

## Oral Diabetes Medications

| <b>Class</b><br><small>(pronunciation)</small> | <b>Sulfonylureas</b><br><small>(SUL-fah-nil-YOO-ree-ahs)</small>  | <b>Biguanides</b><br><small>(by-GWAN-ides)</small>  | <b>Alpha-glucosidase inhibitors</b><br><small>(AL-fa-gloo-KOS-ih-days)</small>  | <b>Meglitinides</b><br><small>(meh-GLIT-in-ides)</small><br><b>D-phenylalanine derivatives</b><br><small>(dee-fen-nel-AL-ah-neen)</small>  | <b>Thiazolidinediones</b><br><small>(THIGH-ah-ZO-li-deen-DYE-owns)</small>  | <b>DPP-IV Inhibitors</b>   |
|--|---|---|---|--|---|--|
| Brand & (generic) name                         | Amaryl (glimepiride)<br>Glucotrol & Glucotrol XL (glipizide)<br>DiaBeta, Micronase, Glynase, Prestabs(glyburide)                        | Fortamet (XR metformin)<br>Glucophage (metformin)<br>Glucophage XR (XR metformin)<br>Glumetza (XR metformin)<br>Riomet (liquid metformin)   | Precose (acarbose)<br>Glyset (miglitol)   | Glufast (mitiglinide)<br>Prandin (repaglinide)<br>Starlix (nateglinide)  | Avandia (rosiglitazone)<br>Actos (pioglitazone)   | Januvia (sitagliptin)  |
| Action   | Lower blood glucose by helping the pancreas produce more insulin.<br>Keep your blood glucose level from rising between meals.           | Keep the liver from producing too much stored glucose. Help keep your blood glucose from going too high during the day & while you sleep.   | Keep blood glucose from rising too high after meals by slowing the digestion of carbohydrates. (Blocks enzymes that help digest starches) | Keep blood glucose from rising too high after meals by helping the pancreas release insulin in response to food.   | Decrease insulin resistance in muscle & fat cells. Help keep your blood glucose levels down after meals and when fasting.   | Blocks enzyme (DPP-IV) that breaks down protein, prolonging activity of protein that boosts release of insulin after blood glucose rises. Boosts incretin gut hormone. |
| Targets  | Pancreas  | Liver   | Gut   | Pancreas   | Adipose & muscle  | Gut  |
| ↓ Hg A1c                                       | 0.8 – 2.0   | 1.5 – 2.0   | 0.7 – 1.0   | 0.5 – 2.0  | 0.5 – 1.5   | 0.48-0.94%,  |
| ↓ FPG  | 60 – 70   | 50 – 70   | 35 – 40   | 65 – 75  | 25 - 50   |  |
| Side Effects                                   | Hypoglycemia, Stomach upset, Skin rash or itching, Weight gain<br>Chlorpropamide – extremely long acting and may have “antibuse effect” | Diarrhea, Nausea, Abdominal pain, Bloating, Metallic taste in mouth.<br>Metformin may not be for you if you normally have 2-4 alcoholic drinks a week or if you have kidney or liver disease or heart failure. You are at higher risk for lactic acidosis, a serious side effect. | Gas, Diarrhea, Nausea, Stomach cramps.<br>These side effects usually go away after a few weeks.   | <b>Prandin:</b><br>Hypoglycemia, Coughing and bronchitis, Upper respiratory infection, Headache, Joint Pain, Back pain, Stomach upset, Diarrhea, Constipation.<br><b>Starlix:</b><br>Hypoglycemia, Upper respiratory infection, Diarrhea, Nausea, Flu-like symptoms, Headache, Dizziness | Upper respiratory infection, Headache, Infection, Muscle pain, Weight gain, Swelling, Decrease in effectiveness of birth control pills<br><b>Caution:</b><br><b>Do not use in the presence of CHF</b> | Upper respiratory infection, sore throat, diarrhea and headache. Not as likely to cause weight gain or low blood glucose as other meds                                 |
| Dose   | glimepiride – once daily<br>glipizide – 1-2 times per day<br>30 minutes before meals<br>glyburide – 1-2 times per day                   | 2-3 times per day with meals.   | Take with the first bite of any meal.   | Take right before meals.   | 1-2 times per day.  | Januvia-once daily   |
|  |   |   |   |  |   |  |
|  | <b>Combination Medications</b>  | (pioglitazone & metformin)<br>Actoplus Met  | (rosiglitazone & metformin)<br>Avandamet  | (rosiglitazone & glimepiride)<br>Avandaryl   | (sitagliptin & metformin)<br>Janumet  | (glipizide & metformin)<br>Metaglip  |