

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

# Weight Change

## Metformin



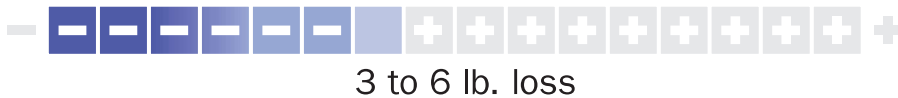
## Insulin



## 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** 1 – 2%  
Glipizide, Glimepiride, Glyburide

**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)*

---

<b>Lantus:</b>	Vial, per 100 units:	\$26
	Pen, per 100 units:	\$26
<b>NPH:</b>	Vial, per 100 units:	\$2.50
	Pen, per 100 units:	\$28
<b>Short acting analog insulin:</b>	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

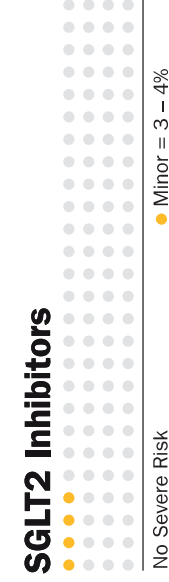
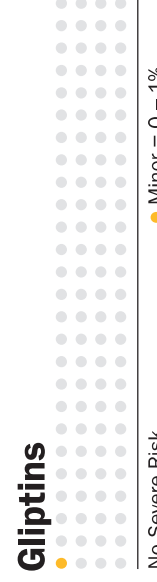
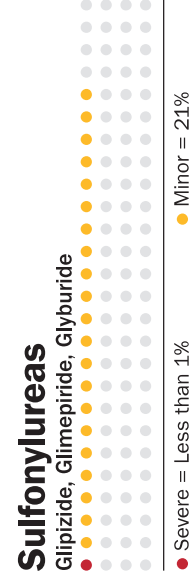
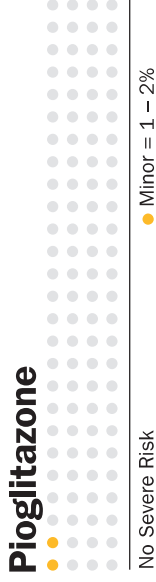
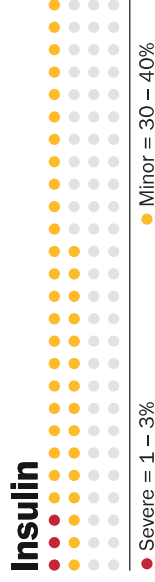
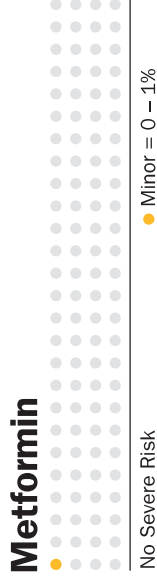
\$1,100 / 3 months



# Weight Change

# Low Blood Sugar (Hypoglycemia)

# Blood Sugar (A1c Reduction)



**Metformin**  
1 - 2%

**Insulin**  
Unlimited

**Pioglitazone**  
1%

**Liraglutide/  
Exenatide**  
0.5 - 1%

**Sulfonylureas**  
Glipizide, Glimperiride, Glyburide  
1 - 2%

**Gliptins**  
0.5 - 1%




**SGLT2 Inhibitors**  
0.5 - 1%

# Daily Routine




# Daily Sugar Testing (Monitoring)

# Cost


**Metformin**

  **OR** 





**Insulin**

  **OR** 

**Pioglitazone**






**Liraglutide / Exenatide**

 **OR**   **OR** 


Take in the hour before meals.

**Sulfonylureas**


Glipizide, Glimpiride, Glyburide

  **OR** 

**Gliptins**



**SGLT2 Inhibitors**



**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, Glimpiride, 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.

These figures are estimates and are for comparative re  
Actual out-of-pocket costs vary over time, by pharm  
plan coverage, preparation and dosage. Under some p  
brands may be comparable in cost to generics.

**Metformin** (Generic available) **\$9**  
**\$0.10 per day**

**Insulin** (No generic available – price varies  
**Lantus:** Vial, per 100 un  
Pen, per 100 un  
**NPH:** Vial, per 100 un  
Pen, per 100 un  
**Short acting analog insulin:** Vial, per 100 un  
Pen, per 100 un

**Pioglitazone** (Generic available) **\$42**  
**\$0.50 per day**

**Liraglutide/Exenatide** (No generic **\$1,800**  
**\$20.00 per day**

**Sulfonylureas** (Generic available **\$12**  
Glipizide, Glimpiride, Glyburide **\$0.10 per day**

**Gliptins** (No generic available) **\$1,100**  
**\$12.00 per day**

**SGLT2 Inhibitors** (No generic available **\$1,100**  
**\$12.00 per day**