



If you have type 2 diabetes, your doctor will consider prescribing medication to keep your blood sugar levels in a normal range. To help you and your doctor choose a diabetes medicine, *Consumers Reports* has evaluated the drugs in this category based on their effectiveness, safety, and cost. This 2-page brief is a summary of a 28-page report you can access at www.ConsumerReportsHealth.org/BestBuyDrugs. Our independent evaluations are based on scientific reviews conducted by a team of physician researchers at the Johns Hopkins University Evidence-based Practice Center and the Oregon Health and Science University-based Drug Effectiveness Review Project.

DO YOU NEED A DIABETES DRUG?

Many people with type 2 diabetes can control their blood sugar by losing weight, eating more healthily, getting more exercise, and other lifestyle changes. These changes may delay the need for drugs for many years. But over time, most people with type 2 diabetes will need to take a medicine, too. Many also have heart disease, high blood pressure, and/or elevated cholesterol, and will need to take medicines for these conditions along with a diabetes drug.

Six types of oral medicines (and 12 individual drugs) are now available to help the 25.8 million people in the U.S. with type 2 diabetes control their blood sugar when diet and lifestyle changes are not enough.

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Our Recommendations

Our evaluation of the diabetes medicines found the following:

- **Newer drugs are no better.** Two drugs from a class called the sulfonylureas and a drug named metformin have been around for more than a decade and work just as well as newer medicines.
- **Newer drugs are no safer.** All diabetes pills have the potential to cause adverse effects, minor and serious.
- **Newer drugs are more expensive.** The newer diabetes medicines cost many times more than the older ones.
- **Taking two diabetes drugs can improve blood sugar control.** Two or more drugs might be necessary, but this raises the risk of adverse effects and increases cost.

Taking effectiveness, safety, side effects, dosing, and cost into consideration, we have chosen the following as *Consumer Reports Best Buy Drugs*:

- **Metformin or Metformin Sustained Release** — alone or with glipizide or glimepiride
- **Glipizide or Glipizide Sustained Release** — alone or with metformin
- **Glimepiride** — alone or with metformin

All of these medicines are low-cost generics. Try metformin first unless your health status prevents it. If it doesn't bring your blood glucose into normal range, try adding glipizide or glimepiride.

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How the Diabetes Drugs Compare*

	HbA1c Reduction (percentage points)	LDL Cholesterol Change (mg/dL)	HDL Cholesterol Change (mg/dL)	Triglyceride Change (mg/dL)	Risk of Hypoglycemia (% of people)	Weight Change (lbs)
Glyburide	▼ 1.3-1.8	◆	◆	▼ 10-20	10-22%	▲ 5-10
Glipizide	▼ 1.3-1.8	◆	◆	▼ 10-20	10-15%	▲ 5-10
Glimepiride	▼ 1.3-1.8	◆	◆	▼ 10-20	9-14%	▲ 5-10
Metformin	▼ 0.9-1.4	▲ 5-7	◆	▼ 15-25	0-7%	◆
Pioglitazone (Actos)	▼ 0.9	▲ 8-12	▲ 5	▼ 35-45	0-3%	▲ 5-10
Rosiglitazone (Avandia)	▼ 0.9	▲ 12-15	▲ 3	▲ 10-20	4-11%	▲ 5-10
Repaglinide (Prandin)	▼ 0.8-2.0	◆	◆	▼ 10-15	11-32%	▲ 5-10
Nateglinide (Starlix)	▼ 0.3-0.8	IE	IE	IE	13%	IE
Acarbose (Precose)	▼ 0.6-0.9	◆	◆	▼ 10-15	0-5%	◆
Miglitol (Glyset)	▼ 0.4-0.9	IE	IE	IE	IE	IE
Sitagliptin (Januvia)	▼ 0.6-0.8	◆	◆	◆	Low	◆
Saxagliptin (Onglyza)	▼ 0.4-0.9	IE	IE	IE	IE	IE

Definitions: mg/dL=milligrams per deciliter of blood; HbA1c=hemoglobin A1c; LDL=low-density lipoprotein cholesterol; HDL= high-density lipoprotein cholesterol.

* Selected drugs and measures. For the complete table, see the full diabetes report at www.ConsumerReportsHealth.org/BestBuyDrugs.

A down arrow (▼) means a decrease or decline; an up arrow (▲) means increase; and a diamond (◆) means no meaningful effect or change. IE=insufficient evidence. Brand names are not given for drugs available as generics. Numbers are averages based on multiple studies.

Cost of Diabetes Drugs*

 indicates the dose of that drug is available for a low monthly cost through programs offered by large chain stores. For example, Kroger, Sam's Club, Target, and Walmart offer a month's supply of selected generic drugs for \$4 or a three-month supply for \$10. Other chain stores, such as Costco, CVS, Kmart, and Walgreens, offer similar programs. Some programs have restrictions or membership fees, so check the details carefully for restrictions and to make sure your drug is covered.

Generic Name and Dose	Brand Name (or Generic)	Number of Pills (Per day) ¹	Total Daily Dose ¹	Average Monthly Cost ²
Acarbose 25 mg	Generic	Three	75 mg	\$78
Acarbose 50 mg	Generic	Three	150 mg	\$82
Acarbose 100 mg	Generic	Three	300 mg	\$99
Acarbose 100 mg	Precose	Three	300 mg	\$122
Glyburide 5 mg tablet	Generic	One	5 mg	\$6 
Glyburide 5 mg tablet	Diabeta	One	5 mg	\$47
Glyburide micronized 6 mg tablet	Glynase	One	6 mg	\$71
Glyburide micronized 6 mg tablet	Generic	One	6 mg	\$8 
Glipizide 10 mg tablet	Glucotrol	One-Two	10-20 mg	\$41-\$82
 Glipizide 10 mg tablet	Generic	One-Two	10-20 mg	\$4-\$8 
Glipizide 5 mg tablet, Sustained Release	Glucotrol XL	One	5 mg	\$29
 Glipizide 5 mg tablet, Sustained Release	Generic	One	5 mg	\$9 
Glimepiride 2 mg tablet	Amaryl	One	2 mg	\$39
 Glimepiride 2 mg tablet	Generic	One	2 mg	\$6 
Metformin 1000 mg tablet	Glucophage	Two	2000 mg	\$151
 Metformin 1000 mg tablet	Generic	Two	2000 mg	\$24 
Saxagliptin 5 mg tablet	Onglyza	One	5 mg	\$247
Sitagliptin 100 mg tablet	Januvia	One	100 mg	\$248
Pioglitazone 30 mg tablet	Actos	One	30 mg	\$291
Rosiglitazone 2 mg tablet	Avandia	Two	4 mg	\$202
Repaglinide 1 mg tablet	Prandin	Three	3 mg	\$282
Repaglinide 2 mg tablet	Prandin	Three	6 mg	\$285
Nateglinide 60 mg tablet	Generic	Three	180 mg	\$211
Miglitol 50 mg tablet	Glyset	Three	150 mg	\$138
Miglitol 100 mg tablet	Glyset	Three	300 mg	\$155
Metformin + glipizide 500 mg/2.5 mg tablet	Generic	One	500 mg/2.5 mg	\$27
Metformin + glyburide 500 mg/2.5 mg tablet	Glucovance	Two	1000 mg/5 mg	\$99
Metformin + glyburide 500 mg/2.5 mg tablet	Generic	Two	1000 mg/5 mg	\$43 
Metformin + glyburide 500 mg/5 mg tablet	Glucovance	Two	1000 mg/10 mg	\$95
Metformin + glyburide 500 mg/5 mg tablet	Generic	Two	1000 mg/10 mg	\$39 
Pioglitazone + metformin 15 mg/850 mg tablet	Actoplus Met	One	15 mg/850 mg	\$143
Pioglitazone + metformin 15 mg/500 mg tablet	Actoplus Met	One	15 mg/500 mg	\$154
Rosiglitazone + glimepiride 4 mg/1 mg tablet	Avandaryl	One	4 mg/1 mg	\$168
Rosiglitazone + glimepiride 4 mg/2 mg tablet	Avandaryl	One	4 mg/2 mg	\$165
Rosiglitazone + metformin 2 mg/500 mg tablet	Avandamet	Two	4 mg/1000 mg	\$175
Saxagliptin + metformin 5 mg/500 mg tablet	Kombiglyze XR	One	5 mg/500 mg	\$258
Sitagliptin + metformin 50 mg/500 mg tablet	Janumet	Two	100 mg/1000 mg	\$253

* Selected drugs and doses. For the complete table, see our full diabetes report at www.ConsumerReportsHealth.org/BestBuyDrugs.

1. As commonly or usually recommended.

2. Prices reflect nationwide retail average for April 2011, rounded to the nearest dollar. Information derived by *Consumer Reports Best Buy Drugs* from data provided by Wolters Kluwer Pharma Solutions, which is not involved in our analysis or recommendations.