

## Drugs That Can Affect Blood Glucose Levels

Generic Name (Brand Name)

*Diabetes In Control's clinical editors along with a team of pharmacy doctoral students have put together a comprehensive, revised and up-to-date list of "Drugs That Can Affect Blood Glucose Levels." The main sources appear in the Endnotes. We suggest printing out this list, putting a copy in every exam room and you and/or your MA can check patients' medications whenever you prescribe or observe unexpected glucose excursions.*

### Drugs That Can Cause HYPERGLYCEMIA (High Blood Sugar)

Abacavir (Ziagen®)	Captopril + hydrochlorothiazide (Capozide®)
Abacavir + lamivudine, zidovudine (Trizivir®)	Carteolol (Cartrol® oral, Occupress® eyedrops)
Acetazolamide (Diamox®)	Carvedilol (Coreg®)
Acitretin (Soriatane®)	Chlorothiazide (Diuril®)
Albuterol (Ventolin®, Proventil®)	Chlorthalidone (Chlorthalidone Tablets®, Clorpres®, Tenoretic®, Thalitone®)
Albuterol + ipratropium (Combivent®)	Choline salicylate (Numerous tradenames of aspirin formulations: check label.)
Ammonium chloride	Choline salicylate + magnesium salicylate (CMT®, Tricosal®, Trilisate®)
Amphotericin B (Amphocin®, Fungizone®)	Clobetasol (Clobevate®, Cormax®, Cormax® Scalp Application, Embeline® E, Olux®, Temovate®, Temovate® E, Temovate® Scalp Application)
Amphotericin B lipid formulations IV (Abelcet®)	Clozapine (Clozaril®, FazaClo®)
Amprenavir (Agenerase®)	Conjugated estrogens (Estrace®, Estring®, Femring®, Premarin®, Vagifem®, Cenestin®, Enjuvia®, Estrace®, Femtrace®, Gynodiol®, Menest®, Ogen®)
Anidulafungin (Eraxis®)	Conjugated estrogens + medroxyprogesterone (Premphase®, Prempro®)
Aripiprazole (Abilify®)	Corticosteroids (Numerous tradenames: check label.)
Arsenic trioxide (Trisenox®)	Corticotropin
Asparaginase (Elspar®)	Cortisone (Numerous tradenames: check label.)
Atazanavir (Reyataz®)	Cyclosporine (Sandimmune®, Neoral®, Gengraf®)
Atenolol + chlorthalidone (Tenoretic®)	Daclizumab (Zenapax®)
Atorvastatin (Lipitor®)	Decitabine (Dacogen®)
Atovaquone (Mepron®)	Desonide (DesOwen®, Tridesilon®)
Baclofen (Lioresal®)	Desoximetasone (Topicort®)
Benazepril + hydrochlorothiazide (Lotension®)	
Betamethasone topical (Alphatrex®, Betatrex®, Beta-Val®, Diprolene®, Diprolene® AF, Diprolene® Lotion, Luxiq®, Maxivate®)	
Betamethasone + clotrimazole (Lotrisone® topical)	
Betaxolol Betoptic® eyedrops, (Kerlone® oral)	
Bexarotene (Targretin®)	
Bicalutamide (Casodex®)	
Bisoprolol + hydrochlorothiazide (Ziac®)	
Bumetanide (Bumex®)	
Caffeine (Caffeine in moderation may actually be beneficial in diabetes but in large amounts can raise blood sugar.)	
Candesartan + hydrochlorothiazide (Atacand HCT®)	

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**Drugs That Can Cause HYPERGLYCEMIA (High Blood Sugar) Cont'd**

- Dexamethasone (Adrenocot®, Dalalone®, Decadron®, Decaject®, Dekasol®, Dexacort®, Dexasone®, Dexim®, Dexone®, Hexadrol®, Medidex®, Primethasone®, Solurex®, Dexamethasone Intensol®)
- Dextromethorphan + promethazine (Phenergan® with Dextromethorphan, Phen- TussDM®)
- Diazoxide (Proglycem®)
- Enalapril + hydrochlorothiazide (Vaseretic®)
- Encainide (Enkaid®)
- Ephedrine and Guaifenesin (Primatene® tablets, OTC - *this medication includes ephedrine and guaifenesin. Guaifenesin is not responsible for hyperglycemia.*)
- Epinephrine (EpiPen®, EpiPen® Jr, Primatene® Mist, OTC)
- Esterified estrogens, estrone, estropipate
- Esterified estrogens + methyltestosterone (Estratest®)
- Estradiol, ethinyl estradiol (Alora®, Climara®, Congest®, Delestrogen®, Depo-Estradiol®, Depogen®, Estinyl®, Estrace®, Estraderm®, Estragyn 5®, Estragyn LA 5®, Estrasorb®, EstroGel®, Estro-L.A.®, Gynodiol®, Kestrone-5®, Neo-Estrone®, Menest®, Menostar®, Ogen .625®, Ogen®, Ortho-Est®, Premarin®, Valergen®, Vivelle®, Vivelle-Dot®)
- Estradiol + norethindrone (Activella®)
- Estradiol + norgestimate (Prefest®)
- Estramustine (Emcyt®)
- Ethacrynic acid (Edecrin®, Sodium Edecrin®)
- Everolimus (Afinitor®)
- Everolimus (Zortress®)
- Fluoxetine (Prozac®, Sarafem®)
- Flurandrenolide (Cordran®, Cordran® SP, Cordran® Tape)
- Formoterol (Foradil® Aerolizer® Inhaler)
- Fosamprenavir (Lexiva®)
- Fosinopril + hydrochlorothiazide (Monopril HCT®)
- Furosemide (Lasix®)
- Gemtuzumab ozogamicin (Mylotarg®)
- Glucosamine (possible increase in insulin resistance; more likely with intravenous use)
- Hydrochlorothiazide (Aldactazide®, Aldoril®, Capozide®, Dyazide®, HydroDIURIL®, Inderide®, Lopressor® HCT, Maxzide®, Microzide®, Moduretic®, Timolide®, Vaseretic®)
- Hydrochlorothiazide + irbesartan (Avalide®)
- Hydrochlorothiazide + lisinopril (Prinzide®, Zestoretic®)
- Hydrochlorothiazide + losartan (Hyzaar®)
- Hydrochlorothiazide + metoprolol (Lopressor HCT®)
- Hydrochlorothiazide + moexipril (Uniretic®)
- Hydrochlorothiazide + quinapril (Accuretic®, Quinaretic®)
- Hydrochlorothiazide + telmisartan (Micardis HCT®)
- Hydrochlorothiazide + valsartan (Diovan HCT®)
- Hydrocortisone (Numerous trade names of topical hydrocortisone formulations: check label.)
- Indapamide (Lozol®)
- Indinavir (Crixivan®)
- Interferon alfa-2a (Roferon-A®)
- Interferon alfa-2b (Intron-A®)
- Interferon alfa-2b + ribavirin (Rebetron®)
- Interferon alfa-n1 (Alferon-N®)
- Irinotecan (Camptosar®)
- Isoniazid (Laniazid®, Nydravid®)
- Isotretinoin (Accutane®)
- Lamivudine (Epiriv®, Epiriv-HBV®)
- Levalbuterol (Xoponex®, Xopenex HFA®)
- Levonorgestrel (Plan B®, Norplant System®)
- Levothyroxine (Synthroid®, Levoxyl®)
- Lopinavir + ritonavir (Kaletra®)
- Magnesium salicylate (Bayer Select® Backache Pain Formula, Doans® Pills, Mobidin®, Nuprin® Backache Caplet)
- Medroxyprogesterone (Provera®, Depo-Provera®)
- Megestrol (Megace®)

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## Drugs That Can Cause HYPERGLYCEMIA (High Blood Sugar) Cont'd

- Methylprednisolone (A-methaPred®, ADD-Vantage®, Depo-Medrol®, Medrol®, Medrol® Dosepak, Meprolone®, Unipak, Solu-Medrol®)
- Metolazone (Zaroxolyn®, Mykrox®)
- Metoprolol (Lopressor®, Lopressor® HCT, Toprol XL®)
- Modafinil (Provigil®)
- Moxifloxacin (Avelox®, Avelox® I.V.)
- Mycophenolate (CellCept®)
- Nadolol (Corgard®)
- Nelfinavir (Viracept®)
- Niacin, niacinamide (Niacor®, Niaspan®, Nicolar®, Nicotinex®, Slo-Niacin®)
- Nilotinib (Tasigna®)
- Nilutamide (Nilandron®)
- Nitric oxide (INOMax®)
- Norethindrone (Aygestin®, Nor-QD®, Micronor®)
- Norgestrel (Orvette®)
- Nystatin (Mycostatin®, Nystat-Rx®, Nystop®, Pedi-Dri®)
- Nystatin + triamcinolone (Dermacomb®, Myco II®, Mycobiotic II®, Mycogen II®, Mycolog II®, Myco-Triacet II®, Mykacet®, Mykacet II®, Mytrex®, Tristatin II®)
- Octreotide (Sandostatin®, Sandostatin LAR®)
- Olanzapine (Zyprexa®)
- Pantoprazole (Protonix®, Protonix® I.V.)
- Pegaspargase (Oncaspar®)
- Peginterferon alfa-2b (PEG-Intron®)
- Pentamidine (Pentam 300®)
- Phenylephrine\* (Sudafed PE®, and others)
- Phenytoin (Dilantin®, Dilantin-125®, Dilantin Infatabs®, Dilantin Kapseals®, Phenytek®)
- Prednisolone (AK-Pred®, Blephamide®, Blephamide®, Liquifilm®, Econopred® Plus, Inflamase® Forte, Inflamase® Mild, Poly-Pred® Liquifilm®, Pred Forte®, Pred Mild®, Pred-G®, Pred-G® Liquifilm®, Delta Cortef®, Pediapred®, Prelone®)
- Prednisone (Prednisone Intensol®, Sterapred®, Sterapred® DS)
- Progesterone (Prometrium®)
- Pseudoephedrine\* (Claritin D®, Sudafed®, and others)
- Quetiapine (Seroquel®)
- Risperidone (Risperdal®, Risperdal® M-TAB®)
- Ritodrine (Yutopar®)
- Ritonavir (Norvir®)
- Rituximab (Rituxan®)
- Salmeterol (Serevent®, Serevent® Diskus®)
- Salsalate (Argesic®-SA, Disalcid®, Mono-Gesic®, Salflex®, Salsitab®)
- Saquinavir (Invirase®)
- Sodium oxybate (Xyrem®)
- Somatropin (Genotropin®, Genotropin Miniquick®, Humatrope®, Norditropin artridges®, Norditropin NordiFlex®, Nutropin®, Nutropin AQ®, Saizen®, Serostim®, Zorbtive®)
- Sotalol (Betapace®, Betapace AF®, Sorine®)
- Streptozocin (Zanosar®)
- Tacrolimus (Prograf®, Protopic®)
- Temsirolimus (Torisel®)
- Tipranavir (Aptivus®)
- Tolvaptan (Samsca®)
- Torsemide (Demadex®, Demadex Oral®)
- Triamcinolone (Aristocort®, Aristospan®, Asthmacort®, Flutex®, Kenalog®, Tac®, Triacet®)
- Ursodeoxycholic acid, ursodiol (Actigall®, Urso®)
- Valproic acid, divalproex sodium (Depacon®, Depakene®, Depakene® Syrup, Depakote®, Depakote® ER, Depakote® Sprinkle)
- Vitamin C (Ascorbic acid, Ascorbate)
- Vitamin E (Tocopherol, Tocotrienol)
- Ziprasidone (Geodone®)

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## Drugs That Can Cause HYPOGLYCEMIA (Low Blood Sugar)

- Acebutolol (Sectral®)  
Acetohexamide (Dymelor®)  
Alcohol  
Aloe - oral herbal supplement, especially if taken with other agents such as glyburide, glipizide, nateglinide, repaglinide, glimepiride, or insulin.  
Amphotericin B (Ambisome®, Amphocin®, Fungizone Intravenous®, Amphotec®, Abelcet®)  
Amphotericin B lipid formulations (Abelcet®, AmBisome®)  
Asian Ginseng (Ginseng; Panax ginseng)  
Aspirin (Numerous tradenames: check label.)  
Aspirin + dipyridamole (Aggrenox®)  
Atenolol (Tenormin®, Tenoretic® containing atenolol & chlorthalidone)  
Betaxolol (Betoptic®, Betoptic S® eyedrops, Kerlone® oral)  
Bisoprolol (Zebeta®)  
Bisoprolol + hydrochlorothiazide (Ziac®)  
Bromocriptine (Cycloset®)  
Chloramphenicol (Chloromycetin®)  
Chlorpropamide (Diabinese®)  
Choline salicylate (Acuprin 81®, Amigesic®, Anacin Caplets®, Anacin Maximum Strength®, Anacin Tablets®, Anaflex 750® Arthritis Pain, Ascriptin® Arthritis Pain)  
Choline salicylate + magnesium salicylate C (MT®, Tricosal®, Trilisate®)  
Chromium (Various tradenames: check label.)  
Clarithromycin B (Biaxin® Filmtab®, Biaxin® Granules, Biaxin® XL, Filmtab, Biaxin® XL Pac, Prevpac®)  
Diazoxide (Proglycem®)  
Dicumarol (Coumadin®, Miradon®)  
Diltiazem (Cardizem®, Tiazac®)  
Disopyramide (Norpace®, Norpace® CR)  
Dorzolamide + timolol (Cosopt®)  
Exenatide (Byetta®)  
Fluoxetine (Prozac®, Sarafem®)  
Fosphenytoin (Cerebyx®, Dilantin®, Dilantin-125®, Dilantin Infatabs®, Dilantin Kapseals®, Mesantoin®, Peganone®, Phenytek®)  
Glimepiride (Amaryl®)  
Glimepiride and Rosiglitazone (Avandaryl®)  
Glipizide (Glucotrol®, Glucotrol XL®)  
Glipizide and Metformin (Metaglip®)  
Glyburide (Diabeta®, Glynase®, Micronase®, Glycron®)  
Glyburide + metformin (Glucovance®)  
Horse chestnut (Aesculus hippocastanum)  
Hydrochlorothiazide + metoprolol (Lopressor HCT®)  
Insulin (Lantus®, Levemir®, NPH®, Humulin®, Novolin®, Apidra®, Novolog®, Humalog®)  
Interferon beta-1b (Betaseron®)  
Levofloxacin (Levaquin®, Levaquin® in Dextrose Injection Premix, Quixin®)  
Liraglutide (Victoza®)  
Magnesium salicylate (Bayer Select® Backache Pain Formula, Doans® Pills, Mobidin®, Nuprin® Backache Caplet)  
Metformin (Fortamet®, Glucophage®, Glucophage XR®, Glumetza®, Riomet®)  
Metoprolol (Lopressor®, Lopressor® HCT, Toprol XL®)  
Morphine (Kadian®, MS Contin®, MSIR®, Roxanol®)  
Nadolol (Corgard®)  
Nateglinide (Starlix®)  
Nifedipine (Adalat CC®, Procardia®, Afeditab® CR)  
Octreotide (Sandostatin®, Sandostatin LAR® Depot)  
Paliperidone (Invega®)  
Penicillamine (Cuprimine®, Depen®)  
Pentamidine (Nebupent®, Pentam 300®)  
Phenelzine (Nardil®)  
Phenytoin (Dilantin®, Dilantin-125®, Dilantin Infatabs®, Dilantin Kapseals®, Phenytek®)  
Pindolol (Visken®)  
Pioglitazone (Actos®) – hypoglycemia usually only when in combination with other diabetic drugs such as sulfonylureas or insulin)

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**Drugs That Can Cause HYPOGLYCEMIA (Low Blood Sugar) Cont'd**

Pioglitazone and Glimepiride (Duetact®) - *the glimepiride component of this drug gives it the possibility of causing hypoglycemia alone or in combination with other diabetes medicines. This is more likely to occur when one skips a regular meal or when unusual physical activities occur.*

Pioglitazone and Metformin (Actoplus Met®, ActoPlus Met XR®)

Pramlintide (Symlin®)

Probenecid (Benemid®, Probalan®)

Quinine (Quinamm®, Quindan®, Quiphile®, Q-vel®, Strema®)

Quinupristin + dalfopristin (Synercid®)

Repaglinide (Prandin®)

Repaglinide and Metformin (PrandiMet®)

Ritodrine (Yutopar®)

Rituximab (Rituxan®)

Rosiglitazone (Avandia®)

Rosiglitazone and Metformin (Avandamet®)

Rotigotine (Neupro®)

Salicylates (Numerous tradenames of aspirin formulations: check label.)

Salsalate (Argesic®-SA, Disalcid®, Mono-Gesic®, Salflex®, Salsitab®)

Saxagliptin (Onglyza®)

Selegiline (Eldepryl®)

Sitagliptin (Januvia®)

Sitagliptin and Metformin HCL (Janumet®)

Sodium ferric gluconate complex (Ferrlecit®)

Somatropin (Genotropin®, Genotropin Miniquick®, Humatrope®, Norditropin cartridges®, Norditropin NordiFlex®, Nutropin, Nutropin AQ®, Saizen®, Serostim®, Zorbitive®)

Sotalol (Betapace®, Betapace AF®, Sorine®)

Streptozocin (Zanosar®)

Sulfadiazine (Microsulfon®)

Tacrolimus P (Prograf®, Protopic®)

Tetracaine (Altacaine®, Tetcaine®, Pontocaine®)

Theophylline (Theo-24®, Theo-Dur®, TheoCap®)

Timolol (Timoptic®, Timoptic-XE®)

Tolazamide (Tolinase®)

Tolbutamide (Orinase®)

Tranylcypromine (Parnate®)

Varenicline (Chantix®)

Verapamil (Calan®, Calan SR®, Isoptin SR®, Verelan®)

**Drugs That Can Cause HYPER- or HYPOGLYCEMIA**

Amphotericin B (Ambisome®, Amphocin®, anFungizone Intravenous®, Amphotec®, Abelcet®)

Amphotericin B lipid formulations (Abelcet®, AmBisome®)

Betaxolol Betoptic® eyedrops, (KERLONE® oral)

Bisoprolol + hydrochlorothiazide (Ziac®)

Choline salicylate (Numerous tradenames of aspirin formulations: check label.)

Choline salicylate + magnesium salicylate (CMT®, Tricosal®, Trilisate®)

Darunavir (Prezista®)

Diazoxide (Proglycem®)

Fluoxetine (Prozac®, Sarafem®)

Hydrochlorothiazide + metoprolol (Lopressor HCT®)

Lanreotide acetate (Somatuline®)

Lithium (Eskalith®, Eskalith CR®, Lithobid®)

Magnesium salicylate (Bayer Select® Backache Pain Formula, Doans® Pills, Mobidin®, Nuprin® Backache Caplet)

Mecasermin (Increlex®)

Mecasermin Rinfabate (Iplex®)

Metoprolol (Lopressor®, Lopressor® HCT, Toprol XL®)

Nadolol (Corgard®)

Octreotide (Sandostatin®, Sandostatin LAR® Depot)

Pazopanib (Votrient®)

Pentamidine (Nebupent®, Pentam 300®)

Phenytoin (Dilantin®, Dilantin-125®, Dilantin Infatabs®, Dilantin Kapseals®, Phenytek®)

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### Drugs That Can Cause HYPER- or HYPOGLYCEMIA Cont'd

Rifampin (Rifadin®, Rimactane®)	cartridges®, Norditropin NordiFlex®,
Ritodrine (Yutopar®)	Nutropin®, Nutropin AQ®, Saizen®,
Rituximab (Rituxan®)	Serostim®, Zorbitive®)
Salsalate (Argesic®-SA, Disalcid®, Mono- Gesic®, Salflex®, Salsitab®)	Sotalol (Betapace®, Betapace AF®, Sorine®)
Sunitinib (Sutent®)	Streptozocin (Zanosar®)
Somatropin (Genotropin®, Genotropin Miniquick®, Humatrope®, Norditropin	Tacrolimus P (Prograf®, Protopic®)

### Drugs That Can MASK\* HYPOGLYCEMIA

Atenolol (Tenormin®, Tenoretic® containing Atenolol & Chlorthalidone)	Nadolol (Corgard®)
Carteolol (Cartrol® oral, Occupress® eyedrops)	Nebivolol (Bystolic®)
Carvedilol (Coreg®, Coreg® Tiltabs®)	Pindolol (Visken®)
Clonidine (Duraclon®, Catapres®, Catapres- TTS-1®, Catapres-TTS-2®, Catapres- TTS-3®)	Propranolol, Propranolol Hydrochloride, (Inderal®, Inderal LA®, Inderide®, Innopran® XL, Intensol®)
Metoprolol (Lopressor®, Lopressor® HCT, Toprol XL®)	Timolol (Timoptic®, Timoptic-XE®)

\*Recent research suggests that this may not occur.

Note: There are many other OTC and prescription medications that contain pseudoephedrine and phenylephrine.

#### Sources:

1. Facts & Comparisons®, a part of Wolters Kluwer Health
2. Clinician's Handbook of Prescription Drugs®
3. ADA/PDR Medications for the Treatment of Diabetes
4. Pharmacist's Letter®
5. Prescriber's Letter®
6. EPOCRATES Rx

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*Because of the constantly changing nature of the U.S. prescription and OTC drug marketplace, this list may not reflect the full range of drugs that may impact blood glucose levels. The information contained in this document is intended as an educational aid only. It is not intended as medical advice for individual conditions or treatment. It is not a substitute for a medical exam, nor does it replace the need for services provided by medical professionals. Talk to your doctor, nurse or pharmacist before taking any prescription or over-the-counter drugs (including any herbal medicines or supplements) or following any treatment or regimen.*

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