Topiramate

- Optimal Dosing of Nortriptyline-Topiramate and Verapamil-Paroxetine Combinations in Tinnitus Treatment
- Monitoring Cortical Spreading Depolarization: Advancements and Applications in Neurocritical Care: A Scoping Review
- Effectiveness and safety of single anti-seizure medication as adjunctive therapy for drug-resistant focal epilepsy based on network meta-analysis
- Sodium channel blockers for the treatment of focal epilepsy: A Chinese expert consensus
- Efficacy and safety of pharmacological and non-pharmacological therapies in Lennox-Gastaut syndrome: a systematic review and network meta-analysis
- A randomized sequential cross-over trial evaluating five purportedly ICP-lowering drugs in idiopathic intracranial hypertension
- Antiseizure medications for Lennox-Gastaut Syndrome: Comprehensive review and proposed consensus treatment algorithm
- Safety and effects of anti-obesity medications on weight loss, cardiometabolic, and psychological outcomes in people living with overweight or obesity: a systematic review and meta-analysis

Topiramate, sold under the brand name Topamax among others, is a medication used to treat epilepsy and prevent migraines. It has also been used in alcohol dependence. For epilepsy, this includes with generalized or focal seizures. It is taken by mouth.

Topiramate (TOP) inhibits voltage-gated sodium channels by blocking both the amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA)/kainate receptor and folic acid (FA) activity in neurotransmitter synthesis reactions. FA and TOP are anti-apoptotic agents by both phosphorylated-Akt (p-Akt) signaling activation and anti-inflammatory effects at the injury site. We investigated the effects of FA and TOP in peripheral nerve injury. We used rats with a sciatic nerve injury (SNI) treated with FA or TOP once daily for 6 weeks. Histological and electrophysiological tests were used to evaluate the morphology, and motor and sensory functions. Numbers of axons, myelin sheath thickness and axon area were measured using stereological techniques; functionality also was evaluated. Although FA exhibited a positive effect on regeneration by increasing the number of axons, we found no difference in axonal outgrowth or myelin sheath formation between the TOP and FA groups [1)].

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Sağır D, Kuruoğlu E, Onger ME, Yarar E. The Effects of folic acid and topiramate on peripheral nerve regeneration. Biotech Histochem. 2019 Aug 19:1-8. doi: 10.1080/10520295.2019.1637022. [Epub ahead of print] PubMed PMID: 31423848.