

Mannitol Challenge Test

What is it?

It is a test to see if your airways are “reactive” which may be caused by inflammation and can sometimes make it difficult to breathe. The test requires you to perform a series of breathing tests after inhaling increasing doses of a substance called Mannitol. If you have reactive airways and you inhale Mannitol you may develop symptoms of a cough, chest tightness and wheeze which are typically associated with asthma. These effects are monitored throughout the tests; they are temporary and can be reversed with inhaled medication if required.

What will happen during the appointment?

Everything you need to do will be explained to you by the physiologist before the test and you will be asked to verbally consent to the test. Your height and weight will be measured and the physiologist will check your current medications as well as when you last took them. If you have taken any medication listed overleaf within the time stated the test will have to be rebooked as the results will not be valid. The physiologist will check a list of reasons that would stop us doing the test to ensure it is safe.

How is the test performed?

You will be asked to blow fast into a mouthpiece a few times. After this you will be asked to inhale mannitol using an inhaler device. After each mannitol inhalation you will repeat the fast blows, and after each attempt the next dose of mannitol is stronger. If at any point the mannitol causes symptoms, or your blowing test results drop, the test will be stopped and you will be given a medication to reverse the effects. If you have no symptoms and the test results do not drop you will complete all nine doses and the test will be complete within 45 minutes. The test can be stopped at any point at your request. The test does require maximum effort and you will be encouraged to make sure we get the best possible results.

What happens after the test?

You will be able to go home and resume your normal activities. You will continue with your current medication as normal. If you experience any unforeseen side effects you should attend your GP or if urgent attend A&E for advice.

Your results will get sent to the doctor who referred you for this test. No results will be discussed with you on the day of the test.

Preparation for your test

You should contact the department if you experience any of the following:

- Current or recent chest infection (within the last four weeks)
- Currently suffering from a cold or flu like illness, or any illness which may prevent you from performing the tests
- Recent eye, stomach or chest surgery (within the last four weeks)
- Heart attack or stroke within the last month

The test should not be performed if you may be pregnant or are a nursing mother.

On the day of the appointment:

- Bring a list of your usual medication with you
- Avoid any drinks and food which contain caffeine. You can otherwise eat and drink as normal
- Do not eat a heavy meal during the two hours immediately before the test
- Do not take vigorous exercise for 30 minutes before the test
- Do not wear tight clothing that would restrict your breathing
- You will need to stop taking some medication before the test which are listed below.
- All other medication should be taken as normal
- **Inhalers containing steroids should be ceased 14 days prior to the test**

Inhalers containing steroids
Beclomethasone (Clenil), Budesonide (Pulmicort), Fluticasone (Flixotide), Seretide Symbicort, Fostair, Flutiform

Medication to Stop	Time to stop before test
Salbutamol (Ventolin), Terbutaline (Bricanyl)	8 hours
Ipratropium (Atrovent)	12 hours
Salmeterol (Serevent), Eformoterol Theophylline, Uniphylline or Phyllocontin	24 hours
Tiotropium (Spiriva)	72 hours
Antihistamines	72 hours
Montelukast	4 days

If your inhaled medication is not on the list or you have any concerns stopping the medication for the time stated, please contact the department on the number below.

Any questions?

If you have any questions or concerns please do not hesitate to contact the department to discuss on **0121 371 3870**.

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.

Lung Function & Sleep
Queen Elizabeth Hospital Birmingham
Mindelsohn Way, Edgbaston
Birmingham B15 2GW