

Patient information

Information for People with Type Two Diabetes Commencing Steroids

Diabetes and Endocrinology

Type Two Diabetes and Steroid Tablets

This information sheet will provide information on the following:

- What are steroids?
- Managing raised blood glucose levels.
- Diabetes treatments.
- Stopping steroid treatment.
- After care.

What are Steroids?

Corticosteroids (also known as steroids) are hormones that occur naturally in the body and can be manufactured for a range of medicinal uses, such as reducing inflammation. They are available as tablets, injections, creams, ointments and inhalers, and this leaflet is for people using steroid tablets.

There are a number of different types of steroids and they vary in how long a single dose lasts (from approximately eight hours to over two days). Depending on the type of steroid you have been prescribed, you may need to take a tablet daily, several times a day or once weekly. You may have been prescribed steroids as a short course (as short as five days), a course that gradually reduces over time, or a continuous course for many years.

How do steroids affect blood glucose?

Steroid treatment increases the amount of glucose produced by the liver. Steroids can also make your body produce less insulin than usual, which is the hormone that controls glucose levels in the blood.

If your body is unable to make enough insulin to deal with the increased production of glucose by the liver, your blood glucose levels will rise above normal.

Blood Glucose levels are normally between 4.0 – 7.0 mmol/L before meals (mmol/l is how blood glucose levels are measured).

If you were testing your blood glucose levels before starting steroids, you may notice your blood glucose levels are raised or more difficult to control. This is called “Steroid-induced hyperglycaemia”.

Managing raised blood glucose levels

While taking steroids, test your blood glucose level before each meal and at bedtime. Aim for blood glucose readings of 6 to 10 mmol/L.

Depending on the type and timing of the steroid treatment, you may see a pattern of high blood glucose readings during the day that reverts to single figures the next morning.

The symptoms of raised blood glucose levels include the following:

- Tiredness or fatigue.
- Thirst or dry mouth.
- Frequent need to pass large volumes of urine.
- Genital thrush.
- Blurred vision.

If you experience these symptoms or have high blood glucose readings, or both, contact your family doctor (GP) promptly for advice.

A doctor or nurse may advise you to:

- Drink plenty of sugar-free fluids to prevent dehydration.
- Cut down on sugary and starchy foods and drinks, as these will make the blood glucose levels higher.
- Rest.

If the blood glucose level is higher than 12.0 mmol/L on more than two occasions in a 24-hour period, your doctor or nurse may need to start or increase diabetes treatments.

Diabetes treatments

Steroid-induced high blood glucose levels are usually treated with gliclazide tablets or insulin injections. Both work to lower blood glucose levels.

Gliclazide tablets:

Depending on your steroid treatment, the starting dose is usually 40 mg (half a tablet) taken each morning with breakfast. This may need to be increased to three 80 mg tablets each morning. You may also need one tablet with your evening meal (four tablets daily is the maximum dose).

Insulin injections:

If gliclazide tablets do not control the blood glucose levels, your doctor or nurse will suggest injecting insulin. There are many types of insulin, and, if you require insulin, you are likely to need a daily injection of a slow-acting insulin with breakfast, at least to start with. A nurse will show you how to inject insulin and adjust the dose, and will support you through this process.

If you have diabetes treated by insulin – you usually need to increase your insulin dose whilst taking steroids and/or use a different type of insulin.

If your blood glucose levels regularly rise above 11.0 mmol/L, you should contact your GP or diabetes clinic to arrange a review and possible change in diabetes treatment whilst on steroids.

If your steroids are reduced or stopped, your blood glucose may fall. You may need to reduce your tablets or your insulin.

Please contact your GP or Diabetes team for advice if any alteration is made to your steroid dose.

If you are injecting insulin and you are a driver, you should contact the DVLA and your insurance company, even if the insulin treatment is temporary.

If you have diabetes and you are already taking insulin, you may need a larger dose or more injections to cope with the high blood glucose levels. Discuss this with the doctor or nurse who usually supports you with your diabetes management.

Stopping steroid treatment

As your steroid treatment is reduced or stopped, your blood glucose levels will fall and you may be at risk of hypoglycaemia (low blood glucose), commonly called “hypos”.

The symptoms of hypoglycaemia include:

- Sweating heavily.
- Feeling anxious.
- Trembling and shaking.
- Tingling of the lips.
- Hunger.
- Going pale.
- Palpitations.

Treating a “hypo”

- If you are able to test your blood glucose, a reading lower than 4.0 mmol/L will confirm you are having a “hypo”.
- If you recognise that you are having a “hypo”, treat it immediately with something that will raise your blood glucose quickly, such as 200 mL of Lucozade or four large jelly babies. If you do not feel better after ten minutes, repeat this treatment.
- Once you feel better and your blood glucose has risen to 4.0 mmol/L or higher, have a small starchy snack such as a banana or a sandwich.

Stopping extra diabetes treatment

You may need to reduce or stop the gliclazide tablets or insulin if you are having regular “hypos”, and your doctor or nurse will advise you how to do this.

After care

Continue to monitor your blood glucose once daily until your blood glucose levels return to normal (between 4.0 and 7.0 mmol/L). However, if your readings are higher than 12.0 mmol/L, test more often and contact your doctor or nurse.

It is advisable to delay having your HbA1c checked for three months, to exclude the effect of the steroid treatment. (HbA1c is the long term diabetes control test which is normally done every six to twelve months).

Some people will require intermittent steroid treatment and will need insulin injections each time they have steroids. In this instance, keep unopened insulin in the fridge and check the expiry date before using.

Once steroid therapy is completed, discard any partially used or open insulin cartridges or pens

Further Information

The Diabetes Centre

Tel: 0151 706 2829

Textphone number: 18001 0151 706 2829

Fax: 0151 706 5949

NHS 111 Service

Tel: 111

Diabetes UK

Online: <http://www.diabetes.org.uk>

North West Diabetes UK

Tel: 01925 653281

Fax: 01925 653288

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