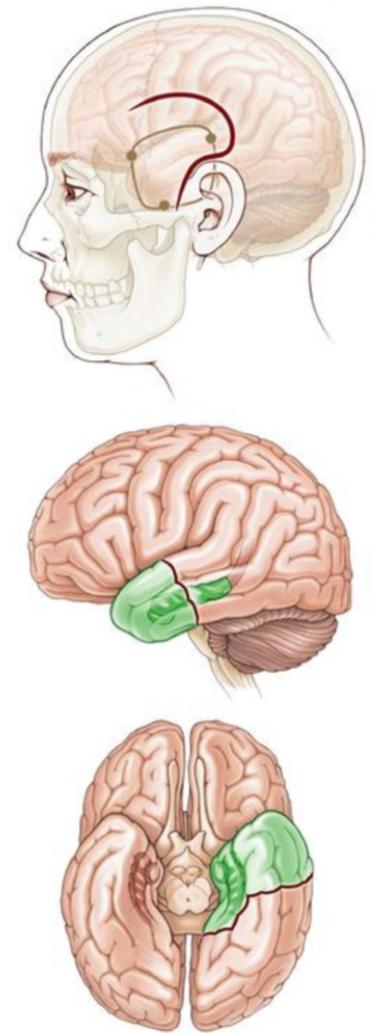


Anterior temporal lobectomy complications



Even though the mortality after [Anterior temporal lobectomy](#) (ATL) is minimal, the overall [morbidity](#) cannot be ignored. Psychiatric disturbances, [visual field defects](#), and [cognitive disorders](#) are the most common [postoperative complications](#), and should be considered during the preoperative planning and consultation ¹⁾.

Visual field defects

ATL is often complicated by [quadrantanopia](#). In some cases this can be severe enough to prohibit driving, even if a patient is free of [seizures](#). These deficits are caused by damage to [Meyers loop](#) of the [optic radiation](#), which shows considerable heterogeneity in its anterior extent. This structure cannot be distinguished using clinical [magnetic resonance imaging](#) sequences.

Optic radiation tractography by DTI could be a useful method to assess an individual patient's risk of postoperative visual deficit ²⁾ ³⁾.

van Lanen et al., developed a [score](#) method for the assessment of postoperative [visual field defects](#) after [temporal lobe epilepsy surgery](#) and assessed its feasibility for clinical use. A significant correlation between VFD and resection size for right-sided ATL was confirmed ⁴⁾.

[Cranial nerve](#) (CN) deficits following [anterior temporal lobectomy](#) (ATL) are an uncommon but well-

recognized complication. The usual CNs implicated in post-ATL complications include the [oculomotor nerve](#), [trochlear nerve](#), and [facial nerves](#).

Injury to the [trigeminal nerve](#) leading to [neuropathic pain](#) are described in 2 cases following temporal lobe resections for pharmacoresistant epilepsy. The possible pathophysiological mechanisms are discussed and the microsurgical anatomy of surgically relevant structures is reviewed. ⁵⁾

Case reports

Dickerson et al., from the Department of Neurosurgery, University of [Mississippi Medical Center, Jackson, USA](#) report the third known case and first of diffuse [vasospasm](#). A 48-year-old woman underwent a transcortical anterior left [temporal lobectomy](#). Eleven days later, she had new-onset expressive [aphasia](#) with narrowing of the anterior, middle, and posterior cerebral arteries, and increased velocities via [transcranial Doppler](#). She was treated with fluids, [nimodipine](#), and permissive [hypertension](#). At 6 months, her speech was near baseline. [Cerebral vasospasm](#) may represent a rare cause of [morbidity](#) after anterior temporal lobectomy; a [literature review](#) on the subject is presented ⁶⁾.

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