

# Starting Long-Acting or “Basal” Insulin for Your Diabetes

## Who is this handout for?

There is a lot to learn when starting insulin. This handout is for patients with type 2 diabetes and their family and/or caregivers.

## Does starting insulin mean that my diabetes is getting worse or that I have failed?

*No.* If your doctor prescribes insulin it doesn't mean your diabetes is getting worse. Everyone is different. What works best for you depends on your usual daily routine, eating habits, and activities, and your other health conditions. Most of the time, you will be adding insulin in addition to other medications for diabetes, such as metformin.

## How does insulin work?

Insulin works by moving sugar, or glucose, from the bloodstream into body tissues where it can be used for energy. This also stops the liver from producing more glucose.

## Is there more than one type of insulin?

Yes. There are two main types of insulin, long acting (also called basal insulin) and short-acting (also called bolus insulin).

**Long-acting or “basal” insulin** reaches your bloodstream in 1-2 hours and works for up to 24 hours.

**Short-acting or “bolus” insulin** reaches your bloodstream in 15-30 minutes and works for a few hours after injection.

## Will I need “basal” and “bolus” insulin?

*Maybe.* Patients typically start with long-acting or basal insulin. However if your fasting blood glucose levels are within your target range but your diabetes is still not well controlled overall, adding short-acting, or bolus insulin, may help.



## Can someone start taking insulin then not need to take it anymore?

Yes. Patients with type 2 diabetes may be able to stop insulin or other medications that lower blood sugar by making lifestyle and nutrition changes (losing weight, for example).

## What are the names of the long-acting insulins?

There are three long-acting insulins currently available however it is likely that new long-acting insulins will become available within a few years.

- Lantus (insulin glargine)
- Levemir (insulin detemir)
- Novolin N or Humulin N (NPH insulin)

## How will I learn to give myself an injection?

All insulins require you to inject yourself. You can inject insulin with a vial and syringe or with a device called a pen. It is best to meet with a Certified Diabetes Educator or member of your primary care provider's Community Health Team to learn how to inject yourself. There are also many good videos to help you. Make sure you know which insulin has been prescribed to you.

- Lantus Solostar pen:  
<http://www.lantus.com/Videolibrary/injecting-lantus-solostar-pen>
- Lantus vial and syringe:  
<http://www.lantus.com/Videolibrary/injecting-insulin-vial-and-syringe>
- Levemir pen:  
<http://www.levemir.com/Levemir/UsingLevemir.aspx>

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## Will I gain weight when I start insulin?

*Probably.* You may gain weight because your diabetes is better controlled, however insulin does not cause weight gain by itself. People who have poorly controlled diabetes may lose weight because their bodies are unable to properly turn food into energy and are unable to maintain water balance. When diabetes is well controlled (normal glucose) your body is no longer dehydrated and your body is able to convert food into glucose stored as energy instead of glucose in your blood. Focus on healthy nutrition and exercise to help manage any weight gain.

## Do I need to test my blood?

Yes. Your doctor or healthcare provider will tell you how often to test your blood. It is best to meet with a Certified Diabetes Educator or member of your primary care provider’s Community Health Team to learn how to test your blood and properly use a diabetes meter.

## How much insulin do I inject and when do I inject it?

Your doctor or healthcare provider will tell you how much insulin to inject. Long-acting insulin may be taken at any time of the day, as long as it is the same time each day. Some patients find it helpful to: 1) test their blood sugar when they wake up in the morning (this is called a “fasting blood glucose”) and then 2) inject insulin after measuring the fasting blood glucose.

## What is hypoglycemia and how do I manage it?

Hypoglycemia is a name to describe when your blood sugar is too low. Hypoglycemia may be serious and life threatening. It is best to meet with a Certified Diabetes Educator or member of your primary care provider’s Community Health Team to learn more about hypoglycemia and how to prevent and manage it. The American Diabetes Association website also has helpful information: <http://www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/hypoglycemia-low-blood.html>

## How should I store my insulin?

- You can keep the insulin you are currently using at room temperature.
- Once insulin is removed from the refrigerator or opened, it is good for 28 days.
- Extra vials, pens, or pen refills should be stored in the refrigerator.
- Do not expose insulin to excessive cold or heat.

## How should I dispose of needles and other sharp objects?

- Find an empty plastic bottle that has a screw-type cap.
- Label the bottle “DO NOT RECYCLE”
- After you use a syringe, lancet, or needle, drop it into the bottle.
- When you are ready to discard the bottle, close the cap and place heavy tape over the cap.
- Dispose of the bottle in your household trash. Do not recycle.

## Where can I find more information?

Ask your doctor or healthcare provider to help you meet with a Certified Diabetes Educator or member of your primary care provider’s Community Health Team. They will have lots of resources to help you manage your diabetes.

### Trustworthy websites

- American Diabetes Association (ADA) [www.diabetes.org](http://www.diabetes.org)
- Effective Health Care Program (AHRQ) [www.effectivehealthcare.ahrq.gov](http://www.effectivehealthcare.ahrq.gov)
- Centers for Disease Control (CDC) [www.cdc.gov/diabetes/](http://www.cdc.gov/diabetes/)
- National Diabetes Education Program [www.ndep.nih.gov](http://www.ndep.nih.gov)

### References:

- ADA Guidelines. Diabetes Care, 2014. 37 Suppl 1: p. S14-80. PMID: 24357209
- Gerstein HC, et al. Diabet Med. 2006;23(7):736-742. PMID: 16842477
- Hirsch IB, et al. Clinical Diabetes 2005;23:78-86.
- Mooradian AD, et al. Ann Intern Med. 2006;145:125-134. PMID: 16847295
- Nathan DM, et al. Diabetes Care. 2006;29(8):1963. PMID: 16873813