Patient Information

Milton Keynes University Hospital NHS
NHS Foundation Trust

WOMEN'S AND CHILDREN'S SERVICES DIVISION

A GUIDE TO STARTING INSULIN FOR WOMEN WITH GESTATIONAL DIABETES MELLITUS

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STARTING INSULIN FOR WOMEN WITH GESTATIONAL DIABETES MELLITUS (GDM)

HOW DOES INSULIN WORK

Your body uses insulin to carry the glucose (sugars) in the food you have eaten around the body.

People who do not have diabetes produce a constant level of insulin, and when they eat their bodies produce more in order to reduce the sugar levels in their blood to a normal level.

In gestational diabetes, your hormones cause your body to become less able to use its insulin, causing the glucose to remain in your blood. This can give you high blood glucose levels which may affect your own and your baby's health.

There are several types of insulin, but the two most commonly used in GDM are:

- **Novorapid™** – a very fast-acting insulin which is given immediately before a meal and works for a short period of time (3-5 hours).
- **Insulatard™** – a long-acting insulin which lasts for up to 24 hours.
- Both insulins come in disposable injection pens.

The diabetes team will decide which kind of insulin you need, and when and how much you should inject. Once you have started taking insulin you need to keep testing your blood glucose as before, and to speak to the Diabetes Midwife or Nurse on a regular basis so that they can support you and advise you on changing your dose as necessary, depending on your blood glucose levels. If you are taking metformin you will be asked to continue with this as it reduces the amount of insulin you need.

INJECTING YOUR INSULIN

Novorapid™

It is important that you take Novorapid™ **immediately** before a meal. If you miss a meal for any reason, or do not include carbohydrates in your meal, you will not need to take your Novorapid™.

Insulatard™

This needs to be given at bedtime. It is given in the same way as Novorapid™ but should be shaken first.

HOW TO INJECT YOUR INSULIN

- Use a new needle every time
- Dial up 2 units and discard (to check that the needle is working properly)
- Dial up your required dose
- Fully insert the needle at 90 degrees and press the plunger (the midwife/nurse will discuss where to inject)
- Count 10 seconds before taking the needle out
- Remove the needle from the pen and dispose of it in your yellow sharps bin

HIGH BLOOD GLUCOSE (HYPERGLYCAEMIA)

Ideally you should keep your glucose level **below 5.3 mmol/l[1] on waking and below 7.8 mmol/l one hour after eating a meal**. If your readings are regularly higher than this, you should contact the Diabetes Midwife or Nurse to discuss adjusting your dose of insulin. Remember that if your blood glucose is high, your baby's will be too.

Hyperglycaemia may be caused by not taking enough insulin, eating too many carbohydrates, being less active than usual, illness or infection.

Your insulin resistance increases throughout pregnancy, so you may need to keep increasing your insulin dose.

If there is a chance that your baby may be born early, you may need a steroid injection to mature the baby's lungs, and this can also cause your blood glucose to be higher than normal.

If this is the case, you may need to be given extra insulin as an in-patient. The Doctors and Diabetes Midwife or Nurse will advise you on this.

[1] This is the units used to measure blood glucose

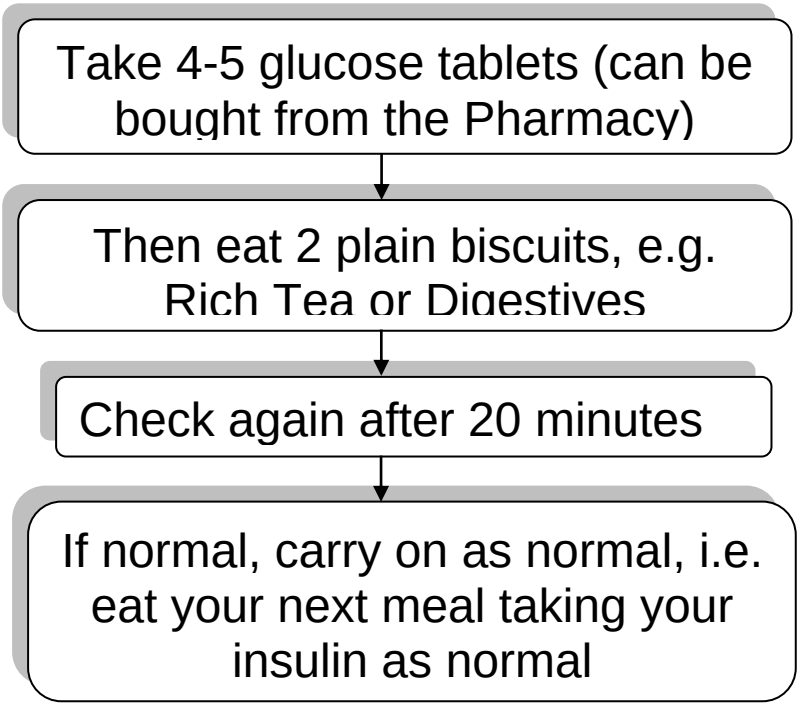
LOW BLOOD GLUCOSE (HYPOGLYCAEMIA OR "HYPO")

If your blood glucose drops to **4.0 mmol/l** or less, you may feel:

- Dizzy
- Hungry
- Faint
- Confused
- A pounding heartbeat
- Sweaty
- Cold
- Tired
- Irritable
- You may pass out

This may be caused by taking too much insulin, eating too little or being more active than usual.

WHAT TO DO IF YOUR BLOOD GLUCOSE IS LOW



IMPORTANT INFORMATION

Driving

- If you drive a car you must inform your insurance company that you have gestational diabetes and are taking insulin.
- If you are taking insulin for more than 3 months, you must inform the DVLA using a DIAB1 form. Failure to declare this may lead to a fine

  https://www.gov.uk/government/publications/diab1-confidential-medical-information
- You should always check your blood glucose no more than 2 hours before driving a car and every 2 hours while driving. If you are doing several short journeys you don't need to test before each journey as long as you test every 2 hours.
- You should ensure that your blood sugar is at least 5.0 mmol/l before driving.
- If you have a hypo while driving, it is important that you park the car, remove the keys and follow the instructions for hypoglycaemia given above.
- You should not start driving until 45 minutes after your blood glucose has returned to normal.

General

- Carry a diabetes identification card
- If you are going on holiday, ensure that you have enough supplies with you, and ask your doctor or the Diabetes Midwife or Nurse for a letter to verify that you need to carry needles/medical equipment through customs. Ensure that your travel insurance covers diabetes
- It may be advisable to inform your employer that you have started taking insulin

STORING YOUR INSULIN

- Store the insulin you are not using in the door or drawers of the fridge
- The pen you are using can stay out of the fridge for one month at <28 degrees centigrade (it is useful to write on it the date you started it)
- If travelling, keep your spare insulin in a cooler bag or vacuum flask
- NEVER store your insulin with a needle in place

IN LABOUR

If your labour is being induced, you should continue to take your insulin as normal until labour starts.

When you are in labour, the midwife will check your blood glucose hourly. If 2 or more of your readings are higher than 7.0 mmol/l, you may need to be given insulin through a drip.

PLANNED CAESAREAN SECTION

If you are having a planned caesarean section, you should take your insulin as normal the night before. On the morning of the operation you will be asked not to eat, so you will not need to take your medication.

AFTER YOUR BABY IS BORN

Once your baby is born you should stop all your diabetes treatments.

The Diabetes Midwife will send you an appointment for a postnatal review when the baby is 6-8 weeks old.

We ask information about you so that you can receive proper care and treatment. This information remains confidential and is stored securely by the Trust in accordance with the provisions of the Data Protection Act 1998.

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