Centre intégré de santé et de services sociaux
de la Montérégie-Ouest

CONTROLLING GESTATIONAL DIABETES WITH INSULIN

What you need to know

Have you recently been diagnosed with gestational diabetes requiring insulin? Here's how insulin works to control your blood sugar levels.

Why do I have to inject myself with insulin?

Sometimes diet and exercise are not enough to keep diabetes under control, which is why your doctor may decide with your approval, to prescribe insulin to help control your blood sugar level.

Is insulin harmful to my baby?

No. Insulin will not harm your baby in any way. On the contrary, when diabetes is properly controlled with insulin, the risks to both the mother and the baby are reduced. Insulin does not pass through the placenta, meaning it never enters the baby's bloodstream; your baby produces their own insulin.

The insulin is meant to lower your blood sugar level, which will prevent your baby from gaining too much weight during pregnancy. A normal blood sugar level reduces the risk of your baby having hypoglycemia in the first few hours after birth; it also helps the baby's lungs to develop normally.

Can I take insulin in pill form?

No, insulin pills do not exist.

Do I need to take insulin regularly?

Yes. Depending on your blood sugar results, you may need to take insulin anywhere from one to five times per day. Your doctor will recommend a daily treatment plan, which can be adjusted as needed. Your insulin dose will be adjusted once or twice a week, until your blood sugar levels fall within the normal range.

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What you need to know

Are insulin injections painful?

No. Injecting insulin is less painful than testing your blood sugar.

Hypoglycemia is characterized by one or more of the following symptoms:

- Sweating;
- Hunger;
- Dizziness;
- Shakiness;
- Heart palpitations;
- Anxiety;
- Headaches;
- Mood swings;
- Tingling around your mouth.

Does insulin have any side effects?

The most common side effect is hypoglycemia, which happens when your blood sugar level drops below 3.8 mmol/l. Apart from taking insulin, other ways to lower your blood sugar level are exercising, refraining from snacking, and spacing out your meals.

What should I do if I have hypoglycemia?

1. As soon as you suspect hypoglycemia, you need to test your blood sugar using your blood sugar meter.
2. If your blood sugar is less than 3.8 mmol/l, you need to eat or drink 15 g of fast-acting sugar food.

   Examples:
   - 1 tablespoon (15 ml) or 3 packets of white sugar dissolved in a glass of water;
   - 1 tablespoon (15 ml) of honey, jam, maple syrup, table syrup, or corn syrup;
   - ¾ cup (175 ml) juice or regular soft drink.
3. Wait 15 minutes.
4. Re-test your blood sugar:
   - If it is still below 3.8 mmol/l, eat or drink another 15 g of fast-acting sugar food;
   - If your blood sugar is 3.9 mmol/l or higher, eat a snack or a regular meal (if you're not scheduled to eat in the next hour, eat something containing 15 g of carbohydrates and a source of protein).

   Example:
   - 4 Melba toasts with cheese or peanut butter.

To prevent hypoglycemia, it is recommended that you always eat your snacks and plan for one extra if you are exercising more.

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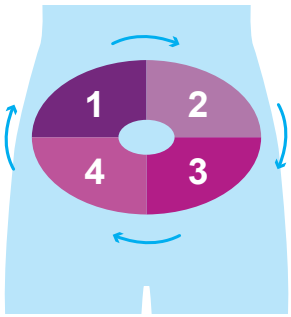
Where should I inject the insulin?

The **best place is in the abdomen**, since insulin is absorbed more quickly and uniformly there than anywhere else in the body. Injecting insulin into your abdomen will not harm your baby.

You should leave 2-3 cm between each injection spot. **Avoid injecting insulin anywhere within 3.5 cm of your belly button.** Do not inject insulin into stretch marks or places where your skin is very tight, because stretched tissue does not absorb insulin as well. It's important to rotate your injection sites as shown in the example below (each quadrant represents one week).



Check your injection sites once a week for any redness, lumps, irritation, or changes in colour. If you notice any changes, tell your nurse and avoid using that injection site until the problem disappears.

How should I prepare my insulin using the disposable pen?

1. Wash your hands;
2. Remove the cap and unscrew the pen;
3. Disinfect the cartridge tip with an alcohol swab, then attach a new needle. Use a new needle for each injection. Remove the two needle caps (outer and inner). Throw away the inner cap. The needle should be 4 or 5 mm long;
4. You now need to do a safety test to remove air bubbles from the pen:
   - If you are starting **a new cartridge (new pen)**: Select a dose of 4 units and press the injection button all the way in. Repeat this step until you see a drop of insulin at the tip of the needle.
   - If you are only changing needles, dial a dose of 1 unit and press the injection button until you see a drop of insulin come out.

   Before performing the safety test, don't forget to gently mix cartridges of NPH or Humulin N insulin (roll and tilt them back and forth 10 times) until the insulin looks uniformly cloudy. This step is not necessary for clear insulins;
5. Dial the dose prescribed by your doctor by turning the end of the pen until the number corresponding to your dose lines up with the little white line.

You are now ready to inject your dose.

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Did you know?

It's recommended that you start breastfeeding your baby immediately after birth to prevent hypoglycemia in the newborn.

Newborns of diabetic mothers are at a higher risk of hypoglycemia and a greater risk of needing supplements.

For that reason, in the last few weeks of your pregnancy (starting at the 37th week), we recommend that you express colostrum (early milk), which can be given to your baby instead of commercial infant formula if they need supplements for any reason.

Breastfeeding is recommended for all diabetic women. It also helps to control blood glucose and prevent type 2 diabetes.

For the baby, breastfeeding also reduces the risk of obesity and developing diabetes later in life.

How do I inject my insulin with the disposable pen?

- Choose an injection site on your abdomen and wash it with soap and water;
- Turn the dose knob to select your dose;
- Hold the injection pen with the needle next to your skin. Quickly insert the needle at a 90-degree angle. Do not push the needle too hard or you may bruise yourself;
- Slowly push down on the injection button until the dose counter returns to 0. Wait 10 seconds before taking your finger off the injection button. This tells you that the full dose has been administered. In general, no more than 50 units should be administered in the same injection site;
- Remove the needle and dispose of it in a sharps container, which you can return to your pharmacy or perinatal clinic;
- Store your insulin in the pen at room temperature. Discard any unused insulin after 30 days. Keep your unopened cartridges in the refrigerator until use.

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What you need to know

Do you have questions or need support?

Feel free to speak to the nurse at your clinic.

Hôpital Anna-Laberge

200 boulevard Brisebois, Châteauguay

- Perinatal clinic | 450-699-2489
  Monday to Friday, 8 a.m. to 4 p.m.
- Birth pavilion | 450-699-2463
  After regular clinic hours, on weekends and holidays

Hôpital du Suroît

150 rue Saint-Thomas, Salaberry-de-Valleyfield

To make an appointment

- Perinatal clinic | 450-371-9920, ext. 2451

To speak to a nurse

- Mother-child centre | 450-371-9920, ext. 2148

References:

- Brochure from CSSS Jardins-Roussillon: *Contrôle du diabète de grossesse avec l'insuline*, by Suzanne Denis, R.N., revised by Mélanie Guérin, R.N. (n.d.).
  - *Cahier de référence : processus d'administration des médicaments.* Comité pharmaco-nursing, April 2010, CSSS JR.
  - FIT Canada 2012. *Recommendations for Best Practice in Injection Technique.*
- Diabète Québec (2013). *Diabète et grossesse.*
- La Leche League France - Allaitement et maternage.

Our mission
To maintain, improve, and restore the health and well-being of the Québec population by making accessible an array of integrated and quality health and social services, while contributing to the social and economic development of Québec.

Our vision
Accessible and efficient health care and services that adapt to the needs of Québecers.

Our goals
The CISSS de la Montérégie-Ouest achieves its goals through its innovative approaches and stands apart through:

- its exemplary offer of care and integrated services based on interdisciplinarity, accessibility, and adaptability to the needs of its population;
- its willingness to question and improve its professional, clinical, and administrative practices;
- its appreciation of its personnel and the implementation of human resource management practices;
- its strong relationships with its partners.

Our values
Our actions are guided by five equal and interconnected values: compassion, collaboration, commitment, confidence and consistency.

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