CANINE OPTIC PATHWAY CONTOURING IN ECLIPSE
This material is intended for study participants only and should not be distributed or shared.
3-Step Contouring of the Optic Pathway

Step 1: Set window width and level

Step 2: Generate oblique optic pathway (OP) plane

Step 3: Contour optic pathway

A 4-minute video demonstrating these steps is available at:
https://www.youtube.com/watch?v=gvKEYLTYR08
Step 1: Windowing

- Using the **soft tissue** reconstruction algorithm, select the window level icon (□) from the top tray (green circle)
- Select the “**Breast**” window level preset by right-clicking in the window level bar
- For this study, the “Breast” preset has been modified to provide the recommended settings of 115 (upper grey level) and -35 (lower grey level)
Step 2: OP plane

- Put the **frontal** (dorsal) plane in the main window by clicking on the toggle planes icon (🪔) to rotate the planes between windows.
- Center the vertical locator line on patient’s midline.
- Select the rotate 2D icon (🪔)
Click and drag anywhere in the **sagittal** plane window to rotate the image until the horizontal plane of the head (hard palate) is about **35-45 degrees** off the vertical axis.

An “Angle” tool can be found under the “Measure” tab.
Step 2: OP plane

- Drag the vertical locator tool (green circle) in the **sagittal** plane until the optic nerves are visible caudal to the globe in the **frontal** plane (arrow)

- Adjust rotation in the sagittal plane to maximize the length of optic nerves visible in the frontal plane
Step 3: OP contour

- Use a brush size based on diameter of the nerve (usually 3-4 mm)
- The optic nerves (white arrow) will be visible on 2-4 slices in the frontal plane and will appear slightly less dense than the surrounding soft tissue
- The nerves run caudally from the globe in a medial and ventral direction
Step 3: OP contour

• As you scroll ventrally, the nerves run to the optic canal (grey arrow)

• The nerves lie near the presphenoid bone (black arrow) in their caudal one-third region, and the contour may be based on the presphenoid bone in this region if the nerve is not visible

• Contour to the start of the optic canal
Step 3: OP contour

- Complete the caudal optic nerve and optic chiasm contours on the *transversal* plane
- Put the *transversal* plane in the main window by clicking the reset icon (🔍️) and then the toggle planes icon (▾)
Step 3: OP contour

- Use a *bone* windowing pre-set or switch to the registered *bone* reconstruction algorithm.
- Starting at the caudal end of your existing contour, continue contouring the optic nerves in the optic canal (top image).
- The last slice with optic nerves will be where the presphenoid bone between the two optic canals begins to recede (bottom image).
Step 3: OP contour

- Return to the “Breast” window level pre-set in the soft tissue reconstruction algorithm.
- On the next slice caudally, you will see a slight decrease in attenuation in the region of the optic chiasm.
- Contour this region as optic chiasm (yellow contour), and continue this contour caudally for 1 to 2 additional slices.