

Starting insulin in gestational diabetes

Gestational diabetes is a type of diabetes that develops in pregnancy. In South Australia, gestational diabetes affects about 10% of pregnant women. Of these women diagnosed, 1 in 5 (20%) will require insulin therapy.

Insulin therapy in pregnancy is safe. It is very effective in helping return your blood glucose levels back into the target range and reducing the risk of complications for you and your baby.

Why start insulin?

In pregnancy, the amount of insulin you need is higher than normal as you are providing for both you and your baby. Your placenta is also producing other hormones that support the baby to grow and develop. These hormones make it harder for your body's insulin to work properly.

As your pregnancy progresses into the 2nd and 3rd trimester, the amount of insulin you and your baby needs increases.

Insulin is started when your body is not making enough of its own insulin and/or the 'insulin resistance' isn't allowing your insulin to work. Starting insulin does not mean you have failed, it means you need some extra help.

In most women with gestational diabetes, the use of insulin therapy is temporary. After the birth, most women with gestational diabetes have blood glucose levels in the target range as their insulin needs return to normal and their babies are able to make their own insulin. In most cases, insulin therapy is stopped.

Is the dietary and physical activity advice still important?

Yes. Where possible, your good work needs to continue. Your efforts to improve your dietary intake and physical activity have delayed your need for extra insulin until now.

It is important to maintain dietary advice which includes eating regular meals, eating small amounts often and including some form of carbohydrate in every meal or snack. This minimises the amount of extra insulin you require. Complex carbohydrates like multigrain breads, wholegrain cereals, legumes, fruit and yoghurt are good choices. Carbohydrates that have little nutritional value (eg cakes, biscuits, soft drinks) should be reduced as they can increase the insulin dose you require.

Physical activity helps to reduce 'insulin resistance', lower blood glucose levels and lower the amount of extra insulin you need. Brisk walking, for example, also helps you keep fit for the birth of your baby.

How is insulin given?

Using a very thin short needle, insulin is injected into the fatty layer under the skin of the abdomen. You may choose an insulin pen device which is either reusable or disposable.



When is insulin given?

The type of insulin and when it is given depends on your individual needs. If your blood glucose levels are higher before breakfast, you may require insulin before bedtime. If your blood glucose levels are higher after eating a main meal (eg breakfast, lunch and dinner), you may need insulin just before eating. Some women with gestational diabetes require both types.

How do I start insulin?

There is a lot of information to learn when you start insulin. Your credentialed diabetes educator can help you get started and it can be helpful to bring a partner or friend.

Are there any side effects?

Insulin is used to lower your blood glucose level but sometimes, it can cause the blood glucose level to go too low (hypoglycaemia). Insulin can also increase your weight but maintaining a healthy diet and physical activity levels will assist.

Talk to your credentialed diabetes educator about any concerns and to get a 'hypoglycaemia action plan'.

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. As insulin is damaged by heat, it must be stored in a cool place if the temperature exceeds 25°.

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

Supply of insulin

Insulin is only available on prescription. Always check that the chemist and doctor have given you the correct type of insulin. Check the type and expiry date before leaving the chemist. Keep at least 3 days' worth of insulin at home to reduce risk of running out unexpectedly.

Supply of pen needles/syringes

Your doctor or credentialed diabetes educator will register you with the National Diabetes Services Scheme (NDSS) so you can access free pen needles and/or syringes. Your doctor or credentialed diabetes educator can assist you to complete the NDSS form.

Disposal of pen needles 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, NDSS chemist or pharmacy, or local health service for container purchase and drop off locations.

Your insulin care plan

Type of Insulin	Brand of Insulin	Injection Times
Short acting	Novorapid® / Humalog® / Apidra®	Before main meals Breakfast / Lunch / Dinner
Intermediate acting*	Protophane® / Humulin NPH®	Before bed / Other:
Long acting	Optisulin® / Levemir® / Toujeo®	Before bed / Other:

* Intermediate acting insulin has a cloudy appearance and must be mixed prior to use

Type of Insulin Device	Disposable	Reusable
	Flexpen® / FlexTouch® / KwikPen® / SoloStar® / InnoLet®	NovoPen 4® / NovoPen Echo® HumaPen® / Luxura HD® / Savvio® / All Star Pro®

Pen Needle Length	4mm / 5mm / 6mm / 8mm
Pick Up	Yes / No
Injection Angle	45° / 90°
Injection Site	Abdomen / Other:
Withdraw after	5 seconds / Other:

Blood Glucose targets*	Fasting (before breakfast)	2hours after eating
	less than or equal to 5.0mmol/L	less than or equal to 6.7mmol/L

Hypoglycaemia Action Plan	
Doctor/Credentialed Diabetes Educator contact number	
Day and time to make contact	

Where can I go for more information?

This factsheet only provides information about insulin administration. For specific information about your particular type of insulin ask your health professional to download the consumer medicines information or go to www.nps.org.au/medical-info/medicine-finder.

Diabetes SA – [Pregnancy & Diabetes](#)

Diabetes Australia – [Diabetes & Driving booklet](#)

National Diabetes Services Scheme (NDSS) – www.ndss.com.au

Giving the injection

Prepare your insulin dose immediately prior to administration.

1. Wash your hands.
2. If insulin is cloudy, rock the device back and forwards (10-20 times), end to end and rolling between your hands. Make sure it is evenly mixed.



3. Clean the rubber seal of the insulin cartridge in the insulin pen with an alcohol swab and allow to dry.
4. Use a new pen needle each time you inject. Remove the paper seal from the pen needle and push and twist the pen needle hub onto the insulin pen until it is firmly connected.
5. 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.
6. Dial up your dose of insulin.
7. Use a different spot on your abdomen with each injection.



8. Gently hold the skin in the area of your abdomen. 'Pinch up' the skin if instructed to do so by your credentialed diabetes educator.



9. Put needle in at the angle suggested by your credentialed diabetes educator.
10. Inject the insulin by pressing the plunger/button.
11. Hold for 5-10 seconds depending on the dose of insulin (the higher the dose, the longer the needle needs to stay in).
12. Withdraw the needle from your abdomen and let go of the pinched area.
13. Check that the dial on the insulin pen has returned to '0'. This confirms that the full has been injected.
14. Immediately unscrew the pen needle from the insulin pen and discard the pen needle into the sharps container. Do not re-sheath the syringe needle.



For more information

Diabetes Service
Rural Support Service
PO Box 287, Rundle Mall
ADELAIDE SA 5000
Telephone: (08) 8226 7168
www.chsa-diabetes.org.au
www.sahealth.sa.gov.au/regionalhealth

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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.



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