

Endocrinology

Water deprivation test

Your doctor has recommended that you have a water deprivation test. This is a test which measures how your kidneys respond when you don't have anything to drink, and is used to diagnose diabetes insipidus. Diabetes insipidus is a rare condition caused by either deficiency of anti-diuretic hormone (also known as ADH or vasopressin) or the kidney's inability to respond to this hormone. ADH is a hormone released by the pituitary gland that works on the kidneys to regulate the amount of urine that is produced. In diabetes insipidus, large volumes of dilute urine are produced from the kidneys, resulting in excessive fluid loss and dehydration.

The water deprivation test involves depriving you of fluid in order to check if your body can concentrate urine and retain fluid.

Preparation for the test

- You can have a light breakfast before 6.30 am on the morning of the test. Please **DO NOT** eat or drink anything within the 2 hours before your test.
- Please **DO NOT** have any tea, coffee, alcohol or tobacco for 24 hours before your test.
- Please **DO NOT** drink excessive amounts of fluid on the night before this test. You can have your usual amounts.
- If you are taking desmopressin (DDAVP) tablets or spray, or water tablets (diuretics), **DO NOT** take them for 24 hours before this test. Please contact the endocrine unit to discuss further if you have any queries.
- If you are taking **steroid medications** orally (e.g. hydrocortisone, prednisolone, prednolone or dexamethasone), **oestrogen containing medications** (e.g. contraceptive pill or HRT), or levothyroxine, they can be continued as normal.
- You can take your other regular medications. Please bring all of your medications with you when you attend for your test.
- The test can take up to 10 hours. It helps to bring something to read or listen to as there will be long periods of waiting. You will be able to drive home afterwards.



What will happen during the test?

- You will be introduced to the doctor or nurse performing the test, who will provide an explanation as to what to expect during the test and obtain your informed consent.
- A cannula, which is a small tube used to take blood samples, will be inserted into a vein in your arm, and an initial blood sample will be taken to measure the concentration of your blood. You will also be weighed and asked to provide a urine sample to measure the concentration of your urine.
- You will not be allowed to drink anything for the duration of your test.
- Further blood samples will be taken from the cannula at specific time points, along with a series of weight measurements and urine samples. The test can take up to 10 hours depending on the results obtained. You will be kept informed of the results.
- If your results indicate that your body is not concentrating your urine, you will then be given an injection of ADH to see if it responds, which will help determine whether there is a problem with the pituitary gland or the kidneys. Further blood and urine samples will be taken to assess the effect of ADH.
- You will be allowed to eat and drink after the injection of ADH.

What will happen after your test?

- Once the test is completed, the cannula will be removed.
- Your results will be reviewed by the endocrinology doctor. Your results and treatment will be discussed with you including whether you should start taking ADH treatment (desmopressin).
- We will also advise your GP of your results and any changes to treatment or medication by letter.
- Sometimes it is also necessary for us to contact you by telephone, so please provide us with your home and mobile telephone numbers when you come in for your test.

Are there any risks or complications?

During the test, you may experience feelings of hunger and thirst. Some patients may develop a headache. There is a risk of dehydration with this test and you will be monitored for the entire duration of the test. The test will be stopped if there are signs that you are becoming dehydrated.

Please remember that the timing of endocrine tests is important. Please attend at the time specified on your appointment letter. If you are unable to keep your appointment please contact the department and we will rearrange it for you.

Contacts

If you have any queries:

Call the endocrine nursing team on **0161 446 3479**
or email: the-christie.endocrinology@nhs.net

Notes:

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **the-christie.patient.information@nhs.net**

For information and advice visit the cancer information centres at Withington, Oldham, Salford or Macclesfield. Opening times can vary, please check before making a special journey.



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urgent support and specialist advice
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