

Patient information factsheet

Water deprivation test

Your doctor has recommended that you have a water deprivation test. This factsheet aims to answer some of the initial questions you may have about what's involved. If you have further concerns or would like more information, please speak to your healthcare team.

What is a water deprivation test?

It's a test which measures how your kidneys respond when you don't have anything to drink. It is used to diagnose a rare condition called diabetes insipidus which results in excessive thirst and large amounts of urine being excreted by the body. People with this condition are unable to 'conserve water' (meaning too much fluid leaves the body). This can be due to a lack of anti-diuretic hormone (ADH) production by the pituitary gland. In rare cases it can be caused by kidney disease.

The pituitary gland is a small, pea-sized gland located below the brain, behind the bridge of the nose. It produces a lot of the body's hormones (chemical 'signals' that help control and regulate processes in the body). ADH is a hormone released by the pituitary gland that works on the kidneys to regulate the amount of urine that is produced.

The test will last for around **six to seven hours**. You will be required to stay at the hospital for the duration of the test to give regular blood and urine samples.

Before your test

Before you attend please make sure you:

- avoid drinks containing caffeine, including tea and coffee from 6pm the evening before the test
- do not eat or drink anything for two hours before your test
- if you are taking water tablets (diuretics) please inform the endocrine nurse as soon as possible

It helps to bring something to read or listen to as there will be periods of waiting.

The test will be carried out by an endocrine nurse specialist who will be able to answer any questions you may have.

During the test

A small, thin tube called a cannula will be inserted into a vein in your arm or hand. This allows your nurse to take blood samples directly from the cannula without further use of needles.

When the cannula is inserted a blood sample will be taken. You will be asked to provide a urine specimen and your weight will also be checked. It is important that you do not eat or drink anything during the test. We will take a blood sample, measure your urine, send a

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sample to the lab and check your weight approximately every hour.

It's very important that we collect all the urine that you pass during the test so we can accurately measure the total amount you produce.

We will stop the test if your blood tests suggest you are becoming dehydrated or if you lose more than five per cent of your body weight. If your blood tests are normal we will continue with the test.

During the test you may experience feelings of hunger and thirst. Some patients may develop a headache. During the test, if it seems likely that you have diabetes insipidus, we may give you an intramuscular injection of ADH. This will help us determine whether there is a problem with the pituitary gland or the kidneys. We would then continue taking blood and urine samples for a further two hours.

You will be allowed to drink after the injection of ADH. You can drink up to a maximum of 1 litre.

After the test

When the test has finished your cannula will be removed and we will give you something to eat and drink before you go home.

Results

Results will either be sent to you by letter/a phone call or discussed with you at your next clinic appointment. We will also send a letter to your GP. This may take up to three weeks.

Further information

Please contact the endocrine nurse specialist if you require more information or if there is anything you do not understand. Please note however that this is not to discuss diagnosis. If you have a query about your diagnosis, talk to your doctor at your next clinic appointment.

Contact the endocrine nurse specialist:

Telephone: **023 8120 4710**, Monday to Friday 8.30am to 4pm (answer phone service out-of-hours or if the nurse specialist is unavailable).

Email: endocrinenurse@uhs.nhs.uk

Useful links

www.nhs.uk/Conditions/diabetes-insipidus/Pages/introduction.aspx

www.diabetes.org.uk

patient.info/health/diabetes-insipidus-leaflet

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit [**www.uhs.nhs.uk/additionalsupport**](http://www.uhs.nhs.uk/additionalsupport)