

# Valproic acid for the prevention of migraine

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The frequency and severity of migraine attacks differ between patients. In case of two attacks per month or one severe attack per month a migraine patient might benefit from prophylactic treatment. Population based studies have shown underutilization of preventive medication. Less than 30% of eligible migraine patients are actually receiving adequate prophylactic treatment.

One of the most effective preventive drugs is valproic acid showing a reduction of 50% in attack frequency in around 50% of patients. Initial randomized trials used doses of around 1000mg per day. Some patients might already benefit from 500mg per day but often it is necessary to go up to 1000 or 1500mg daily. Extended release formulations might be less effective.

Valproic acid has several potential side effects such as weight gain, gastrointestinal, alopecia, drowsiness and tremors. Migraine patients seem to be more sensitive for the side effects of antiepileptic drugs. Due to teratogenic effects valproic acid should be avoided during pregnancy. Women of childbearing age are advised to take adequate contraceptive measures.

In general it takes at least 2 to 3 weeks to reach an effective dose. If the drug is well tolerated it is important to wait at least 3 months before one can assess the efficacy. In population based studies the reasons for discontinuation of prophylactic treatment are lack of efficacy (40% of patients), side effects, (35%) and resolution of symptoms (20%).

Guus Schoonman is working at the Neurology Department of the Leiden University Medical Centre. He obtained his MD in 2000 and his PhD in 2008 for the study of trigger factors in migraine. His main research focus is the pathophysiology of migraine in relation to the exposure of trigger factors. Since 2001 he has served on the IHS Trainees and Residents committee and in 2010 he was appointed Chairman of the Education committee. Educational programs are continuously provided, including the 'online learning centre' and the 'headache master school'.