

# Medications Used to Treat Type 2 Diabetes

This handout shows the different medications that your healthcare provider may prescribe to treat your type 2 diabetes, and where and how these medications work in your body to lower blood glucose.

Type 2 diabetes medications are taken *orally* (by mouth), by *injection* (inserted into the fat under your skin), or *inhaled* (breathed in).

## Oral

### Alpha-glucosidase inhibitors (acarbose, miglitol)

Help to slow down the breakdown of starches (such as bread and potatoes) and certain types of sugar (such as table sugar) from your food in your **intestines**: this slows down increases in blood glucose.

### Biguanide (metformin)

Helps to decrease the amount of glucose made by your **liver**

Helps to improve the way that insulin works in your **muscles**: if your muscles are more sensitive to insulin, it is easier for insulin to bring glucose from your blood into your muscles where glucose can be used for energy

### DPP-4 inhibitors (alogliptin, linagliptin, saxagliptin, sitagliptin)

Help your **pancreas** to make more insulin: insulin helps to lower blood glucose

Help to decrease the amount of glucose made by your **liver**

### Dopamine receptor agonist (bromocriptine mesylate)

The mechanism by which dopamine receptor agonists improve blood sugar is unknown

### Meglitinides (nateglinide, repaglinide)

Help your **pancreas** to make more insulin: insulin helps to lower blood glucose

### SGLT2 inhibitors (canagliflozin, dapagliflozin, empagliflozin)

Help to stop glucose from being reabsorbed into your **kidneys**. The kidneys help to remove glucose from your blood. In people with type 2 diabetes, the kidneys can hold on to glucose which can cause blood glucose levels to increase

### Sulfonylureas (glimepiride, glipizide, gliburide)

Helps your **pancreas** to make more insulin: insulin helps to lower blood glucose

### Thiazolidinediones (pioglitazone, rosiglitazone)

Helps to decrease the amount of glucose made by your **liver**

Help to improve the way that insulin works in your **muscles** and **fat**: if your muscles are more sensitive to insulin, it is easier for insulin to bring glucose from your blood into your muscles and fat where glucose can be used for energy

## Injectable

### Amylin mimetic (pramlintide)

Helps to decrease the amount of glucose made by your **liver**.

Helps to slow down the breakdown of foods in your **stomach** and **intestines**: this slows down increases in blood glucose

### GLP-1 receptor agonists (albiglutide, dulaglutide, exenatide, liraglutide)

Help your **pancreas** to make more insulin: insulin helps to lower blood glucose

Help to decrease the amount of glucose made by your **liver**

Helps to slow down the breakdown of foods in your **stomach** and **intestines**: this slows down increases in blood glucose

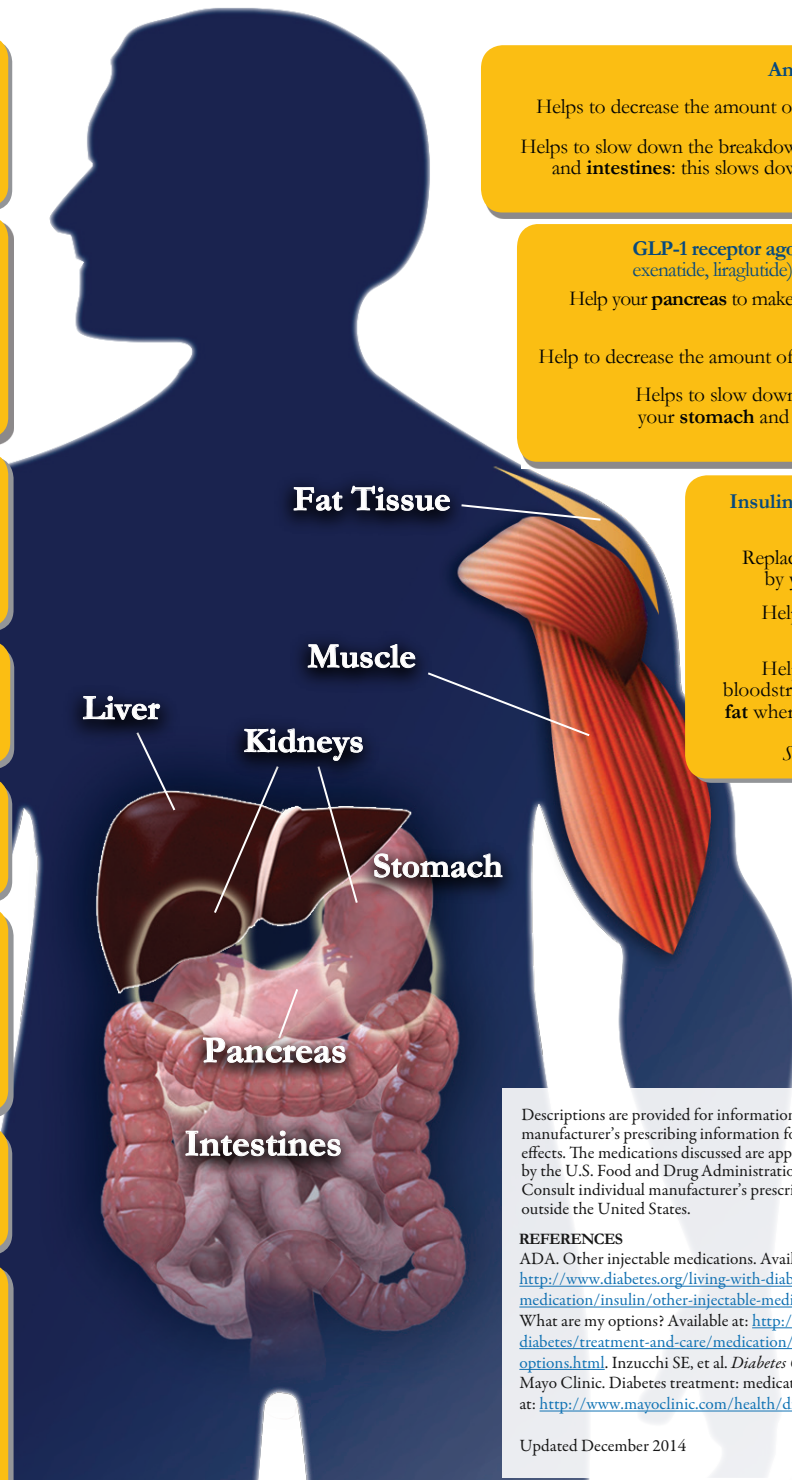
### Insulins (aspart, detemir, glargine, glulisine, human, lispro)

Replace the insulin made naturally by your body in your **pancreas**

Help to decrease the amount of glucose made by your **liver**

Help to move glucose from the bloodstream into your **muscles** and **fat** where glucose is used for energy

*Some insulin is inhaled—See pg. 2*



Descriptions are provided for informational purposes only. Consult full manufacturer's prescribing information for drug's uses, actions, and side effects. The medications discussed are approved for use in the United States by the U.S. Food and Drug Administration (FDA) unless otherwise noted. Consult individual manufacturer's prescribing information for approved uses outside the United States.

#### REFERENCES

ADA. Other injectable medications. Available at: <http://www.diabetes.org/living-with-diabetes/treatment-and-care/medication/insulin/other-injectable-medications.html>. ADA. What are my options? Available at: <http://www.diabetes.org/living-with-diabetes/treatment-and-care/medication/oral-medications/what-are-my-options.html>. Inzucchi SE, et al. *Diabetes Care*. 2012;35(6):1364-1379. Mayo Clinic. Diabetes treatment: medications for type 2 diabetes. Available at: <http://www.mayoclinic.com/health/diabetes-treatment/DA00089>.

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For more information,  
talk to your healthcare provider

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Oral	Injectable
<p><b>Alpha-glucosidase inhibitors</b> (acarbose, miglitol) Available as Glyset® (miglitol); PRECOSE® (acarbose)</p>	<p><b>Amylin mimetic</b> (pramlintide) Available as SYMLIN® (pramlintide)</p>
<p><b>Biguanide</b> (metformin) Available as Fortamet®, GLUCOPHAGE®, GLUCOPHAGE® XR, Glumetza®, Riome® (metformin) Combination products: ACTOplus met®, ACTOplus met® XR (pioglitazone and metformin); Avandamet® (rosiglitazone and metformin); GLUCOVANCE® (gliburide and metformin); Janumet®, Janumet XR® (metformin and sitagliptin); Jentaducto® (linagliptin and metformin); KAZANO® (alogliptin and metformin); KOMBIGLYZE™ XR (saxagliptin and metformin); METAGLIP™ (glipizide and metformin); PrandiMet® (metformin and repaglinide); XIGDUO™ XR (dapagliflozin and metformin)</p>	<p><b>Glucagon-like peptide-1 (GLP-1) receptor agonists</b> (albiglutide, dulaglutide, exenatide, liraglutide) Available as BYDUREON™ (extended-release exenatide); BYETTA® (regular exenatide); TANZEUM™ (albiglutide); TRULICITY™ (dulaglutide); Victoza® (liraglutide)</p>
<p><b>Dipeptidyl peptidase-4 (DPP-4) inhibitors</b> (alogliptin, linagliptin, saxagliptin, sitagliptin) Available as Januvia® (sitagliptin); NESINA® (alogliptin); Onglyza® (saxagliptin); Tradjenta™ (linagliptin) Combination products: Janumet®, Janumet XR® (metformin and sitagliptin); Jentaducto® (linagliptin and metformin); Juvisync™ (sitagliptin and simvastatin); KAZANO® (alogliptin and metformin); KOMBIGLYZE™ XR (saxagliptin and metformin); OSENI® (alogliptin and pioglitazone)</p>	<p><b>Insulins</b> (aspart, detemir, glargine, glulisine, human, lispro) Available as Apidra® (glulisine); Humalog®, Humalog® Mix50/50™, Humalog® Mix75/25™ (lispro); Humulin® N, Humulin® R, Humulin® 70/30 (human); Lantus® (glargine); Levemir® (detemir); Novolin® N, Novolin® R, Novolin® 70/30 (human); NovoLog®, NovoLog® Mix 70/30 (aspart)</p>
<p><b>Dopamine receptor agonist</b> (bromocriptine mesylate) Available as CYCLOSET®</p>	<p style="text-align: center;"><b>Inhaled</b></p> <p><b>Insulin</b> (human) Available as AFREZZA® (insulin human)</p>
<p><b>Meglitinides</b> (nateglinide, repaglinide) Available as Prandin® (repaglinide); Starlix® (nateglinide) Combination products: PrandiMet® (metformin and repaglinide)</p>	
<p><b>Sodium-glucose co-transporter 2 (SGLT2) inhibitors</b> (canagliflozin, dapagliflozin, empagliflozin) Available as FARXIGA™ (dapagliflozin), INVOKANA™ (canagliflozin), Jardiance® (empagliflozin) Combination products: XIGDUO™ XR (dapagliflozin and metformin)</p>	
<p><b>Sulfonylureas</b> (glimepiride, glipizide, gliburide) Available as Amaryl® (glimepiride); DiaBeta®, Glynase® PresTab®, or Micronase® (gliburide); Glucotrol®, Glucotrol® XL (glipizide) Combination products: Avandaryl® (glimepiride and rosiglitazone); duetac® (pioglitazone and glimepiride); GLUCOVANCE® (gliburide and metformin); METAGLIP™ (glipizide and metformin)</p>	
<p><b>Thiazolidinediones</b> (pioglitazone, rosiglitazone) Available as ACTOS® (pioglitazone); Avandia® (rosiglitazone) Combination products: ACTOplus met®, ACTOplus met® XR (pioglitazone and metformin); Avandamet® (rosiglitazone and metformin); Avandaryl® (rosiglitazone and glimepiride); duetac® (pioglitazone and glimepiride); OSENI® (alogliptin and pioglitazone)</p>	

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