



**United Lincolnshire
Teaching Hospitals**
NHS Trust

Information for patients attending for a bronchial-challenge test (mannitol challenge test)

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We would like to invite you to attend for a bronchial-challenge test, also known as a mannitol challenge test as requested by a consultant. This information sheet will explain what a bronchial challenge test involves and answer some questions you may have. It also explains why this test is necessary and how you should prepare for the test.

What is a bronchial-challenge test?

A bronchial challenge test is a breathing test that assesses how sensitive your airways are. This involves breathing in a fine powder of mannitol (a naturally occurring sugar) and performing a breathing test called spirometry after to see the response of the airways to this. The dose of mannitol inhaled gradually increases during the test until a positive response is seen or until all doses have been completed.

How long will the test take?

The test can take up to 90 minutes depending on how many doses are required.

Why do I need the test?

This test has been requested to determine whether you have hypersensitive airways. Hypersensitive airways is usually a feature of asthma and if noted allows consultants to provide the correct treatment to help with any symptoms you may have.

What are the risks and side effects?

Sometimes the test can cause some narrowing of the airways, which may make you cough, wheeze or feel short of breath. This is easily reversed by using Salbutamol (a common medication prescribed in reliever inhalers) that we can give if required at the end of the test. The powder may make your throat feel slightly dry, therefore, we will provide water that should relieve this.

IMPORTANT

If you have any of the following 6 weeks prior to your appointment, please call the number on your appointment letter prior to the appointment to inform us as we may need to cancel and rearrange your appointment:

- Heart attack
- Pulmonary embolism (blood clot in the lung)

- Stroke
- Pneumothorax (collapsed lung)
- Brain, chest, abdominal, or eye surgery (including cataract operations)
- Chest infection
- Coughing up blood
- Unstable angina
- Aneurysm

How do I prepare for the test?

Please avoid the following before the test if you feel it is safe to do so:

- Inhaled corticosteroids (Budesonide, Fluticasone Propionate, Beclomethasone) for 6 hours
- Short acting bronchodilators (Salbutamol, Terbutaline) for 8 hours
- Long-acting bronchodilators with or without inhaled corticosteroid (Salmeterol, Eformoterol, Salmeterol/Fluticasone, Formoterol/Budesonide) for 36 hours
- Ultra-long-acting bronchodilators (Indacaterol, Olodaterol, Vilanterol) for 48 hours
- Leukotriene receptor antagonists (Montelukast, Zafirlukast) for 4 days
- Antihistamines (Loratadine, Cetirzine, Fexofenadine) for 72 hours
- Short-acting muscarinic acetylcholine antagonist (Ipratropium Bromide) for 12 hours
- Long-acting muscarinic acetylcholine antagonist (Tiotropium Bromide, Aclidinium Bromide, Glycopyrronium) for 72 hours
- Caffeine (tea, coffee, chocolate, cola, energy drinks) for 24 hours

If you feel too breathless to stop taking any of the above before the test, please contact the department so that we can advise if it is still possible to carry out the test.

How will I be informed of the results?

After the test, the results will be interpreted and the report will be sent back to the referring consultant. They will then arrange an appointment to explain the results and also provide any treatment if necessary. Please allow ample time to arrive for your appointment. Our aim is to see you promptly but we will inform you of any delays.

Additional sources of information:

[Bronchial challenge tests | Asthma + Lung UK \(asthmaandlung.org.uk\)](https://www.asthmaandlung.org.uk)

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www.accessable.co.uk/united-lincolnshire-hospitals-nhs-trust

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