



## NOTES

**Carotid Angle-** Orbital roof lies over petrous ridge. Projects the ACA and MCA bifurcation above petrous ridge for optimal visualization

**Transfacial View-** Orbital floor lies over the petrous ridge. Allows for visualization of bifurcation of ACA and MCA through the orbit. Profiles the cavernous sinus.

**Transorbital Oblique-** 45° craniocaudal angulation centered over the orbit with optic canal positioned in lower outer quadrant. Especially useful for visualizing the ACOM (+/- cross compression of the contralateral carotid artery)

**Lateral View-** Standard projection which complements the frontal view of the anterior circulation and venous anatomy

**Carotid Angle-** Orbital roof lies over petrous ridge. Good general view of posterior circulation

**Transfacial-** Orbital floor lies over the petrous ridge. Allows direct visualization of basilar artery and apex, PICA and AICA but foreshortens PCAs, SCAs and PCOMs. Profiles tentorium, separates supratentorial and infratentorial compartments

**Towne's View-** Inferior border of the petrous ridge above the supraorbital rim. PCA optimally seen but severely foreshortens basilar artery

**Stenver's View-** Similar to the transorbital oblique view, but centered over the mandibular condyle with the optic canal in the lower outer quadrant. Useful for visualizing the PICA and vertebrobasilar system

**Lateral View-** Standard projection taken to complement the selected frontal view of the posterior circulation

Table 1. Contrast (Omnipaque 300)

|                                      | Rate (cc/sec) | Total Volume | Rate rise (sec) |
|--------------------------------------|---------------|--------------|-----------------|
| Aortic Arch                          | 25            | 50           | 0               |
| Subclavian Artery with cuff          | 8             | 20           | 0.3-0.8         |
| Subclavian Artery without cuff       | 6-8           | 10-15        | 0.8             |
| Brachiocephalic Artery               | 5-7           | 8-12         | 0.8-1.0+        |
| Common Carotid Artery (Extracranial) | 5-8           | 8-10         | 0.8-1.5 (0.8)   |
| Common Carotid Artery (Intracranial) | 5-8           | 10-12        | 0.8-1.5         |
| Internal Carotid Artery              | 5-7           | 7-9          | 0.5-0.8         |
| External Carotid Artery              | 2-3           | 5            | 0.8-1.2         |
| Vertebral Artery                     | 4-7           | 5-10         | 0.5-1.2         |

Table 2. Exam Strategies

|             | TIA/CVA                                 | Aneurysm/SAH                     |
|-------------|-----------------------------------------|----------------------------------|
| Aortic Arch | RPO/LPO                                 | Optional                         |
| CCA         | Neck and head                           | Head +/- neck                    |
| ICA         | Selective necessary                     | AP/lateral Oblique or rotational |
| ECA         | Selective catheterization not necessary | AP/lateral if no aneurysm found  |
| Vertebral   | One or both                             | Both intracranially              |

|             | AVM                      | Trauma                                                                              |
|-------------|--------------------------|-------------------------------------------------------------------------------------|
| Aortic Arch | Optional                 | RPO/LPO                                                                             |
| CCA         | If diseased, bifurcation | Bilateral AP and lateral neck and intracranial                                      |
| ICA         | Bilateral ICA or CCA     | Selective catheterization not necessary                                             |
| ECA         | Bilateral ICA or CCA     | Selective catheterization not necessary unless clinically indicated (e.g. bleeding) |
| Vertebral   | Bilateral                | Bilateral AP/ lateral neck on both, intracranial on one                             |