

Saline suppression test

Information for patients

This leaflet answers some of the questions you may have about having a saline suppression test. It explains the purpose of the test and the side effects you may have during the test. This leaflet also explains what you can expect when you come to hospital. If you have any other questions or concerns, please speak to the doctors or nurses caring for you.

What is a saline suppression test?

A saline suppression test is used to assess the levels of aldosterone and renin in your blood. These are two hormones that are involved in the regulation of blood pressure. This test uses an infusion of fluid (called saline) to determine if the levels of these hormones can be suppressed in response to salt and water loading.

Why do I need this test?

There are several factors that can play a role in high blood pressure, including genetics, older age, stress, smoking and lack of physical activity. This test allows the endocrine team to find out if there is a hormonal reason for persistent hypertension (high blood pressure).

Specifically, this test is used to diagnose a condition called primary hyperaldosteronism (also known as Conn's syndrome). Primary hyperaldosteronism means that the body produces increased amounts of aldosterone which results in high blood pressure. Aldosterone is a hormone produced by the adrenal glands. These glands are situated on top of both kidneys.

What are the benefits?

Once a diagnosis of primary hyperaldosteronism is confirmed a treatment plan can be decided.

What are the risks?

This test is used with caution in those with heart failure, renal insufficiency or moderate to severe hypokalaemia (low potassium levels). Please speak to your endocrine doctor if you have any of these conditions.

A cannula (tiny plastic tube) will be inserted into a vein in your arm or hand using a needle for this test. The cannulation process is similar to that of a blood test. Associated risks with cannulation or a blood test may include

- multiple punctures to locate veins
- bleeding from puncture site
- bruising
- haematoma (blood build up under the skin)
- fainting or feeling lightheaded
- infection (a slight risk any time the skin is broken)
- phlebitis (inflammation of the vein)

Keeping pressure on the puncture site for a few minutes after the needle is removed will help to reduce bruising.

Are there any alternatives?

There are no alternatives to this test.

Do I need to prepare for my test?

You will need to attend the Programmed Investigation Unit (PIU) at least two weeks before the saline suppression test for a blood test which will check that your potassium levels are normal. At this appointment the nurse will take your blood pressure and go through your medication with you. For the saline suppression test it is necessary to stop some medication used to treat high blood pressure prior to the test. The nurse will tell you which medications you need to stop.

On the day of the test:

You may eat and drink normally.

Apart from any medications you have been instructed not to take by the PIU you can continue to take your regular prescribed medications.

What happens before my test?

Your blood pressure will be taken and the nurse will confirm your regular medications. Your nurse will confirm that you have stopped the appropriate medication(s).

What happens during my test?

A cannula (tiny plastic tube) will be inserted into a vein in your arm or hand using a needle from which blood samples can be taken.

The nurse will then connect the cannula to a bag of fluid (saline). You will be given two litres of fluid over four hours.

A blood sample will then be taken at the end of the test from the opposite arm using a needle.

How long does the test take?

The test lasts for four hours from the time the nurse begins the fluid infusion. You should expect to be in the unit for four and a half to five hours.

What happens after my test?

Once the test has been completed the cannula will be taken out and you will be able to go home.

You can resume all of your regular prescribed medications.

Results will be reviewed by the endocrine team. They will either be sent to you by letter or, in some cases, discussed on the phone or with you at your next clinic appointment. We will also send a letter to your GP. This may take up to six weeks.

Sharing your information

We have teamed up with Guy's and St Thomas' Hospitals in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas'. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

Care provided by students

We provide clinical training where our students get practical experience by treating patients. Please tell your doctor or nurse if you do not want students to be involved in your care. Your

PALS

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. The PALS office is located on the ground floor of the Hambleton Wing, near the main entrance on Bessemer Road - staff will be happy to direct you.

PALS at King's College Hospital, Denmark Hill, London SE5 9RS

Tel: **020 3299 3601**

Email: **kch-tr.palsdh@nhs.net**

You can also contact us by using our online form at **www.kch.nhs.uk/contact/pals**

If you would like the information in this leaflet in a different language or format, please contact PALS on **020 3299 1844**.