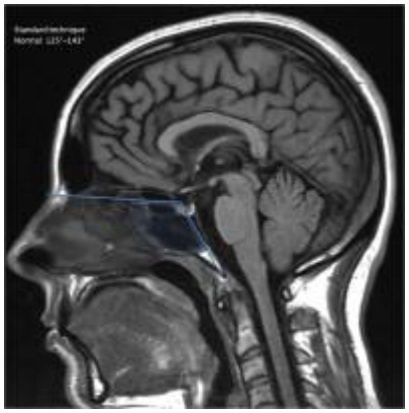
The skull base angle allows the platybasia diagnosis and basilar kyphosis diagnosis. There are several different techniques that may be used on sagittal images from MRI or CT.

Traditionally, basal angle measurements were based on plain skull images. With the advent and generalization of MR imaging it has been supplanted and is rarely used.

MRI techniques produce lower basal angles than those reported by using traditional radiography. For this reason, Koenigsbert et al. described a new measurement method for MRI usage, which provides consistent and reproducible measurements.

For hystorical and utility purposes, both plain skull films and MRI measurement techniques are described.

Standard technique

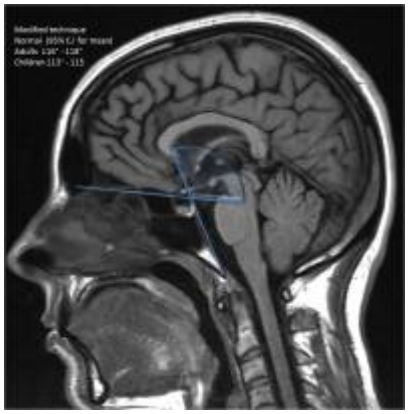


Case courtesy of A.Prof Frank Gaillard, <html>Radiopaedia.org. From the case rID: 2651</html>

Angle formed by:

line joining the nasion with the center of the pituitary fossa line joining the anterior border of the foramen magnum with the center of the pituitary fossa normal: 125°-143° platybasia: >143° basilar kyphosis: <125°

Modified MRI technique



Case courtesy of A.Prof Frank Gaillard, <html>Radiopaedia.org. From the case rID: 2651</html>

Angle formed by:

line extending across the anterior cranial fossa to the tip to the dorsum sellae line drawn along the posterior margin of the clivus children: 114° +/- 5° adults: 117° +/- 6°

Ferreira JA, Botelho RV. Determination of normal values of basal angle in the era of magnetic resonance. World Neurosurg. 2019 Sep 18. pii: S1878-8750(19)32486-6. doi: 10.1016/j.wneu.2019.09.056. [Epub ahead of print] Review. PubMed PMID: 31541760.