



Macimorelin Stimulation Test (MST)

Your doctor has recommended that you undergo a macimorelin stimulation test to check if your body is producing enough growth hormone. During the test, you will be asked to take a solution containing a medicine called macimorelin. Macimorelin acts like a natural hormone and causes your body to release growth hormone into the blood stream.

Growth hormone is produced by the pituitary gland (a small pea-sized gland located in the middle of your brain just behind your nose). Growth hormone is responsible for controlling growth and metabolism in childhood. This hormone is also produced in adulthood and is important for maintaining muscle and bone mass, and affects the levels of body fat. Growth hormone also controls energy levels, memory and your general feeling of well-being.

Preparation for the test

- You need to fast for at least eight hours before your test, and continue to fast during the test.
- You can drink water but you should limit your water intake to no more than 100 mL an hour before the test. If this will cause any issue, please contact us so we can give you appropriate advice.
- Avoid strenuous physical activity for 24 hours before the test.
- If you are allergic to any medications, please inform us prior to the test.
- You can take all your regular medications, as prescribed by your doctor, on the day of the test. Please bring all of your medications (or a list of your medications) with you so we can record them in your file.
- Please allow up to three hours for the appointment.
- Please make sure you arrive on time for your appointment to the Endocrine Unit.
- We do not recommend bringing children to your appointment. However, if this poses a particular problem for you, please discuss this with us.

What will happen during the test?

- The test will be performed by an endocrine nurse trained to perform the macimorelin test.
- The nurse will explain the test to you, including the most common side effects, and monitor you throughout the test.

Information for Patients

- You will be seated throughout the test. However, there is a facility to lie down on a bed if you need to.
- The nurse will place a cannula, which is a small tube used to take blood samples, into a vein in your arm.
- Blood samples will be taken to measure your growth hormone at the beginning of the test.
- The nurse will then ask you to drink a macimorelin solution within 30 seconds. The macimorelin solution will stimulate the production of growth hormones in your body.
- The nurse will take three blood samples within 90 minutes after you have taken the macimorelin solution. Once the test is completed, the nurse will remove the cannula from your arm. You will be offered something to eat and drink after the test. The nurse will check your observations after the test to ensure that you are safe to go home. You should not drive for at least four hours after the test as macimorelin can cause dizziness. Please ensure that you have appropriate travel arrangements after the test.

Are there any risks and contraindications with this test?

- Some patients may experience a bitter or metallic taste (dysgeusia), tiredness, headaches, feeling sick (nausea), dizziness, diarrhoea and feeling hot. These side effects are mostly mild and usually go away quickly without the need for treatment.
- This test is contraindicated in those who are allergic to macimorelin or any of the ingredients of the macimorelin solution.
- Macimorelin solution contains approximately 1.7 gram of lactose per sachet. Please contact us if this is of concern to you.
- This test is not recommended during pregnancy or if you are breast-feeding.

Is there an alternative test?

- This test has been identified by your doctor as the most suitable for assessing your growth hormone status. However, if you are unable to have this test, your endocrine doctor will ask for an alternative test to be performed.
- It is sometimes necessary to perform two different growth hormone stimulation tests to confirm your growth hormone status. When your results have been reviewed by the endocrine team, you might be asked to come back for a second test.

What will happen after the test?

- The result of your test will be reviewed by the endocrinology doctor. You don't have to contact the department for your test results as you will be contacted directly if necessary.
- Your general practitioner will also be informed of the result of your test.

Information for Patients

- If necessary, you will be called back into the clinic to discuss the results, especially if you need to be started on any treatment.
- Sometimes, it is also necessary for us to contact you by telephone, so please update us with your home and mobile telephone numbers when you come in for your test.

Please remember: The timing of your endocrine test is important, so please attend your appointment on time as any delay can result in your appointment being cancelled and rebooked. If you are unable to keep your appointment, please contact the department and we will try to rearrange it for you.

Contact details

If you have any queries please contact:

Queen Elizabeth Hospital Birmingham

Email (preferred method): EndocrineNursesQEHB@uhb.nhs.uk

Phone: 0121-371-6950

(We will aim to return telephone calls within 3-5 working days)

Heartlands, Solihull and Good Hope Hospitals

Email (preferred method): EndocrineNursesHGS@uhb.nhs.uk

Phone: 0121-424-2487

(We will aim to return telephone calls within 3-5 working days)

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email patientexperience@uhb.nhs.uk.