Starting insulin in type 2 diabetes

As time goes by, tablets alone may not keep your blood glucose level in your target range. Insulin is the next step in your treatment. Starting insulin does not mean you have failed, it just means that your body is not making enough of its own insulin.

Why start insulin?

Type 2 diabetes is a condition that changes over time. In the early stages, you are able to produce enough insulin for what your body needs. In time, diabetes tablets are used to help you make more insulin or use the insulin you make more effectively. Eventually, the amount of insulin you make becomes less and the diabetes tablets are not enough. Starting insulin will assist you to bring your blood glucose levels back into your target range and will reduce your risk of diabetes complications.

How is insulin given?

Insulin can only be given by injection. Using a very thin needle, insulin is injected into the fatty layer under the skin of the abdomen. Most people choose to use an insulin pen device which can be either reusable (with an insulin cartridge that can be changed) or disposable.

Your doctor or credentialled diabetes educator can show you the different devices and help choose the best one for you.

When is insulin given?

The type of insulin will depend on your blood glucose levels and your individual situation. Some people will start with one injection per day while others may start on two or even three injections per day.

How do I start insulin?

There can be a lot to learn when you start insulin. It can be helpful to bring a family member or friend. A credentialled diabetes educator can help you get started.

Are there any side effects?

Insulin is used to lower your blood glucose and sometimes, can cause the blood glucose to go too low (hypoglycaemia). Talk to your credentialled diabetes educator about an ‘action plan’. Insulin can also increase your weight. Monitoring your food choices and being active each day will assist to minimise this. A dietitian can also help you.

What about my diabetes tablets?

Diabetes tablets either stimulate the pancreas to make more insulin, help the insulin you are still making (or inject) work better or reduce the amount of insulin required by passing excess glucose in the urine. Some diabetes tablets will be continued and some will not. Your doctor or credentialled diabetes educator will explain your treatment options and what is best for you.
Supply of insulin
Insulin is only available on prescription. Always check that you have been given the correct type of insulin. Check the type and expiry date before leaving the pharmacy. Keep at least 3 days worth of insulin at home to reduce risk of running out unexpectedly.

Storage of insulin
Insulin in use can be stored at room temperature (not in fridge) and away from direct sunlight for up to 28 days. Insulin is damaged by heat so store in a cool place if temperature exceeds 25°C.

Un-opened insulin needs to be stored in the fridge until the expiry date (do not freeze). Return expired or unwanted insulin to your pharmacist for safe disposal.

Supply of pen needles/syringes
Register with the National Diabetes Services Scheme so you can access free pen needles and/or syringes. Your doctor or credentialled diabetes educator will need to sign the registration form.

Disposal of pen needle or syringes
Used pen needles or syringes must be disposed of into an approved yellow sharps container or a puncture proof (strong plastic) container with a lid. Never place used needles or syringes into household garbage or leave unattended. Contact your local council, Diabetes Australia office, pharmacist, local health service or local diabetes education service for container purchase and disposal locations.

What follow up is required?
Your doctor or credentialled diabetes educator will need to review your type of insulin and the start dose. The start dose will mostly likely need to be increased to return your blood glucose back into your target range. Sometimes, the dose will need to be decreased if you are able to make improvements to your eating, physical activity or weight. Your credentialled diabetes educator will also provide:

- Hypoglycaemia action plan Yes / No ________________________________
- Sick day action plan Yes / No ________________________________
- Dietitian referral Yes / No ________________________________
- Diabetes & Driving Yes / No ________________________________


This factsheet only provides information about insulin administration. For specific information about your insulin & tablets ask your health professional to download the consumer medicines information or go to www.nps.org.au/search_by_medicine_name.

For more information
CHSA Diabetes Service
Country Health SA LHN
PO Box 287, Rundle Mall
ADELAIDE SA 5000
Telephone: (08) 8226 7168
www.chsa-diabetes.org.au

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Disclaimer: This resource is not a substitute for, nor is it intended to replace, the services of a qualified health practitioner.
Giving the injection

1. Wash your hands.
2. If insulin is cloudy mix by rocking the device back and forwards (10-20 times), end to end and rolling between your hands. Check insulin for signs of clumping or yellowing and if present do not use. Return insulin to pharmacist.
3. Use a new needle each time you inject.
4. Dial up 2 units and holding pen upright, push the plunger - look for a stream of insulin (this shows your pen is working). If you don’t see it, repeat this step.
5. Dial up your dose of insulin.
6. Use a different spot on your abdomen with each injection.
7. Hold/Pinch up skin on an area of your abdomen.
8. Put needle in at the angle suggested.
9. Inject insulin and press the plunger / button. 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 held/pinched up area.
12. Dispose of the needle safely.

Your insulin care plan

Name, dose and time of insulin/s:
__________________________________
__________________________________
Name of insulin device/s:
__________________________________
__________________________________
Other diabetes medications:
__________________________________
__________________________________
Insulin needs mixing:  Yes / No
Needle length: ______ Pinch up: Yes / No
Injection angle: $90^\circ$ / $45^\circ$
Leave needle in for: _____ seconds.
Injection site: ______________________
Care of skin: Check for lumps / bruises / rash / bleeding daily.
Insulin storage (in use): ______________
Insulin storage (not in use): ______________
Sharps disposal: ______________________
Supplies: ___________________________
Target blood glucose level: ___________________________
When to test blood glucose levels: ___________________________
Backup plan (in case insulin pen breaks or is misplaced): ___________________________
Follow up: ___________________________