# [Neurovascular findings in children and young adults with Loeys-Dietz syndromes: Informing recommendations for screening.](https://www.ncbi.nlm.nih.gov/pubmed/31862516)

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**Take Home Points:**

* Cerebrovascular arterial tortuosity is a common finding in patients with Loeys-Dietz syndrome.
* Neurovascular findings mostly remain stable over years in pediatric patients.



***Commentary from Dr. Inga Voges (Kiel, Germany), section editor of Pediatric Cardiology Journal Watch:*** The authors retrospectively analysed clinical, genetic and imaging data in children and young adults with Loeys-Dietz syndrome. 47 patients were included of whom 39 had magnetic resonance angiography or computed tomography angiography of the head and neck. 21 patients had follow-up neurovascular imaging; average follow-up was 607 days (range 123–3070 days). Arterial tortuosity index of the left and right internal carotid artery (LICA, RICA) and vertebral arteries (LVA, RVA) were measured (Figure 1). Furthermore, the percent change in Arterial Tortuosity Index over time was calculated.

All patients had genetic testing, most common mutations were those in *TGFBR2* and *TGFBR1*. Neurovascular imaging data demonstrated intracranial neurovascular tortuosity in 79.5% and cervical neurovascular tortuosity in 64.1% of patients. Involvement of both, anterior and posterior circulation was common (Table 1). Three patients had intracranial aneurysms. None of the patients had intracranial hemorrhage or vascular rupture and no interventions were performed. Only three patients with follow-up imaging data were subjectively found to have new or progressive anomalies; all of them had a *TGFBR2* mutation.

Based on their findings, the authors nicely discuss the frequency of neurovascular screening in pediatric Loeys-Dietz syndrome patients.



