Figures and Tables

Sensitivity test	Values tested	Standard value used
Young's Modulus (MPa) of dura mater	3, 31.5, 300	31.5 MPa [1]
Thickness (mm) of dura mater	0.2, 0.55, 1.5	0.55 mm [2]
Young's modulus (MPa) of other soft tissues	0.5, 5, 50, 500	0.5 MPa [3]

Table 1. Sensitivity test values for the dura mater and other soft tissues (which also include the filling materials and the link elements). [1] Kleiven and Holst, 2002, [2] Cotton *et al.*, 2016, [3] Huempfner-Hierl *et al.*, 2015.

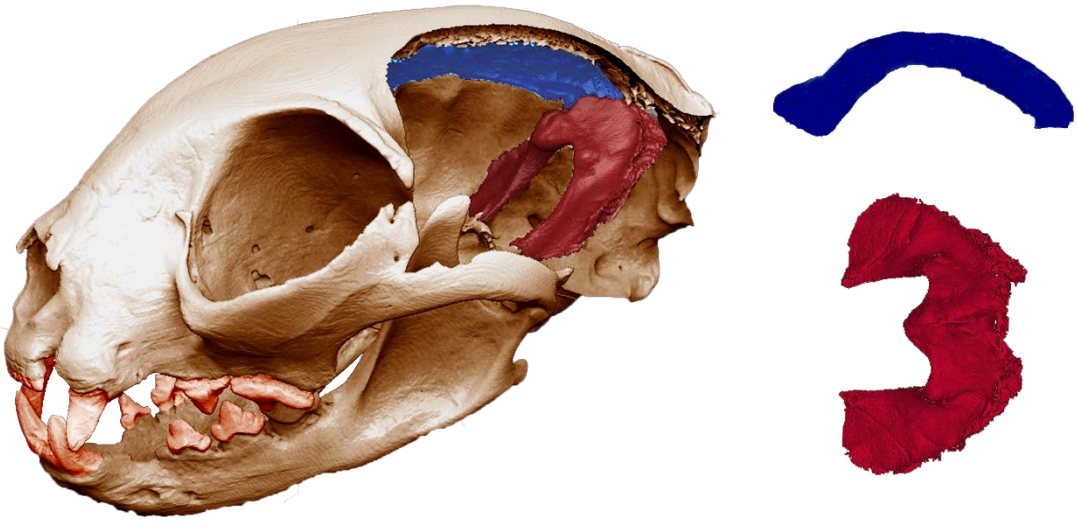

Figure 1: Left: The skull used for the *in silico* model after performing a virtual parasagittal cut in the braincase to reveal the falx cerebri and the tentorium cerebelli (displayed in blue and red, respectively). Top right: Falx cerebri in medial-lateral view. Bottom right: Tentorium cerebelli in dorsal view.

Figure 2: Left: parasagittal cut of the second specimen, with patches of ossification (highlighted in red) in the posterior falx. Right: Coronal view of a CT image slice which shows an oval shape following the midline.

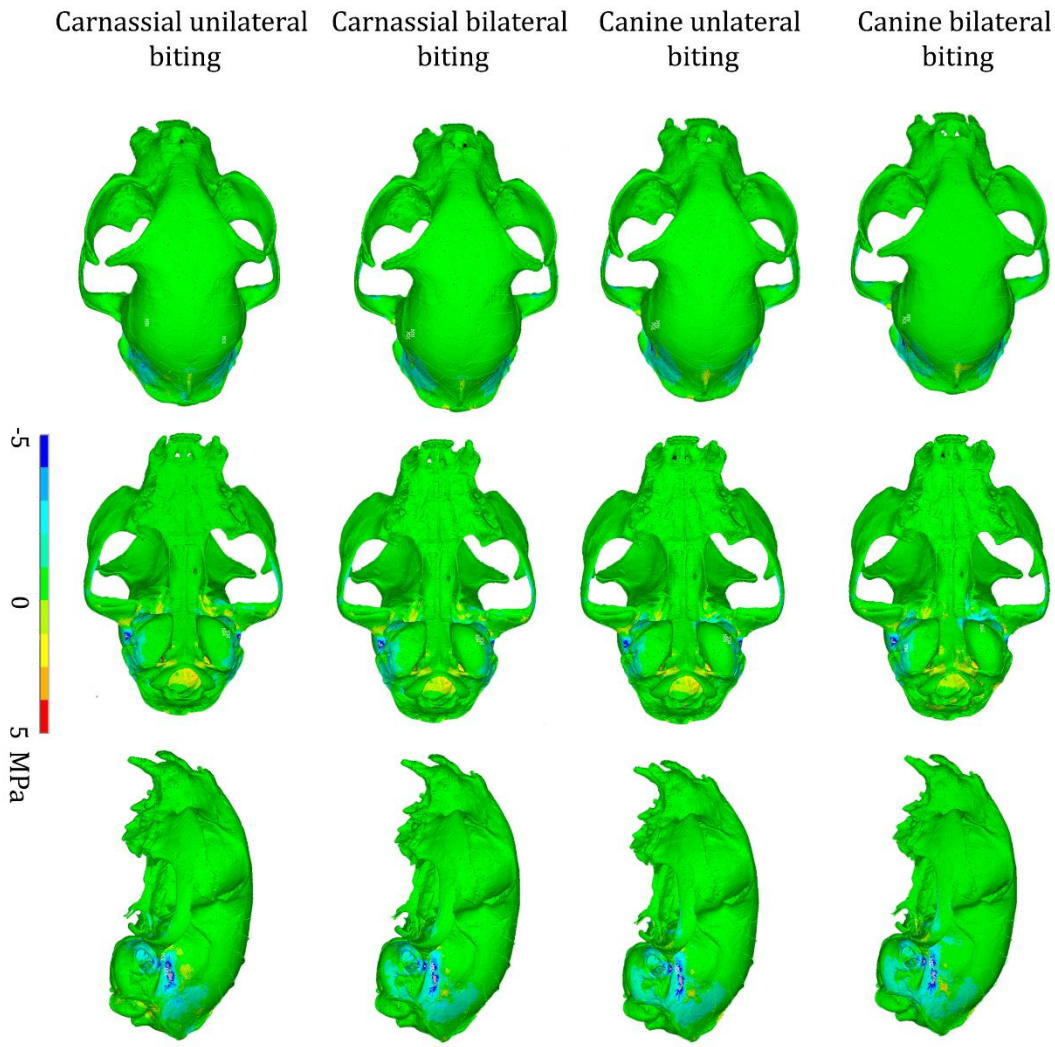

Figure 3: Von Mises stress difference plots for the (intrinsic) biting analyses, comparing osseous and soft tentorium models. (See figure 3 for an explanation of the differencing process).

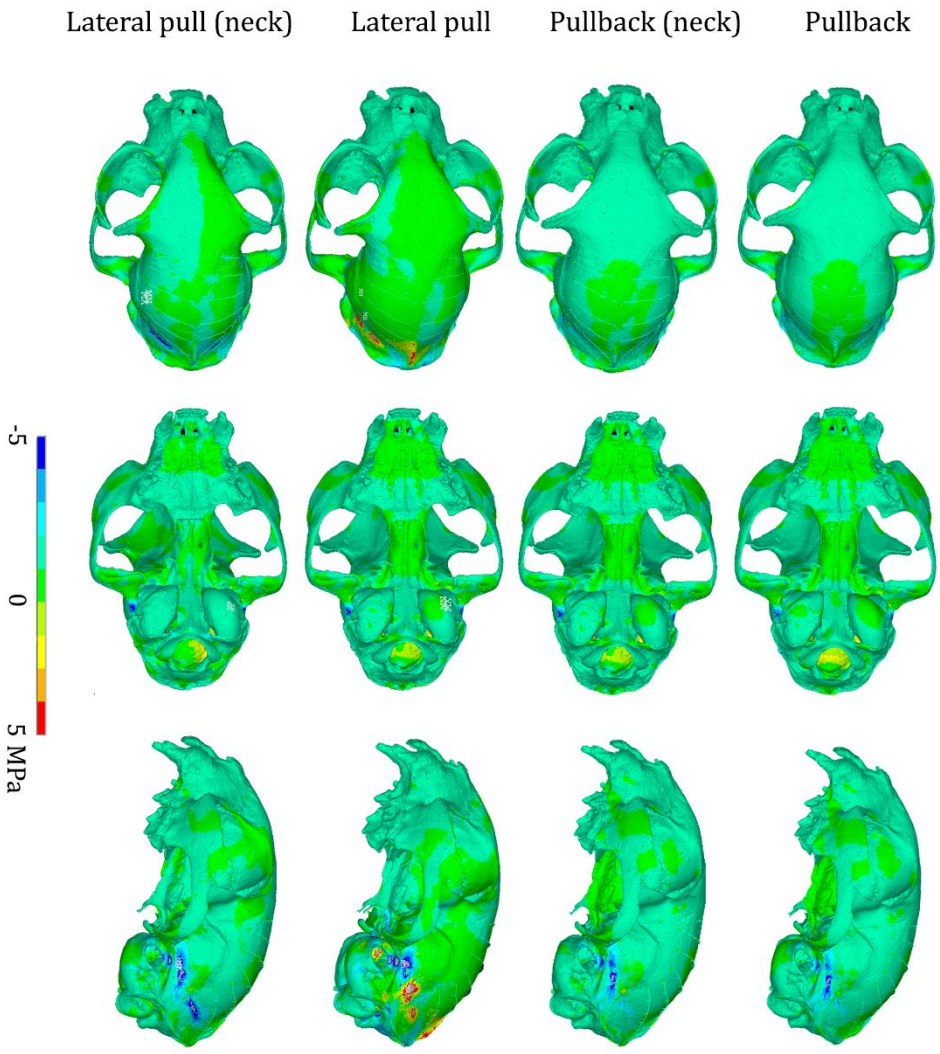

Figure 4: Von Mises stress difference plots for extrinsic analyses (biting plus pulling/tearing loads) comparing osseous and soft tentorium models. (See figure 3 for an explanation of the differencing process).

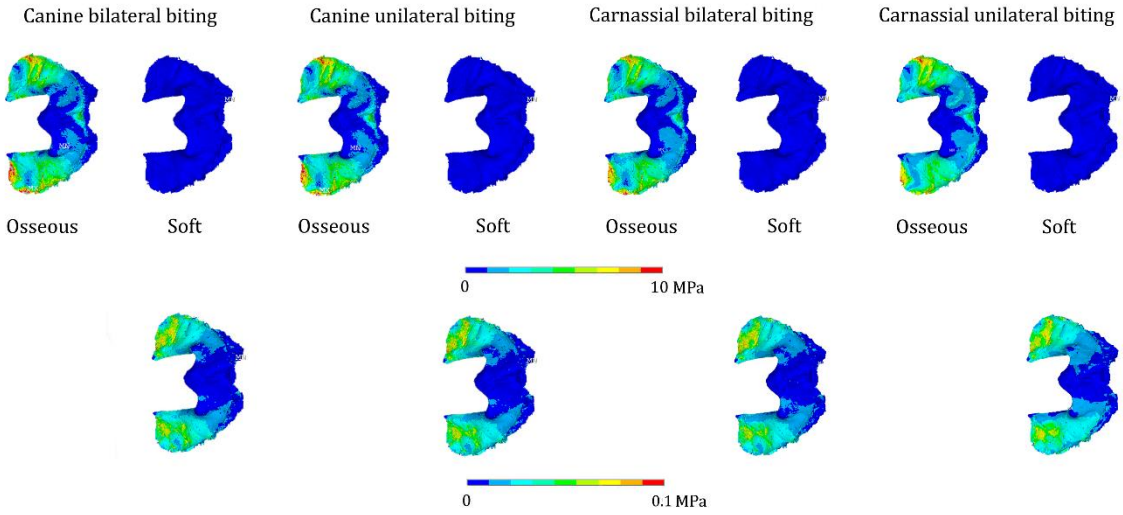

Figure 5: Von Mises stress plots for the tentorium. Top row: Osseous and soft tentorium in dorsal view for all intrinsic regimes. Bottom row: Soft tentorium for the same loading regimes as the top row, but with adjusted contour levels to reveal the stress patterns.

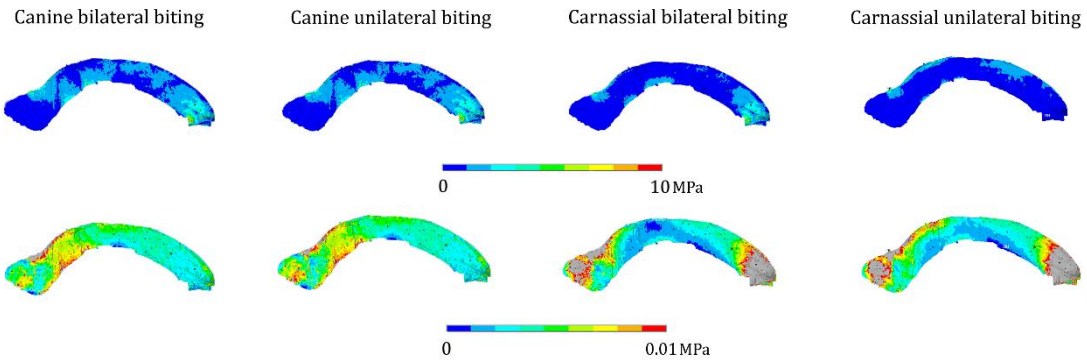

Figure 6: Von Mises stress plots for the falx. Top row: osseous falx cerebri in medial-lateral view for all intrinsic regimes. Bottom row: soft falx cerebri for the same analyses, but with adjusted contour levels to reveal the stress patterns.