV of <100 cm/sec.
3. A **20-49% ICA stenosis** is diagnosed when ICA PSV is <140 cm/sec and additional criteria include ICA/CCA PSV ratio of <4.0 and ICA EDV of <100 cm/sec.
4. A **50-69% ICA stenosis** is diagnosed when the ICA PSV is greater than or equal to 140 cm/sec and visible moderate-large plaque and lumen narrowing are visible. Additional criteria include ICA/CCA PSV ratio >4.0 and ICA EDV <100 cm/sec.
5. A **70-99% ICA stenosis** is diagnosed when ICA PSV is >140 cm/sec and additional criteria include ICA/CCA PSV ratio >4.0 and ICA EDV >100 cm/sec.
6. A **total occlusion of the ICA** should be suspected when there is no detectable patent lumen at gray scale and no flow with spectral color, or color Doppler.
7. A **50-69% ECA stenosis** is diagnosed when ECA PSV is >140 cm/sec.
8. A **Subclavian steal** is suspected when retrograde flow is present and PSV is >100 cm/sec. If retrograde flow is present, a Subclavian steal is suspected.

Suggested Image Protocol for: Carotid Duplex

1. Trans RT CCA Proximal
2. Trans RT CCA Mid/Distal
3. Long RT CCA Proximal
4. Long RT CCA Mid/Distal
5. Long RT CCA Bulb
6. Long RT CCA Mid/Distal (Include PSV/EDV measurements)
7. Long RT CCA Mid/Distal w/ Color
8. Long RT CCA Mid/Distal w/ PW Doppler (Include PSV/EDV measurements)
9. Trans RT CCA Bulb
10. Trans RT CCA Bulb w/ Color
11. Trans RT CCA Bulb w/ PW Doppler (Include PSV/EDV measurements)
12. Long RT CCA Bulb w/ Color
13. Long RT ICA Proximal
14. Long RT ICA Proximal w/ Color
15. Long RT ICA Proximal w/ PW Doppler (Include PSV/EDV measurements)
16. Long RT ICA Mid/Distal
17. Long RT ICA Mid/Distal w/ PW Doppler (Include PSV/EDV measurements)
18. Long RT ICA Mid/Distal w/ Color
19. Long RT ICA Mid/Distal w/ PW Doppler (Include PSV/EDV measurements)
20. Long RT ECA Proximal w/ Color
21. Long RT ECA Proximal w/ PW Doppler (Include PSV/EDV measurements)
22. Long RT ECA Proximal w/ Color
23. Long RT ECA Proximal w/ PW Doppler (Include PSV/EDV measurements)
24. Long RT SUBCLAV w/ Color
25. Long RT SUBCLAV w/ PW Doppler (Include PSV/EDV measurements)
26. Long RT SUBCLAV w/ Color
27. Long RT SUBCLAV w/ PW Doppler (Include PSV/EDV measurements)
28. Long RT SUBCLAV w/ Color
29. Long RT SUBCLAV w/ PW Doppler (Include PSV/EDV measurements)