

CT Children's CLASP Guideline Clinician Guide

Appendix B: Pediatric Headache Preventive Management

A comprehensive approach to pediatric headache management can include nutritional supplements and medications, psychotherapy, rehabilitation therapies, integrative therapies, use of neuromodulation devices and procedural pain interventions. **Those with a ⚡ in the PCP column reflect strategies commonly initiated by Primary Care Providers.**

Pharmacologic *preventive* therapies are of uncertain benefit over placebo for much pediatric migraine. The American Academy of Neurology/American Headache Society Pediatric Migraine Guidelines updated in 2019 and endorsed by the American Academy of Pediatrics are indicated below. There are no active guidelines regarding nutritional supplements or devices for pediatric headache. Supplements listed below are used in adults and have good safety/tolerability. They may be considered as initial or adjunctive therapy in patients aware of evidence limitations. Cognitive behavioral therapy has a compelling evidence base.

PCP?	Nutritionals	Pediatric dosing	Side Effects	AAN/AHS 2019
⚡	Melatonin	3 mg – 5mg /night	♦ Daytime drowsiness, dizziness	Not part of 2019 review. Evidence is mixed but generally benign s/e profile.
⚡	Riboflavin (B2)*	200- 400 mg/day	♦ Urochromia (vivid orange urine)	
⚡	Magnesium (Mg)*	200 - 600 mg/day of elemental Mg	♦ Loose stool	
⚡	Coenzyme Q 10	1 - 3 mg/kg/day	♦ GI upset, rash, low BP	

*Consider MigRelief, a combination formulation of Riboflavin and Magnesium, for convenience: 2 tablets orally daily

**Note, Caffeine in small quantities (60-120mg) sensitizes the brain to respond better to analgesics. Advise patients that effects last 6 hours.

PCP?	Medications	Pediatric dosing	Side Effects	Monitoring	AAN/AHS 2019
⚡	Cyproheptadine (Periactin)	2 – 8 mg QHS	♦ Sedation ♦ Appetite stimulation	♦ Monitor weight gain	Not part of 2019 review
⚡	Amitriptyline (Elavil)	10 – 75 mg QHS (1 mg/kg)	♦ Sedation ♦ Anticholinergic s/e: Dry mouth, constipation ♦ QT prolongation at high doses	♦ Consider EKG for doses >40 mg or >1 mg/kg/day	Part of 2019 Guidelines <i>With CBT psychotherapy</i>
	Topiramate (Topamax)	25 – 150 mg daily (may divide BID) (2 -3 mg/kg)	♦ Weight loss ♦ Nephrolithiasis ♦ Paresthesias ♦ Word-finding difficulties ♦ Glaucoma ♦ Can decrease efficacy of OCPs at higher doses	♦ Monitor BUN/Cr ♦ Is a teratogen. Advise contraception in sexually active patients. Start folate supplementation in menarchal patients.	Part of 2019 Guidelines <i>Is the only FDA approved medication labeled for migraine prevention in adolescents 12 -17 years, but not necessarily the most effective or safest</i>
	Propranolol (Inderal)	1 – 4 mg/kg/day Consider once daily ER formulation for adolescents	♦ Hypotension ♦ Depression ♦ Sleep disruption ♦ Bronchospasm	♦ Monitor HR, BP, sleep, exercise intolerance and mood	Part of 2019 Guidelines

PCP?	Psych, Rehab, Integrative Therapies	Consider Ordering	AAN/AHS 2019
⚡	Cognitive Behavioral Therapy	♦ For skills-based therapy: Diaphragmatic breathing, Progressive muscle relaxation, Cognitive restructuring, activity pacing.	Part of 2019 Guidelines
⚡	Physical Therapy	♦ Manual therapy for head/ neck to improve joint mobility/increase range of motion, decrease muscle tightness/tenderness of head/neck joints. ♦ Graded exercise programs for deconditioning	Not part of 2019 Review.
⚡	Occupational Therapy	♦ Evaluation for pain management ♦ Sensory integration assessment and treatment	
⚡	Biofeedback Therapy (Services are offered by selected PTs and OTs at Connecticut Children's)	♦ Biofeedback training sessions to manage physiologic responses to pain/stress. Commonly 3 -5 sessions involving use of sensors and video to learn techniques.	

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PCP?	Neuromodulation Device	Dosing	Considerations	AAN/AHS 2019
	Nerivio remote neuromodulation device	45 minute treatment QOD	<ul style="list-style-type: none">♦ Requires prescription & pt should have own mobile phone♦ Contraindicated if implanted devices or CGM/insulin pumps	Not part of 2019 Guidelines <i>FDA approved: pts ≥ 12 yrs</i>