

# Evaluating New Approaches in Endoscopic Skull Base Surgery: Development of an Evaluation and Reporting System and Demonstration of its Use for Novel Pathways

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**Aims/Goals:** To develop a dynamic 3D system to describe new skull base pathways, analyzing their effectiveness, and documenting instrument motion using the pathways during surgical performance. Approaches evaluated: transnasal, transorbital, transmaxillary, paramaxillary, and infatemporal fossa pathways

## Methods:

- An electronic surgical record for endoscopic skull base surgery used to mark the outer extremes of the expected approach borders.
- An actual procedure will be performed on cadavers, and in OR for selected cases. The instrument motion through the pathways will be documented.
- We will compare the pathway predicted by static 2D analysis with that demonstrated in 3D dynamic analysis.

**Results and Interpretation:** Data collection is ongoing.

**Future Directions:** We are continuing to expand and develop new surgical pathways for endoscopic skull base, sinus and craniofacial surgery using these techniques.

