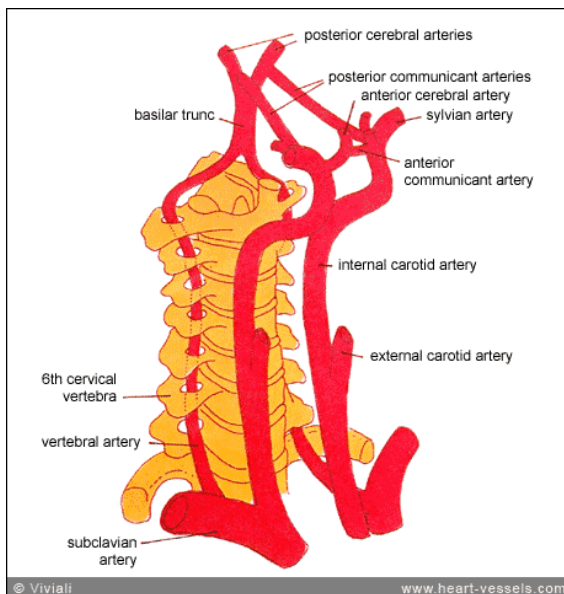Matt Alexander
Owens Lab
Rev 2-11-11 MRA

Mouse carotid artery sectioning for ligation-induced injury analysis

1) Carotid arteries are embedded bifurcation (and suture) end down, so this portion will be cut first.
2) Please orient the chuck so that the block parallel with the blade prior to cutting. When cutting, the carotid bifurcation should be reached first, but may be obscured by the suture, which should be reached soon thereafter.
3) The most proximal (last cut) site where the suture is visibly constricting the common carotid vessel should be slide #1. Please cut **50** slides through the common carotid from that point on with three sections per slide of 5 um thickness.
4) Check the vessel sections at slide 50 to determine whether the lesion extends to this distance. If so, it is best to cut an additional 25 slides to sample for analysis at 1 mm beyond the ligature site, which is where most people in the literature analysis lesion size and composition. If not, analyze sections at a more distal site that is consistent across all the animals, just be sure to be at least 500 um beyond the ligature site to avoid thrombus.

Thanks!

Right (ligated) carotids: