



MEDICATIONS FOR EPILEPSY

Antiseizure Drug Generic Name (Brand Name) Year of introduction	Daily Dosage Range	Primary Mechanism of Action	Some Possible Side Effects (potentially serious side effects in bold)	Uses
Brivaracetam (Briviact) 2016	Adult: 50 – 200 mg Child: not established	unknown – may involve synaptic vesicle protein 2A (SV2A)	Drowsiness, dizziness, fatigue, nausea, vomiting, loss of coordination, psychosis, hypersensitivity reactions (bronchospasm, angioedema)	partial-onset seizures with or without secondary generalization
Carbamazepine (Carbatrol, Tegretol, Tegretol XR) 1968	Adult: 800 - 1200 mg Child: up to 1000 mg	sodium channel blocker	dizziness, drowsiness, headache, blurred/double vision, nausea, impotence, abnormal blood counts, rash, liver damage, cardiac arrhythmias, salt depletion	partial seizures, secondarily generalized tonic clonic seizures [NOT for absence or myoclonic seizures]
Clobazam (Onfi, Frisium) 2011	Adult: 10 - 30 mg Child: 5 - 30 mg	GABA receptor agonist	drowsiness, dizziness, poor coordination, drooling, restlessness, aggressiveness, dependence, withdrawal symptoms, severe skin reactions	Lennox-Gastaut Syndrome, all seizure types
Clonazepam (Klonopin) 1975	Adult: 0.5 – 2 mg Child: 0.01 – 0.2 mg/kg	GABA receptor agonist	drowsiness, dizziness, nausea, unsteadiness, irritability, memory/attention problems, hyperactivity (in children), depression, loss of appetite, blood or liver problems	absence & myoclonic seizures, Lennox-Gastaut Syndrome, seizure clusters, prevention of seizures after auras, nocturnal seizures, seizures upon waking
Eslicarbazepine Acetate (Aptiom) 2013	Adult: 400 – 1200 mg Child: not established	sodium channel blocker	dizziness, drowsiness, nausea, headache, double-vision, vomiting, fatigue, and loss of coordination, hypersensitivity reactions, salt depletion	partial-onset seizures with or without secondary generalization
Ethosuximide (Zarontin) 1960	Adult: 500 - 1500 mg Child: 250 - 1500 mg	calcium channel blocker	gastrointestinal symptoms drowsiness, headache, fatigue, dizziness, behavior changes, insomnia, nervousness, rash, abnormal blood counts	absence seizures [NOT for tonic clonic, myoclonic, or partial seizures]
Ezogabine (Potiga) 2011	Adult: 600 – 1200 mg Child: not established	potassium channel opener	urinary retention, skin discoloration, dizziness, neuropsychiatric symptoms, drowsiness, withdrawal seizures, psychosis, vision loss, QT interval lengthening	partial-onset seizures with or without secondary generalization



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Felbamate (Felbatol) 1993	Adult: 1200 – 3600 mg Child: 1200 mg	Multiple – glutamate, GABA, sodium and calcium channels	insomnia, nausea, headache, aplastic anemia, liver failure USE WITH CAUTION	partial and generalized seizures, Lennox-Gastaut syndrome
Gabapentin (Neurontin) 1993	Adult: 900 – 5400 mg Child: 25 – 100 mg/kg	GABA analogue	sleepiness, dizziness, clumsiness, fatigue, aggression & hyperactivity (in children), weight gain	partial seizures with or without secondary generalization [NOT for primary generalized seizures]
Lacosamide (Vimpat) 2008	Adult: 100 – 400 mg Child: 1-200 mg	sodium channel modulator	dizziness, headache, nausea or vomiting, double vision, sleepiness and fatigue, unsteadiness and shakiness, heart, liver, or blood abnormalities	partial seizures with or without secondary generalization
Lamotrigine (Lamictal, Lamictal XR) 1994	Adult: 100 – 700 mg Child: 1 – 200 mg	sodium channel blocker	dizziness, headache, insomnia, blurred/double vision, nausea, clumsiness, drowsiness, tics, skin rash, severe skin conditions, severe hypersensitivity reactions	partial seizures; Lennox-Gastaut syndrome; absence seizures (in newly diagnosed children); generalized tonic clonic seizures; may worsen myoclonic or atonic seizures
Levetiracetam (Keppra, Keppra XR, Spritam) 1999	Adult: 1000 – 3000 mg Child: 10 – 40 mg/kg	unknown – may involve synaptic vesicle protein 2A (SV2A)	Drowsiness, fatigue, poor coordination, dizziness, infection, irritability, behavioral abnormalities	partial seizures; myoclonic seizures; primary generalized tonic clonic seizures
Oxcarbazepine (Trileptal, Oxtellar XR) 2000	Adult: 600 – 2400 mg Child: 6 – 51 mg/kg	sodium channel blocker	fatigue, headache, sleepiness, difficulty concentrating, nausea, dizziness, double vision, severe skin conditions, hypersensitivity reactions, salt depletion	partial seizures, secondarily generalized tonic clonic seizures [NOT for absence or myoclonic seizures]



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Phenobarbital (Luminal, Solfoton) 1912 Primidone (Mysoline) 1954	Adult: 1.5 – 4 mg/kg Child: 2 – 8 mg/kg Adult: 250 – 500 mg Child: up to 25 mg/kg	GABA receptor agonist GABA receptor agonist	drowsiness, irritability, hyperactivity (children), behavioral problems, difficulty concentrating, depression, hypersensitivity reactions	all types of seizures neonatal seizures (Phenobarbital)
Phenytoin (Dilantin, Phenytek) 1939	Adult: 200 – 600 mg Child: up to 300 mg	sodium channel blocker	clumsiness, insomnia, confusion, drowsiness, slurred speech, nausea, rash, gum overgrowth, hairiness, vitamin deficiencies, thickening of features, severe skin problems, lupus	partial seizures, generalized tonic clonic seizures [NOT for absence, myoclonic seizures, or infantile spasms]
Pregabalin (Lyrica) 2004	Adult: 150 – 600 mg Child: not established	GABA analogue	dizziness, imbalance, drowsiness, no serious side effects yet reported	partial seizures; secondarily generalized seizures [NOT for primary generalized seizures]
Perampanel (Fycompa) 2012	Adult: 2 – 8 mg Child: not established	glutamate blocker	drowsiness, anxiety, confusion, imbalance, double vision, dizziness, irritability, gastrointestinal distress or nausea, weight gain, serious neuropsychiatric events	partial seizures
Rufinamide (Banzel) 2008	Adult: 400 – 3200 mg Child: 10 – 45 mg/kg	sodium channel modulator	headache, dizziness, fatigue, drowsiness, double vision, tremor, hypersensitivity reactions, shortened QT interval	Lennox-Gastaut syndrome
Tiagabine (Gabitril) 1997	Adult: 32 – 56 mg Child: .5 – 2 mg/kg	GABA reuptake inhibitor	tremor, dizziness, nervousness, difficulty concentrating, sleepiness, weakness, stupor	partial seizures; infantile spasms [may make non-convulsive generalized seizures worse]



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Topiramate (Topamax, Trokendi XR, Qudexy XR) 1996	Adult: 200 – 400 mg Child: up to 25 mg/kg	Multiple – works on glutamate, GABA, and sodium and calcium channels	confusion, sleepiness, fatigue, dizziness, clumsiness, difficulty thinking or talking, decreased appetite/weight loss, kidney stones, glaucoma, psychosis	Lennox-Gastaut syndrome; partial seizures; generalized tonic clonic seizures; myoclonic seizures, infantile spasms
Vigabatrin (Sabril) 2009	Adult: 2000 – 4000 mg Child: 50 mg/kg – 150 mg/kg	GABA transaminase inhibitor	drowsiness, fatigue, rash, psychosis, irreversible vision impairment in 25% of patients USE WITH CAUTION	infantile spasms (most effective in patients with tuberous sclerosis), partial seizures [may make absence and myoclonic seizures worse]
Valproate/valproic acid/ divalproex sodium (Depakene or Depakote) 1978	Adult: up to 60 mg/kg Child: up to 60 mg/kg	works on GABA, and blocks sodium and calcium channels	nausea, vomiting, menstrual irregularities, hair loss, weight gain, tremor, liver failure, pancreatitis (Women who are considering pregnancy should ask their doctor about risks of valproate to the fetus)	partial seizures; absence seizures; generalized tonic clonic seizures; myoclonic seizures; infantile spasms; Lennox-Gastaut syndrome; atonic seizures
Zonisamide (Zonegran) 2000	Adult: 100 – 600 mg Child: 2 – 12 mg/kg	sodium channel blocker	sleepiness, fatigue, loss of appetite/weight loss, depression, difficulty with concentrating and speech, unsteadiness, rash, kidney stones, abnormal reduction in perspiration	partial seizures, generalized tonic clonic seizures, absence seizures, myoclonic seizures, Lennox-Gastaut syndrome, infantile spasms

The information provided on the medications listed above is not comprehensive, and there are other medications not listed. For more information on any medication, ask your doctor or pharmacist. You can also find out more about these and other antiepileptic drugs by calling Epilepsy Foundation of Michigan. **Never make any decisions about a medication without consulting your doctor.**