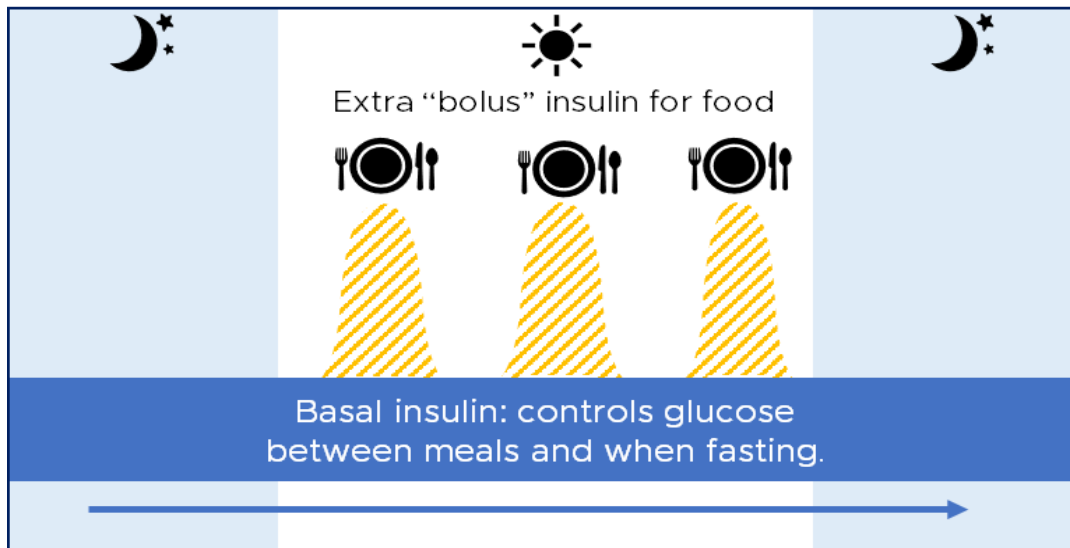


Your Diabetes Plan

How Insulin Works

Your body always needs some insulin even when you are not eating. This is called “**basal**” insulin. You need extra when you eat and when blood sugars rise for other reasons. This is called “**bolus**” insulin. Insulin lowers your blood sugar.

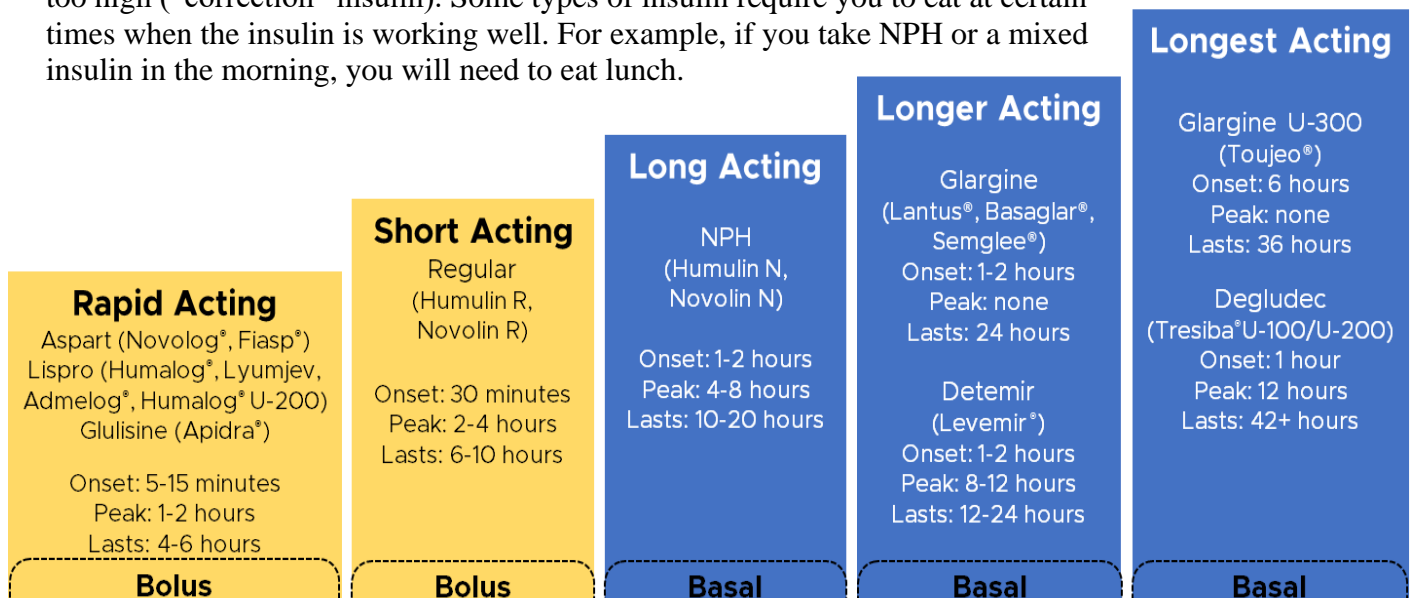


Types of Insulin

There are many types of insulin. Some work quickly and some are very long-lasting. Most types of insulin are shown below. Some types of insulin combine basal (long-acting) and bolus (rapid- or short-acting) insulins together.

Insulin Plans

An insulin plan will be made based on your needs. Some people need one type of insulin; others need two types of insulin. Some need insulin multiple times a day to keep blood sugars in a healthy range; others need insulin only when blood sugars get too high (“correction” insulin). Some types of insulin require you to eat at certain times when the insulin is working well. For example, if you take NPH or a mixed insulin in the morning, you will need to eat lunch.



Starting Basal Insulin

If you are starting basal insulin, you will need to choose a time that is convenient and easy to remember.

Advantages of basal insulin:

- One injection per day
- Decrease in overall blood sugars
- Can take the injection at any time
- Need not be taken with meals

Disadvantages of basal insulin:

- Does not control the rise in blood sugars after meals
- Needs to be taken at about the same time daily

Do not change the basal insulin dose without talking with your diabetes nurse or doctor.

Starting Mealtime Insulin

Your mealtime insulin is a fast-acting insulin that gives you a “burst” of insulin to match the rise in blood sugar that happens after eating. This insulin takes 5-15 minutes to start working, so take your insulin 5-15 minutes before your meal.

Advantages of mealtime insulin:

- Flexibility with meal times
- Fewer low blood sugars during the day and night
- Can increase or decrease dose with larger or smaller meals
- Can decrease amount of insulin prior to exercise/extra activity

Disadvantages of mealtime insulin:

- Multiple injections per day
- More frequent blood sugar monitoring to determine correct doses

How Much Mealtime Insulin to Take

Most people take a specific amount of insulin with each meal. This may be called a “set dose.” We need your help to decide if these set doses are working for you.

- Check your blood sugar every day, both before and 2 hours after meals.
- Alternate which meal you test before and after each day.
- Call your diabetes team to report your blood sugar readings every _____ days/weeks.

In the example below, the blood sugar increased more than 40 points after each meal. If this keeps happening, more insulin will be needed with meals. If your blood sugars drop after meals, or if you are having blood sugars below 70 mg/dL before your next meal, you may need less insulin.

Before/After 1 st meal		Before/After 2 nd meal		Before/After 3 rd meal	
142	204				
		158	225		
				128	198

Tips When Using Mealtime Insulin

- If you skip a meal; skip the mealtime dose.
- When going out to eat, always take your mealtime insulin at the restaurant (not at home). If you know that food will be delivered within 15 minutes, order your food and then take your insulin. If you aren't sure how long you'll wait for your food, delay your insulin dose until your food arrives.
- If you're planning activity/exercise in the hours after a meal, cut down on your dose of mealtime insulin.
- If your blood sugar is less than 70 mg/dL before your meal, treat the low. Recheck your blood sugar. When your blood sugar is 70 mg/dL or higher, take your usual dose of insulin and eat your regular meal.

Date: _____ (Please update as changes are made.)

Blood sugar goals: _____ (before meals) _____ (at bedtime)

Check blood sugar: Before meals Bedtime
 Anytime you have signs or symptoms of low or high blood sugar
 2:00AM Before/during/after exercise

Medicine Plan

Type of Insulin	Breakfast	Lunch	Dinner	Bedtime
Long-acting insulin (basal):				
Rapid/short acting insulin (mealtime/bolus):	_____ units	_____ units	_____ units	
	<input type="checkbox"/> Skip usual meal dose if you skip a meal. <input type="checkbox"/> Take ½ of your usual meal dose if you eat less than half of your meal.			
Mixed insulin	_____ units at _____ (time)		_____ units at _____ (time)	
Correction insulin:	With meals? <input type="checkbox"/> Yes <input type="checkbox"/> No		At Bedtime? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Other diabetes medicines				

Correction Insulin

If you need to use correction insulin daily, for 3 or more days in a row, call your health care team. Your usual doses may need to be changed.

With Meals	
If Blood Glucose is:	Add this much extra insulin:
Less than 150 mg/dL	No extra insulin
151 - 200	units
201 - 250	units
251 - 300	units
301 - 350	units
351 - 400	units

At Bedtime	
If Blood Glucose is:	Add this much extra insulin:
Less than 200 mg/dL	No extra insulin
201 - 250	units
251 - 300	units
301 - 350	units
351 - 400	units
More than 400	units

Storage of Insulin and Non-insulin Injectables

- Keep your **unopened** medicines in the refrigerator (36°F-46°F).
- Keep your **opened** insulin at room temperature (56°F-80°F).
- See below for expiration dates if you leave your non-insulin injectables at room temperature.
- Do not freeze your medicines or leave them in a hot car or in direct sunlight.

Expiration

Mark your vial/pen with the date of first use. Expiration dates shown here are based on **date of first use**. Follow the manufacturer expiration date printed on the vial/pen if unopened/unused.

Non-Insulin Injectables

Keep your unopened medicine in the refrigerator (36°F-46°F). Discard after _____ if stored at room temperature after opening:

- **Exenatide (Byetta®):** 30 days
- **Exenatide XR (Bydureon BCise®):** 4 weeks
- **Liraglutide (Victoza®):** 30 days
- **Semaglutide (Ozempic®):** 56 days
- **Dulaglutide (Trulicity®):** 14 days
- **Lixisenatide (Adlyxin®):** 14 days
- **Tirzepatide (Mounjaro®):** 21 days

Insulin Vials

- **Humulin Regular and NPH:** 31 days
- **Novolin Regular and NPH:** 42 days
- **Levemir®:** 42 days
- **Tresiba®:** 56 days
- **Humulin U-500:** 40 days
- **All other insulin types:** 28 days

Insulin Pens

- **Humulin N Kwikpen:** 14 days
- **Levemir® and Toujeo®:** 42 days
- **Tresiba®:** 56 days
- **Humalog 75/25, 50/50:** 10 days
- **Novolog 70/30:** 14 days
- **All other insulin types:** 28 days

Insulin Cartridges

- **All available insulin types:** 28 days

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 12/2022. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#6790