

Respiratory Physiology and Sleep Department

Mannitol Challenge

What is a Mannitol challenge test?

Your doctor has requested that you have a bronchial challenge test performed to identify if your airways are hypersensitive which could contribute to a diagnosis of asthma. This test is performed due to symptoms you have described to your doctor such as a variable cough, wheeze, chest tightness, excess mucus production or if symptoms are triggered by exercise.

Mannitol challenge is a simple test which involves inhaling a fine powder via an inhaler

What must I do before the test?

Please stop taking the following medication for the time stated before your challenge:

Medication	How long before test to stop taking medication
<ul style="list-style-type: none">• Sodium cromoglycate• Nedocromil sodium	6 – 8 hours
<ul style="list-style-type: none">• Salbutamol (Ventolin)• Bricanyl (Terbutaline)	8 hours
<ul style="list-style-type: none">• Atrovent (Ipratropium bromide)• Beclometasone (Qvar/Clenil)• Flixotide (Fluticasone)• Pulmicort (Budesonide)• Symbicort (Budesonide)	12 hours



Patient Information

<ul style="list-style-type: none">• Formoterol (Oxis foradil)• Seretide (Salmeterol/Fluticasone)• Salmeterol (Serevent)• Fostair (Beclometasone/Formoterol)• DuoResp (Budesonide/Formoterol)• Relvar (Fluticasone/Vilanterol)• Theophylline	24 hours
<ul style="list-style-type: none">• Anti-histamines• Spiriva (Tiotropium)• Elipta (Umeclidinium)	72 hours
<ul style="list-style-type: none">• Montelukast• Zafirlukast	4 days

- Do not smoke for at least 6 hours before the test
- Do not do any vigorous exercise on the day of the test
- Do not drink coffee, tea or cola, eat chocolate or any other foods containing caffeine
- Refrain from eating a substantial meal for at least 2 hours prior to the test
- Avoid wearing clothing which substantially restricts full chest and abdominal expansion.

If you are pregnant or breast feeding the requirement for testing must be discussed with the referring doctor before the test is carried out.

If you have experienced the following please contact the department when you receive your appointment;

- If you are coughing up blood
- If you have recently had stomach, chest or eye surgery
- If you have recently had a heart attack or stroke
- If you have an aortic aneurysm (a swollen or weakened blood vessel around the heart or brain)
- If you have had an infection of the airways in the last 2 weeks

Performing the test

First you will perform a basic breathing test using a spirometer, which is a device used to measure your lung capacity. If the basic test is satisfactory you will then go on to perform the challenge test. To perform the challenge test you will be asked to breathe in different concentrations of a powder, via an inhaler. The test will begin using a low concentration which will gradually be increased to assess if there is any effect on your airways by performing another spirometry test after each inhalation.

The whole session will be expected to last up to one hour.

Side effects

You should not expect to experience any severe complications during the test, however sometimes the test may cause a cough and or a slight wheeze or breathlessness. Any test symptoms can easily be reversed by the use of another inhaler at the end of the test.

If you have any further questions about this investigation, please telephone the **Respiratory Physiology and Sleep Department** on 024 7696 6734.

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 6734 and we will do our best to meet your needs.

The Trust operates a smoke free policy

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