



**University
Hospitals Sussex**
NHS Foundation Trust

Long term steroid hormone replacement therapy

Department of Endocrinology

Patient information

What is hydrocortisone?

Hydrocortisone is similar to cortisol, one of the body's natural steroid hormones (chemical messengers). Cortisol is produced by the adrenal glands just above the kidneys in response to instructions from the pituitary gland (at the base of the brain). It has many vital roles in maintaining normal healthy functioning, and is a very important part of the response to 'stress' of any kind, including illness.

How should I take my hydrocortisone?

The natural pattern of cortisol production results in high levels early in the morning, falling to very low levels in the evening and at night. Hydrocortisone replacement therapy is usually taken twice or three times a day. It can be taken on an empty stomach or with food. The largest dose is taken first thing in the morning, to mimic the natural rhythm as far as possible. You should not routinely take your hydrocortisone after 5pm, as this can disturb your sleep.

Can hydrocortisone have bad effects on me?

You are prescribed a low dose of hydrocortisone to replace what your body should make naturally. High doses of steroids taken for long periods of time can have side effects, but this is not the case with steroid hormone replacement therapy. It is not an 'anabolic steroid', of the type that is sometimes used or abused by athletes and body builders.

Do I need any other types of hormone replacement therapy?

If your adrenal gland is not working properly (Addison's disease) you usually also need to take fludrocortisone, which helps to regulate your salt and water balance. If your pituitary gland is not working properly, you may need a range of other types of hormone replacement therapy: your hospital specialist will assess this and advise you.

What are 'sick day rules'?

'Sick day rules' give you advice about how to manage your usual tablet treatment if you are ill for another reason (for example, if you have 'flu').

What should I do if I am ill?

Never stop taking your hydrocortisone (or prednisolone).

These are the dose adjustments recommended if you are ill:

- Minor illnesses without fever: no change in dose.
- Illnesses such as bad colds or flu, and other illnesses causing a fever (high temperature):
 - **Hydrocortisone:** take 20 mg immediately, then 10 mg 6-hourly until you feel better.
 - **Prednisolone:** take 5 mg 12-hourly (twice a day) until you feel better. (If you take more than 10 mg prednisolone daily, there is no need to change your dose unless you are advised to do so, but you can divide your usual dose into a split dose, twice-daily).

- More severe illnesses: as well as adjusting your dose you should see your GP (or attend an urgent care centre or A&E department) for further assessment and advice:
 - **Hydrocortisone:** take 20 mg immediately and repeat 6-hourly.
 - **Prednisolone:** take 10 mg twice daily.

Once you feel better you can quickly go back to your normal dose. Taking a higher dose for a short time while you are ill is necessary and is not harmful. This is how your body would respond if you were able to make cortisol naturally. You do not need to change the doses of any other hormone tablets you take regularly.

What about vomiting and diarrhoea?

If you are vomiting and unable to take your hydrocortisone tablets, or if you have continuing diarrhoea, you should seek urgent medical assistance. Try to take an extra 20 mg hydrocortisone (or an extra 5 mg prednisolone) whilst seeking medical assistance.

Go to an A&E department or call 999. Show health care professionals your NHS Steroid Emergency Card (or a copy of your prescription) and ensure they know about your steroid treatment, that you are at risk of an adrenal crisis and may need treatment with hydrocortisone by injection.

It may be useful to have a vial of hydrocortisone than can be given by injection into the muscles for use in an emergency. Both you and a relative or close friend should be shown how to give it. Your hospital doctor should be able to arrange this. If you do give yourself a hydrocortisone injection it is very important to seek medical advice immediately: you should be fully assessed and may need to be admitted to hospital until you recover.

Travel abroad

Check that you have an adequate supply of hydrocortisone before you go on holiday. It can also be useful to take some hydrocortisone for injection with you, especially if you are visiting remote areas: you will need a doctor's letter explaining what it is for.

Other advice

- If you are having an operation or an invasive procedure such as an endoscopy, you should alert the doctors looking after you to the fact that you take hydrocortisone replacement therapy. There are online guidelines at www.addisonsdisease.org.uk
- Wear a silicone band or other Medical ID bracelet or necklace, which states 'Adrenal Insufficiency (steroid dependent)' and carry an NHS steroid emergency card (pharmacists can supply these cards).
- If you are prescribed hydrocortisone for injection, keep an eye on the expiry date and renew it in good time. There is a video about how to give an emergency injection online.
- Always ensure you have a sufficient supply of your steroid medication, both for your regular use and in case you need to increase your dose in accordance with the 'sick day rules' (above).
- Your GP, hospital doctor, endocrine specialist nurse or pharmacist will be able to answer other questions you may have.

Contacts

Endocrine specialist nurses

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If you have any urgent or emergency questions then your GP can advise you or they will contact the hospital on your behalf.

Patient self-help groups and further information:

The Pituitary Foundation

Website: www.pituitary.org.uk

The UK Addison's Disease Self Help Group

Website: www.addisonsdisease.org.uk

This leaflet is intended for patients receiving care
in Brighton & Hove or Haywards Heath

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