AntiEpileptic Drugs (AED's) can interact with other items purchased over the counter - medications, drugs, vitamins, herbs, food.

An Over the Counter Medication Can:

Prevent or change the absorption of your epilepsy medication – e.g.

- Antacids will **decrease** Dilantin or Phenytoin

- Antacids will **increase** Valproic Acid

**Solution:** Separate the doses by at least 2 hours

## Increase the blood levels of your epilepsy medication and so also increase side effects or toxicity – e.g.

- Grapefruit Juice will **increase** Loratidine or

 Carbamazapine

**Solution:** Never take this combination!

Decrease or increase the blood levels of your epilepsy medications and possibly allow a seizure – e.g.

- Tylenol will **increase or decrease** Lamotrigine

- B6, Folic Acid will **increase or decrease**

Phenytoin (Dilantin)

- St. John’s Wort will **decrease** Carbamazepine

 (Tegretol)

**Solution:** Talk to your doctor.

Itself be increased or decreased because of the epilepsy medication so it gives side effects or does not work – e.g.

- Carbamazepine (Tegretol) will **decrease**

Tylenol

- Carbamazepine (Tegretol) will **decrease** birth

 control pills

- Lamictal will **decrease** Sulfa antibiotic drugs

- AEDs will **increase** aspirin/Ibuprofen/

 NSAIDS and can cause bruising and bleeding

**Solution:** Talk to your doctor.

**Increase side effects that are common to both medicines but not usually a problem unless taken together – e.g.**

- Medication containing alcohol – especially

 Nyquil and other liquids! Read labels!

- Antihistamines

- DM in cough products

- Muscle relaxants or sleep aids

All may make drowsiness, coordination and slow reflexes worse.

**Solution:** Talk to your doctor.

**May delay noticing or cover up a side effect of an epilepsy medication that really needs medical attention – e.g.**

- Rashes or blurred vision can be serious side

 effect of some medications (e.g. carba-

 mazepine) and should not be treated

 with creams like hydrocortisone or with

 eyedrops like Visine because it delays

 checking with your doctor

- Fever, sore throat, and easy bruising with

 Tegretol (Carbamazepine) can be a sign of

 bone marrow depression!

- Eye drops at the start of Topiramine

 (Topimax)

**Solution:** Talk to your doctor.

## Possibly stimulate the brain and so cause a seizure – e.g.

- Ma Huang (herb); Ephedrine or

 Pseudoephedrine (decongestants); Gingko

 Biloba (destroys pyridoxine); Lindane (for

 lice especially in children); antihistamines

 (sedating) like Chlortripolon

**Solution:** Do not take or be very cautious!

### Prescription Drug Interactions

**Tricyclic antidepressants** like amitriptyline can predispose to seizures in high doses (Weaver); low doses have been shown to protect against seizures. (Jones)

**SSRI antidepressants** and anticonvulsants influence each others’ actions. Paroxetine (Paxil) may increase carbamazepine, phenytoin, phenobarb and valproate levels. Alternately, carbamazepine, phenobarb and phenytoin may decrease paroxetine levels. (McConnell et al)

**Antipsychotics** and anticonvulsants can also influence each others’ actions by either increasing or decreasing effectiveness. (Weaver; McConnell et al)

**Amphetamines** may increase **phenobarb** and **phenytoin** levels. (McConnell et al)

**Benzodiazepines** interact with **carbamazepine** and **phenobarb**, usually producing a decrease in **benzodiazepine** levels. **Valproate**, however, may increase benzodiazepine levels. Benzodiazepines may increase or decrease **phenytoin** levels. (McConnell et al)

**Opioids** (dextropropoxyphene) can increase **carbamazepine** levels. (McConnell et al)

**Alcohol’s** intoxicating effects are increased when taking **anticonvulsants**. Seizures are more likely to occur from alcohol withdrawal than from alcohol intoxication (Weaver)

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**Aspirin** interacts with **phenytoin** and **valproate**.

**Ibuprofen** can also interact with **phenytoin**, leading to increased phenytoin levels. (Devinsky)

**Oral Contraceptives** are decreased in effectiveness by **carbamazepine, phenobarb,** **primidone, phenytoin** and **topiramate.** Check with your physician to be assured of adequate protection.

**Antihistamines** can decrease the effectiveness of **carbamazepine, phenytoin** and **valproate,** lowering seizure thresholds and sometimes causing seizures. (Weaver)

**Bronchodilators** such as **theophylline** interact with **carbamazepine, phenobarb,** primidone and **phenytoin**, affecting seizure thresholds. (McConnell)

**Anticoagulants** (warfarin) interact with carbamazepine, phenobarb, phenytoin, **primidone,** as do **calcium channel blockers, corticosteroids**, and some **antibiotics,** including **penicillin.** Isolated seizures may result when these medicines are taken.

**Viagra (sildenafil)** has been reported, in isolated cases, to cause seizures in men with and without a history of epilepsy. (Gilad et al)

# **Vitamins and Minerals**

**Folic Acid** absorption is diminished by **carbamazepine, phenytoin, phenobarb, primadone and valproic acid.** Low levels of folic acid are associated with birth defects and elevated homocysteine levels, increasing risk of cardiovascular disease. **Men and women on anticonvulsants are advised to take folic acid supplements.** (Morrell)

**Vitamin B6** deficiency is known to cause a worsening of seizures.

**Vitamin D** absorption is interfered with by most anticonvulsants.

**Calcium** metabolism is directly affected by **phenytoin, carbamazepine, phenobarb, primidone, valproate and zonisamide.**  Anticonvulsants cause changes in calcium and bone metabolism and may lead to decreased bone mass with the risk of osteoporotic fractures. **Calcium/Vitamin D supplementation is advised, but should be taken two hours before or after taking the anticonvulsant (calcium can effect absorption).**

 **Vitamin K** deficiency may occur in pregnant women and the child after birth for women taking hepatic enzyme inducing anticonvulsants – **phenytoin, carbamazepine, primidone, phenobarb, and topiramate.**

**Herbals**

**Sedative herbs: Kava Kava** and **Valerian** may poteniate the effects of anticonvulsants, intensifying side effects such as lethargy, cognitive impairments. **Kava has been**

**removed from the market in Canada and the United States.**

## Stimulant herbs: ephedra, coffee, tea, cocoa, mate cola and guarana may exacerbate seizures by lowering seizure threshold or prolonging duration of seizures.

**Cognitive enhancing herbs: gingo** and **ginseng** may exacerbate seizures under some conditions. Ginseng is known to elevate plasma levels of corticosteroid hormones, which can aggravate seizures. (Spinella)

**St. John’s Wort** may alter the seizure threshold, as do pharmaceutical antidepressants. (Spinella)

**Evening Primrose Oil** and **borage** may lower the seizure threshold, but this is being debated. A 2004 report claims it’s unlikely that evening primrose oil has any general effect on epilepsy (Horrobin)

**Marijuana** can cause an increase or a decrease in seizure activity.

### Foods

**Grapefruit** contains substances that block the action of certain enzymes, so that drugs ordinarily broken down by the affected enzymes can build up to potentially excessive levels in the blood. **Carbamazepine** is believed to be thus affected.

**Aspartame**, an artificial sweetener, may be seizure producing.

**Gluten** allergies, and celiac disease have been associated with seizures.

### Pile of booksSources

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