NHS
Royal Berkshire
NHS Foundation Trust

Addison’s Disease

This leaflet is for patients diagnosed with Addison’s Disease and explains its causes and treatment. It also gives advice on what to do when you are unwell.

What is Addison’s Disease?

This is a condition caused by failure of the adrenal glands. It is called after Dr Thomas Addison who first described the disease in 1885. It can be successfully treated with lifelong steroid replacement therapy.

What are the symptoms of Addison's Disease?

Common symptoms:

- The disease often comes on gradually.
- Tiredness, lethargy or weakness.
- Light headedness, particularly on standing up as blood pressure is often low.
- Loss of appetite with weight loss.
- Abdominal pain, diarrhoea or constipation.
- Increased pigmentation. This is often most marked over areas exposed to the sun but never fades even in the winter. The pigmentation however can be found in areas not exposed to the sun, such as inside the mouth, along natural skin creases (e.g. palm of hand creases), also where there is rubbing by garments such as bra straps or the elastic band of knickers and on scars and around nipples.
- Often another illness may show up the condition as the patient may have difficulty recovering from minor injury, operations or illness.
- Women may suffer loss of body hair with irregular or lack of menstrual periods.

Uncommon symptoms:

- Salt craving, aches and pains, hypoglycaemia.
- Rarely, adrenal crises can occur. Vomiting usually occurs first with abdominal pain, diarrhoea, dehydration and complete patient collapse requiring admission to hospital as an apparent acute surgical emergency (see ‘sick day rules’).

How is Addison’s Disease diagnosed?

The doctor will measure your blood cortisol, a hormone produced by the adrenal glands. A short Synacthen test will assess the activity of the adrenal glands. During this test you will be given an injection of the hormone ACTH (called Synacthen) which in healthy people stimulates the adrenal glands to produce cortisol. In Addison’s Disease the adrenals do not respond or do so sluggishly. The hormone ACTH is naturally produced by the body from the head hormone gland called the pituitary. In patients with Addison’s Disease the level of blood ACTH will be very high as the pituitary over-produces to try and switch on the adrenals that have failed.

High blood ACTH and low cortisol levels are characteristic of Addison's Disease. This condition also causes the blood potassium to be high and blood sodium to be low due to lack of a second adrenal hormone called aldosterone.

What causes Addison's Disease?

The most common cause is autoimmune disease.

The body seems to produce proteins called antibodies that, instead of fighting foreign bodies, attack its own adrenal glands. Sometimes the antibodies that have destroyed part of the adrenals can be detected by a blood test. They may not however be present if the Addison's Disease has gone on for some time. The outer shell of the adrenals (cortex) produces the necessary hormones.

Less common causes of adrenal failure include Tuberculosis, AIDS and other infections, and, very rarely, spread of cancer to the adrenal glands.

How is Addison's Disease treated?

Hydrocortisone replaces the body's lack of cortisol. This is usually given as tablets taken twice or three times per day (please see Hydrocortisone and Fludrocortisone leaflet). Fludrocortisone replaces the adrenal's other absent hormone called aldosterone.

Will I need follow up?

You will be followed up regularly. Your blood pressure will be checked and blood tests will be taken to ensure you are on the right dose of medication.

What should I do if I become ill? 'Sick Day Rules'

- Cold with no fever: no change in dose is necessary.
- Febrile (fever of more than 38°C) or more severe illness (e.g. need to take a day off work): double the replacement dose for 48 hours or until no fever (apyrexial) then go back to maintenance dose. If unwell after 48 hours then consult GP.
- Vomiting, diarrhoea or severe illness: If you develop vomiting or diarrhoea you cannot absorb your tablets and you will need an injection of hydrocortisone into a muscle. Make sure you are seen by a doctor within hours even if this means coming into the Emergency Department (A&E).

What should I do if I have confirmed or suspected COVID-19 infection?

Steroid need is usually higher than the usual sick day rules. The Society for Endocrinology advice is as follows:

Patients on **hydrocortisone:**

- Please increase hydrocortisone to 20mg four times daily, every 6 hours.
- Patients who usually take Plenadren should switch to the regular, immediate release hydrocortisone preparation and take 20mg orally every 6 hours.

Patients on **prednisolone:**

- Patients on 5-15mg prednisolone daily should take 10mg prednisolone every 12 hours; patients on oral prednisolone >15mg should continue their usual dose but take it split into two equal doses of at least 10mg every 12 hours.
- If on **fludrocortisone**, continue taking your usual daily dose.

General advice on COVID-19

- Seek medical advice by calling 111 or accessing the coronavirus online information: https://111.nhs.uk/covid-19/
- Drink plenty of fluid and make sure you are passing urine regularly. You may need to wake in the night to keep drinking while fevers are high. If your urine is very dark, try to drink more fluids.
- Take paracetamol 1000mg every six hours.

General advice on Addison’s Disease

Do not hesitate to seek advice sooner than later. Always carry a Medi-tag/alert and/or steroid card to tell others that you have Addison’s Disease and are on steroids.

When visiting the dentist, doctor or hospital, please advise them of your condition and the fact that you are on steroids. You will need increased amounts of steroid for any operation or dental extraction.

You may consider keeping an emergency kit of hydrocortisone 100mg intramuscular injection at home for emergency use or if travelling abroad. This can be discussed with your GP, practice nurse and endocrine nurse. It is available by prescription from your GP. Your practice nurse or endocrine nurse will be happy to provide the syringes and needles and teach you and your partner how to use it – just make an appointment.

Support group

Addison's Disease Self-Help Group (addisonsdisease.org.uk)

If you have any questions about this leaflet, please contact:

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To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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