

Respiratory Physiology and Sleep

What is a Mannitol challenge

Your doctor has asked you to have a bronchial challenge. This test will identify if your airways are hypersensitive. Hypersensitive airways can help your doctor to diagnose asthma.

Your doctor asked you to have this test because of the symptoms you described, such as:

- a variable cough
- wheeze
- chest tightness
- build-up of excess mucus
- your symptoms are triggered by exercise

Before the test

Stop taking the following medicines at the time stated before your challenge:



Patient Information

Stop taking:	How long before the test to stop taking the medicine
<ul style="list-style-type: none">• Sodium cromoglycate• Nedocromil sodium	6 to 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
<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)	3 days
<ul style="list-style-type: none">• Montelukast• Zafirlukast	4 days

Patient Information

On the day of your mannitol challenge:

- × 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. Do not eat chocolate or any other foods containing caffeine.
- × Do not eat a large meal 2 hours before the test.
- × Do not wear clothes which stop you from being able to take a big breath in and out.

When you receive your appointment, contact the department if you:

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

During the test

We'll ask you to do a breathing test using a spirometer – this is called a spirometry test. A spirometer is a device we use to measure your breathing.

We'll then ask you to breathe in a low concentration doses of mannitol powder using an inhaler. To see if this had any effect on your airway, we'll ask you to do a spirometry test.

We'll then increase the dose you inhale in stages. After each inhalation, you'll need to do a spirometry test.

We expect the test to take up to 1 hour.

Patient Information

Side effects

Sometimes the test may cause a cough and or a slight wheeze or breathlessness.

These symptoms can easily be reversed by using a different inhaler at the end of the test.

If you have any questions about this investigation, phone 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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Document History

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