



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 30-page report you can access at www.ConsumerReportsHealth.org/BestBuyDrugs. Our independent evaluations are based on scientific reviews conducted by 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.

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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. Indeed, several of the newer drugs are less effective than the older ones.
- *Newer drugs are no safer.* All diabetes pills have the potential to cause adverse effects, both minor and serious. The drugs' side effect "profiles" may be the most important factor in your choice.
- *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.* Many people with diabetes do not get enough help from one medicine. Two or more drugs may be necessary. However, taking more than one diabetes drug raises the risk of adverse effects and increases costs.

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

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

These medicines are available as low-cost generics. We recommend that you try metformin first unless your health status prevents it. If metformin fails to bring your blood glucose into normal range, we advise adding glipizide or glimepiride. Should either of those cause problems, Actos (pioglitazone) may be an option you and your doctor will want to consider. Be aware that Actos has been linked to a higher risk of heart failure.

This information and our report was last updated in February 2009.

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)	▼ 0.8-1.2	▲ 8-12	▲ 5	▼ 35-45	0-3%	▲ 5-10
Rosiglitazone (Avandia)	▼ 0.9-1.4	▲ 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	◆

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*

	Generic Name and Dose	Brand Name (or Generic)	Number of Pills (Per day) ¹	Total Daily Dose ¹	Average Monthly Cost ²
	Glyburide 5 mg tablet	Generic	One	5 mg	\$6
	Glyburide 5 mg tablet	Micronase	One	5 mg	\$47
	Glyburide 5 mg tablet	Generic	Two	10 mg	\$12
	Glyburide 5 mg tablet	Micronase	Two	10 mg	\$94
	Glyburide micronized 6 mg tablet	Glynase	One	6 mg	\$68
	Glyburide micronized 6 mg tablet	Generic	One	6 mg	\$7
	Glipizide 10 mg tablet	Glucotrol	One-Two	10-20 mg	\$42-\$84
CR BEST BUY	Glipizide 10 mg tablet	Generic	One-Two	10-20 mg	\$4-\$8
	Glipizide 5 mg tablet, Sustained Release	Glucotrol XL	One	5 mg	\$25
CR BEST BUY	Glipizide 5 mg tablet, Sustained Release	Generic	One	5 mg	\$13
	Glimepiride 2 mg tablet	Amaryl	One	2 mg	\$35
CR BEST BUY	Glimepiride 2 mg tablet	Generic	One	2 mg	\$7
	Metformin 1000 mg tablet	Glucophage	Two	2000 mg	\$154
CR BEST BUY	Metformin 1000 mg tablet	Generic	Two	2000 mg	\$18
	Sitagliptin 100 mg tablet	Januvia	One	100 mg	\$225
	Sitagliptin 50 mg tablet	Januvia	One	50 mg	\$232
	Pioglitazone 15 mg tablet	Actos	One	15 mg	\$164
	Pioglitazone 30 mg tablet	Actos	One	30 mg	\$241
	Rosiglitazone 2 mg tablet	Avandia	Two	4 mg	\$190
	Rosiglitazone 4 mg tablet	Avandia	One-Two	4 mg-8 mg	\$137-\$274
	Repaglinide 1 mg tablet	Prandin	Three	3 mg	\$195
	Repaglinide 2 mg tablet	Prandin	Three	6 mg	\$186
	Nateglinide 60 mg tablet	Starlix	Three	180 mg	\$174
	Nateglinide 120 mg tablet	Starlix	Three	360 mg	\$174
	Acarbose 50 mg tablet	Precose	Three	150 mg	\$114
	Acarbose 100 mg tablet	Precose	Three	300 mg	\$129
	Miglitol 50 mg tablet	Glyset	Three	150 mg	\$111
	Miglitol 100 mg tablet	Glyset	Three	300 mg	\$132
	Metformin + glipizide 500 mg/2.5 mg tablet	Metaglip	Two	1000 mg/5 mg	\$86
	Metformin + glyburide 250 mg/1.25 mg tablet	Glucovance	Two	500 mg/2.5 mg	\$88
	Metformin + glyburide 250 mg/1.25 mg tablet	Generic	Two	500 mg/2.5 mg	\$44
	Metformin + glyburide 500 mg/2.5 mg tablet	Glucovance	Two	1000 mg/5 mg	\$94
	Metformin + glyburide 500 mg/2.5 mg tablet	Generic	Two	1000 mg/5 mg	\$50
	Pioglitazone + metformin 15 mg/850 mg tablet	Actoplus Met	One	15 mg/850 mg	\$123
	Pioglitazone + metformin 15 mg/500 mg tablet	Actoplus Met	Two	30 mg/1000 mg	\$250
	Rosiglitazone + glimepiride 4 mg/1 mg tablet	Avandaryl	One	4 mg/1 mg	\$157
	Rosiglitazone + glimepiride 4 mg/2 mg tablet	Avandaryl	One	4 mg/2 mg	\$154
	Rosiglitazone + metformin 2 mg/500 mg tablet	Avandamet	Two	4 mg/1000 mg	\$162
	Rosiglitazone + metformin 2 mg/1000 mg tablet	Avandamet	Two	4 mg/2000 mg	\$168
	Sitagliptin + metformin 50 mg/500 mg tablet	Janumet	Two	100 mg/1000 mg	\$232

* 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 September 2008, rounded to the nearest dollar. Information derived by *Consumer Reports Best Buy Drugs* from data provided by Wolters Kluwer Health, Pharmaceutical Audit Suite. Wolters Kluwer Health is not involved in our analysis or recommendations.