

DIABETES MEDICATIONS AND BETA-BLOCKERS

Some diabetes medications act via a "hypoglycemic" mechanism: insulin, insulin secretagogues (sulfonylureas) and insulinotropics (meglitinides); others act via an "antihyperglycemic" mechanism: alphaglucohydrolase inhibitors (acarbose and miglitol), amylinomimetics (pramlintide), biguanides (metformin), DPP-4 inhibitors (sitagliptin, saxagliptin), incretin mimetics (exenatide) and thiazolidinediones (pioglitazone and rosiglitazone). The risk of hypoglycemia is greatest with medications that act via a hypoglycemic mechanism.

Beta-blockers are a class of medications commonly used for treating hypertension and cardiovascular conditions. Beta-blockers interfere with the ability to recognize hypoglycemia. A person who takes beta-blockers along with a "hypoglycemic-acting" diabetes medication may not recognize hypoglycemic symptoms and thus not take the appropriate corrective actions. Unrecognized hypoglycemia poses an unacceptable risk to aviation safety.

The following diabetic medications **are** acceptable in combination with **beta-blockers** and '**Gliptin**' **combos**:

Note: Gliptin plus Actos plus Metformin **IS** acceptable (and MAY add Byetta w/ 2-Hr No-Fly):

Actos plus Metformin plus a sulfonylurea **IS** acceptable (and MAY add Byetta w/ 2-Hr No-Fly):

acarbose (Precose)	sitagliptin (Januvia), Janumet (adds metformin)
Actos (pioglitazone), Actos Plus (adds metformin)	metformin (Glucophage)
Avandia (rosiglitazone), Avandamet (adds metformin)	miglitol (Glyset)
exenatide (Byetta)	pioglitazone (Actos)
liraglutide (Victoza)	Precose (acarbose)
Glucophage (metformin)	rosiglitazone (Avandia)
Glyset (miglitol)	sitagliptin (Januvia), saxagliptin (Onglyza)

The following diabetic medications are **NOT ACCEPTABLE** in combination with **beta-blockers** OR **Gliptins**:

(Sulfonylureas and Meglitinides (glinides). NOTE: Byetta **IS** ok - always with a 2-hour no-fly after injection):

Amaryl (Glimepiride)	Glyburide (DiaBeta, Glynase, Micronase)
Chlorpropamide (Diabinese, Glucamide)	Glynase (Glyburide)
DiaBeta (Glyburide)	Insulin
Diabinese (Chlorpropamide)	Micronase (Glyburide)
Glimepiride (Amaryl)	Nateglinide (Starlix)
Glipizide (Glucotrol)	Prandin (Repaglinide)
Glucamide (Chlorpropamide)	Repaglinide (Prandin)
Glucotrol (Glipizide)	Starlix (Nateglinide)
Glucovance (Glyburide plus Metformin)	

Commonly used beta-blockers include:

Acebutolol (Sectral)	Nadolol (Corgard, Corzide)
Atenolol (Tenormin, Tenoretic)	Normodyne (Labetalol)
Betaxolol (Kerlone)	Penbutolol (Levatol)
Bisoprolol (Zebeta, Ziac)	Pindolol (Visken)
Betapace (Sotalol)	Propranolol (Inderal, Inderide)
Blocadren (Timolol)	Sectral (Acebutolol)
Carvedilol (Coreg)	Sotalol (Betapace)
Coreg (Carvedilol)	Tenormin (Atenolol)
Corgard (Nadolol)	Tenoretic (Atenolol)
Corzide (Nadolol)	Timolide (Timolol)
Inderal (Propranolol)	Timolol (Blocadren, Timolide)
Inderide (Propranolol)	Toprol (Metoprolol)
Kerlone (Betaxolol)	Trandate (Labetalol)
Labetalol (Normodyne, Trandate)	Visken (Pindolol)
Levatol (Penbutolol)	Zebeta (Bisoprolol)
Lopressor (Metoprolol)	Ziac (Bisoprolol)
Metoprolol (Lopressor, Toprol)	

Note: **Victoza** (liraglutide) was approved 6/23/11