

Considerations

Metformin

In the first few weeks after starting Metformin, patients may have some nausea, indigestion or diarrhea.

Insulin

There are no other side effects associated with Insulin.

Pioglitazone

Over time, 10 in 100 people may have **fluid retention (edema)** while taking the drug. For some it may be as little as ankle swelling. For others, **fluid may build up in the lungs making it difficult to breathe.** This may resolve after you stop taking the drug. 10 in 100 people at risk of bone fractures who use this drug will have a bone fracture in the next 10 years. There appears to be a slight increase in the risk of bladder cancer with this drug.

Liraglutide/Exenatide

Some patients may have **nausea** or **diarrhea**. In some cases, the nausea may be severe enough that a patient has to stop taking the drug. There are reports of pain in the abdomen that may be caused by inflammation of the pancreas with these agents.

Sulfonylureas

Glipizide, Glimepiride, Glyburide

Some patients get **nausea, rash** and/or **diarrhea** when they first start taking Sulfonylureas. This type of reaction may force them to stop taking the drug.

Gliptins

A few patients may get **nose and sinus congestion, headaches**, and perhaps be at risk of problems with their pancreas.

SGLT2 Inhibitors

Urinary tract infections and yeast infections are more common among patients taking this medication.

Diabetes Medications

Drug Category	Generic Name	Brand Name
Metformin	Metformin	Glucophage®
Insulin	RAPID ACTING:	
	Aspart	NovoLog®
	Glulisine	Apidra®
	Insulin (regular)	Humulin® R
		Novolin® R
	Lispro	Humalog®
	INTERMEDIATE ACTING:	
	Human NPH	Humulin® N
	LONG ACTING:	
	Degludec	Tresiba®
	Detemir	Levemir®
	Glargine	Lantus®
	Glargine U300	Toujeo®
Pioglitazone	Pioglitazone	Actos®
Liraglutida/ Exenatida	Exenatide	Bydureon®
		Byetta®
	Liraglutide	Victoza®
Sulfonylureas	Glimepiride	Amaryl®
	Glipizide	Glucotrol®
	Glyburide	Diabeta®
		Glynase®
		Micronase®
Gliptins	Alogliptin	Nesina®
	Linagliptin	Tradjenta®
	Saxagliptin	Onglyza®
	Sitagliptin	Januvia®
SGLT2 Inhibitors	Canaglifozin	Invokana®
	Dapaglifozin	Farxiga®

Weight Change

Metformin



Insulin



Pioglitazone



Liraglutide/Exenatide



Sulfonylureas

Glipizide, Glimepiride, Glyburide



Gliptins



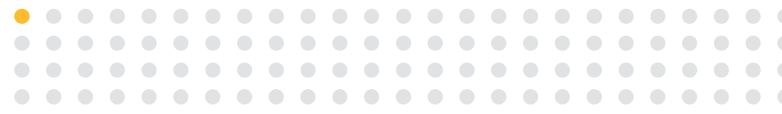
SGLT2 Inhibitors



Low Blood Sugar

(Hypoglycemia)

Metformin



No Severe Risk

● Minor = 0 – 1%

Insulin



● Severe = 1 – 3%

● Minor = 30 – 40%

Pioglitazone



No Severe Risk

● Minor = 1 – 2%

Liraglutide/Exenatide

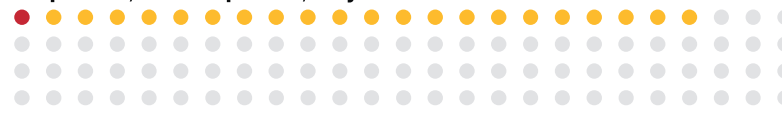


No Severe Risk

● Minor = 0 – 1%

Sulfonylureas

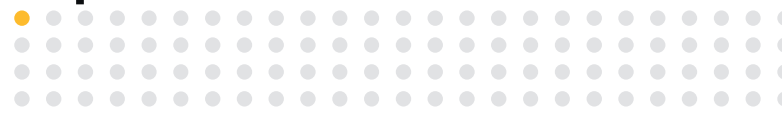
Glipizide, Glimepiride, Glyburide



● Severe = Less than 1%

● Minor = 21%

Gliptins



No Severe Risk

● Minor = 0 – 1%

SGLT2 Inhibitors



No Severe Risk

● Minor = 3 – 4%

Blood Sugar

(A1c Reduction)

Metformin

1 – 2%

Insulin

Unlimited %

Pioglitazone

1%

**Liraglutide/
Exenatide**

0.5 – 1%

Sulfonylureas

Glipizide, Glimepiride, Glyburide

1 – 2%

Gliptins

0.5 – 1%

SGLT2 Inhibitors

0.5 – 1%

Daily Routine

Metformin



OR



Insulin



OR



Pioglitazone



Liraglutide / Exenatide



OR



/



Take in the hour
before meals.

Sulfonylureas

Glipizide, Glimepiride, Glyburide



OR



Gliptins



SGLT2 Inhibitors



Daily Sugar Testing

(Monitoring)

Metformin

S	M	T	W	T	F	S

No monitoring necessary.

Insulin

S	M	T	W	T	F	S
••	••	••	••	••	••	••

Monitor once or twice daily, less often once stable.

Pioglitazone

S	M	T	W	T	F	S

No monitoring necessary.

Liraglutide/Exenatide

S	M	T	W	T	F	S
••	••	••	••	••	••	••

Monitor twice daily after meals when used with Sulfonylureas. Otherwise not needed.

Sulfonylureas

Glipizide, Glimepiride, Glyburide

S	M	T	W	T	F	S
	•		•		•	

Monitor 2 - 5 times weekly, less often once stable.

Gliptins

S	M	T	W	T	F	S

No monitoring necessary.

SGLT2 Inhibitors

S	M	T	W	T	F	S

No monitoring necessary.

Cost

These figures are estimates and are for comparative reference only. Actual out-of-pocket costs vary over time, by pharmacy, insurance plan coverage, preparation and dosage. Under some plans name brands may be comparable in cost to generics.

Metformin *(Generic available)*

\$0.10 per day

\$9 / 3 months

Insulin *(No generic available – price varies by dose)*

Lantus:	Vial, per 100 units:	\$26
	Pen, per 100 units:	\$26
NPH:	Vial, per 100 units:	\$2.50
	Pen, per 100 units:	\$28
Short acting analog insulin:	Vial, per 100 units:	\$25
	Pen, per 100 units:	\$30

Pioglitazone *(Generic available)*

\$0.50 per day

\$42 / 3 months

Liraglutide/Exenatide *(No generic available)*

\$20.00 per day

\$1,800 / 3 months

Sulfonylureas

Glipizide, Glimepiride, Glyburide *(Generic available)*

\$0.10 per day

\$12 / 3 months

Gliptins *(No generic available)*

\$12.00 per day

\$1,100 / 3 months

SGLT2 Inhibitors *(No generic available)*

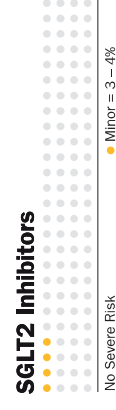
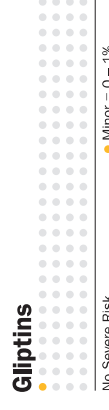
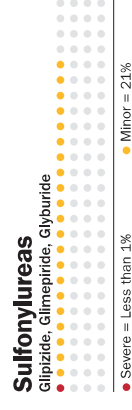
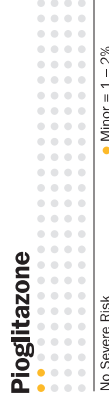
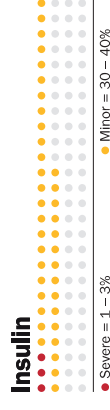
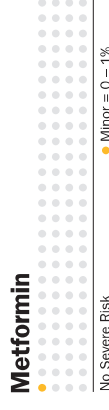
\$12.00 per day

\$1,100 / 3 months

Weight Change



Low Blood Sugar (Hypoglycemia)



Blood Sugar (A1c Reduction)

Metformin

1 – 2%

Insulin

Unlimited %

Pioglitazone

1%

Liraglutide/Exenatide

0.5 – 1%

Sulfonylureas
Glipizide, Glimpepride, Glyburide

1 – 2%

Gliptins

0.5 – 1%

SGLT2 Inhibitors

0.5 – 1%

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SGLT2 Inhibitors
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Daily Routine

Daily Sugar Testing (Monitoring)

Cost

Metformin

   **OR**  

Metformin

S	M	T	W	T	F	S

No monitoring necessary.

Insulin


   **OR**  

Insulin

S	M	T	W	T	F	S
•	•	•	•	•	•	•

Monitor once or twice daily, less often once stable.

Pioglitazone



Pioglitazone

S	M	T	W	T	F	S

No monitoring necessary.

Liraglutide / Exenatide

 **OR**    **OR**  

Take in the hour before meals.




Liraglutide/Exenatide

S	M	T	W	T	F	S
•	•	•	•	•	•	•

Monitor twice daily after meals when used with Sulfonylureas. Otherwise not needed.

Sulfonylureas

Glipizide, Glimepiride, Glyburide


 **OR**  

Sulfonylureas
Glipizide, Glimepiride, Glyburide

S	M	T	W	T	F	S
•			•			

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Gliptins




Gliptins

S	M	T	W	T	F	S

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SGLT2 Inhibitors



SGLT2 Inhibitors

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SGLT2 Inhibitors (No generic available) **\$12.00 per day** **\$1,100 / 3 months**

This information reflects the best available research studies. It was prepared by Mayo Clinic researchers without funding from makers of diabetes medication.

Diabetes Medication Choice

A guide to choosing the proper medication for you.

Metformin
Insulin

Pioglitazone

Liraglutide/Exenatide

Sulfonylureas
Gliptins

SGLT2 Inhibitors

<http://sharedecisions.mayoclinic.org>
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