



Tameside and Glossop
Integrated Care
NHS Foundation Trust

Starting Insulin in Type 2 Diabetes

Patient information Leaflet

October 2020

Why do I need insulin?

Sometimes in Type 2 diabetes it is necessary to start insulin either alongside your current diabetes medication, or on its own. The aim is to get your daily blood glucose levels in a good target range agreed by you, and the 3 monthly average blood glucose level HbA1c to your agreed target.

What is insulin?

Insulin is a naturally occurring hormone that regulates blood glucose levels in response to the food you eat.

How will I give insulin?

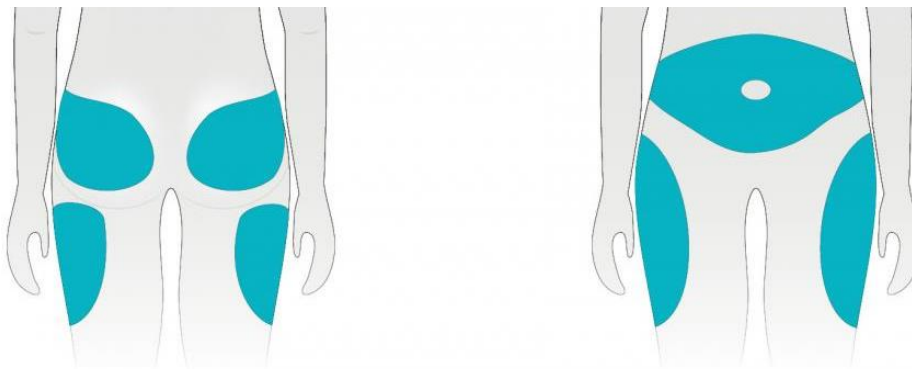
Insulin is given by an injection – you will be taught this technique by the Diabetes Specialist Nurse

The diagram below shows you the recommended sites for insulin injection.

These are:-

- Abdominal area allowing at least 1 inch (2.5cm) from naval
- Upper outer aspect of thigh
- Top of buttocks

You will be advised to rotate your sites daily to avoid the area becoming sore or lumps forming under the skin. The injection should be performed at 90 degrees to the skin.



Different Types of Insulin

Depending on your blood glucose patterns, you may be asked to have insulin at different times in the day.

Long Acting insulin:

This may be recommended initially as an add on to the current tablets you may be taking to control your diabetes

This insulin is usually given either before breakfast or before you go to bed. This insulin lasts around 18-24 hours and is absorbed slowly over the day.

Examples of this type of Insulin are **Humulin I, Lantus, Levemir**

Meal Time insulin:

This will be recommended if your blood glucose levels are still high in the day despite being on a long acting insulin.

This insulin will be given 10-15 minutes before you eat and will last in your blood stream for 4-6 hours to help your body control the meal time blood glucose rises from your diet.

Examples of this type of insulin are **Novorapid, Humalog, Apidra**

Mixed Insulins:

These insulins combine some longer acting insulin and meal time insulin, and are usually given twice or three times a day, 15-20 minutes before you eat.

Examples of this type of insulin are: **Humulin M3 , Novomix 30 , Humalog Mix 25 and Humalog Mix 50**

Insulin Storage-

- Please keep spare pens in the fridge
- The pen you are using Keep at room temperature. This pen can be kept out of the fridge for 28 days then it will need replacing.
- **Do not – allow the insulin to freeze, come in direct contact with sunlight or store in a warm place i.e. above a radiator**

Managing blood glucose levels –

You will be asked to monitor your blood levels at a variety of times during the day – these will be **pre food** and will be used to assess how effective your treatment is and whether any changes are required to your treatment.

You will be provided with a glucometer – this is a machine that checks the level of glucose (sugar) in your blood stream. It is essential you record these accurately in your blood glucose diary – you must wash your hands with soap and water prior to taking this. You will be asked to record them:-

On waking up when you have not eaten (fasting)

Pre lunch

Pre evening meal

Pre bed

Glucose targets will be individual to you (depending on your age, occupation etc.) but we are often looking for levels of:

Pre meals 5 – 8 mmol/l

Pre Bed 7-9 mmol/l

What if I have a low blood glucose level?

A blood glucose < 4 mmol/l is called **Hypoglycaemia**

How will I feel? - When your blood glucose level drops you may feel

- Dizzy
- Sweaty
- Hungry
- Confused
- Cold
- Light headed
- Irritable
- Palpitations – a fast heart beat

What causes hypoglycaemia?

- Too much insulin
- Eating too little or less than normal
- More activity than usual
- Alcohol
- Stress/illness
- Hot weather

What should I do when my glucose is < 4 mmol/l?

You will need to take 15-20 g of fast acting carbohydrates to raise your blood glucose levels – this can be either

- **200 mls Lucozade**
- **150 mls Full sugar coke**
- **200 mls Fresh orange juice**
- **4-5 Jelly babies**
- **5-6 Glucose tablets**

Wait 10 minutes then re – check your blood glucose level, if still < **4 mmol/l** repeat the above.

If > 4 mmol/l you may need a small snack if your next meal is not due i.e. 1 plain biscuit, small piece of fruit.

What if I have high blood glucose levels?

These are levels that are persistently above your agreed target levels.

How I will feel – you may complain of:

- Thirst
- Passing urine more
- Tired
- Hungry
- Weight loss
- Changes to vision

What causes high blood glucose levels?

- Missed medication – tablets and/or insulin
- Insulin given in an inappropriate site or into a lump under your skin
- Insulin may have been stored incorrectly and got too warm
- Not washing your hands before taking your blood glucose levels
- Diet/fluids you have eaten (have the drinks been sugar free? Have you eaten more than you usually would or had a treat)
- Illness
- Your medication may need reviewing and increasing

Driving and Insulin and the DVLA

You will need to inform the DVLA that you have been commenced on insulin therapy.

To ensure you are safe to drive:-

1. Check your blood glucose every 2 hours and ensure this is > 5 mmol/l
2. If 4-5 mmol/l – have a small snack and wait and check that your blood glucose is > 5 mmol/l
3. If your blood glucose is less than 4 mmol/l – follow the hypoglycaemia guidelines above – however you must then wait **45 minutes before you can drive and ensure your blood glucose is > 5 mmol/l**

Contact us:

Diabetes Specialist Nurse – 0161 922 4888 option 3

Email address- integrated.diabetes@tgh.nhs.uk

If you have any questions you want to ask, you can use this space below to remind you

If you have a visual impairment this leaflet can be made available in bigger print or on audiotape. If you require either of these options please contact the Patient Information Centre on 0161 922 5332

If you require an interpreter, please ask an appropriate person to contact our central booking office between Monday to Friday 8am to 5pm on 0161 922 6991 to arrange this for you.

語言翻譯及病者支持服務 (LIPS):

如果閣下需要翻譯員在您的預約當日幫助您的話 請找一名合適的家庭成員 0161 922 6991 聯絡本中央預約辦事處來您您安排 我們的辦公時間是星期一至星期五 上午 8 時至下午 5 時

Językowo Tłumaczeniowa Usługa Pomocy dla Pacjenta (Language, Interpretation and Patient Support Service LIPS):

Jeśli potrzebujesz pomocy tłumacza w trakcie swojej wizyty, proszę poprosić odpowiedniego członka rodziny o skontaktowanie się z Centralnym Biurem Zamówień (Central Booking Office), w celu zorganizowania tłumacza pomiędzy poniedziałkiem a piątkiem w godzinach od 08:00 - 17:00 pod numerem 0161 922 6991.

لینگویج، انٹریٹیشن اینڈ اینٹریٹیشن سپورٹ سروس (Lips)

اگر آپ کو اپنی اپائنٹمنٹ کے لئے مترجم کی مدد کی ضرورت ہو تو براہ مہربانی اپنے خاندان کے کسی موزوں فرد سے کہیں کہ وہ ہمارے سنٹرل بکنگ آفس سے پیر سے جمعہ 8.00 بجے صبح سے 5.00 بجے شام کے دوران 0161 922 6991 پر فون کر کے اس کا بندوبست کریں۔

Document control information

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