Brain Herniation

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Brain herniation is the protrusion of brain tissue through an opening due to compression. The cause of compression may be due to edema, swelling or dilation of tissues, mass effect from a tumor, congenital malformation, or hemorrhage. There are several types of brain herniation:

Herniation Subtypes:

- Tonsillar: Cerebellum through foramen magnum
- Subfalcine: Midline shift
- Transtentorial: up or down through tentorium cerebelli

Tonsillar Herniation

Tonsillar herniation is an important finding that should be communicated to the clinician quickly, When the cerebellum protrudes through the foramen magnum, the brainstem is compressed, which controls respiration and heart rate. If noticed during a scan, some form of treatment may be initiated during the scan such as hypertonic saline or mannitol. Tonsillar herniation can be best seen on a **midline sagittal T2 weighted FSE.**