

# Insulin (Human) (Neutral)

Soluble insulin is a short-acting insulin. It is used to reduce high blood sugar levels after a meal in patients with diabetes mellitus.

## What is this medication for?

Soluble insulin is a short-acting insulin. It is used to reduce high blood sugar levels after a meal in patients with diabetes mellitus.

## How should I take/use this medication?

Soluble Insulin is given 30 minutes before a meal as an injection under the skin into the fatty tissue under the skin. Do not forget to eat after injecting Soluble Insulin. Use the injection technique advised by your doctor or nurse and as described in the manual. Ensure that your insulin appears clear and colourless before use. Do not use if it appears cloudy, grainy or if particles are seen in the vial. Do not stop insulin without checking with your doctors.

### How to select an injection site

- Insulin should be injected into the fatty tissue that is between the skin and muscle layer
- Where you inject is important as it affects the speed that insulin is absorbed by the body
  - Abdomen/Stomach area – Fastest to get absorbed
  - Arm – Intermediate rate to get absorbed
  - Thigh and buttock – Slowest to get absorbed
- You should rotate the injection site within the same area to prevent your body from forming “fatty lumps” or “hollow areas”.
- Do not inject insulin in the areas that are actively used during exercise.

### How to inject insulin

- Clean the skin before injecting the insulin.
- Pinch your skin to form a fold.
- Insert the needle at 90 degrees, right angle to the skin.
- During the injection, inject the insulin by pushing the plunger all the way down slowly with your index finger, wait for about 10 seconds before removing the needle and releasing the pinched skin.
- Keep the plunger down until the needle has been taken out from the skin. This will ensure you get the full dose. Do not rub or massage the injection site.
- Throw the syringe or pen needle away properly in a container that cannot be punctured.

Designed to be used with Novo Nordisk insulin delivery devices (such as NovoPen®).

## What should I do if I forget to take/use this medication?

If you miss a dose, inject the next dose at the usual time. Do not inject a double dose to make up for a forgotten dose.

If you forget to inject your insulin, your blood sugar may get too high (hyperglycemia). Check your blood sugar with a home blood sugar meter (glucometer). When your blood sugar is high for too long, you may experience increased urination, feeling thirsty, feeling sick (nausea or vomiting), feeling drowsy or tired, abdominal pain, flushed face and a fruity (acetone) smell of the breath. These may be signs of a very serious condition called diabetic ketoacidosis where there is a build-up of acid in the blood because the body is breaking down fat instead of sugar. Please see the doctor immediately if you have the above symptoms.

## What precautions should I take?

Inform your doctor if

- you are allergic to this medication or any of the other ingredients of this medication
- you drink alcohol often
- you are eating less than usual due to sickness/ changed diet as your dosage may need to be changed
- travelling across time zones as timing of your insulin may change
- you are pregnant or breastfeeding

If your doctor has informed you that you need to do a fasting blood test, do not inject insulin until after you have your blood taken and are ready to eat.

## What are some side-effects that I need to seek medical advice immediately?

See a doctor or go to the hospital immediately if your blood sugar level is always low and experience symptoms even after taking amounts of sugar (see instructions below for management of low blood sugar).





*This article is jointly developed by members of the National Medication Information workgroup. The workgroup consists of cluster partners (National Healthcare Group, National University Health System and SingHealth), community pharmacies (Guardian, Unity and Watsons), Pharmaceutical Society of Singapore and Ministry of Health.*

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