

Insulin

Insulin is a hormone that helps keep blood glucose at normal levels (usually 4-8mmol/L). People with type 2 diabetes often don't have enough insulin or it does not work very well. People with type 1 diabetes don't make any of their own insulin. Injecting insulin replaces or tops up what your body would normally produce.

Starting insulin

If insulin is taken by mouth it is destroyed in the gut. It needs to be given by injection, usually in the fatty layer of the abdomen but sometimes in other areas of the body. Your doctor or diabetes educator will discuss the type of insulin and best times to inject.

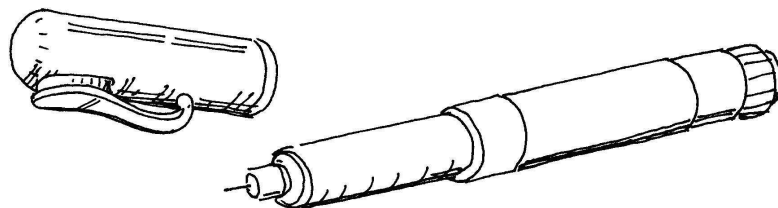
Equipment

There are a range of syringes, pens and other devices that can make injecting easier for you.

Syringes – come in different sizes depending on your needs. If you use an injection device we recommend you also know how to use a syringe in case your injector is lost or not working.

Pens and similar devices – can be disposable or reusable (insulin will come in a cartridge that can be changed).

Needles – come in different sizes depending on your needs. Ask to see the range so you can pick one that suits you.

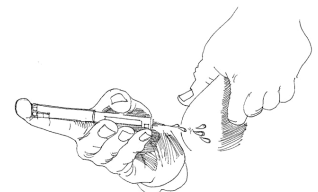
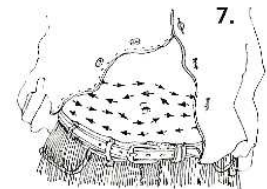
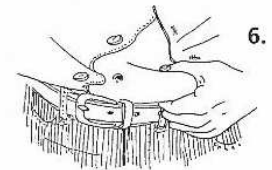
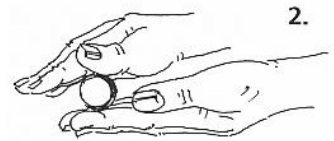
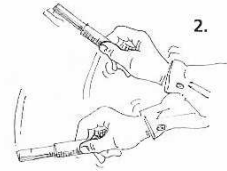


Giving the injection

It is important that you talk with someone who is familiar with the equipment. Your local diabetes service can give you advice. There are however some points to remember when injecting insulin.

For an insulin pen follow these steps:

1. ensure your hands are clean
2. if the insulin is cloudy mix it by rocking the pen back and forwards (10 – 20 times), end to end and rolling between your hands to completely mix
3. use a clean, fresh needle whenever you inject
4. dial up 2 units and push the plunger to expel any air in the needle – look for a stream of insulin, not just drops.
5. dial up your dose of insulin
6. use a different spot with each injection
7. pinch up an area on your abdomen
8. put needle into pinched up area at 90°- straight in, not at an angle
9. inject insulin and hold for 5 – 10 seconds depending on the dose of insulin (the higher the dose, the longer the needle needs to stay in)
10. withdraw the needle
11. let go of the pinched up area
12. dispose of the needle as recommended



If you are mixing insulin in a syringe:

Type	Brand	
Very quick acting analogue*	Humalog, NovoRapid, Apidra	Clear
Quick acting	Actrapid, Humulin R	Clear
Intermediate acting	Humulin NPH, Protaphane	Cloudy
Long acting analogue *	Lantus, Levemir	Clear
Premixed insulin	Humulin 30/70, Humalog Mix 25, and Mix 50, Mixtard 30/70, and 50/50, NovoMix 30	Cloudy

*Analogues must not be mixed with any other insulin

Timing

Very quick acting insulin: inject immediately before a meal.

Quick acting insulin: is best 30 minutes before a meal.

Intermediate and long acting insulin: no need to give with food.

Disposal of syringes and needle

Used syringes and pen needles must be disposed of safely. Discard the syringe / needle into a puncture proof (strong plastic) container with a lid. Never place used syringes into household garbage or leave unattended. Contact your local diabetes service about disposal facilities in your area. (Diabetes SA, some pharmacies and some councils may be able to help)

Storage of insulin

Store unopened insulin on its side in the fridge, NOT THE FREEZER. Store the insulin you are using away from direct sunlight in a cool place. Don't store your currently in use insulin pen or device in the fridge. Insulin is damaged by heat and so must not be kept in the car glove box or where the temperature exceeds 25°. Insulin should be used within 28 days of opening. Unopened bottles can be stored in the fridge until the expiry date. Throw them away once they have expired.

Supply of insulin

You need a prescription from your doctor to obtain insulin. Spare supplies of insulin should be kept on hand. Always check that the pharmacy and doctor have given you the correct type of insulin. Check the type and expiry date before leaving the pharmacy.

Supply of syringes

Register with the National Diabetes Services Scheme so you can access free syringes and / or pen needles. You can get registration forms from your local doctor, diabetes service, or Diabetes SA

My insulin

Name	Dose	Time
eg Humulin NPH	20	Before bedtime

For more information

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